



Brussels, 22.2.2017
SWD(2017) 92 final

COMMISSION STAFF WORKING DOCUMENT

**Country Report Sweden 2017
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 COUNCIL, THE EUROPEAN CENTRAL BANK AND THE
EUROGROUP**

**2017 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**

{COM(2017) 90 final}
{SWD(2017) 67 final to SWD(2017) 93 final}

CONTENTS

| | |
|--|-----|
| Executive summary | 1 |
| 1. Economic situation and outlook | 4 |
| 2. Progress with country-specific recommendations | 9 |
| 3. Summary of the main findings from the MIP in-depth review | 12 |
| 4. Reform priorities | 17 |
| 4.1. Public finances and taxation | 197 |
| 4.2. Financial sector | 19 |
| 4.3. Labour market, education and social policies | 33 |
| 4.4. Investment | 40 |
| 4.5. Sectoral policies | 46 |
| A. Overview Table | 50 |
| B. MIP Scoreboard | 53 |
| C. Standard Tables | 54 |
| References | 59 |

LIST OF TABLES

| | |
|---|-----|
| 1.1. Key macroeconomic, financial and social indicators | 8 |
| 2.1. Summary table on CSR assessment | 10 |
| 3.1. MIP assessment matrix (*) - Sweden 2017 | 15 |
| B.1. The MIP Scoreboard for Sweden | 53 |
| C.1. Financial market indicators | 54 |
| C.2. Labour market and social indicators | 545 |
| C.3. Labour market and social indicators (continued) | 556 |
| C.4. Product market performance and policy indicators | 567 |
| C.5. Green growth | 58 |

LIST OF GRAPHS

| | |
|---|---|
| 1.1. Output gap, real GDP growth and its components | 4 |
| 1.2. Contributions to potential growth | 5 |
| 1.3. Unemployment rates of specific groups | 6 |

| | | |
|---------|--|----|
| 1.4. | Asylum seekers by age, 2000-2016 | 6 |
| 1.5. | Net international investment position | 7 |
| 4.2.1. | Banking system assets relative to GDP (%) | 19 |
| 4.2.2. | Swedish banks CET 1 capital relative to risk-weighted and total assets (%) | 19 |
| 4.2.3. | Banking system return on equity (%), Q3 2016 | 20 |
| 4.2.4. | Share of non-performing loans in total loan book (%), Q3 2016 | 20 |
| 4.2.5. | Household interest payments as percentage of income | 21 |
| 4.2.6. | Real house price evolution (indexed, 2010=100) | 22 |
| 4.2.7. | Valuation gap estimates and recent house price growth: Sweden versus other EU countries | 23 |
| 4.2.8. | Housing starts, including net conversions, versus projected need | 24 |
| 4.2.9. | Building permits issued per unit of population v house price growth (2011-2015) | 25 |
| 4.2.10. | Rent Control Index (1) and Tenant-Landlord Relation Index (2) for Sweden v other EU countries | 26 |
| 4.2.11. | Household debt growth (indexed, 2005=100) | 28 |
| 4.2.12. | Share of households with different debt-to-income ratios, new loans (share of households in % of total) | 29 |
| 4.2.13. | Loans to households: loans for property acquisition and consumption loans in Sweden versus euro area average | 29 |
| 4.2.14. | Typical mortgage maturity, 2015 (years) | 30 |
| 4.2.15. | Breakdown of corporate debt by funding source | 31 |
| 4.2.16. | Drivers of year-on-year changes in corporate debt as % of GDP | 31 |
| 4.2.17. | Leverage indicators for non-financial corporations | 32 |
| 4.3.1. | Labour market situation, 2001-2016 | 33 |
| 4.3.2. | Employment by skill levels, 2000-2016 | 33 |
| 4.3.3. | Breakdown of unemployment by skill level and country of birth, 2015 | 34 |
| 4.3.4. | Employment rate of native-born and of non-EU-born by reason of migration, 2014 | 35 |
| 4.3.5. | Share of low achievers in 2015 PISA | 37 |
| 4.3.6. | Proportion of low achievers in science by immigrant background in 2015 | 38 |
| 4.4.1. | Current account balance | 40 |
| 4.4.2. | Gross fixed capital formation, comparison with EU average | 40 |
| 4.4.3. | Net lending/borrowing by sector | 41 |
| 4.4.4. | Cumulative export market share loss since 2005 for Sweden and selected peer countries | 41 |
| 4.4.5. | Competitiveness and dynamism in Sweden's top-10 goods export destinations, 2011-2015 | 42 |

LIST OF BOXES

| | | |
|--------|--|----|
| 2.1. | Contribution of the EU budget to structural change in Sweden | 11 |
| 4.3.1. | Selected highlight: refugee integration | 36 |
| 4.4.1. | Investment challenges and reforms in Sweden | 45 |

EXECUTIVE SUMMARY

This report assesses Sweden's economy in light of the European Commission's Annual Growth Survey published on 16 November 2016. In the survey the Commission calls on EU Member States to redouble their efforts on the three elements of the virtuous triangle of economic policy – boosting investment, pursuing structural reforms and ensuring responsible fiscal policies. In so doing, Member States should put the focus on enhancing social fairness in order to deliver more inclusive growth. At the same time, the Commission published the Alert Mechanism Report (AMR) that initiated the sixth annual round of the macroeconomic imbalance procedure. The in-depth review, which the 2017 AMR concluded should be undertaken for the Swedish economy, is presented in this report.

The Swedish economy is continuing to perform well. Growth was 3.3 % in 2016 – among the highest in the EU. It is forecast to slow somewhat to the economy's potential growth rate, to 2.4 % in 2017 and 2.1 % in 2018, in line with the Commission 2017 winter forecast. Solid investment growth and increasing household and government consumption are expected to support growth in the coming years.

Exports have been weak, while imports have increased, reducing the current account surplus. As a result of sluggish trade performance, the export-oriented industrial sectors were rather weak, while domestically-oriented service sectors grew strongly. As import growth accelerated, the current account surplus is set to have decreased to 4.8 % of GDP in 2016 compared with its peak of 8.2 % in 2008. A gradual recovery in Sweden's main trading partners and a relatively weak Swedish krona is projected to improve the outlook for exports, in particular for investment goods.

Investment growth surged due to buoyant construction activity. After expanding at a rate of close to 7 % per year in 2015-2016, investment is expected to keep increasing at a solid pace of around 3 % in the coming years. Partly thanks to reforms to building regulations and the planning process, housing investment in particular has rebounded strongly since mid-2013 from relatively low levels, although it remains insufficient to meet pent-up demand. Public investment growth is expected to accelerate in 2017, with infrastructure

renovation and construction a key underlying driver.

The labour market is performing well. In 2016 Sweden had one of the highest employment rates in the EU at 81.2 % (first three quarters), and overall unemployment was below the EU average at 6.9 %. While employment growth has been high in recent years, the labour force has also increased, thus slowing the decrease in unemployment. A major challenge for the labour market is the integration of people with a migrant background, including those with relatively weak education and skill levels.

Fiscal policies remain in line with previous years. Despite a significant increase in expenditure related to migration and integration, the general government budget is expected to remain broadly balanced in the coming years.

Inflation has started to resume and is expected to gradually reach 1.8 % by 2018. Sweden's central bank has continued its expansionary monetary policy to support the gradual rise of inflation. It has kept repo rates at negative levels, which has resulted in very low mortgage interest rates, further boosting house prices and private indebtedness.

Overall, Sweden has made limited progress in addressing the 2016 country-specific recommendation. As regards policies relevant to macroeconomic imbalances, the authorities have achieved cross-party agreement on enhancing the macroprudential authority's mandate, but concrete proposals are still to be published. Accordingly, progress on this aspect is currently assessed as limited. Some progress has been made on fostering investment in housing and improving the efficiency of the housing market. In particular in particular, the government put forward a 22-point housing market plan, including proposals to increase construction, but generally the timeline and form of implementation remain uncertain. This plan also includes a reform of the rules on the deferral of capital gains tax for housing transactions, but its impact is likely to remain modest. No significant policy action has been taken to introduce more flexibility in setting rental prices. Finally, there are key parts of the recommendation that have not been met by any policy action, notably on reforming the favourable

tax treatment of mortgage debt and home-ownership. On these aspects of the recommendation, no progress has been made.

Regarding progress in reaching the national targets under the Europe 2020 strategy, indicators where Sweden continues to perform well are the employment rate, greenhouse gas emissions, the share of renewable energy, the rate of early school leaving, tertiary education attainment and poverty risks. Areas where progress was relatively weak in 2016 are energy efficiency and R&D targets.

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

- **While banks are profitable and well-capitalised, there are vulnerabilities linked to their growing household mortgage exposure.** The regulatory capital adequacy ratios are high, but as a share of total (unweighted) assets, capital cushions have remained at a relatively low level in recent years. In addition, household mortgages constitute a substantial and growing component of bank assets. Accordingly, the risk of a rapid house price correction represents an increasingly significant vulnerability. 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 7.1 % in 2016, approaching 86% of GDP and about 180 % of disposable income, driven mainly by higher mortgage borrowing linked to continued house price rises. The distribution of debt levels is becoming increasingly uneven, with a growing fraction of newly mortgaged households borrowing as much as 600 % of their disposable income. The authorities have taken some relevant macroprudential measures – including the introduction of a new mortgage amortisation requirement in 2016 – but these appear to have had limited impact on mortgage lending growth so far.
- **Even though house prices are well above their fundamental levels, they have continued to grow rapidly and persistently.** Key drivers include generous tax treatment of home ownership and mortgage debt, accommodative credit conditions coupled with relatively low mortgage amortisation rates, and an ongoing supply shortage. This shortage is linked to structural inefficiencies in the housing market, including limited competition in the construction sector. There are also barriers to efficient usage of the existing housing stock. In the rental market, the unique negotiation-based rent-setting system contributes to lock-in and ‘insider/outsider’ effects. In the owner-occupancy market, relatively high capital gains taxes reduce homeowner mobility. The housing shortage can also hamper labour mobility and can contribute to intergenerational inequality.
- **The continued increase in house prices, household debt and bank exposure to residential mortgages is a growing risk to macroeconomic stability.** Despite gradual policy action, existing macroeconomic imbalances deepened further. An increasingly overvalued housing market coupled with rising indebtedness entails growing risks of a disorderly correction. This could culminate in a rapid deleveraging process, with an adverse impact on the real economy and potentially the banking sector.
- **The persistent current account surplus is driven primarily by high savings, not underinvestment, and has limited outward spillover effects.** Sweden's investment rate is well above the EU average, and compares favourably to that of peer countries with similar current account surpluses. The surplus is linked to an even higher savings rate, driven in particular by gradually growing household net savings. In addition, while Sweden is an important trading partner for several countries, the impact of its demand on neighbouring EU countries is relatively contained. As a result, its surplus does not give rise to significant external risks for other economies.

Other key economic issues analysed in this report which point to particular challenges facing Sweden's economy are as follows:

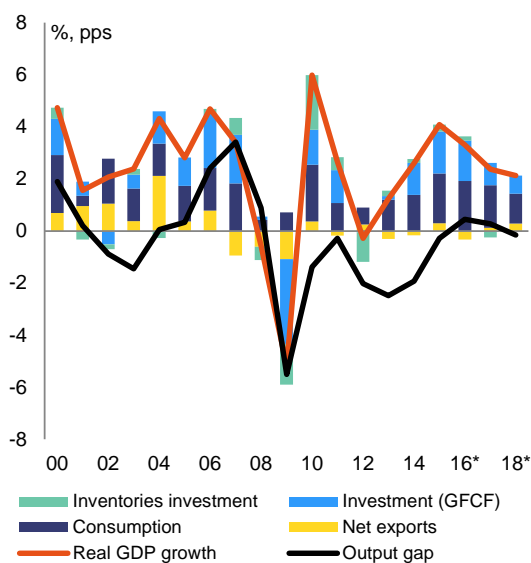
- **In the short and medium term, the country faces low risks in terms of fiscal sustainability.** Government debt stood at 41.0 % of GDP in 2016, well below the 60 % of GDP Treaty reference value, and is projected to decline in coming years. Past pension reforms are helping to contain pension expenditure. Still, in the medium-term the projected public expenditure on long-term care is set to increase significantly and there could be scope to improve efficiency.
- **The strength of the labour market continues to grow.** Sweden is a top performer in the EU in terms of employment and long-term unemployment rates. However, challenges remain, for example integrating low-skilled people and non-EU migrants into the labour market and reducing the substantial employment gap for non-EU-born women. The integration challenge is likely to remain in the coming years in light of the magnitude and composition of the recent inflows of asylum seekers. Several efforts have been made to improve the human capital and the employability of migrants, and more measures are being considered.
- **School education outcomes have somewhat improved after years of deteriorating performance.** Basic skills of the younger generation have improved, reversing previous negative trends according to the PISA 2015 survey but levels are only around the EU average. Moreover, the performance gap between different social groups has widened. Despite recent measures, the education system does not appear to promote quality for all. The integration of newly-arrived migrant pupils warrants close monitoring.
- **The economy benefits from a broadly favourable business environment, although issues remain in a few specific areas.** 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. The public procurement system is generally efficient and well-functioning, although in specific instances it is not fully transparent. Despite general success in promoting digitisation as well as research and innovation, some indicators point to a slowdown in recent years.
- **Some barriers to investment and long-term growth remain.** In particular, construction investment is held back by several interlinked housing supply bottlenecks. Investment by small and medium-sized enterprises is in some cases constrained by insufficiently transparent public procurement procedures. Finally, while the cooperation between academia and large businesses seems to work quite well, collaboration with small and medium-sized enterprises is not at the same level, thus inhibiting optimal use of their innovative potential and weighing on their R&D investments.

1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

After a strong performance in 2015 and 2016, economic growth is expected to slow down. Real GDP growth expanded by 4.1 % in 2015 and 3.3 % in 2016, according to the European Commission winter 2017 forecast. A combination of factors spurred economic activity, in particular domestic demand: an expansionary monetary policy, additional public expenditure to cope with the influx of asylum seekers and strong household income. For 2017 and 2018, real GDP growth is projected to decrease to around 2 % with most components of growth shifting into a lower gear as the economy is at its potential (Graph 1.1).

Graph 1.1: Output gap, real GDP growth and its components



Source: European Commission

* Forecasts for 2016-2018 based on a no-policy-change assumption

Private consumption is projected to support the economy in the coming years. It is set to slow but still contribute to more than 1 percentage point (pp.) of GDP growth in 2017-2018. Rising real disposable incomes on the back of strong employment growth and increasing wealth are expected to keep consumption growth up. Household savings are projected to remain high (around 19 % of disposable income, albeit slightly declining), due to structural factors such as increasing life expectancy and past pension reforms (see 4.4.1).

Pent-up demand for housing combined with low interest rates is supporting housing investment.

There was a significant increase in the number of new dwellings built, pushing housing investment growth into double-digit rates in 2015 and 2016. However, according to the National Board of Housing, Building and Planning (*Boverket*), this new supply remains insufficient to match estimated housing needs to respond to a growing population. Thus, housing investment is set to remain robust in 2017 and 2018, albeit growing at a slower pace as the construction sector is likely to face shortages of buildable land and skilled labour (see 4.2.2 and Box 4.4.1).

The high influx of asylum seekers in 2015 led to more spending on providing public services.

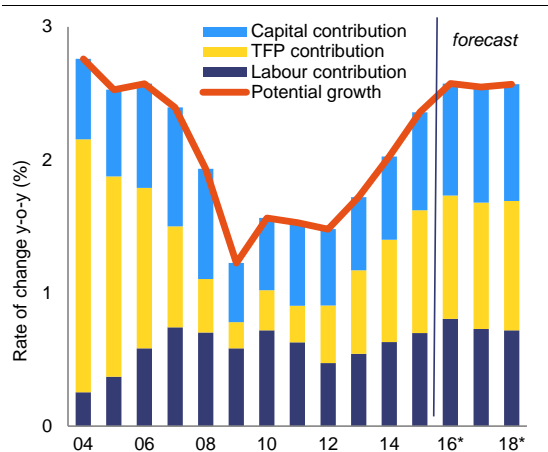
This reflected spending to provide shelter, food and basic allowances for asylum seekers while increasing the responsibilities and administrative capacity of the Swedish Migration Agency (*Migrationsverket*). Government consumption expenditure therefore surged in 2015 and 2016. Additional public consumption and investment is expected to support economic growth in the years to come. Local authorities will play a key role in the integration of refugees. They have been granted extra funding, some of which is earmarked for accommodating refugees, but have also received a general grant from the central government. This grant is intended to be spent on staff, welfare services and infrastructure, e.g. childcare facilities and hospitals.

Potential growth

Although real GDP growth is set to slow down, potential growth has improved and is back at pre-crisis levels.

Following the 2009 financial crisis and the subsequent euro area sovereign debt crisis, the economy's potential output grew at less than 2 % until 2014. Since then strong employment growth and rising total factor productivity have lifted the potential growth rate to pre-crisis levels of 2 % to 3 %.

Graph 1.2: Contributions to potential growth



Source: European Commission

*Forecasts for 2016-2018 based on a no-policy-change assumption

TFP: total factor productivity

Inflation and monetary policy

Inflation showed signs of picking up in early 2016 and is projected to gradually reach 1.8 % by 2018. Increased import prices as a result of the Swedish krona depreciation in 2014-2015, recovering energy prices and tax increases supported the pick-up. However, ‘core inflation’, i.e. the underlying long-term inflation excluding volatile items like food and energy prices, was lower in 2016 compared with 2015. This reflected a modest increase in rent prices and wages as an outcome of the 2016 negotiations. In 2017 and 2018, the harmonised consumer price index is expected to grow at 1.7 % and 1.8 % respectively as high capacity utilisation rates and tighter labour market conditions are set to increase domestic cost pressures. Since exchange rate developments usually affect prices with some time lag, the depreciation of the Swedish krona against the euro and US dollar towards the second half of 2016 could provide an additional impetus to inflation in years to come.

Sweden’s central bank (the Riksbank) maintains an accommodative monetary policy stance to support a rise in inflation to its target level. Between January 2015 and February 2016, the Riksbank gradually cut the repo rate from 0.0 % to -0.5 % in order to boost inflation from its very low level of 0.2 % in 2014 and signalled its readiness to cut further to anchor inflation expectations. This has been complemented by

unconventional monetary policy measures, such as asset purchases. The Riksbank has purchased SEK 245 billion (EUR 25.9 billion) of government bonds over the last two years. In December 2016, the Riksbank decided to extend the asset purchase programme until mid-2017 and announced that slow increases of the repo rate will not begin until early 2018. The resulting low interest rate environment, combined with other structural factors lowering mortgage debt service costs and a continued housing shortage, supports further household debt and house price increases. Ultimately, these increases are likely to make the financial system and broader economy more vulnerable to external shocks (see 4.2). For example, an abrupt correction of house prices could dampen business confidence, household consumption and construction investment.

Private indebtedness

In 2016, household debt growth stood at 7.1 % year-on-year in nominal terms, continuing to outpace economic growth. As a result, household debt is approaching 86% of GDP, among the highest levels in the EU (see 4.2.3). Relative to incomes, household debt stood at 179 % of disposable income in mid-2016, up about 10 pp. over the past two years. If one considers only households with a mortgage, the average debt-to-income ratio rises to 343 % (Sveriges Riksbank, 2016; Ölcer and van Santen, 2016).

Labour market

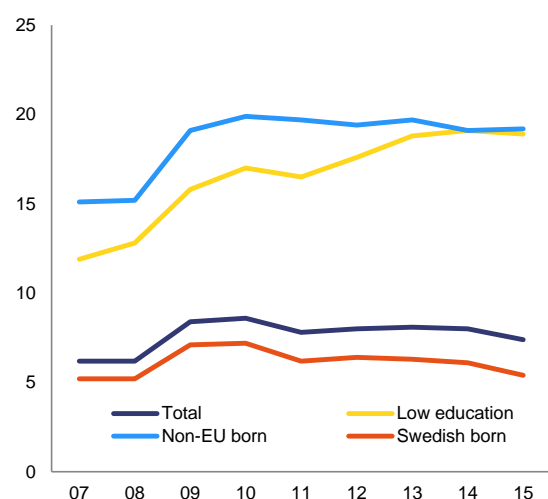
The strength of the labour market continues to grow. In 2016 Sweden had one of the highest employment rates in the EU (81.2 % v 70.9 % in the first three quarters), while the overall unemployment rate was below the EU average (6.9 % v 8.5 %). The long-term unemployment rate estimated at about 1.3 % was one of the lowest in the EU. Unemployment declined further supported by increasing economic activity, notably in the construction and public service sectors. The unemployment rate is projected to fall from 6.9 % in 2016 to 6.5 % in 2017 and broadly stabilise as labour supply is increasing.

However, integration remains a challenge for people born outside the EU. Although their employment rate is somewhat above the EU average for the non-EU-born, their unemployment

rate stood at 19.2 % in 2015 (Graph 1.3), which is three times as high as the rate for native-born Swedes. The authorities have undertaken sizeable efforts to integrate the large inflows of more than 300 000 asylum seekers since 2013. Around 40 % of these asylum seekers are minors, of which about half are unaccompanied ⁽¹⁾. This group is particularly vulnerable and requires additional protection and integration assistance. This is a change compared with previous inflows of asylum seekers, which were smaller (around 30 000 per year) and had fewer unaccompanied minors (Graph 1.4). Since 2000, most migrants who arrived have left their home countries for humanitarian and family reunion reasons and are on average less successful in finding a job than migrants who come to work and study (see 4.3).

In the medium term, the economy could benefit from successfully integrating migrants into the labour market. The gradual increase in the labour force might slow the decrease in the unemployment rate in the short term; however, past experience indicates that over time people granted asylum usually find employment, thus lifting potential growth.

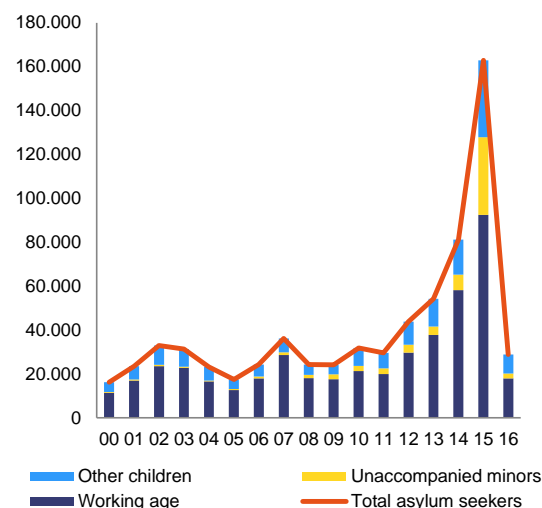
Graph 1.3: Unemployment rates of specific groups



Source: European Commission

⁽¹⁾ An ‘unaccompanied minor’ means a person under the age of 18 who has come to Sweden and applied for asylum without his or her parents or other legal custodial parent.

Graph 1.4: Asylum seekers by age, 2000-2016



Source: European Commission computations from Swedish Migration Agency

Social developments

Income inequalities remain low, but wealth inequalities are growing, driven in particular by housing prices and the tax system. Standard inequality measures with a focus on income distribution show that Sweden performs well compared to the EU average. In 2015, only four countries had more equal income distributions ⁽²⁾. However, the persistent increase in property prices and the absence of an inheritance and gift tax have negatively affected wealth distribution (Lundberg et al, 2016; OECD, 2017). In addition, the current tax treatment of owner-occupied housing with a mortgage is regressive; this is driven by a low recurrent property tax that is generally not aligned with property values, combined with full deductibility of mortgage interest payments (see *Demand-side issues* under 4.3.1).

Competitiveness

Sweden has improved its cost competitiveness. While it has been losing export market shares for a long period, this primarily reflects broader trends

⁽²⁾ Using the standard S80/S20 measure, Sweden had a score of 3.8 in 2015 (equal to the Netherlands). Only Finland, the Czech Republic, Slovakia and Slovenia had a lower ratio. S80/S20 is the ratio of total income received by the 20 % of the population with the highest income (top quintile) to that received by the 20 % of the population with the lowest income (lowest quintile). See also table C3 for Gini coefficients.

faced by many export-focused industrialised economies, and driven by developing economies' growing contribution to world trade along with the sectoral and geographical composition of exports (see 4.4.1). The depreciation of the Swedish krona in 2014-2015 and towards the second half of 2016 translated into the depreciation of the real effective exchange rate. Since the exporting industry sets the benchmark in the wage bargaining negotiations, cost competitiveness developments are expected to remain contained. Wages are projected to increase at a slightly higher pace than last year's agreement of a modest 2.2 % rate. Deviation of domestic sectors from the wage benchmark could provide a further boost to household consumption.

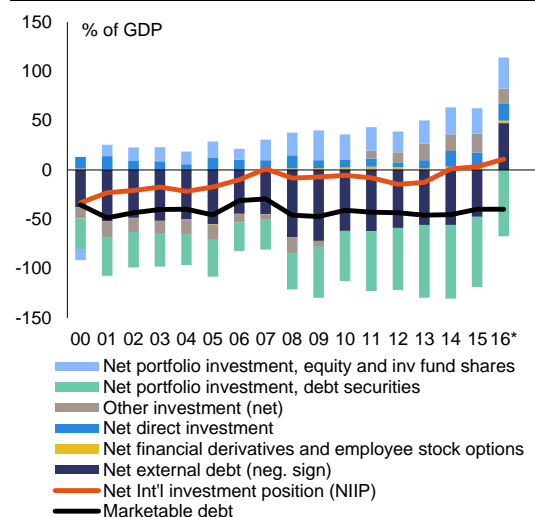
External position

Services exports are playing a key role in the economy. Since 2006, the positive trade balance in goods decreased, from 6.9 % to 2.7 % of GDP in 2015, while the one in services grew from 0.2 % to 2.2 % of GDP. Exports of services only account for about a third of total exports but have grown faster than exports of goods in recent years. Norway, the US, the UK and Germany are major recipients of Swedish services such as computer consultancy, sales of other services between headquarters and subsidiaries, and compensation for intellectual property rights. Additionally, expenditure made by foreigners (travel expenditure from tourists but also e-commerce, border trade and consumption from foreign nationals) in Sweden accounts for close to 20 % of exports of services. Slower growth in major trading partners weakened exports in 2016 but net exports are set to make a positive contribution to growth in 2017. As a small open economy, a further weakening of world trade could weigh on Sweden's export sector and its overall economic activity.

The current account balance is in surplus and the net international investment position has turned positive. From a saving-investment perspective, the current account surplus is not a reason for concern since it is driven by high savings and not underinvestment (see 4.4.1). As a consequence, since 2015, Sweden has had a slightly positive net international investment position, i.e. the accumulated foreign assets exceed its liabilities (Graph 1.5). Valuation effects and measurement errors might however underestimate

the net international investment position (European Commission, 2016a, p. 13-14).

Graph 1.5: Net international investment position



Source: European Commission
*2016 is based on Q1-Q3

Public finances

The general government balance is expected to have achieved a surplus again in 2016. While economic activity was somewhat weaker, strong tax payments on production and lower expenditure following from the regulation of the rebate on the EU contribution helped to off-set the higher spending on the reception and integration of refugees. In 2017-2018, the general government balance is expected to remain broadly stable between -0.2 % and 0.2 % of GDP with some additional welfare spending but still helped by a robust economy. Public debt stood at a relatively low level of around 41.0 % of GDP in 2016, below the 60 % of GDP Treaty reference value and is projected to fall gradually in the coming years (see also 4.1).

Table 1.1: Key macroeconomic, financial and social indicators

| | 2004-2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | forecast | | |
|---|-----------|-------|--------|-------|-------|-------|-------|--------|----------|------|------|
| | | | | | | | | | 2016 | 2017 | 2018 |
| Real GDP (y-o-y) | 2.9 | -5.2 | 6.0 | 2.7 | -0.3 | 1.2 | 2.6 | 4.1 | 3.3 | 2.4 | 2.1 |
| Private consumption (y-o-y) | 2.5 | 0.4 | 3.9 | 1.9 | 0.8 | 1.9 | 2.1 | 2.7 | 2.3 | 2.6 | 2.4 |
| Public consumption (y-o-y) | 0.7 | 2.3 | 1.3 | 0.8 | 1.1 | 1.3 | 1.5 | 2.5 | 3.4 | 1.9 | 0.3 |
| Gross fixed capital formation (y-o-y) | 5.8 | -13.4 | 6.0 | 5.7 | -0.2 | 0.6 | 5.5 | 7.0 | 6.6 | 3.5 | 2.9 |
| Exports of goods and services (y-o-y) | 6.5 | -14.5 | 11.9 | 6.1 | 1.0 | -0.8 | 5.3 | 5.6 | 2.8 | 3.6 | 3.8 |
| Imports of goods and services (y-o-y) | 6.6 | -14.1 | 12.8 | 7.3 | 0.5 | -0.1 | 6.3 | 5.5 | 3.9 | 3.7 | 3.5 |
| Output gap | 1.4 | -5.5 | -1.4 | -0.3 | -2.0 | -2.5 | -1.9 | -0.3 | 0.4 | 0.3 | -0.2 |
| Potential growth (y-o-y) | 2.4 | 1.2 | 1.6 | 1.5 | 1.5 | 1.7 | 2.0 | 2.4 | 2.6 | 2.5 | 2.6 |
| Contribution to GDP growth: | | | | | | | | | | | |
| Domestic demand (y-o-y) | 2.6 | -2.5 | 3.5 | 2.3 | 0.6 | 1.3 | 2.6 | 3.5 | 3.5 | 2.5 | 1.8 |
| Inventories (y-o-y) | 0.0 | -1.6 | 2.1 | 0.5 | -1.1 | 0.2 | 0.2 | 0.3 | 0.2 | -0.2 | 0.0 |
| Net exports (y-o-y) | 0.3 | -1.1 | 0.4 | -0.2 | 0.3 | -0.3 | -0.2 | 0.3 | -0.3 | 0.1 | 0.3 |
| Contribution to potential GDP growth: | | | | | | | | | | | |
| Total Labour (hours) (y-o-y) | 0.5 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 | 0.6 | 0.7 | 0.8 | 0.7 | 0.7 |
| Capital accumulation (y-o-y) | 0.8 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.9 | 0.9 |
| Total factor productivity (y-o-y) | 1.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.6 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 |
| Current account balance (% of GDP), balance of payments | 7.3 | 6.0 | 6.0 | 5.5 | 5.6 | 5.3 | 4.6 | 4.7 | . | . | . |
| Trade balance (% of GDP), balance of payments | 6.6 | 5.1 | 4.8 | 5.1 | 5.2 | 5.0 | 4.4 | 4.9 | . | . | . |
| Terms of trade of goods and services (y-o-y) | -0.5 | 0.9 | -0.5 | -0.8 | 0.1 | 0.3 | 0.2 | 0.8 | 1.6 | 0.2 | 0.0 |
| Capital account balance (% of GDP) | -0.2 | -0.1 | -0.1 | -0.2 | -0.2 | -0.2 | -0.1 | -0.2 | . | . | . |
| Net international investment position (% of GDP) | -11.1 | -7.2 | -5.6 | -8.0 | -14.6 | -12.5 | 1.2 | 3.3 | . | . | . |
| Net marketable external debt (% of GDP) (1) | -38.1 | -47.3 | -40.9 | -42.9 | -43.4 | -45.8 | -45.4 | -39.8 | . | . | . |
| Gross marketable external debt (% of GDP) (1) | 121.5 | 148.4 | 137.2 | 145.1 | 143.6 | 152.6 | 161.6 | 145.4 | . | . | . |
| Export performance vs. advanced countries (% change over 5 years) | 6.0 | -8.8 | -5.8 | -4.4 | -9.9 | -9.2 | -2.3 | -6.87 | . | . | . |
| Export market share, goods and services (y-o-y) | -1.4 | -8.5 | -1.4 c | -0.1 | -5.9 | -1.6 | -0.3 | -1.7 c | . | . | . |
| Net FDI flows (% of GDP) | 1.6 | 4.0 | 4.2 | 3.1 | 2.4 | 4.5 | 0.9 | 1.8 | . | . | . |
| Savings rate of households (net saving as percentage of net disposable income) | 8.1 | 12.3 | 11.1 | 12.6 | 15.3 | 15.3 | 15.9 | 16.3 | . | . | . |
| Private credit flow, consolidated (% of GDP) | 13.9 | 5.9 | 5.3 | 6.9 | 2.4 | 4.8 | 5.8 | 6.7 | . | . | . |
| Private sector debt, consolidated (% of GDP) | 161.4 | 201.5 | 189.0 | 190.8 | 192.2 | 192.1 | 192.4 | 187.5 | . | . | . |
| of which household debt, consolidated (% of GDP) | 63.1 | 76.8 | 77.1 | 78.0 | 80.5 | 82.3 | 83.3 | 83.9 | . | . | . |
| of which non-financial corporate debt, consolidated (% of GDP) | 98.3 | 124.7 | 111.9 | 112.8 | 111.7 | 109.8 | 109.1 | 103.6 | . | . | . |
| Corporations, net lending (+) or net borrowing (-) (% of GDP) | 3.1 | 1.8 | 2.2 | -0.2 | -1.1 | -1.2 | -1.5 | -2.6 | -2.8 | -2.4 | -2.0 |
| Corporations, gross operating surplus (% of GDP) | 24.7 | 22.4 | 24.8 | 24.4 | 23.0 | 22.8 | 23.5 | 24.0 | 24.2 | 24.3 | 24.6 |
| Households, net lending (+) or net borrowing (-) (% of GDP) | 2.4 | 5.4 | 4.3 | 5.3 | 7.5 | 7.4 | 7.7 | 7.5 | 7.3 | 7.0 | 6.5 |
| Deflated house price index (y-o-y) | 7.4 | 0.7 | 6.4 | 0.8 | 0.7 | 4.7 | 8.2 | 12.0 | . | . | . |
| Residential investment (% of GDP) | 3.8 | 3.3 | 3.6 | 3.9 | 3.4 | 3.5 | 4.0 | 4.5 | . | . | . |
| GDP deflator (y-o-y) | 1.9 | 2.4 | 1.0 | 1.2 | 1.1 | 1.1 | 1.8 | 2.0 | 2.4 | 2.3 | 2.2 |
| Harmonised index of consumer prices (HICP, y-o-y) | 1.7 | 1.9 | 1.9 | 1.4 | 0.9 | 0.4 | 0.2 | 0.7 | 1.1 | 1.7 | 1.8 |
| Nominal compensation per employee (y-o-y) | 3.9 | 2.7 | 2.2 | 3.2 | 3.1 | 1.9 | 2.2 | 3.5 | 3.1 | 3.3 | 3.1 |
| Labour productivity (real, person employed, y-o-y) | 2.0 | -2.8 | 5.0 | 0.5 | -1.0 | 0.3 | 1.2 | 2.5 | . | . | . |
| Unit labour costs (ULC, whole economy, y-o-y) | 1.9 | 5.7 | -2.6 | 2.6 | 4.1 | 1.7 | 1.0 | 0.9 | 1.7 | 2.3 | 2.2 |
| Real unit labour costs (y-o-y) | 0.0 | 3.2 | -3.6 | 1.4 | 3.0 | 0.6 | -0.7 | -1.1 | -0.6 | 0.0 | -0.1 |
| Real effective exchange rate (ULC, y-o-y) | -0.4 | -6.9 | 4.8 | 7.2 | 3.0 | 3.8 | -4.0 | -5.1 | 0.4 | 0.5 | 0.4 |
| Real effective exchange rate (HICP, y-o-y) | -1.0 | -7.2 | 6.5 | 4.1 | -0.8 | 1.7 | -4.5 | -5.2 | 0.8 | -1.7 | . |
| Tax rate for a single person earning the average wage (%) | 29.6 | 25.4 | 24.7 | 24.8 | 24.9 | 25.1 | 24.4 | 24.7 | . | . | . |
| Tax rate for a single person earning 50% of the average wage (%) | 25.2* | 20.6 | 19.7 | 19.9 | 20.0 | 20.2 | 19.6 | 19.9 | . | . | . |
| Total Financial sector liabilities, non-consolidated (y-o-y) | 10.7 | 2.1 | 7.1 | 4.7 | 3.3 | 7.5 | 12.4 | 2.3 | . | . | . |
| Tier 1 ratio (%) (2) | . | 10.5 | 10.5 | 10.8 | 11.2 | 11.3 | 19.2 | 21.1 | . | . | . |
| Return on equity (%) (3) | . | 5.4 | 10.3 | 10.7 | 11.4 | 11.2 | 12.2 | 11.2 | . | . | . |
| Gross non-performing debt (% of total debt instruments and total loans and advances) (4) | . | . | . | 0.6 | 0.5 | 0.5 | 1.4 | 1.2 | . | . | . |
| Unemployment rate | 6.9 | 8.3 | 8.6 | 7.8 | 8.0 | 8.0 | 7.9 | 7.4 | 6.9 | 6.5 | 6.4 |
| Long-term unemployment rate (% of active population) | 1.0 | 1.1 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 1.5 | . | . | . |
| Youth unemployment rate (% of active population in the same age group) | 20.8 | 25.0 | 24.8 | 22.8 | 23.7 | 23.6 | 22.9 | 20.4 | 18.9 | . | . |
| Activity rate (15-64 year-olds) | 78.7 | 78.9 | 79.1 | 79.9 | 80.3 | 81.1 | 81.5 | 81.7 | . | . | . |
| People at risk of poverty or social exclusion (% total population) | 15.3 | 15.9 | 15.0 | 16.1 | 15.6 | 16.4 | 16.9 | 16.0 | . | . | . |
| Persons living in households with very low work intensity (% of total population aged below 60) | 6.9 | 6.4 | 6.0 | 6.9 | 5.7 | 7.1 | 6.4 | 5.8 | . | . | . |
| General government balance (% of GDP) | 1.9 | -0.7 | -0.1 | -0.2 | -1.0 | -1.4 | -1.6 | 0.2 | 0.5 | -0.2 | 0.2 |
| Tax-to-GDP ratio (%) | 46.3 | 45.1 | 44.1 | 43.5 | 43.5 | 43.9 | 43.5 | 44.2 | 44.2 | 44.0 | 44.0 |
| Structural budget balance (% of GDP) | . | . | 0.7 | 0.0 | 0.2 | 0.1 | -0.5 | 0.4 | 0.3 | -0.3 | 0.3 |
| General government gross debt (% of GDP) | 42.9 | 40.4 | 37.6 | 36.9 | 37.8 | 40.4 | 45.2 | 43.9 | 41.0 | 39.3 | 37.6 |

(1) sum of portfolio debt instruments, other investment and reserve assets

(2,3) domestic banking groups and stand-alone banks.

(4) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.

Source: European Commission, ECB

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Progress with implementing the recommendation addressed to Sweden in 2016⁽³⁾ has to be seen as part of a process which started with the introduction of the European Semester in 2011. Sweden has been able to preserve a sound fiscal position since 2011 ensuring compliance with the medium-term budgetary objective and keeping debt on a declining path well below the Treaty threshold. Concerning the labour market, the government took action and achieved some progress in improving the employment situation of young people, with measures to strengthen apprenticeships and other types of work-based vocational education. However, it is too early to assess the outcomes for non-EU-born people, given the magnitude of the recent influx of refugees, and the usual time span of integration measures.

Since 2011 the country has each year received a recommendation 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 so far mainly been on macroprudential measures and steps to tackle housing supply bottlenecks. Macroprudential measures include the introduction of a loan-to-value ceiling of 85 % for mortgages in 2010, the gradual raising of banks' risk weight floors for mortgages in 2013 and 2014, and the introduction of a formal mortgage amortisation requirement in June 2016 (see 4.2.3). While these steps have improved the resilience of the banking sector (see 4.2.1), they have not been sufficient to rein in household debt growth (see 4.2.3). Additionally, the authorities have gradually introduced measures to streamline building and planning regulations and have provided some direct budgetary support for municipalities to encourage more construction. This has resulted in a significant pick-up in construction in recent years, albeit to a level that is still insufficient to meet anticipated demand (see 4.2.2).

Overall, Sweden has made limited⁽⁴⁾ progress in addressing its 2016 country-specific recommendation (CSR). Some policy steps have been taken in response to the recommendation (which is MIP-relevant, see Section 3), but implementation has been uneven and key areas left unaddressed. The authorities intend to enhance the macroprudential authority's legal mandate in 2017, with full implementation likely to follow in 2018. Regarding the housing market, a 22-point plan has been put forward including a range of proposals to increase residential construction and improve the efficiency of the housing sector. However, the timeline and precise form of implementation often remain uncertain. No significant policy action has been taken to introduce more flexibility in setting rental prices. No progress has been made on reforming mortgage interest deductibility and introducing properly-sized recurrent property taxes.

⁽⁴⁾ 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.

⁽³⁾ For the assessment of other reforms implemented in the past, see in particular Section 4.

Table 2.1: Summary table on CSR assessment ⁽⁵⁾

| Sweden | Overall assessment of progress with 2016 CSRs: Limited |
|---|---|
| <p>CSR 1: <i>Address the rise in household debt by adjusting fiscal incentives, in particular by gradually limiting the tax deductibility of mortgage interest payments or by increasing recurrent property taxes. Ensure that the macro-prudential authority has the legal mandate to implement measures to safeguard financial stability in a timely manner. Foster investment in housing and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and by revising the design of the capital gains tax to facilitate more housing transactions. (MIP relevant)</i></p> | <p>Limited progress</p> <ul style="list-style-type: none"> • No progress on addressing the rise in household debt by adjusting fiscal incentives • Limited progress on enhanced legal mandate for the macroprudential authority • Some progress on fostering investment in housing and improving the efficiency of the housing market |

Source: European Commission

⁽⁵⁾ This table does not include an assessment of compliance with the Stability and Growth Pact.

Box 2.1: Contribution of the EU budget to structural change in Sweden

The total allocation of the European Structural and Investment Funds (ESI Funds) in Sweden amounts to EUR 3.6 billion under the current financial framework 2014-2020. This represents an equivalent of around 0.1 % of GDP annually (at 2014-2017) and 2 % of national public investment¹. By 31 December 2016, an estimated EUR 1.5 billion, which represents about 42 % of the total allocation for ESI Funds, have already been allocated to concrete projects. Compared with 2007-2013 the use of financial instruments will increase by 76 %.

Financing under the European Fund for Strategic Investments (EFSI), Horizon 2020, the Connecting Europe Facility and other directly managed EU-funds is additional to the ESI funds. By end 2016, Sweden has signed agreements for EUR 144.4 million for projects under the Connecting Europe Facility. The EIB Group approved financing under EFSI amounts to EUR 1 billion, which is expected to trigger nearly EUR 3.5 billion in total investments (as of end 2016).

All necessary reforms and strategies as required by the ex-ante conditionalities² to ensure a timely and efficient up-take of the funds have been met prior to programme adoption, although two ex-ante conditionalities were not entirely met. These concern the transposition of the energy efficiency directive (2010/31/EU) and statistical issues for the ESI Funds. However, Sweden has done the necessary to allow the Commission to conclude shortly that all ex-ante conditionalities are met.

All relevant CSRs were taken into account when designing the 2014-2020 programmes. The ESI Funds play a role in strengthening employability and job creation, boosting a strong Research and Innovation environment in order to enhance the interaction between research and industry, increase firms' ability to bring their products to market and further improve innovation. The funds also support local and regional development. ESI Funds address, for example, the difficulties for many low educated young persons to match labour market requirements. Up till November 2016, more than 10 000 young people had been supported by measures financed by the Youth Employment Initiative, and 4 000 young people were in employment, education or training after the support had ended. In the area of research and innovation, ESI Funds support Sweden in implementing its smart specialisation strategies. In all eight regions over 5 600 enterprises are involved and will cooperate with research institutes in their areas of excellence.

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

¹ National public investment is defined as gross capital formation + investment grants + national expenditure on agriculture and fisheries

² At the adoption of programmes, Member States are required to comply with a number of ex-ante conditionalities, which aim at improving framework and investment conditions for the majority of areas of public investments. For Members States that do not fulfil all the ex-ante conditionalities by the end 2016, the Commission has the possibility to propose the temporary suspension of all or part of interim payments.

3. SUMMARY OF THE MAIN FINDINGS FROM THE MIP IN-DEPTH REVIEW

The 2017 Alert Mechanism Report called for further in-depth analysis to monitor progress in the unwinding of the imbalances identified in the 2016 MIP cycle. Because in spring 2016 Sweden was identified as having macroeconomic imbalances in the form of high household debt associated with high house prices, a new in-depth review is needed to assess how these imbalances are evolving.

This report provides an in-depth review of how the imbalances identified have developed. In particular, analysis relevant to the review can be found in the following sections: the banking sector in Section 4.2.1; developments and drivers of the housing market in Section 4.2.2; and developments in private indebtedness, mainly households, in Section 4.2.3. In addition, in Section 4.4.1 the report confirms last year's finding that external balance and competitiveness are not an imbalance.

3.1. IMBALANCES AND THEIR GRAVITY

Private sector debt has increased further to about 190 % of GDP, among the highest levels in Europe. Stocks of both household (88 %) and non-financial corporations (105 %) debt are significant. In particular, household debt is historically high, primarily due to mortgage lending. Potential deleveraging needs are estimated at more than 20 % of GDP for households. 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 becoming increasingly uneven: the fraction of borrowers with large debt-to-income ratios is sizeable and increasing, particularly among younger households and those buying properties in major cities.

Corporate debt, while elevated, is matched by the high value of equity. Despite the significant stock of debt, financial risks remain limited due to healthy financial positions, in particular a low degree of leverage and strong profitability. Moreover, external funding exposure, while increasing, remains limited: domestic loans, which have proved resilient during the crisis, constitute

the main funding source for non-financial corporations.

The Swedish economy has a significant exposure to the housing market, which makes it vulnerable to shocks. While most European countries experienced a significant adjustment in real estate prices during the last decade, in Sweden house prices have continued to rise. Strong fundamentals, such as disposable income and population growth can explain part of the increase, but several indicators such as price-to-income (affordability) and price-to-rent (dividend) ratios suggest that house prices are above their fundamental values. Distortive taxation and structural inefficiencies in the housing market contribute to this overvaluation. Overvalued house prices entail risks of a disorderly correction, which could become more pronounced if interest rates were to rise faster than expected. A sudden house price correction would have adverse implications on household consumption, growth, employment and ultimately the banking sector, with mutually reinforcing dynamics. The risks linked to this scenario have prompted the European Systemic Risk Board to issue a formal warning.

The banking sector is solid, but it is only partially shielded against an abrupt change in house prices. So far banks' assets have performed well and the sector has high profitability compared to its peers. 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 cater for the risks entailed in the banks' strong exposure to household mortgages in case of a sizeable house price correction. In a severe housing market slump, this vulnerability would likely have repercussions for the overall economy and the financial system. Due to the importance of Swedish banks in the region, the Danish, Finnish and Norwegian economies might also be affected.

The persistent current account surplus does not reflect significant macro stability concerns due to its drivers, its moderate size and its limited spillovers. With overall investment being relatively high and supporting future potential growth, the surplus mainly stems from low

household consumption which reflects private pension savings and the situation on the housing market. While the surplus remains relatively stable at around 5 % of GDP, it increasingly reflects the activities of Swedish multinationals abroad, with limited ties to domestic investment and savings decisions. The outward spillovers from the surplus via the trade and financial channels also seem limited at the current stage (see European Commission, 2016a, p.35-37).

3.2. EVOLUTION, PROSPECTS, AND POLICY RESPONSES

While overall private debt is slowly decreasing, household debt remains on an upward trajectory: household debt growth stood at 7.1 % year-on-year in nominal terms as of December 2016, continuing to outpace economic and income growth. The increase in mortgage lending is driven by persistent house price rises coupled with structural factors favouring (mortgage-financed) property investment, notably mortgage interest tax deductibility, variable rates and long maturities for mortgages. This development makes the economy vulnerable to shocks: highly leveraged households may need to rapidly reduce consumption to meet rising mortgage payments. The authorities have gradually taken some policy action aimed at curbing household debt growth in recent years. In 2016 they introduced a mortgage amortisation requirement. In addition, the government has announced plans to enhance the legal mandate of the macroprudential authority (*Finansinspektionen*). This would allow the authority to respond in a timely manner with a wider range of potential measures to the risks associated with growing household debt.

So far, these measures appear to have little discernible impact on household debt growth. 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.

Corporations have continued a gradual post-crisis deleveraging process in 2016, albeit from a high level. Non-financial corporation debt

relative to GDP is down by about 20 percentage points since its peak in 2009. This has mostly been the result of 'passive' deleveraging, with net credit flows to firms positive but outweighed by growth and inflation. Domestic loans remain the main funding source of firms, but large corporations increasingly rely on the bond market as well. While this allows for funding alternatives, a higher share of bond market financing could expose firms more to volatility and stress in the financial markets.

Swedish banking groups have a substantial and growing exposure to household mortgages, but banks' capital buffers appear sufficient to support this. The short term risks of household debt service problems seem limited, given the low interest expenditure. At the same time, the stretched housing market valuations and high debt levels compared to income make the household sector vulnerable to shocks. However, the 2016 EU-wide European Banking Authority stress tests showed that banks' capital buffers were more than sufficient to absorb losses under such an adverse scenario.

House prices have grown almost continuously in the last 20 years, and have been accelerating since 2012: real house price growth reached 12 % in 2015, among the highest in Europe. Contrary to most European countries, Sweden experienced no major correction in house prices during the crisis, and shows no sign of a correction in the short term. House price increases have been particularly steep in the Stockholm and Gothenburg areas. This persistent price growth is partly the result of a structural undersupply of houses: housing construction has continued to increase, but remains insufficient to address the sharply rising housing demand.

Policy measures implemented so far have not curbed house price increases. In particular, a new mortgage amortisation requirement for new loans with a loan-to-value ratio above 50 % came into force in June 2016, but this does not appear to have had a significant impact on price growth yet. In addition, a reform of the capital gains tax deferral rules for housing transactions has recently been adopted, with a view to improving housing market liquidity and owner-occupier mobility. The authorities have also put forward a 22-point plan with measures to increase developable land

availability, reduce construction costs and shorten planning process lead times, as well as some specific rental market reforms.

macroprudential framework, the functioning of housing supply and of the rental market.

However, there are still policy gaps. The availability of land, complex planning, building regulations, lack of municipalities' incentives to support new construction, public infrastructure design, weak competition in the construction sector and the high level of rent control have not yet been addressed.

3.3. OVERALL ASSESSMENT

Sweden faces significant sources of imbalances in the form of high private debt and overvalued and still rising house prices. The elevated private indebtedness, in particular of households, increases the vulnerability of the economy to macroeconomic shocks. Large deleveraging needs may potentially lead to a harmful correction in consumption, investment and credit flows. House prices appear to be significantly overvalued, entailing risks of a disorderly correction. A large correction may have negative spill over effects on other Nordic countries through the financial system.

While corporates are slowly deleveraging, surging house prices have led to increased household indebtedness. Household debt is continuing to grow rapidly from a level that is historically elevated, driven by persistent house price rises coupled with structural factors favouring (mortgage-financed) property investment. The current drivers of house price growth are projected to remain in place in the short and medium term in the absence of a policy intervention. Overvalued house prices entail risks of a disorderly correction. The overall shortage of housing supply can also hamper labour mobility and is further exacerbated by the large recent inflow of migrants in need of affordable housing.

The policy measures taken to address these imbalances have so far been insufficient. The authorities have gradually taken some policy action aimed at curbing household debt growth in recent years, but these policy measures appear to have had little discernible impact on house price and indebtedness growth. Overall, policy gaps remain in the areas of housing-related taxation, the

Table 3.1: MIP assessment matrix (*) - Sweden 2017

| | Gravity of the challenge | Evolution and prospects | Policy response |
|-----------------------------|--|--|---|
| | Imbalances (unsustainable trends, vulnerabilities and associated risks) | | |
| Private debt (see 4.2.3) | <p>Sweden continues to have one of the highest levels of private debt in the EU, at close to 190 % of GDP at the end of 2015. A large part of the debt is financed from abroad, as the net external debt stood at 46.3 % of GDP at end-2015. High private indebtedness increases the country's vulnerability to macroeconomic shocks, as subsequent deleveraging may lead to sharp corrections in consumption and investment.</p> <p>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.</p> <p>Corporate debt is above the EU average, 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.</p> <p>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 Swedish banking sector serves a large share of the market in the Nordic-Baltic countries, thereby being the source of possible spillovers in the event of sudden deleveraging needs. (See 4.2.1).</p> | <p>Household debt continued to grow in 2015, increasing by 7.4 % in nominal terms over the year, significantly outpacing GDP growth. As a result, household debt stood at 176 % of disposable income and 84 % of GDP at end-2015. The Riksbank projects that household debt will be well over 190 % of disposable income by the end of this decade.</p> <p>Corporate debt has remained broadly stable.</p> | <p>In June 2016, a formal mortgage amortisation requirement for new loans with a loan-to-value ratio above 50 % came into force.</p> <p>In addition, the Swedish authorities have put forward plans to enhance the macroprudential authority's legal framework, so that the authority can respond in a more timely manner and use a wider range of measures to address the risks associated with growing household debt.</p> <p>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.</p> <p>The Swedish macroprudential authority has put forward proposals for introducing debt-to-income caps, but currently lacks the legal mandate to proceed with implementation.</p> |

(Continued on the next page)

Table (continued)

| | | | |
|-------------------------------|---|---|---|
| Housing sector (see 4.2.2) | <p>Swedish house prices appear to be significantly overvalued, as suggested by a more than 35% average deviation from long-term averages for price-to-rent, price-to-income ratios and expected prices based on a fundamental valuation model (as of end-2015).</p> <p>This is 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.</p> <p>Overvalued and still growing house prices combined with a large mortgage debt stock entail risks of a disorderly correction and adverse consequences for the real economy and the banking sector.</p> | <p>House prices have grown almost continuously in the last 20 years. Real house price growth accelerated to 12% in 2015, the highest rate in the EU. House price increases have been particularly steep in the Stockholm area. Risks of a sudden correction could become more pronounced if interest rates were to rise faster than expected.</p> <p>Housing investment has rebounded sharply in recent years, albeit from very low levels. Despite the strong pick-up in construction, new housing supply continues to fall short of projected needs.</p> <p>The housing shortage is further exacerbated by the large recent inflow of migrants in need of affordable housing.</p> | <p>In addition to the mortgage amortisation requirement came into force in June 2016, a reform of the capital gains tax deferral rules for housing transactions has recently been adopted, with a view to improving owner-occupier mobility.</p> <p>The Swedish authorities put forward a 22-point plan including a range of proposals to increase developable land availability, reduce construction costs and shorten planning process lead times, as well as some specific rental market reforms.</p> <p>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.</p> |
|-------------------------------|---|---|---|

Conclusions from IDR analysis

- Sweden is characterised by important sources of stock imbalances in the form of high household debt associated with high and overvalued 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 and house prices are continuing to rise at an elevated pace. The current drivers of house price growth are likely to remain in place in the short- and medium term.
 - Some policy measures have been taken in recent years to address Sweden's rising household debt, especially in the area of macroprudential policy. However, these measures remain insufficient to address the growing imbalances. Overall, policy gaps remain in the area of housing-related taxation, the macroprudential framework, the functioning of housing supply and the rental market.
-

(*) 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 their gravity, developments and prospects, policy response.

Source: European Commission

4. REFORM PRIORITIES

4.1. PUBLIC FINANCES AND TAXATION

Public finances are robust. Sweden is set to have achieved a surplus in 2016, in spite of spending increases related to migration. The debt-to-GDP ratio is expected to continue to fall well below 40 % in 2018.

Recent amendments to the fiscal framework are expected to further strengthen public finances.

They aim to provide the necessary margin for automatic stabilisers to play their role in a context of a somewhat weaker economic activity in the coming years. The country appears to face no major fiscal sustainability risks in the medium term. However, some minor long-term risks remain, mainly linked to the projected impact of age-related public spending.

4.1.1. FISCAL FRAMEWORK

Building on its strong institutional set-up and extensive track record of fiscal soundness, the authorities recently announced some fiscal governance reform. After more than a year of deliberation, a dedicated parliamentary committee (Surplus Target Committee) presented its final report in September 2016 (SOU, 2016a)⁽⁶⁾ with the agreement of seven out of eight represented political parties. Given the broad political consensus, it is now expected that the reform proposals will be included in an updated government communication on the fiscal policy framework. The main conceptual pillars of the framework would essentially remain in place, with some numerical modifications and clarifications.

One of the main proposed reforms is the lowering of the 1 % of GDP surplus target defined over the cycle (in place since 2007) to 0.33 % of GDP from 2019 onwards. This reduction will continue to allow Sweden to partially accommodate the projected increase in the costs of the pensions system while maintaining adequate safety margins for economic

fluctuations⁽⁷⁾. The authorities explained that the rationale behind this decision lies in the fact that the country's fiscal position is robust enough. In parallel, the mechanism for monitoring the revised surplus target would be clarified, thereby addressing shortcomings identified, *inter alia*, by the European Commission and adding credibility to the new target. So far the fulfilment of the target has been measured by a number of indicators (including 7- and 10-year averages) without specifying the relative weights assigned to each of them. It is now proposed to use the structural balances in the current and the subsequent year to establish whether a deviation from the surplus target had taken place. If in these two years the structural balance clearly deviated from the surplus target, the government must adopt an adjustment plan with a specified end date for public finances to return to the target.

The reform proposes to complement the reduction of the surplus target with additional amendments to the framework. These include a new debt anchor, a reinforcement of the role and the independence of the Fiscal Policy Council (*Finanspolitiska rådet*), and regular comprehensive reviews:

- The debt anchor, set at 35 % of GDP for the general government debt aims to better link the conduct of fiscal policy to the objective of long-term sustainability. Should the public debt ratio differ from the anchor by more than 5 pps, the government would be required to explain the reasons for the deviation and present corrective steps in a special written communication to Parliament.
- The Fiscal Policy Council will be reinforced by (i) assigning to it a more prominent role in the monitoring of the surplus target; (ii) making the nomination procedure of the Council's members more independent; and (iii) mandating the Council with the regular

⁽⁶⁾ The English summary of the report is available at: <http://www.government.se/globalassets/government/dokument/finansdepartementet/pdf/publikationer-infomtrl-rapporter/summary---a-review-of-the-surplus-target>

⁽⁷⁾ The country's medium-term objective will not be directly affected by this change, as it remains at a structural deficit of 1 % of potential GDP (in line with the SGP requirements).

evaluation of the official macro-fiscal forecasts.

- Regular reviews of the Swedish fiscal governance framework are planned every 8 years, and focus on the adequacy of the numerical targets in the light of economic and demographic trends.

4.1.2. TAXATION DEVELOPMENTS

Sweden's general level of taxation is relatively high compared with other EU countries. The tax burden is 44.2 % of GDP compared with 40.0 % at EU level. Given the authorities' intention to prioritise public investments related to the integration and reception of refugees, climate transition and gender equality over tax cuts, the level is expected to remain broadly unchanged.

The 2017 budget bill has introduced limited changes to the tax regime. The country has one of the highest ratios in the EU of taxes relative to GDP on production and imports and on income and wealth. The new budget bill has only included some limited adjustments to the lower and upper brackets of the national personal income tax.

The relatively high level of household indebtedness is a key challenge and tax measures could play a role in mitigating it. A revision of taxation related to housing, such as interest deductions and recurrent property tax, is not envisaged. The lack of reforms in this area risks contributing to a further increase in household debt (see Section 4.2). While recurrent property taxes are considered to be among the most growth-friendly and least distortive taxes, revising the generous interest deductions could increase tax revenues when interest rates start rising from the currently very low level.

Tax reforms also intend to further increase employment and promote a greener and more sustainable economy. To promote job creation and entrepreneurship, the 2017 budget includes a few changes to the tax system, namely incentives for the self-employed to hire new staff and the introduction of a value added tax exemption for small enterprises. To make the economy greener, the budget includes some proposals in the field of energy taxation: to gradually phase out the tax on

thermal effect of nuclear power plants and to lower the property tax on hydro power plants.

4.1.3. PUBLIC DEBT SUSTAINABILITY

Sweden appears to face low fiscal sustainability risks in the medium to long term. Government debt stood at 41.0 % of GDP in 2016, well below the 60 % of GDP Treaty reference value, and is expected to decrease to 37.6 % of GDP by 2018. In the longer run, pension reforms implemented in the past are projected to contain pension expenditure.

Public expenditure on long-term care (LTC) is projected to increase at the same rate as the EU average. Demographic changes mean LTC spending can be expected to increase significantly, from 3.6 % of GDP in 2013 (among the highest in the EU) to 5.1 % of GDP in 2060 (European Commission, 2015b). This corresponds to a 41 % increase, similar to the EU average. The share of the population that receives LTC benefits is relatively high by EU standards, whereas the underlying level of need suggested by indicators⁽⁸⁾ is broadly in line with the EU average.

The LTC sector is not fully efficient. Resources are not always targeted at those that need care the most and can least afford to pay for it. Additionally, the proportion of recipients receiving care in an institutional setting (rather than at home) and the role of in-kind benefits (rather than cash) to support LTC recipients are relatively high and reduce the flexibility of the system.

⁽⁸⁾ 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.

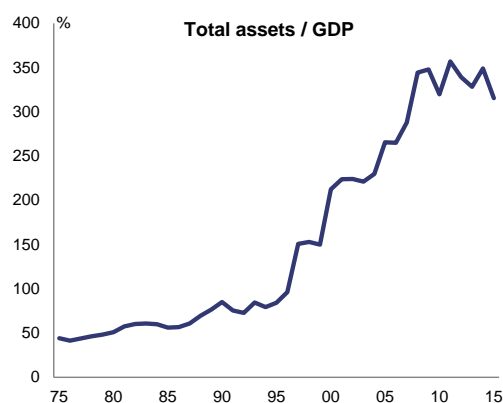
4.2. FINANCIAL SECTOR

4.2.1. BANKING SECTOR (*) ⁽⁹⁾

Overview

In recent decades the Swedish banking sector has grown significantly and now dominates the Nordic-Baltic financial markets. Its assets are three times as large as Sweden's GDP, while its equity has remained broadly stable relative to assets (Graph 4.2.1).

Graph 4.2.1: Banking system assets relative to GDP (%)



Source: Riksbank

Bank capital adequacy ratios — measured relative to risk-weighted assets — have also increased over time. The average Common Equity Tier 1 (CET 1) ratio was at 19.2 % at end September 2016, among the highest in the EU (Graph 4.2.2).

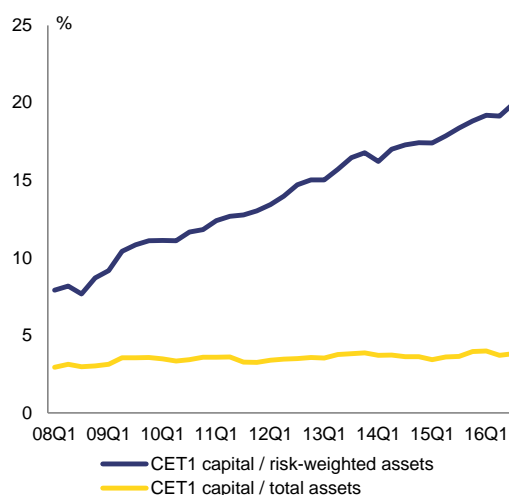
However, this capital ratio strengthening is mainly due to the progressive lowering of banks' risk-weighted assets density. Partly due to the removal of Basel I risk weight floors from exposure calculations⁽¹⁰⁾, the average risk weighting of bank assets has fallen in recent years, mechanically leading to a rise in capital adequacy ratios. Conversely, capital adequacy measures in relation to total (non-risk-weighted) assets have remained essentially stable over time (Graph 4.2.2). On average, total CET 1 capital accounted for about 3.8 % of banks' balance sheets at end

⁽⁹⁾ 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).

⁽¹⁰⁾ This was done in the context of the Capital Requirements Directive IV in 2014 (European Commission, 2015a).

September 2016, while the average leverage ratio of the four main Swedish banks was 4.4 %.

Graph 4.2.2: Swedish banks CET 1 capital relative to risk-weighted and total assets (%)



Source: Riksbank

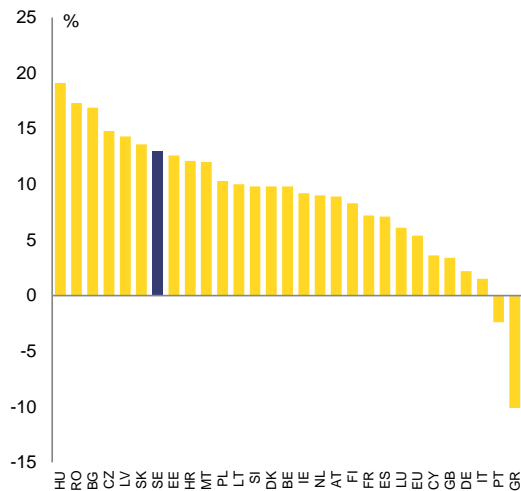
Improving capital ratios are also linked to the introduction of special capital buffers by the macroprudential authority. Sweden is the only EU country that has a non-zero countercyclical capital buffer (CCB) rate. The CCB was already activated at 1 % in 2014, and has been increased to 1.5 % (applicable from 27 June 2016) and further to 2 % (from 19 March 2017). Its aim is to avoid the build-up of financial imbalances given the present phase of its macroeconomic and financial cycle. The requirement on CET 1 for large banks is also higher than in other EU countries. It amounts to at least 12 % (versus a 7 % minimum requirement for all EU banks) due to the identification of the four largest banks as 'systemically important institutions' (SII), reflecting their structural systemic risks⁽¹¹⁾.

Bank profitability is among the highest in Europe. According to the European Banking Authority (EBA), the sector's return on equity as of September 2016 was 13 % on average (Graph 4.2.3), more than double the 5.4 % EU average. However, these positive results are

⁽¹¹⁾ For each SII, an SII buffer and a systemic risk buffer (SRB) are set. Since only the highest buffer applies, the applicable buffer for all four banks is the SRB, which has been set at 3 %. In addition, a Pillar 2 add-on requirement of 2 % has been introduced by the Financial Supervisory Authority (FSA) (*Finansinspektionen*).

largely dependent on the low risk-weighted assets density of banks and, consequently, on their low equity base relative to their total balance sheet size.

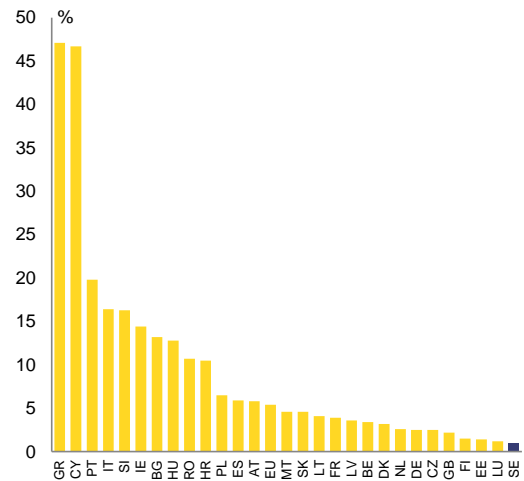
Graph 4.2.3: Banking system return on equity (%), Q3 2016



Source: European Banking Authority

Good asset quality has so far been a major strength of the banking sector, also in comparison with other EU countries (Graph 4.2.4). According to the EBA, in September 2016 the average non-performing loanratio was around 1.0 %, one of the lowest in the EU and well below the EU average of 5.4 %. High payment capacity and discipline of borrowers contribute to this low level. In addition, the very efficient public framework for debt collection also plays a substantial role. The average coverage ratio of non-performing loans is 28.6 %, lower than the EU average of 43.9 %.

Graph 4.2.4: Share of non-performing loans in total loan book (%), Q3 2016

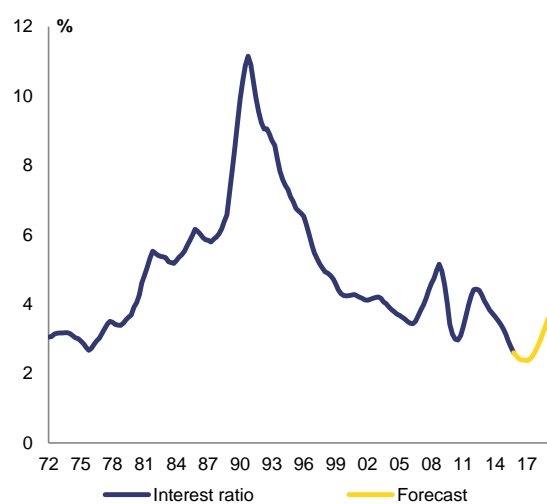


Source: European Banking Authority

Key risks and stress test results

The exposure of Swedish banking groups to household mortgages has grown substantially in recent years. This increase happened against a background of rising mortgage demand driven by falling interest rates and steep house price inflation (see 4.2.3). While household debt levels are becoming increasingly stretched compared to incomes, expenditure on interest by households is at historical lows (Graph 4.2.5). This suggests that there is limited immediate risk of debt service problems. Nevertheless, the combination of ever higher housing market valuations (Graph 4.2.7) and high debt levels makes the household sector vulnerable to shocks (see ‘Risks and policy response’ under 4.2.3). In a severe housing market slump, it is likely that this vulnerability would have repercussions for the overall economy and the financial system. Due to the importance of Swedish banks in the region, the Danish, Finnish and Norwegian economies might also be affected.

Graph 4.2.5: Household interest payments as percentage of income



Source: Riksbank

A housing market downturn could result in rising funding costs for Swedish banks, given their reliance on international financial markets. The loan-to-deposit ratio stood at 213 % in September 2016, showing that domestic deposits fund less than half of the banks' loan portfolio. To cover this funding gap, banks issue debt securities, which are largely purchased by foreign investors. Therefore, if foreign investors' perception of risks in the banking sector were to deteriorate, this could result in a sudden rise in bank funding costs, thus amplifying the impact of any domestic house market fall.

The 2016 EU-wide EBA stress test suggests that the four major Swedish banks are at little risk of a capital shortfall. Their capital buffers were found to be more than sufficient to absorb losses under the adverse scenario. The decline in the fully loaded CET 1 (i.e., net of transitional effects) ratios in this scenario ranged from 187 basis points (bps) for Swedbank to 270 bps for Svenska Handelsbanken (around 234 bps on average), bringing them across the sample to an average CET 1 ratio of 16.6 % at the end of 2018, which is much higher than the 9.2 % average for the entire sample of EU banks.

Nonetheless, due to the low risk weights generated by Swedish banks' internal models, some concerns remain about the vulnerability of the banking sector. The Riksbank has recently

flagged the importance of introducing a leverage ratio requirement as a complement to the risk-weighted capital requirements, pointing to shortcomings in the latter that could lead to banks holding insufficient capital. For the same reason, the Riksbank has also suggested that there are grounds to consider a further tightening of the existing risk-weighted capital requirements (Sveriges Riksbank, 2016).

Macroprudential policy steps

Sweden has implemented a range of macroprudential measures to rein in the risks associated with growing mortgage debt and house prices. As mentioned above (see 'Overview'), the Financial Supervisory Authority (FSA) (*Finansinspektionen*) has gradually introduced a number of special capital buffers for banks. In addition, since 2007 the FSA applies stricter requirements (100 %) for the risk weighting on exposures secured by mortgages on commercial real estate, and in September 2014 it introduced a risk weight floor increase from 15 % to 25 % on residential mortgages for banks applying the internal rating-based approach. Furthermore, it also introduced a number of specific macroprudential measures to curb the trend of rising house prices coupled with growing household indebtedness, such as the new amortisation requirement for residential mortgages (see 'Risks and policy response' under 4.2.3).

As these macroprudential measures have shown little impact, concerns related to macroeconomic and financial stability have been raised. Mortgage debt has continued to outpace income growth, and property prices continue to climb from already elevated levels. For this reason, several Swedish and international institutions (Sveriges Riksbank, 2016; Finansinspektionen, 2016a; IMF, 2016; European Commission, 2016a) have flagged the increasing macroeconomic and financial stability risks. In addition, the European Systemic Risk Board (ESRB) — which in 2016 conducted an EU-wide forward-looking assessment of the residential real estate sector in EU countries — issued a formal warning to Sweden (as well as to seven other Member States) on the existence of vulnerabilities in the residential real estate sector. This warning was made public on 28 November 2016.

Following changes in the legal structure of the Nordea group, the FSA's responsibilities for the Nordic region have become substantially larger, stressing the importance of a flexible and effective macroprudential mandate for the FSA⁽¹²⁾. On 1 January 2017 the Nordea group, which is active across all Nordic and Baltic countries, turned most of its subsidiaries into branches. Before this legal change the subsidiaries in Finland, Denmark and Norway were supervised by the respective national competent authorities (the ECB in Finland). In compliance with the Capital Requirements Directive IV (CRD IV), which assigns the supervision of foreign branches to the home competent authority, the FSA is now responsible for supervising these former foreign subsidiaries. As almost two-thirds of Nordea's lending takes place outside Sweden, this allocates a sizeable additional responsibility to the FSA and also has resource implications. To deal with the new situation, the Nordic financial supervision authorities and the ECB have established framework arrangements⁽¹³⁾ concerning information sharing, supervisory responsibility and cooperation, macroprudential policy, depositor protection and recovery and resolution planning. In the ongoing review of the FSA's mandate (see 'Risks and policy response' under 4.2.3), it would be desirable to take proper account of its wider responsibility for the financial system in the Nordic region.

⁽¹²⁾ Currently Swedish laws do not provide the FSA with swift procedures to use macroprudential tools not explicitly considered in CRR/CRD IV such as: mortgage maturity restrictions, maximum loan-to-income, debt-to-income or debt-service-to-income and other similar measures.

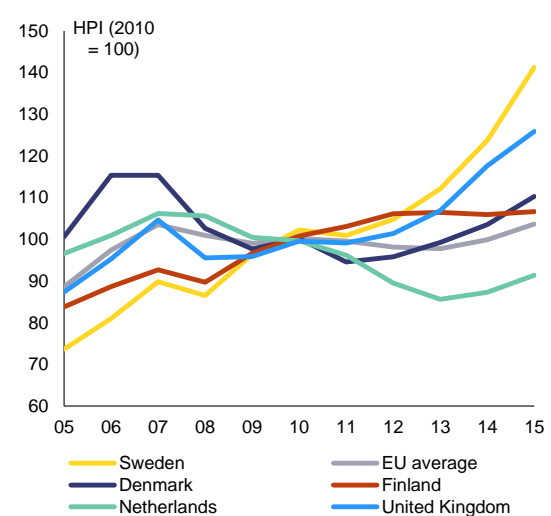
⁽¹³⁾ Memorandum of Understanding between Finansinspektionen (Sweden), Finanstilsynet (Norway), Finanstilsynet (Denmark), Finanssivalvonta (Finland) and the ECB on prudential supervision of significant branches in Sweden, Norway, Denmark and Finland of 2 December 2016; Memorandum of Understanding between the Finnish, Norwegian and Swedish Ministries of Finance and the Danish Ministry of Business on cooperation regarding significant branches of cross-border banking groups of 9 December 2016; Memorandum of Understanding on cooperation regarding banks with cross-border establishments between the central banks of Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden of 15 December 2016.

4.2.2. HOUSING MARKET (*)

Housing market developments

Sweden has experienced rapid and persistent house price growth since the mid-1990s. This is in part driven by global economic trends, notably falling interest rates and generally favourable credit conditions. Nevertheless, the country stands out as one of the very few European countries that have experienced strong house price inflation both before and after the financial crisis, without any significant corrections (Graph 4.2.6). In 2015, real house prices rose by 12 % year-on-year (13.1 % in nominal terms) — among the highest growth rates in the EU. Over the course of 2016, price inflation cooled somewhat compared to 2015, but remained well above income growth: it stood at 8.6% year-on-year (in nominal terms) as of December 2016⁽¹⁴⁾.

Graph 4.2.6: Real house price evolution (indexed, 2010=100)



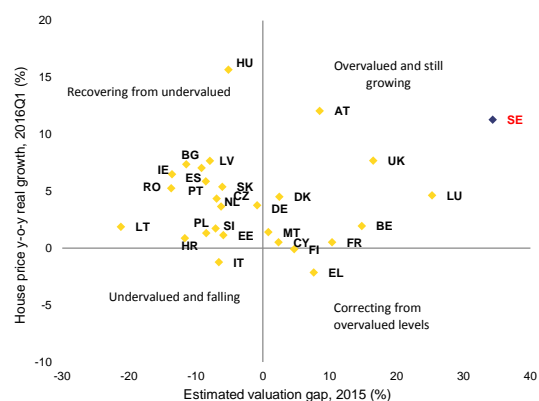
Source: European Commission

While this rapid house price growth is partly driven by strong fundamentals, indicators point to valuations becoming increasingly overstretched. Population and income growth levels have been well above the EU average over the past decade and there has been a trend towards increasing urbanisation, suggesting some fundamental justification for relatively strong house price rises. Nevertheless, there appears to be

⁽¹⁴⁾ 2016 price growth estimate based on NASDAQ OMX Valueguard-KTH housing market index.

a significant and growing disconnect between price levels and fundamentals (European Commission, 2016a). As of end-2015, a combination of valuation indicators suggests that house prices are overvalued by about 35 % — among the highest levels in the EU (Graph 4.2.7). While such valuation estimates should be interpreted with care, they do highlight the potential vulnerabilities linked to the housing market. They are also consistent with the observation that house price growth has been boosted by a number of well-known structural issues distorting demand, supply and allocative efficiency in the housing market.

Graph 4.2.7: Valuation gap estimates and recent house price growth: Sweden versus other EU countries



(1) Valuation gap estimate is based on an average of price/income, price/rent and fundamental model-based valuation indicators.

Source: European Commission, Bank of International Settlements

Demand-side issues

The impact of falling mortgage rates on housing demand has been amplified by several specific structural features of the Swedish mortgage market. Monetary policy in Sweden has become increasingly accommodative in recent years against a backdrop of muted global growth and inflation (see Section 1). While a continued fall in interest rates inevitably acts as a natural tailwind for the property market, long contract maturities, low amortisation (i.e. capital repayment) requirements and a high share of variable-rate mortgages (see 4.2.3 for details) have augmented this effect. As a result, debt service costs relative to incomes have fallen to post-crisis lows even as house prices and debt levels have continued to climb (Finansinspektionen, 2016b). This mutually

reinforcing dynamic of rising house prices and rapid indebtedness growth is a major vulnerability for Sweden, and triggered a formal warning by the European Systemic Risk Board (see 4.2.1).

The 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 a homeowner on his housing investment) are not subject to taxation. This is to some extent compensated by taxation of property ownership. Because this annual property tax is subject to a low ceiling⁽¹⁵⁾, the outcome is a highly favourable tax treatment of owner-occupied housing compared to other investments, and a low overall tax take from property by international standards (European Commission, 2016a, p. 30). Additionally, interest paid on mortgages is generally deductible at the 30 % capital income rate⁽¹⁶⁾, providing an effective subsidy for funding a property purchase using mortgage debt. From a household's perspective, this further favours (debt-financed) home ownership both over other investment opportunities (which typically cannot easily be used as collateral for loans) and over rental housing.

Reforming the favourable tax treatment of home ownership and mortgages could help curb house price and household debt growth, while simultaneously promoting employment and consumption. A gradual phasing out of mortgage interest tax relief and/or introduction of properly-sized recurrent property taxes would create fiscal room to reduce taxes on labour income, among the most distortive for growth (European Commission, 2014). Additionally, such reforms would, by design, reduce demand for housing and mortgages. Simulations using the European Commission's

⁽¹⁵⁾ The nominal tax rate of the local property fee (*kommunal fastighetsavgift*) 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 2016, SEK 7 412 or EUR 783 and SEK 1 268 or EUR 134 per year for 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.

⁽¹⁶⁾ If mortgage interest exceeds available capital income (taxed at a flat rate of 30 %), 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.

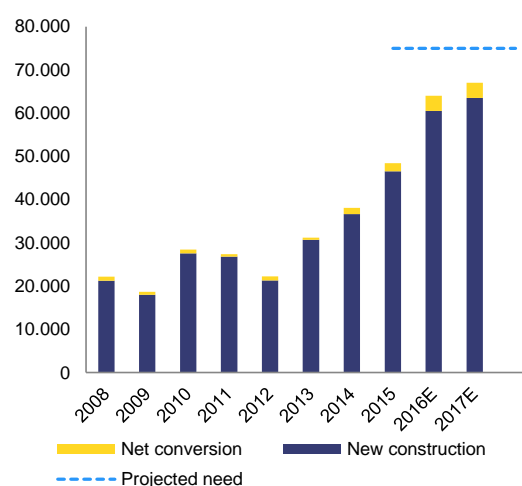
QUEST model indicate that a complete phasing out of mortgage interest tax deductibility, with the tax savings used to reduce the labour tax wedge, could boost long-term employment and consumption levels by 0.2-0.3 %, while reducing household debt growth by about 1.2 % of GDP (Burgert *et al.*, 2016). Similar effects could be achieved by raising recurrent property taxes to enable a comparable tax shift away from labour income. Importantly, the simulations suggest that these policy options would not cause a ‘hard landing’ in house prices.

Moreover, reforming recurrent property taxation and mortgage interest deductibility could contribute to reducing inequality. Analysis by the Swedish Fiscal Policy Council (*Finanspolitiska rådet*) has demonstrated that the impact of such tax reforms would be broadly progressive, as households that currently benefit the most from the favourable tax treatment of home ownership and mortgage debt tend to be the higher-income ones (Finanspolitiska rådet, 2016). Simulations conducted by the Joint Research Centre of the European Commission using the EUROMOD microsimulations model have further confirmed the progressive impact of mortgage tax relief reforms.

Supply-side issues

A key driver of Sweden’s persistent house price inflation is a structural undersupply of dwellings. New construction has picked up strongly in recent years (albeit from low levels) and is projected to grow further in 2017. However, it remains well below new construction needs (Graph 4.2.8). While the shortage is geographically fairly widespread, it tends to be especially severe in the major urban centres. There is a particular shortage of rental apartments in larger cities; this, in turn, pushes households who might otherwise wish to rent into home ownership, thus exacerbating the shortage (and upwards price pressure) in the owner-occupied market as well.

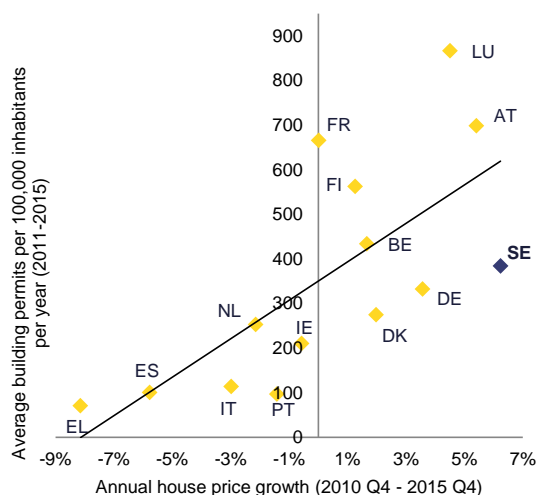
Graph 4.2.8: **Housing starts, including net conversions, versus projected need**



Source: Statistics Sweden (historical data); Boverket (estimates for 2016, 2017 and projected need)

While building activity has increased significantly in recent years, relative to the rapid house price growth the construction supply response remains rather weak. In spite of the rapid growth in house prices (and high absolute price levels) by international standards, residential investment as a share of GDP remains somewhat below the EU average. Direct measures of the supply response to house price rises also show that Sweden has significantly underperformed peer countries in this respect (Graph 4.2.9). This is further confirmed by supply elasticity analysis for different regions within Sweden (IMF, 2015).

Graph 4.2.9: **Building permits issued per unit of population v house price growth (2011-2015)**



Source: European Mortgage Federation, European Commission

Structural bottlenecks for new construction are constraining housing supply.

There is lack of developable land, partly driven by a large share of buildable land owned by municipalities, who can have financial incentives for making it available for construction in a piecemeal fashion over time rather than when it is needed most (European Commission, 2015a). Zoning and building regulations are relatively cumbersome and complex, and standards vary between different municipalities, creating a fragmented market that reduces efficiency and raises uncertainty for construction companies (European Commission, 2016a). In addition, the timeline to obtain planning permission can be considerably longer than in other countries (Emanuelsson, 2015), raising financial risks for construction projects and causing delays in new supply coming online. Finally, the construction sector is characterised by rigidities that have weighed on productivity growth and have limited competition among developers, making construction costs in Sweden among the highest in the OECD.

Market concentration in the construction sector remains high, pointing to relatively weak competition. Among the 50 largest construction companies, the three leading ones account for almost 60 % of turnover (Sveriges Byggindustrier, 2016). In 2009-2013, these three companies also won 40 % of all municipal housing procurement contracts (SOU, 2015, p. 173). Competition among

developers for such major public housing projects seems already limited at the tendering stage: in almost 45 % of municipal procurements, the number of companies is limited to three or less, and for a sizeable minority (about 10 %) only one developer is tendering. The three largest construction companies also show notably higher operating margins than the sector average, which is primarily driven by their project development activities. These observations are consistent with prior analysis pointing to weak competition in the Swedish construction sector, mainly owing to barriers to entry for larger-scale development projects against small and foreign firms (European Commission, 2015a and 2016a; Emanuelsson, 2015).

Vertical integration of project development and construction can hamper competition.

The Swedish Competition Authority (*Konkurrensverket*) has highlighted that construction companies without their own project development activities may depend on larger, vertically integrated competitors, e.g. through subcontracting (*Konkurrensverket*, 2015). Moreover, partly as a result of the hard-to-navigate planning system, well-connected established companies with land resources and large project portfolios can control housing supply and keep prices high (SOU, 2015).

Municipalities can play a role in enhancing competition among developers and more generally in speeding up the building process, but appear to neglect using some of their relevant powers.

Land allocation and sales by municipalities are a key enabling factor for construction activity. However, an inquiry by the Swedish Competition Authority found that several municipalities seem to lack sufficient resources for land use and planning, and in particular, that they generally do not fully use their powers to demand that housing is actually built (*Konkurrensverket*, 2015). Municipalities could counteract the negative impact on competition resulting from established developers' control of land resources by making land sales conditional on actual building. Since rapidly expanding construction is not always in the interest of the municipalities (for example due to required infrastructure investments) appropriate state support may be required.

Barriers to efficient usage of the existing housing stock

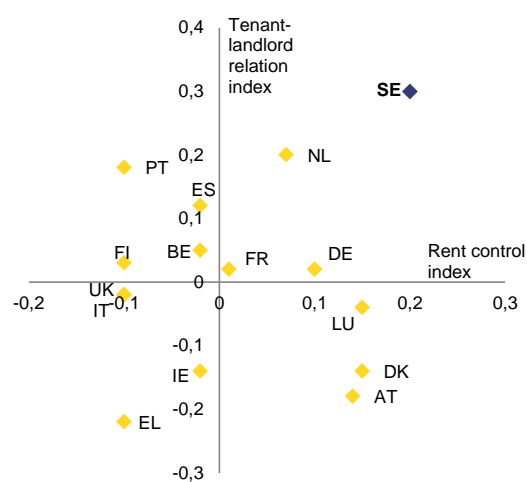
Sweden's tightly regulated rental market creates lock-in and 'insider/outsider' effects.

The rental market has some of the strongest tenant protection rules and the highest degree of rent control⁽¹⁷⁾ in the EU (Graph 4.2.10). There is a growing divergence between market and negotiated rents, particularly in major cities, creating large demand/supply imbalances and long waiting lists to obtain rental accommodation (e.g. on average over 8 years in Stockholm). As a result, sitting tenants have a strong financial incentive not to move, even if their rental accommodation is no longer fully suited to their needs⁽¹⁸⁾. Residential mobility statistics show that tenants renting at below-market prices tend to move at roughly half the rate of the minority renting at full market prices (European Commission, 2015c). Conversely, new entrants — such as students, young households and recent immigrants — have great difficulty in obtaining access to the rental market, thus creating an insider/outsider effect.

The disconnect between negotiated rental prices and market rents has hindered rental housing supply, particularly in major cities. Below-market rent levels combined with high land prices create financial incentives to favour the construction of owner-occupancy housing over rental units⁽¹⁹⁾. They also incentivise the

conversion of rental units into owner-occupied homes, thus further aggravating the rental housing shortage (European Commission, 2015a). This has been particularly problematic in urban areas: for example, in the Stockholm region, for every new rental unit built, three were converted into owner-occupied homes over the 1990s and 2000s (Emanuelsson, 2015).

Graph 4.2.10: Rent Control Index (1) and Tenant-Landlord Relation Index (2) for Sweden v other EU countries



(1) The Rent Control Index captures the degree to which rents are determined by market versus non-market mechanisms. It is mainly based on the level of flexibility in setting rental levels for new contracts and increasing rents for existing contracts. A higher index level indicates a more controlled, less market-oriented rent-setting system.

(2) The Tenant-Landlord Relation Index measures the balance of legal rights and obligations between tenant and landlord. A higher index level indicates stronger legal protection for tenants. This index is based on aspects such as typical rental contract duration, security deposit requirements, legal mechanisms available for tenant evictions, eviction notification requirements and timeframe, and procedural formalism of tenant-landlord disputes.

Source: Cuerpo et al. (2014)

In addition to the direct welfare loss associated with suboptimal use of the rental stock, there are negative knock-on effects on labour mobility and social equality. The lock-in and insider/outsider effects in the rental market can

mechanism to allow rents to adjust flexibly over the full investment horizon, e.g. to reflect growing demand over time. (An inquiry was initiated in November 2016 to review certain aspects of the *presumptionshyra* system. The outcome will be published by the summer of 2017, but full market adjustment of rents during the 15-year 'presumption period' is outside its scope.)

⁽¹⁷⁾ Unlike in many other countries, 'rent controls' in Sweden do not stem from direct regulation, but are the result of a unique rent-setting system whereby most rent levels are negotiated between the Swedish Union of Tenants (*Hyresgästföreningen*) and housing companies using a collective bargaining approach. These negotiations are in turn based on a 'utility value' (*bruksvärde*), intended to reflect the objective quality of accommodation. The location of a property — typically a key driver of market rents — does not always carry a weight that corresponds reasonably well to the actual preferences of tenants and potential tenants when the utility value system is implemented in the rent negotiations.

⁽¹⁸⁾ There is an exchange system that allows tenants wishing to move to swap apartments by mutual agreement. However, this only mitigates lock-in effects to a limited extent (because it requires direct matching between tenants moving in opposite directions), and it does nothing to prevent insider/outsider effects as only existing tenants with a direct tenancy qualify.

⁽¹⁹⁾ This is somewhat mitigated by the possibility to negotiate higher initial rents for newly-built apartments within the normal 'utility value' (*bruksvärde*) system or to use a special system of 'presumption rents' (*presumtionshyra*), which exempts the property from the utility value system for 15 years. However, even in these cases there is no

prevent workers from moving to locations with the best job opportunities. Furthermore, tight rental regulations combined with a severe shortage of affordable rental housing can exacerbate inequality and social problems. They particularly affect lower-income households which cannot afford to buy their own home, and contribute to a relatively high degree of overcrowding among socially vulnerable groups, including non-EU migrants (OECD, 2017).

Capital gains taxes on property sales can make moving costly for homeowners, thus creating lock-in effects in the owner-occupier market.

Sweden applies a 22 % capital gains tax on property sales, even in situations where a homeowner is selling to buy another home of similar value elsewhere (so that no actual economic gain is realised). The steep house price rises over the past two decades mean that households who have owned their home for a long time can face prohibitively high moving costs. In practice, this tends to particularly affect elderly households living in large family dwellings looking to relocate to a smaller apartment, often in a convenient city-centre location. This issue is somewhat mitigated by the ability to defer (part of) the capital gains tax liability, but not fully (see *Policy developments*). Reforming capital gains taxation to eliminate this lock-in effect could help free up underused family dwellings and improve overall liquidity in the owner-occupier market.

Policy developments

Demand-side policy action in the housing market has focused on curbing mortgage lending via macroprudential measures. Since 2010, Sweden has gradually introduced a number of measures aimed at containing mortgage debt growth (and thus housing demand). Steps taken include setting loan-to-value limits, adjusting banks' risk weight floors, and most recently in June 2016, a formal amortisation rule that requires most new mortgages to be paid down by a minimum of 1 % per year (see 4.2.3 for details on the new amortisation requirement and other macroprudential measures).

The new mortgage amortisation requirement appears to have had limited impact on house price growth so far. While it is difficult to gauge

the precise effect of the amortisation rule⁽²⁰⁾, it seems that in most areas there was a brief levelling off in house price growth around the time the rule was introduced (particularly in Stockholm, where flat prices actually fell somewhat over the summer months). However, the market generally recovered swiftly in the autumn. For 2016 as a whole, house price inflation slowed significantly in some locations and segments — for instance, Stockholm flat prices rose by about 5 % over 2016, versus 18 % in 2015⁽²¹⁾ — but in other cities such as Malmö, price growth actually accelerated compared to 2015. Overall, the housing market did cool down somewhat in 2016, but price growth is still well above income growth and remains high by international standards.

Sweden has gradually implemented a range of measures to raise new housing supply in recent years.

Policy action has mainly been focused on streamlining the planning and appeals processes to make lead times shorter and more predictable, on simplifying building and zoning regulations and more generally on reducing red tape for new construction (European Commission, 2015a and 2016a; Emanuelsson, 2015). Additionally, there has been some modest budgetary support for new construction, either in the form of investment subsidies for specific types of rental housing (e.g. for students or the elderly) or of general construction bonuses to encourage municipalities to promote more building activity.

In June 2016, the authorities put forward a 22-point plan aimed at tackling a number of supply bottlenecks and improving the overall efficiency of the housing sector.

This plan emerged after cross-party talks about a more wide-reaching reform to address both demand-side issues (including taxation) and supply inefficiencies ended without comprehensive agreement. Instead, the 22-point plan contains a

⁽²⁰⁾ Complicating factors in determining the impact of the new amortisation rule include the lack of a clearly delineated point in time when it started influencing lending behaviour (in practice, many banks already started gradually phasing in the new requirement well before it formally came into force in June 2016) and the presence of a number of confounding factors that may also have weighed on house price growth around the relevant period (e.g. the usual housing market slowdown over the summer, the pause in interest rate declines since early 2016, and simply high valuation levels).

⁽²¹⁾ These figures are based on NASDAQ OMX Valueguard-KTH housing market indices.

collection of more limited, incremental proposals which have broad support across political parties and key stakeholder organisations. The objective is to increase the amount of land available for development; to reduce construction costs by further streamlining building regulations and shortening planning process lead times; and to address a number of specific inefficiencies in the rental market ⁽²²⁾. Since most of the underlying reforms involve broad review and stakeholder consultation processes, it will take some time before these proposals are finalised and there is some uncertainty on how they will ultimately be implemented. As a result, it is difficult to assess their impact at this juncture.

As part of the 22-point plan, the deferral rules for capital gains taxes on property transactions have been adjusted, but this is likely only to have a modest impact on owner-occupier mobility. Specifically, for property sales between June 2016 and June 2020, the full capital gains tax liability will be deferrable if a homeowner sells up to purchase a similarly-valued home (whereas before, the deferrable amount was subject to a ceiling). This reform is intended to address the lock-in effects in the owner-occupier market resulting from relatively high capital gains taxes. Some improvement in mobility in the owner-occupancy market can indeed be expected as a result of this measure. However, its impact will likely fall short of a more comprehensive reform of transaction costs that tackles the actual wealth reduction represented by the capital gains tax liability, and not just its immediate cash flow effect.

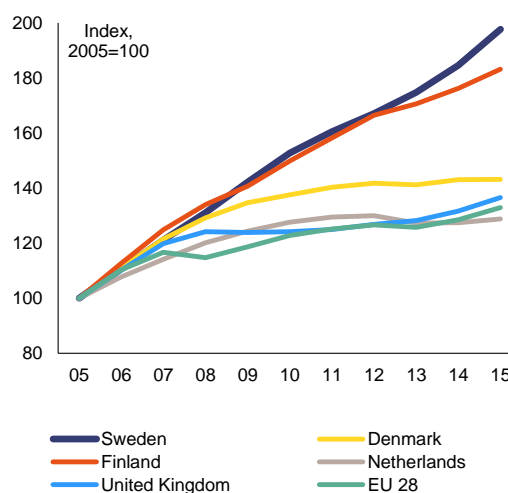
4.2.3. PRIVATE INDEBTEDNESS (*)

Household debt developments

Household debt has continued to grow rapidly from a level that is already historically elevated. It has been on a persistent upward trajectory over the past decade, outpacing the EU average and key peer countries, with only Finland experiencing debt growth at a level approaching Sweden's

(Graph 4.2.11). While in most economies with relatively high household debt levels (such as the Netherlands, Denmark and the UK), debt growth tapered out after the financial crisis as households started a gradual deleveraging process, in Sweden there was no significant slowdown. In 2016, household debt grew by 7.1 % ⁽²³⁾, approaching 86% of GDP.

Graph 4.2.11: Household debt growth (indexed, 2005=100)



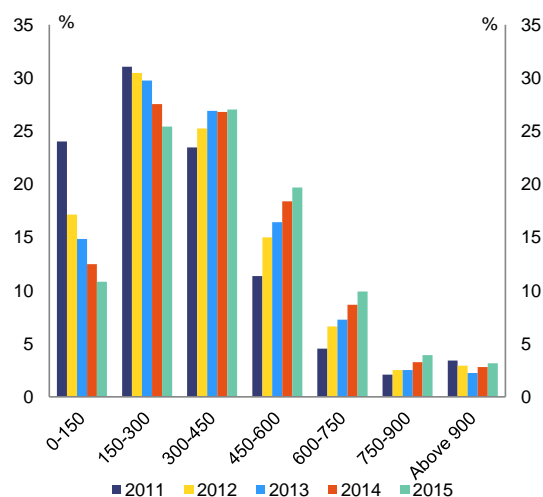
Source: European Commission

The distribution of debt levels across households is becoming increasingly uneven. Among mortgaged households, those who took on their mortgage more recently tend to have higher debt levels: the debt-to-income ratio for new borrowers was estimated at 406 % in 2015, up from 387 % in 2014 and 325 % in 2011 (Finansinspektionen, 2016b). Furthermore, the fraction of borrowers with very high debt-to-income ratios has been steadily growing: about 17 % had debt-to-income ratios above 600 % in 2015, up from 14.8 % in 2014 and about 10 % in 2011 (Graph 4.2.12). Younger and lower-income households tend to be particularly highly indebted (Ölcer and van Santen, 2016; European Commission, 2016a).

⁽²³⁾ Year-on-year growth as of December 2016.

⁽²²⁾ The full plan is available at: <http://www.regeringen.se/globalassets/regeringen/dokument/finansdepartementet/pdf/2016/pm/sammanfattning-av-regeringens-forslag-22-steg-for-fler-bostader>.

Graph 4.2.12: Share of households with different debt-to-income ratios, new loans (share of households in % of total)



Source: Finansinspektionen

Drivers for household debt growth

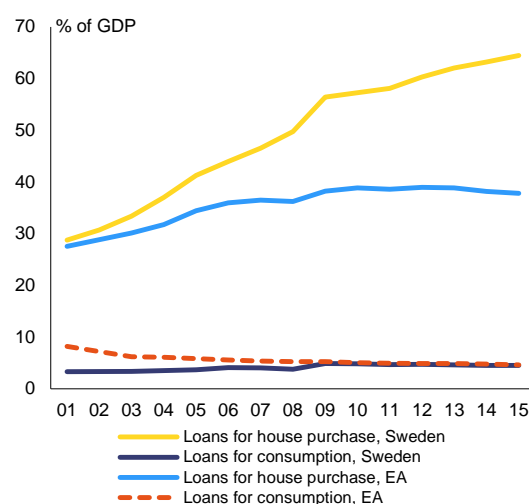
Household debt growth is primarily due to rising mortgage lending. The increase in household debt is almost entirely due to loans for property acquisition. Consumption loans form a relatively small share of total lending that is roughly the same size (relative to GDP) as in other European economies (Graph 4.2.13).

Mortgage lending growth is driven by persistent house price rises coupled with structural factors favouring (mortgage-financed) property investment. Rapid house price rises (see 4.2.1) and mortgage debt growth tend to be mutually reinforcing: higher house prices enable larger mortgage loans by increasing the value of the underlying collateral, and growing mortgage debt levels raise the total investment amount flowing into a limited supply of houses, thus putting upwards pressure on prices. In Sweden, this dynamic is further reinforced by steadily falling mortgage rates and structural factors that act to lower debt service costs:

- Favourable tax treatment of owner-occupied housing and mortgages (see 4.2.2 for details).
- Mortgages are mostly variable-rate: about 70 % of new and 64 % of all outstanding mortgages are linked to short-term interest rates (European Mortgage Federation, 2016), thus

reducing debt service costs in an environment of falling interest rates.

Graph 4.2.13: Loans to households: loans for property acquisition and consumption loans in Sweden versus euro area average

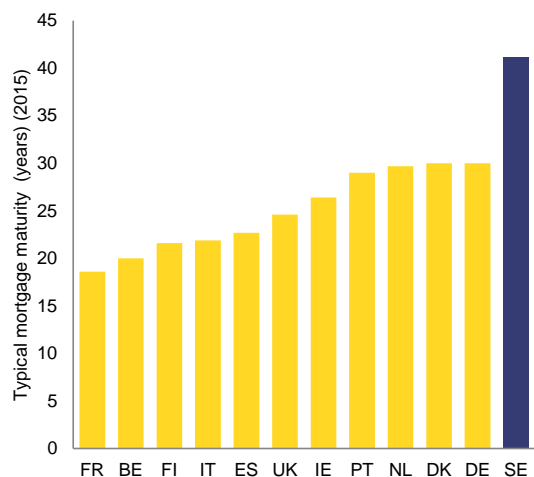


Source: ECB, European Commission

- Swedish mortgage contracts have historically been characterised by long maturities compared to other EU countries (Graph 4.2.14), generally accompanied by low amortisation (i.e. capital repayment) requirements. This further amplifies the relative impact of lower interest rates on monthly mortgage payments⁽²⁴⁾.

⁽²⁴⁾ As a stylised illustration, compare a situation where the interest rate on a EUR 100 000 variable-rate mortgage drops from 2 % to 1 %, assuming amortisation over 20 years (so at 5 % per year) versus no amortisation. In the former case, total payments per year drop from EUR 7 000 (EUR 5 000 capital repayment + EUR 2 000 interest) to EUR 6 000 (EUR 5 000 capital repayment + EUR 1 000 interest) — a reduction of about 15 %. In the latter case, payments per year drop by 50 %, from EUR 2 000 to EUR 1 000. So the lower the amortisation rate, the larger the relative cash flow impact of interest rate changes.

Graph 4.2.14: Typical mortgage maturity, 2015 (years)



Source: European Systemic Risk Board (ESRB) report on residential real estate and financial stability in the EU (2015)

Risks and policy response

Steadily increasing household leverage coupled with rapidly rising property prices makes the Swedish economy vulnerable to shocks. If there was a significant rise in mortgage risk premiums — perhaps triggered by a house price correction, a wider economic slowdown or higher funding costs for banks as market perceptions about their riskiness worsen — highly-leveraged households may need to rapidly reduce consumption to meet rising mortgage payments. This would reduce demand and raise uncertainty, potentially weighing on growth and employment and thus further decreasing households' ability to service their mortgages. The latter could potentially lead to further increases in mortgage risk premiums and a broader disorderly deleveraging process. In this scenario, non-housing assets owned by households — notably equity investments, which account for about a third of total household wealth — would also probably fall, further weighing on consumption via wealth effects.

More generally, Swedish households' relatively large financial wealth — estimated at about three times their liabilities — would likely provide only limited cushioning in a significant housing market slump. Close to 50 % of non-housing assets owned by households are invested in pension fund or life insurance instruments and can thus only be accessed upon retirement, and a

large share of the remainder is exposed to market risks. In addition, financial wealth is unevenly distributed; while limited hard data are available on this, it is likely that key segments of mortgage borrowers — notably newer borrowers and younger households — will tend to have relatively modest non-housing assets relative to their debt level.⁽²⁵⁾

Empirical evidence from other countries confirms that high household debt levels tend to foreshadow deeper economic downturns and weaker recoveries following a housing market slump (Crowe *et al.*, 2011). Even in the absence of any acute threat of large-scale house price falls, it may therefore be important to address the macroeconomic stability risks associated with Sweden's house price / indebtedness dynamics.

The authorities have gradually taken some policy action to curb household debt growth in recent years, relying mainly on macroprudential measures. These include the introduction of a loan-to-value (LTV) ceiling of 85 % for mortgages in 2010 and the gradual raising of banks' risk weight floors for mortgages in 2013 and 2014. More recently, the authorities proceeded with the implementation of a long-awaited mortgage amortisation requirement: since June 2016, most new mortgages must be amortised by a minimum of 2 % per year until the LTV drops below 70 %, and by 1 % afterwards until the LTV drops below 50 %. While this is an important step forward, it still leaves Swedish amortisation requirements significantly softer than in other EU countries, where full repayment of the loan over time is the norm for owner-occupier mortgages.

Despite these policy measures house prices and indebtedness continued to grow. As mentioned earlier (see 4.2.1 and 4.2.2) there has been no significant slowdown in household debt or house price growth in recent years.

Reform of the tax incentives combined with further macroprudential measures could help curb household debt growth. As discussed in 4.2.2, raising recurrent property taxes or phasing out mortgage interest deductibility could help contain the house price / mortgage debt dynamic,

⁽²⁵⁾ See the 2016 Country Report for Sweden for a more extended discussion (European Commission, 2016a, p. 20).

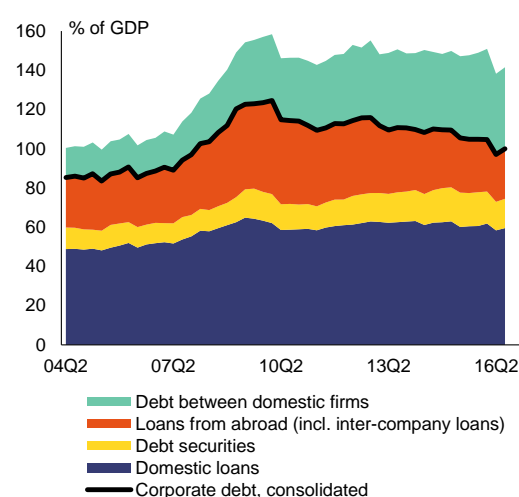
while also positively impacting long-term output and employment growth. In addition, there may be scope for further macroprudential measures. This could potentially include further steps to align mortgage amortisation rates with those common in other EU countries and/or a form of debt-to-income limits for new borrowers. The Swedish macroprudential authority (FSA) has suggested that the latter in particular may be an appropriate policy option (Finansinspektionen, 2016a).

The current legal framework for the macroprudential authority (FSA) does not appear sufficiently robust to appropriately address the risks associated with growing household debt, as illustrated by the significant delays incurred with the introduction of the new amortisation requirement. The FSA originally proposed this measure in late 2014, but it became the subject of legal challenges concerning the FSA's ability to impose mandatory amortisation rates, and ultimately could only be implemented via a legislative initiative by the government (see European Commission, 2016a, p. 22 for further background). In response to this, the authorities have recently announced that they have advanced plans to revise the FSA's legal mandate, with a view to ensuring that it can introduce potential macroprudential measures that may be required in future in a timely manner and using a wider range of tools. The precise form of the new legal framework, which is expected to be made public later in 2017, will be of key importance to ensure that this reform is successful.

Corporate debt developments

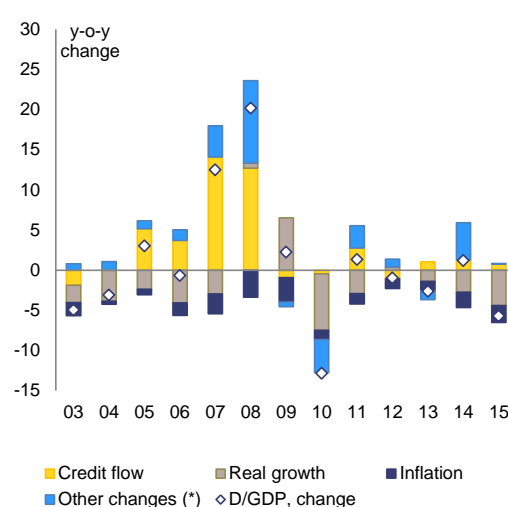
Swedish non-financial corporations continued a gradual post-crisis deleveraging process in 2016. Consolidated corporate debt fell to 104.6 % of GDP at the end of 2015 (Graph 4.2.15). On a non-consolidated basis (including financing flows between domestic companies), corporate debt fell to 144 % of GDP as of Q1-2016, down about 10 pps year-on-year. Since its peak in 2009, the corporate debt-to-GDP ratio has come down by about 20 pps in aggregate. This has mostly been the result of 'passive' deleveraging, with net credit flows to Swedish firms positive but outweighed by growth and inflation (Graph 4.2.16). Still, the corporate debt level remains high compared to the euro area average of about 77 % of GDP (on a consolidated basis) at the end of 2015.

Graph 4.2.15: Breakdown of corporate debt by funding source



Source: Statistics Sweden

Graph 4.2.16: Drivers of year-on-year changes in corporate debt as % of GDP



(*) 'Other changes' mainly reflects valuation effects

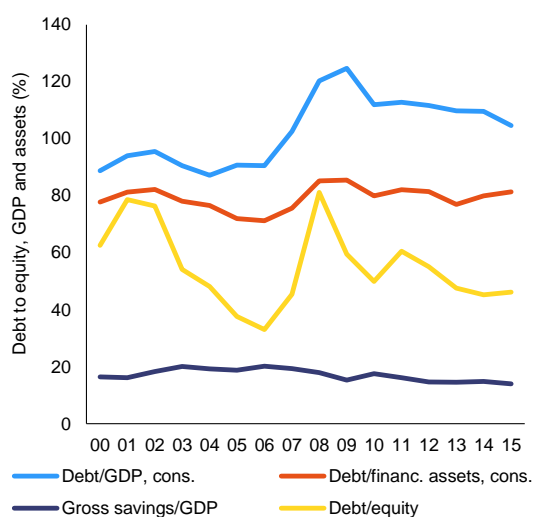
Source: European Commission

Domestic loans remain the main funding source for the corporate sector, with international bond markets gradually seeing increased use as an alternative financing option. Graph 4.2.15 shows that domestic lending (mostly from banks) to firms has remained broadly stable at about 60 % of GDP since the financial crisis. However, larger corporations have increasingly come to rely on the bond market as an additional funding source, with its contribution growing from 11 % of GDP pre-crisis to about 18 % as of mid-2015. Lending from

abroad contracted from a peak of about 48 % of GDP in 2009 to 28 % of GDP as of Q2-2015, but this change is essentially fully accounted for by intra-group loans from foreign branches, which fell sharply after corporate tax reforms in 2013 (European Commission, 2016a, p. 23). These foreign intra-group loans were replaced by a larger funding contribution from domestic lending between firms and by the trend towards more bond market funding.

While overall corporate debt levels remain high, firms generally seem to have a healthy financial position with limited risks of financial distress. Sweden's corporate-debt-to-GDP ratio is well above the euro area average. However, other leverage indicators demonstrate that financial risks are limited. In particular, corporates have a significant equity cushion, as indicated by a debt-to-equity ratio that is already at a quite low level (43 % as of end-2016, compared to about 60 % on average for EU countries) and that continues to fall (Graph 4.2.17). In addition, gross corporate savings are at a relatively healthy 15 % of GDP (12 % EU average), underscoring that the corporate sector is sufficiently profitable to be able to reduce its debt level quickly if needed.

Graph 4.2.17: **Leverage indicators for non-financial corporations**



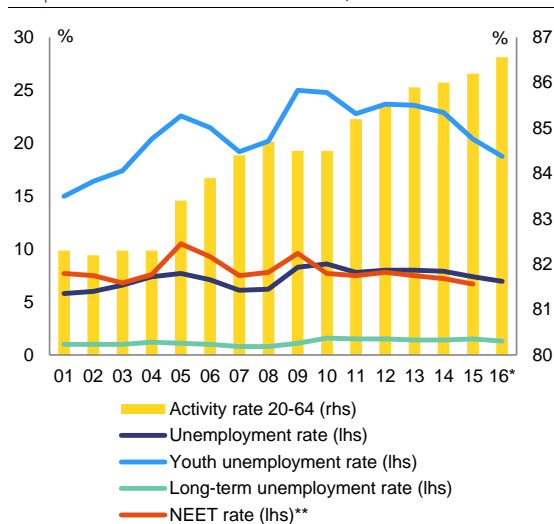
Source: Statistics Sweden

4.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

4.3.1. LABOUR MARKET AND SOCIAL POLICIES

The labour market is performing well. Sweden had one of the highest employment rates in the EU (81.2 % in the first three quarters of 2016, while recording one of the lowest long-term unemployment rates. Unemployment fell to 6.9 % in 2016, below the EU average. Similarly, youth unemployment decreased (Graph 4.3.1) and the rate of people not in education, employment or training (NEETs) is lower than the EU average.

Graph 4.3.1: Labour market situation, 2001-2016



Source: European Commission, Eurostat, Labour Force Survey

* Activity rate and long-term unemployment rate for 2016 are based on Q1-Q3.

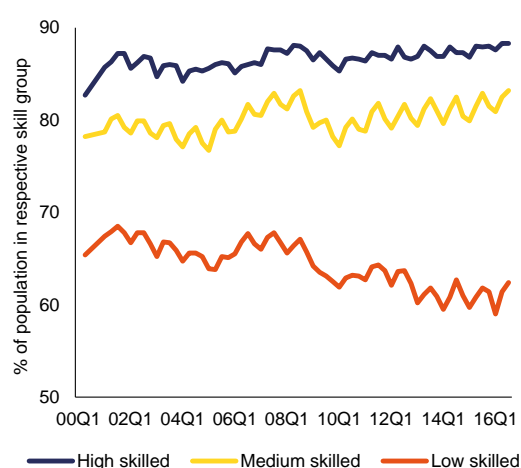
**NEET refers to people aged 15-24 being 'not in employment, education or training'.

Despite positive overall developments, challenges persist for low-skilled people. While the employment rate of high and medium-skilled people has been broadly stable, that of the low-skilled has been declining (Graph 4.3.2). In parallel, their unemployment rate (19.5 % in the first three quarters of 2016) has increased and is significantly higher than the EU average (16.3 %).

To improve outcomes for the low-skilled, access to adult education and vocational education and training (VET) is being improved. A right for adults over 20 who had already left the (ordinary) education system came into force in 2017, allowing them to complement their previous studies and obtain an upper secondary qualification. This is a significant extension of the previous entitlement to complete compulsory

schooling, and is expected to help 70 000 adults to upgrade their skills.

Graph 4.3.2: Employment by skill levels, 2000-2016



Source: European Commission, Labour Force Survey. Note: age group 20-64

The government is also strengthening the attractiveness of vocational upper secondary education. Once approved by Parliament, all corresponding 'national' programmes⁽²⁶⁾, including VET programmes, are expected to grant eligibility to tertiary education, as was the case before the 2010 Education Act. This may make VET programmes more attractive in particular for those still in education (but also for the above-mentioned adults): until 2009, at upper secondary level there were as many students attending vocational programmes as academic programmes. Despite a slight upward trend in certain areas such as the retail and hotel sector where apprenticeship programmes appear successful, the increase in the number of apprenticeships in upper secondary school remains limited. Overall, in autumn 2015 the number of apprentices was 8 400, up from 6 000 in autumn 2013 (Skolverket, 2016a).

An inquiry into the numerous wage subsidy schemes has been launched. Some of these schemes are not targeted at individuals with lower productivity, and the whole system suffers from limited take-up by employers. Therefore, streamlining and better administration might be

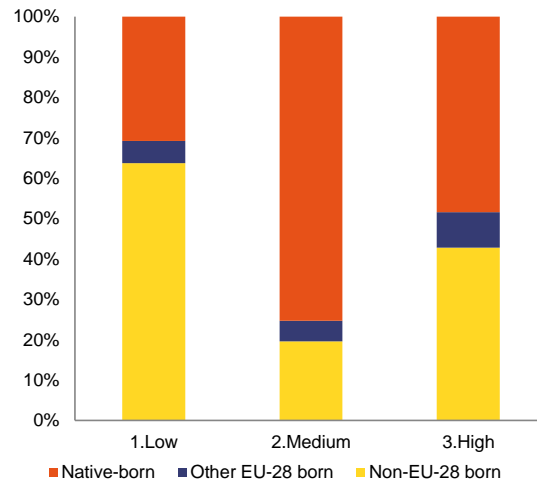
⁽²⁶⁾ Excluding 'introductory programmes' designed to provide additional tailored support for a small number of students having difficulties in school.

necessary (OECD, 2016a; Almega, 2016). The outcome of the investigation is expected by 31 August 2017.

The low-skilled population includes many refugees, and their integration remains a major social and labour market challenge (Graph 4.3.3). The share of non-EU-born residents in Sweden (11.1 % in 2015) is among the highest in the EU. It has doubled since 2000 due to an increase of 500 000 people. The non-EU-born residents have a lower activity rate, which at 78.1 % for the age class 20-64, is 9.9 pps. below the activity rate of native-born residents. Those available for work had an unemployment rate of 19.2 % in 2015, three times as high as for native-born residents. A gap also exists for young foreign-born people, who are more likely not to be in education, employment or training (9.8 % v 6.2 % for native-born), and even more so for women.

The magnitude and composition of the recent migration flow adds to the integration challenge. Before 2013 roughly 30 000 asylum seekers arrived in Sweden each year, mostly from Iraq, Somalia, Serbia and Afghanistan. However, the magnitude and composition of the arrivals have changed in 2013-2015, with about 300 000 asylum requests made. Close to half of these requests were made between July and December 2015. Around 40 % of asylum seekers are children of school age, and almost half of them are unaccompanied minors. In 2015, 50 % of non-EU-born people residing in Sweden were refugees or their family members and 30 % were other family migrants (coming to join family members who are not refugees). These two groups have on average low qualifications (see 4.3.2) and weaker labour market outcomes than migrants who come for work or study (Graph 4.3.4).

Graph 4.3.3: **Breakdown of unemployment by skill level and country of birth, 2015**



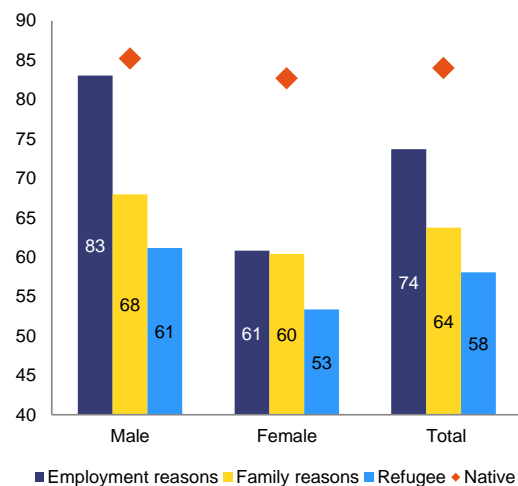
Source: European Commission, extraction based on Labour Force Survey
Note: Age group 20-64

Migrants, and in particular asylum seekers, face various barriers to labour market participation and social inclusion when they arrive in Sweden. These include limited language proficiency (see 4.3.2), difficult access to adequate housing (see 4.2.2), lack of a personal network and contacts, limited institutional knowledge of the labour market and social systems, or the absence of appropriate validation or recognition procedures for skills and education acquired abroad. Even when transferable, these skills may not correspond to the needs on the Swedish labour market (skills mismatches), hence the importance of (re)training or upskilling policies. Moreover, migrant women from countries with low female employment tend to show larger gaps in labour market participation.

Although employment rates are increasing with time spent in Sweden, children of non-EU-born parents still face barriers. Even accounting for differences in individual characteristics (age, gender, education and literacy level), their likelihood of being employed remains 13.3 pps. lower than native-born residents without a migrant background (OECD, 2014a). This indicates discriminative hiring practices as evidenced by field experiments and other recent studies (see the review in OECD, 2016a). Direct discrimination remains nevertheless difficult to prove (Council of Europe, 2012).

While the employment gap affecting the non-EU-born in Sweden is significant, their employment rate is still better than the EU average. In spite of a challenging immigration profile, with a low share of labour migration and not many immigrants speaking Swedish when entering the country, the employment rate of non-EU-born is 63.7 %, 3.4 pps. above the EU average. However, it is 20.3 pps. below the employment rate of native-born Swedes (Graph 4.3.4). The gap is particularly high for non-EU-born women (23.3 pps.). All in all, the magnitude and profile of immigration resulted in a marked increase in the share of foreign-born people among all unemployed from 24 % to 42 % between 2005 and 2015.

Graph 4.3.4: Employment rate of native-born and of non-EU-born by reason of migration, 2014



Source: European Commission, Eurostat Labour Force Survey, 2014 ad hoc module on migrants. Note: Age group 15-64.

The Introduction Programme for new refugees and their families has been enhanced, yet challenges remain. Since 2010, this Programme has provided refugees and their families with intensive support. It covers a period of 24 months and includes language, education and training measures. Results have improved over time, nevertheless in 2016 only 32.6 % of participants were in work or education 90 days after having completed the programme. Women are underrepresented among the participants and those who participate have worse outcomes than men (21 % v 39 %). The government has proposed a regulatory reform (as of 2018) to enhance results

which aim to simplify the Programme and streamline it with other labour market activation measures. This would enable the Public Employment Service (*Arbetsförmedlingen*) to refer a newly-arrived migrant to any programme or measure, not limited in time and content to the Introduction Programme. This broadened scope would in turn allow more individualised and longer-term strategies, based on early competence mapping and assessment.

In the same vein, given the increased awareness that ‘one size does not fit all’, additional flexibility is offered in education and training pathways. The possibility to combine Swedish for Immigrants language training with vocational education or studies and work on a part-time basis has been strengthened. More generally, many of the government’s recent initiatives, e.g. trainee jobs and education contracts (European Commission, 2016a, p. 44-45), have the potential to reach more beneficiaries by taking into consideration both local conditions as well as the individual’s needs. This is expected to help curb skills mismatches among refugees.

‘Fast Track’ initiatives have been started to help the newly-arrived to enter the labour market faster. These are targeted at sectors with labour shortages and established in cooperation with the social partners (see Box 4.3.1). Some professions such as healthcare and teaching proved to be more successful than others (*Arbetsförmedlingen*, 2016) as they had less teething problems, for example regarding the coordination with relevant stakeholders (such as social partners and municipalities).

Sweden is also strengthening early intervention measures for asylum seekers who are waiting for a residence permit. Immediate language training is provided mainly by civil society organisations. After a pilot phase, the public employment service is going to offer a tool for self-assessment based on mapping of skills and experiences.

Box 4.3.1: **Selected highlight: refugee integration**

In response to recent migration inflows, Sweden has taken considerable action to continuously improve its practices in the integration of refugees.

The ‘Fast Track’ initiative is a particularly promising example of how to help newly-arrived immigrants, including refugees, enter the labour market faster and use their skills. Social partners and the public employment service (*Arbetsförmedlingen*) have set up a streamlined integration package that allows newly-arrived immigrants to quickly take up occupations in several sectors with labour shortages. The package is available for newly-arrived immigrants who have been or are taking part in the Introduction Programme (see main text), or who have received a residence permit in the last 3 years. A participant gets the introduction benefit or an activity grant. The Fast Track initiative combines elements of skill assessment with customised bridging programmes that include vocational language training. On completing the scheme, participants receive an occupational certificate or credential. In December 2016, more than 2 800 people had started 20 professions across 13 sectors (Arbetsförmedlingen, 2016).

A particularly interesting example is the ‘Fast Track’ for newly-arrived teachers. Six Swedish universities have jointly developed a fast-track training course for newly-arrived teachers and preschool teachers. The course is targeted at refugees and asylum seekers who hold a school or preschool teaching qualification from another country. The programme combines ‘supplementary teacher education’ at one of the universities, given partly in Arabic and partly in English, studies in Swedish and a 26-week internship at a school or pre-school. The aim is to employ these people in schools within 1 year, against the current average of 4 years. The initiative is well targeted given an already widening teacher shortage: over 70 000 children of school age arrived in Sweden in 2015, while an important number of newly-arrived adults have a background in teaching¹. In 2016, 420 newly-arrived teachers benefited from the programme and in 2017 a further 720 places will be available.²

¹ In the autumn of 2015, when work on a fast-track initiative for teachers was launched, there were close to 1 900 newly arrived adults who had a teacher qualification from their home country. Of these, there were 501 teachers in upper secondary, 1 075 in primary or/and lower secondary schools, and 247 preschool teachers.

² <http://www.regeringen.se/pressmeddelanden/2016/02/nytt-snabbspår-for-larare-och-forskollare/>
<https://www.lararforbundet.se/artiklar/fast-track-opportunity-for-newly-arrived-teachers-5746935c-ff1d-4611-913b-7cc9336ff593>

Despite ongoing work, a comprehensive approach and governance on how to recognise the qualifications of migrants are still missing.

The Swedish Council for Higher Education has been tasked with coordinating a pilot project to establish a structure for support to the recognition of prior learning and cooperation between universities. Due to a lack of common standards, many municipalities are carrying out their own validation as part of their adult education and training set-up. Vocational and informal skills are also validated at sectoral and branch level.

The new residency law may have mixed effects on labour market integration. This measure, granting 13 months of temporary residency permits to people with subsidiary protection⁽²⁷⁾ and 3

⁽²⁷⁾ Subsidiary protection is given to a third-country national or a stateless person who does not qualify as a refugee according to the Geneva Convention, but in respect of

years for recognised refugees, incentivises the take up of employment, and overall may reduce the number of jobless migrants. On the other hand, making the renewal of residency permits conditional on immediate self-sufficiency may act as a disincentive to upgrade education and develop sustainable labour market integration strategies. Therefore, the law does not appear fully in line with the long-term investment and broader inclusion approach embedded in longer term measures such as the two year Introduction Programme or the ‘Fast track’ initiatives.

whom there are substantial grounds for believing that, if they were returned to their country of origin or, in the case of a stateless person, their country of former habitual residence, they would face a real risk of suffering serious harm. As the labour market challenges faced by the subsidiary protected and refugees are similar, when the challenges regarding ‘refugees’ are mentioned, usually this is also valid for ‘subsidiary protected’. However there is a difference in the legal definition which is of relevance here.

Social policy

Lower labour market integration of the non-EU-born results in lower incomes, but severe material deprivation is not widespread. Non-EU-born people are much more at risk of poverty or social exclusion than the native-born (38.4 % versus 13.7 % in 2015). This gap, which is among the highest in Europe, is linked to their difficult labour market situation. Nevertheless, the share of non-EU-born affected by severe material deprivation (2.8 %) is one of the lowest in the EU.

Women born abroad will be particularly exposed to poverty in old age. Inactivity or on average fewer contributions mean these women may have lower pensions or may not even qualify for a (full) guarantee pension, and could have to resort to old age income support. More generally, women aged 65 and older stand out as a group with a high risk of relative poverty (European Commission, 2016a, p. 48).

The 2016 budget attempted to address poverty among the elderly. It made taxation rules more equal between employment and non-employment related incomes. Taxes are lowered for those with only basic benefits to reduce the difference in taxation resulting from the tax credit deductions introduced for employment-related income over the last decade (*jobbskatteavdraget*).

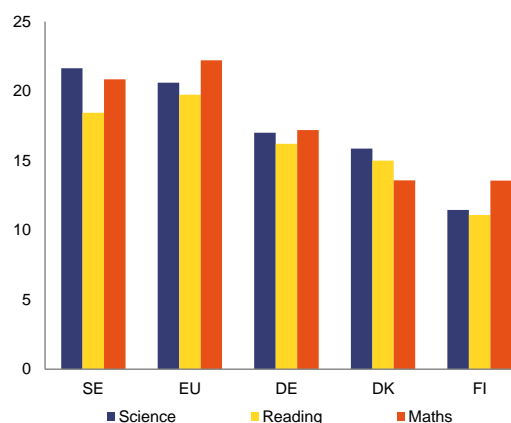
In parallel, other initiatives aim at tackling further gender gaps. Parental leave entitlements are generous with up to 480 days until the child turns 12 (384 days must be used before the child turns 4). In order to encourage earlier labour market entry of migrant women and in turn higher pensions, the parental leave inquiry has proposed to limit (as of 1 July 2017) the days of parental benefit entitlement for children entering into Sweden after the age of one. A project ‘Gender Equal Pensions’ within the special committee of the six political parties that agreed the pension reform is developing recommendations to address gender differences in pensions.

4.3.2. EDUCATION

Challenges

School education outcomes in terms of basic skills proficiency have improved after years of deteriorating performance. The 2015 OECD Programme for International Student Assessment (PISA) found that student performance had improved significantly in mathematics and reading compared to 2012, and had remained broadly stable in science. The proportion of low achievers⁽²⁸⁾ is now close to the EU average in all three core subjects but still higher than in other neighbouring countries (Graph 4.3.5). The negative trend in performance was also reversed in the 2015 Trends in International Mathematics and Science Study, another international survey of 8th grade students (aged 13-14).

Graph 4.3.5: Share of low achievers in 2015 PISA



Source: OECD

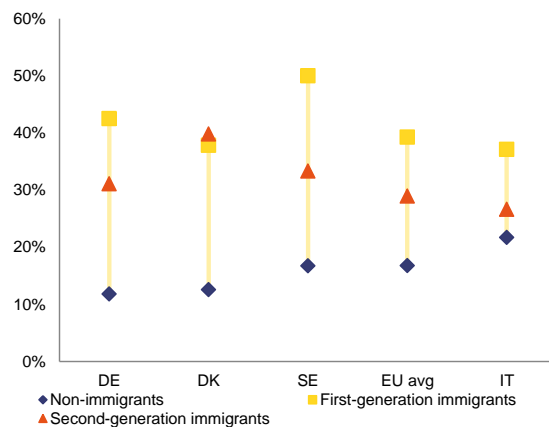
Inequalities in educational outcomes are rising. The gap has increased both between the highest and lowest-performing students and between the socio-economically advantaged and disadvantaged ones. Students in independent schools score higher than students in municipal schools. However, after accounting for the socioeconomic profile of students and schools, the result is the reverse (OECD, 2016b; European Commission, 2016b).

The performance gap between foreign-born and native-born students remains high. In PISA

⁽²⁸⁾ PISA defines ‘low achievers’ as those 15-year-old students who in basic skills score below the baseline level of proficiency that is required to participate fully in modern society

2015, one in two foreign-born students performed below the baseline level in science (Graph 4.3.6). Although the second generation (i.e. native-born with foreign-born parents) has a smaller proportion of low achievers (33.3 %), the gap in performance is still large compared to the proportion of low achievers among native-born students (16.7 %) ⁽²⁹⁾. Although the overall early school leaving rate is relatively low compared to the EU average (7 % v 11 % in 2015), there is a significant difference between native-born (5.9 %) and foreign-born (13.9 %) students. Since 2006, school outcomes have steadily deteriorated among those born abroad. This is probably due to two factors: a higher proportion of students have arrived at an older age and those who immigrated after the age of seven have increasingly come from countries with a weaker school system (Skolverket, 2016b). These poor educational outcomes later translate into a weaker labour market performance (see 4.3.1).

Graph 4.3.6: Proportion of low achievers in science by immigrant background in 2015



Source: OECD

The transition between compulsory and upper secondary schooling is also a hurdle for many foreign-born students. Upon reaching the end of compulsory schooling after grade 9 (age 16), one in two students who migrated after the age of seven do not qualify for an upper secondary 'national programme' and are directed to one of the five 'introductory programmes'. The figure

⁽²⁹⁾ After accounting for the socioeconomic profile of students, students with a migrant background are still around 2.5 times more likely to be low achievers than their native-born peers.

jumps to 72 % for those arriving in the last four years of compulsory schooling (aged 12-15), while the average among native-born students is below 10 % (Skolverket, 2015a; Skolverket, 2016c). The 'introductory programmes' were initially designed to provide additional tailored support for a small number of students having difficulties in school. However, in practice, in particular the 'Individual Alternative' programme seems not to succeed in equipping students with the right knowledge and skills by the time they leave the education system. Steering, structure and guidelines are lacking on how to organise these programmes and links between national and introductory programmes are underdeveloped (SOU, 2016b). Currently, over half of all 'Individual Alternative' students are foreign-born, often trapped in courses alongside weakly motivated native-born students (OECD, 2016a).

The large number of asylum seekers who arrived in 2015 has brought new challenges.

According to the Swedish Migration Board, 40 % of asylum seekers in 2015 were children of school age, equivalent to 3 % of Sweden's youth population. Approximately half of all newly-arrived children are aged 13 or above and many of them have a poor educational background. These students often end up in disadvantaged schools, largely as a result of residential segregation but also exacerbated by policies enabling school choice (Edmark et al., 2014). This limits interaction between foreign-born and native-born students and may contribute to slower language acquisition and limited network formation for long-term integration (OECD, 2016a).

Recruiting and retaining talented professionals in the teaching profession remains a challenge.

Teachers are leaving the profession (SOU, 2016c) and the teaching workforce is ageing: 44 % of teachers in upper secondary and 38 % of teachers in primary and lower secondary education are 50 or older. This is among the highest figures of all OECD countries (OECD, 2016c). About 60 000 new full-time teachers would need to be recruited by 2019 to meet the demand (Skolverket, 2015b). The sharp increase in the number of newly-arrived students would require the immediate recruitment of 3 200 full-time teachers at upper secondary level, according to estimates by the Ministry of Education and Research. Recruitment and retention continue to be hindered by the low

perceived status of teachers and wages below both the OECD and EU-OECD averages later in the career (10 % and 20 % respectively) (OECD, 2014b and 2016c).

Policy response

Recent measures aim at improving school outcomes and students' basic skills. The government is prioritising 'early intervention', i.e. the first years of schooling, and continues to allocate a government grant (SEK 2.3 billion or EUR 0.2 billion per school year in the 2017 budget) for the preschool class and grades 1-3 (age 7-9). Education providers and schools can use the grant to reduce class sizes and employ more primary or special needs teachers. Under the 'reading-writing-arithmetic guarantee' due to enter into force in 2018, all students should have achieved a baseline level in reading, writing and mathematics on finishing grade 3. To make the 'guarantee' work, a mandatory mapping of pupils' competences already in the preschool class and further diagnostic tests in grades 1 and 3, are proposed, together with the right to support in mathematical, reading and writing development (SOU, 2016d). The measure can potentially be both effective and cost-efficient in the long run, if implemented systematically across the school system.

Integrating the newly-arrived in the school system is a priority. All children arriving in Sweden are offered access to education within a month after their arrival. Although reception in schools is still largely left to the discretion of the local municipality and the school head, central government guidelines have started to set standards. On 1 January 2016, a regulation came into force, making skills mapping the basis for placing students in a grade and for planning their instruction. In their first year of compulsory school, newly-arrived students may be offered introductory classes to provide them with support prior to entering mainstream education. As introductory classes cannot last longer than two years and students are placed in a regular class alongside the introductory class, the system should ensure a phased transition. Overall, local autonomy enables schools to adapt to local conditions when it comes to integration. Nevertheless, autonomy is only partially supported by monitoring of outcomes, and the provision of national guidelines

on minimum requirements is scarce. Furthermore, mechanisms are lacking that could scale up effective interventions and harmonise integration support tools.

The government is increasing financial incentives to raise the attractiveness of the teaching profession. The government has earmarked SEK 3 billion (EUR 0.3 billion) per year to increase teacher salaries. As from the 2016/2017 academic year, around 60 000 qualified teachers (i.e. approximately 30 % of all teachers) will benefit from an average salary increase of SEK 3 000 (EUR 317) per month. The career development reform, launched in 2013, also provides a salary raise linked to career advancement steps for one in six teachers, i.e. SEK 5 000 (EUR 528) per month for 'first-class teachers' ⁽³⁰⁾ and SEK 10 000 (EUR 1056) per month for 'senior lecturers' ⁽³¹⁾. Although all increases in salaries are welcome, it remains to be seen how these two measures can function / be implemented simultaneously.

The government continues to support teachers' continuous professional development and aims at addressing the growing teacher shortage. Three in four teachers teaching mathematics in compulsory and upper secondary schools (over 35 000 teachers) have participated in the programme 'Boost for Mathematics' since its launch in 2012. Built on collaborative teaching, the programme has offered new tools and methods for teachers and shaped their teaching based on students' different needs (Skolverket, 2016d). Although it requires further analysis, the programme may have contributed to reversing the previous negative trend in students' mathematics performance. The government is also proposing more alternative routes into the teaching profession and is supporting the training of newly-arrived adults as teachers and mother tongue tutors (see Box 4.3.1). The government will also finance around 3 600 new study places in higher education in teacher and preschool teacher education, with a focus on teachers for Swedish as a second language. These measures may help offset the decline in the status of teacher education relative to other career choices.

⁽³⁰⁾ Teachers who stand out in their teaching practice.

⁽³¹⁾ Teachers with a licentiate degree.

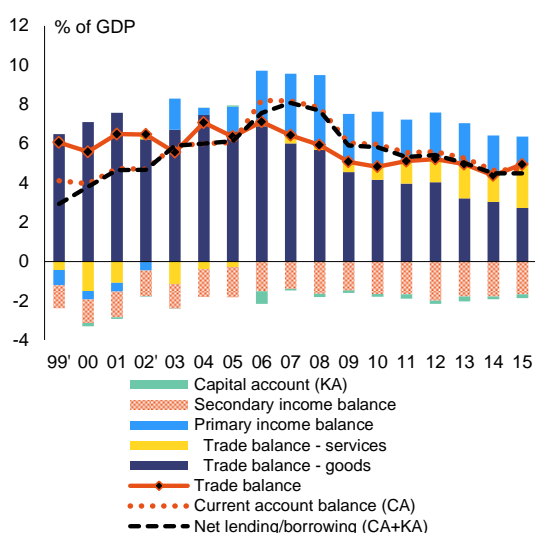
4.4. INVESTMENT

4.4.1. EXTERNAL COMPETITIVENESS

Current account

The current account surplus has remained stable at around 4.7 % of GDP, after gradually declining from its peak of 8.2 % around the 2008 financial crisis. The trade surplus from goods exports has been on a gradually declining trend over the past decade, but since 2010 a growing contribution from services trade has roughly compensated for this (Graph 4.4.1). As a result, Sweden has continued to record a relatively large current account surplus, as has been the case for over two decades.

Graph 4.4.1: Current account balance



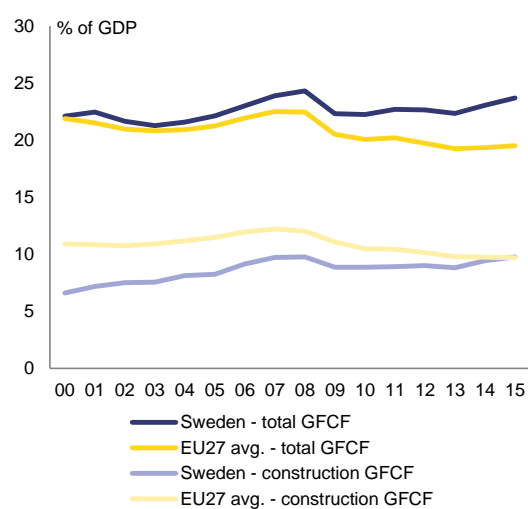
Source: European Commission

However, this headline current account level may somewhat overstate the real economic impact of the surplus. An increasing share of the surplus (over 2 pps. in 2015) stems from merchanting services and retained earnings on direct investment. This reflects the activity of Swedish multinationals abroad, with a limited relationship to domestic investment and savings decisions. Furthermore, statistical problems in accurately measuring merchanting contribute to the inconsistencies between the current account and financial account balance (European Commission, 2016a). Thus, it is not clear whether the surplus still reflects a strong net lending position.

The outward spillovers from the current account surplus via trade and financial channels seem limited. Sweden's imports and aggregate demand are growing faster than the EU average, and financial spillovers to the Baltic region have been rather modest (European Commission, 2016a). While Sweden is an important trading partner for several EU Member States, the impact of its demand on neighbouring EU partners is relatively contained. Overall, the surplus therefore does not give rise to significant external risks for other economies.

In addition, the underlying driver of the persistent current account surplus is primarily high savings, not underinvestment. Sweden is increasingly outperforming the EU average in terms of total investment level (as measured by gross fixed capital formation) and has gradually been catching up in construction investment, an area where it has historically lagged (Graph 4.4.2). Moreover, its investment rate is significantly higher than that of peer countries with similar current account surpluses and historically low housing and infrastructure investment (such as Germany, the Netherlands and Denmark). However, Sweden's relatively high investment level is exceeded by its savings rate, which has remained stable at close to 30 % since 2010.

Graph 4.4.2: Gross fixed capital formation, comparison with EU average



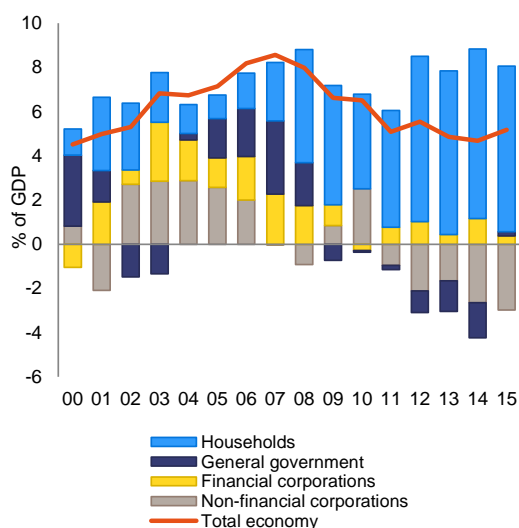
Source: European Commission

The household sector in particular has large and gradually growing net savings. In 2015,

households' contribution to net savings amounted to about 7.5 % of GDP (Graph 4.4.3), reflecting a saving rate of about 18 % of disposable income. This is mainly driven by high private pension savings, partly resulting from pension reforms in the 1990s which introduced a defined-contributions scheme that keeps public pensions constant as a percentage of GDP. This transferred more of the burden of ageing-related costs onto future pensioners, thus encouraging a shift towards higher household savings.

The strong household savings rate is also linked to households' high stock of outstanding mortgage debt. This requires sufficient savings either to gradually repay the debt, or to build a sufficient amount of income-generating financial assets to continue servicing the debt during retirement. In practice, households have mainly done the latter, as limited mortgage amortisation requirements and a tax bias favouring high debt levels discourage debt repayment (see 4.2.3).

Graph 4.4.3: Net lending/borrowing by sector



Source: European Commission

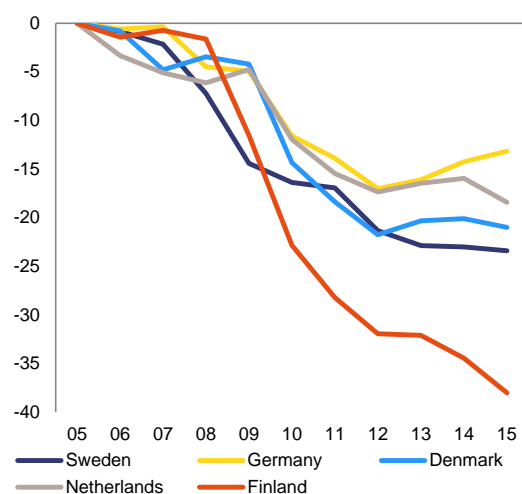
Export performance

Sweden's share of world exports has been on a steadily downward trend since the early 2000s, driven by a continued fall in goods exports market share. With the exception of 2008/2009, services exports (mainly in sectors such as information technology, communication and business services) have remained strong, especially in the post-crisis period. However, their positive

contribution to the overall export market share has not been sufficient to offset the losses from goods, which still represent about two-thirds of all exports.

This secular decline in export market share is linked to changing global trade patterns affecting many mature, industrialised economies. The cumulative loss in Sweden's share of world exports over the past 10 years amounts to about 23 %. This is broadly in line with traditional peer countries with a similar focus on high-value-added exports like Denmark and the Netherlands (Graph 4.4.4), whereas Finland experienced a much steeper decline in market share. Germany's performance has been somewhat better since the start of this decade, as the country benefited from a larger share of exports to generally faster-growing Asian markets. The underlying reason for the broader trend towards lower market shares for mature economies is the increasing volume of trade resulting from the integration of emerging economies into global supply chains, which has resulted in world trade growth outpacing export growth for many industrialised countries (European Commission, 2016a, p. 16).

Graph 4.4.4: Cumulative export market share loss since 2005 for Sweden and selected peer countries

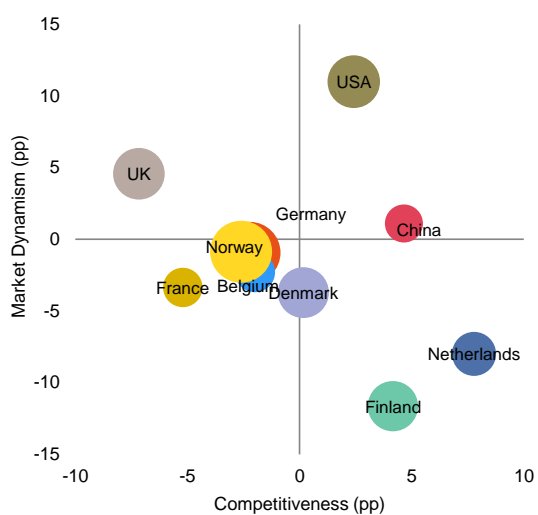


Source: European Commission

Sweden's loss of export market share has been exacerbated by a sluggish demand recovery in its key trading partners and by its specialisation in investment goods. Its geographical export focus includes several trade destinations (such as

Denmark, Finland and the Netherlands) which experienced deteriorating market dynamism, resulting in lower import growth in those countries (Graph 4.4.5). In terms of sectoral profile, the country is specialised in areas such as machinery, chemicals, pharmaceuticals and transport equipment (in addition to basic forest products such as wood and paper). Most of these products are capital goods, which suffered from particularly weak demand in the aftermath of the crisis.

Graph 4.4.5: **Competitiveness and dynamism in Sweden's top-10 goods export destinations, 2011-2015**



Note: Size of bubbles indicates weight of destination in Sweden's total goods exports. Market 'dynamism' is a proxy for demand growth in each export destination: it measures growth of total imports into a given country relative to global world imports growth. Market 'competitiveness' in this context is a proxy for Sweden's export performance to a given destination compared to competing exporters: it measures growth in Sweden's exports to a given country relative to that country's total imports growth.

Source: UN COMTRADE database, European Commission

The government has implemented a new export strategy to address the shrinking export market share. The government aims to increase exports and foreign investments (European Commission, 2016a, p. 18). Public authorities, organisations and regional actors work together in order to (i) exchange experiences on different promotion activities, (ii) identify products and services that can be promoted internationally, and (iii) stay in dialogue with the business sector. In addition, the Agency for Economic and Regional Growth (*Tillväxtverket*) coordinates the establishment of six regional export centres. Information on export markets and practical advice has been added to the one-stop shop website for businesses.

The declining export market share does not suggest any underlying fall in competitiveness. As explained before, it primarily reflects broader trends affecting many export-focused industrialised economies. This conclusion is further supported by cost competitiveness metrics: the real effective exchange rate has depreciated by about 8 % over the 3 years ending 2015 (mainly reflecting the weakening of the Swedish krona), and unit labour costs have evolved broadly in line with that of the euro area in recent years. Sweden also does well in terms of non-cost competitiveness, including via an attractive business environment and a generally strong R&D and innovation performance (European Commission, 2016a, p. 17). There is therefore no indication that the falling export market share represents deeper competitiveness problems.

4.4.2. INVESTMENT SITUATION

Investment in dwellings

Although investment in dwellings is accelerating, it remains insufficient to tackle the housing shortage. Graph 4.4.2 shows that construction investment has been gradually growing from a low starting point, and is now roughly in line with the EU average (although investment specifically in dwellings construction is still somewhat below). As discussed in 4.2.2, Sweden faces a structural housing shortage, especially in the main urban areas. Some vulnerable demographic groups, such as people from a migrant background, face particular difficulties in finding affordable housing. The housing shortage is the result of a long period of underinvestment in new construction⁽³²⁾, driven by a combination of bottlenecks (see *Supply-side issues* under 4.2.2).

Investment in infrastructure

Despite a good overall macroeconomic performance, Sweden's infrastructure investment situation compares rather unfavourably by international standards.

⁽³²⁾ The National Board of Housing, Building and Planning (*Boverket*) estimates that 710 000 new dwellings are needed in the coming 10 years, which will require a significant further pick-up in building activity.

Among EU Member States, the quality of Swedish infrastructure ranks 8th in the Global Competitiveness Report, with railroad infrastructure (15th) presenting the lowest score (World Economic Forum, 2016). The railway system could benefit from increased investment in maintenance and development in large parts of the railway network, including in cross-border connections. An inquiry regarding the organisation of the railway system from December 2015 highlighted the needs for a comprehensive strategy for the utilisation of the railway system, in particular in view of proposed investments in high-speed railway. In addition to its direct impact, infrastructure investment could also serve to improve access to new areas and open up opportunities for new residential development, thus alleviating the current housing shortage.

The government has recognised these infrastructure-related challenges in recent budget proposals and in specific investment plans for high-speed railways. While the current budget level of about SEK 9 billion (EUR 0.9 billion) per year remains in place for 2016-2018, a sizeable increase of about SEK 6 billion (EUR 0.6 billion) has been proposed for 2019 and 2020, with particular focus on maintaining infrastructure. The importance of the transport system is reflected in the National Transport Plan, in which investment in the whole transport system for 2018-2029 is planned to increase by 20 % compared to the previous planning period 2014-2025 (from SEK 515 billion or EUR 54.4 billion to SEK 622.5 billion or EUR 65.8 billion). Furthermore, in the 2016 infrastructure bill, the government stated its support for high-speed railways between the three major metropolitan regions. The government is seeking broad political support for these investments as the project would have a long-term impact on the public investment budget.

4.4.3. BUSINESS ENVIRONMENT

Companies benefit from a high-quality and competitive business environment. In several areas the country stands out, including public administration, access to finance, innovation and internationalisation by businesses. The authorities monitor progress and regularly evaluate policy

measures to ensure that challenges are identified and dealt with early on.

Sweden generally performs well in addressing regulatory barriers and administrative burdens, although a few specific challenges remain. SMEs appreciate the stability of the regulatory environment (European Commission, 2016c). Recently, the timeline to start a new business has been shortened (from 10 days to 5 days). In addition, the time to transfer property between two local companies has been halved to 14 days, and the e-business portal⁽³³⁾ is continuously expanding its services and acts as a one-stop-shop for business reporting. The good quality of public services is also reflected in the World Bank's Government Effectiveness indicator⁽³⁴⁾, where Sweden has one of the highest scores among EU Member States. In contrast, businesses perceive a lack of qualified workforce as a crucial barrier to doing business (World Economic Forum, 2016, p. 330) and to growth (Företagarna, 2016). Finally, national rules and procedures for companies to directly transfer their registered offices into and out of Sweden are missing.

With respect to its insolvency processes, Sweden broadly ranks in line with the EU average, albeit with a few specific weaknesses. According to the World Bank's Resolving Insolvency ranking (World Bank, 2016), the recovery rate in case of an insolvency is rather low (77.9 cents on the dollar, 12th in the EU) and insolvencies are time-consuming (2 years, 15th in the EU).

Sweden is one of the top performers in Europe as regards access to finance for SMEs and the authorities continue to ensure an attractive financing environment for companies. In 2016, financing conditions have further improved: SMEs registered an increased willingness by banks to provide credit according to a recent European Commission survey⁽³⁵⁾ and significantly fewer SMEs reported rejected loan applications than in

⁽³³⁾ The e-business portal is available on <http://www.verksam.se>

⁽³⁴⁾ The full set of indicators is available at: <http://info.worldbank.org/governance/wgi/index.aspx>

⁽³⁵⁾ The full results of the 2016 Survey on the Access to Finance of Enterprises (SAFE) conducted by the European Commission jointly with the European Central Bank are available at: <http://ec.europa.eu/growth/access-to-finance/data-surveys>.

2015. Fewer SMEs had difficulties in accessing public financial support schemes. In terms of venture capital and equity available to young and growing firms, Sweden scores well above the EU average. Furthermore, an inquiry launched by the government recommended that public financial instruments could better suit SMEs' needs if existing funds targeted towards SMEs were to merge, a specially designated fund to support pilot projects and SME seed funding was created, and a national development company that can serve as a fund-of-funds for growing the venture capital market was established (European Commission, 2016c). SMEs have also benefited from financial support by the European Investment Fund, which has concluded agreements with a number of important intermediaries, such as Norrlandsfonden, ALMI Företagspartner, Svensk Exportkredit and Tillväxtverket, including the Swedish Venture Initiative ⁽³⁶⁾, amounting to EUR 235 million.

administration (e.g. higher number of direct awards).

The public procurement system is generally efficient and well-functioning, apart from some specific deficiencies. The share of contract award notices with information on the contract price is very low (only 27 % compared to 96 % in the European Economic Area), which makes it impossible to establish unjustified contract modification, or whether prices paid correspond to market prices. While e-procurement — generally a transparency enhancing measure — is well above the EU average, public procurement procedures nevertheless remain insufficiently transparent in some instances. This may be particularly disadvantageous for foreign firms and SMEs, whose participation levels are indeed low by international standards: direct cross-border procurement (1.5 %) is lower than the European Economic Area average (1.8 %) and SMEs' share of the total value of public contracts awarded (19 %) is also well below average (29 %). Finally, a broader problem remains that the public procurement strategy is heavily geared towards the needs of the central administration, with serious weaknesses remaining at the level of local

⁽³⁶⁾ The Swedish Venture Initiative combines the European Structural and Investment Funds (ESIF) resources with the European Fund for Strategic Investments (EFSI). In addition to the SME initiatives, the EFSI (via the European Investment Bank) has guaranteed investments in Långmarken windmill park in Värmland, broadband networks and media digitisation of more than EUR 215 million.

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

Macroeconomic perspective

Total investment as a percentage of GDP has been above the EU average over the last decade. Even certain sub-categories such as investment in construction historically below the EU average have started to grow. Housing construction in particular has picked up strongly and was a key driver of investment growth. Investment in machinery, equipment and R&D also picked up in 2015 and 2016. Investment is expected to grow at a lower but still robust pace with capacity constraints starting to become binding in some sectors. Public investment, notably in housing, healthcare and education infrastructure, is set to accelerate in 2017.

Assessment of barriers to investment and ongoing reforms

| | | | | | | |
|--|--------------------------------------|--|--------------------------------|----------------------------|---|--|
| Public administration/ Business environment | Regulatory/ administrative burden | | Financial Sector / Taxation | Taxation | | |
| | Public administration | | | Access to finance | | |
| | Public procurement /PPPs | | | R&D&I | Cooperation btw academia, research and business | |
| | Judicial system | | | Financing of R&D&I | | |
| | Insolvency framework | | | Sector specific regulation | Business services / Regulated professions | |
| | Competition and regulatory framework | | | | Retail | |
| Labour market/ Education | EPL & framework for labour contracts | | Construction | | CSR | |
| | Wages & wage setting | | Digital Economy / Telecom | | | |
| | Education | | Energy | | | |
| | | | Transport | | | |

| Legend: | |
|---------|--|
| | No barrier to investment identified |
| | Investment barriers that are also subject to a CSR |
| | No progress |
| | Limited progress |
| | Some progress |
| | Substantial progress |
| | Fully addressed |

Barriers to investment in Sweden are generally low (European Commission, 2015d). Some reforms have been adopted in public procurement (see 4.4.3), research and innovation (see 4.5.1) and construction investment. However, there is still scope for further measures, particularly on tackling barriers for construction (see 4.2.2).

Main barriers to investment and priority actions underway

1. Investment from SMEs could benefit from more transparent public procurement procedures. The share of contracts awarded to SMEs is very low. A Public Procurement Strategy, adopted in June 2016, aims at fostering competition, stimulating innovation and developing new products and services.
2. While cooperation between academia and large corporations seems to work rather well, cooperation with SMEs could be enhanced. The new Research Bill ‘Collaborating for knowledge’ calls for increased collaboration of this kind. In addition, the recently launched Swedish Venture Initiative supports access to equity capital for early-stage high-growth enterprises, often SMEs in R&D-intensive sectors.
3. Construction investment is 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. In June 2016, the authorities put forward a 22-point plan with further measures (see 4.2.2).

4.5. SECTORAL POLICIES

4.5.1. RESEARCH, DEVELOPMENT AND INNOVATION

Sweden is one of the world's most innovative economies. The country benefits from an excellent science base, highly qualified human resources as well as from the presence of many internationally competitive firms both in the manufacturing and services sectors. Nevertheless, a slight decline has been registered in recent years in both innovation performance (European Innovation Scoreboard index: from 0.722 in 2013 to 0.704 in 2015⁽³⁷⁾) and in business R&D intensity (from 2.59 % in 2008 to 2.27 % in 2015).

For a small, open, knowledge-based economy like Sweden, it is important to remain attractive for domestic and foreign business investment in research and innovation. So far Sweden's innovation model has mainly relied on a limited number of multinational enterprises and has not fully exploited the potential of innovative SMEs and start-ups. The economy's competitiveness and innovation capacity is somewhat constrained some insufficient framework conditions for SMEs, by a lack of collaboration between SMEs and academia and faces the risk of an insufficient supply of highly-skilled human resources.

In terms of innovation-friendly framework conditions for SMEs, there remains scope to further improve the flexibility of product and services markets. Sweden's performance in the *barriers to entrepreneurship* and the *barriers to trade and investment* sub-indicators of the OECD's product market regulation indicator⁽³⁸⁾ (PMR) is not outstanding, probably due to the complexity of its regulatory procedures. Overall, the country only ranks 19th at EU level on the PMR: improvements in this area may further reduce the obstacles that innovative SMEs encounter when starting and developing their activities.

The existing open living labs culture and research and innovation (R&I) foundations system are essential to promote collaboration between universities and SMEs. Initiatives such

as the five Innovation Partnership Programmes⁽³⁹⁾ are welcome as they target systemic and challenge-driven innovation based on strong socio-political consensus with long-term goals. They are usually driven by industry actors but also involve key players of the R&I system. Their aim is to create innovative solutions to strengthen competitiveness and leverage local-national lead markets to global markets.

There is a risk that the economy's innovation performance will be hampered by an insufficient supply of highly-skilled human capital, in particular in science and engineering. The number of new graduates in science and engineering per thousand 25-34 year-olds declined from 16.8 in 2012 to 15.5 in 2014, positioning Sweden below the EU average (17.6). In addition, despite the fact many enterprises invest in ICT training for their employees, there is a shortage of employees with specialist skills in this area. This is in part linked to gradually declining educational performance: in terms of new tertiary graduates in computing per thousand 25-34 year-olds, Sweden only ranks 16th in the EU. If these trends are not reversed, Sweden may suffer from a shortage of highly-skilled human resources in science, technology and engineering in the future. This could negatively affect the productivity and innovation performance of the country, ultimately becoming a barrier to R&D investments.

The government has launched several initiatives to further improve innovation and competitiveness. The new 'Smart industry' initiative launched in 2016 aims to boost competitiveness and innovation performance in the years to come. In addition, the new Research Bill 2017-2020, which was submitted to Parliament in November 2016, is going to support both basic and applied research as well as human resources development through an additional budget of around SEK 2.8 billion (EUR 0.3 billion) in 2017-2020. A big share of this budget will go to universities (SEK 1.3 billion or EUR 0.14 billion)

⁽³⁷⁾ https://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards_en

⁽³⁸⁾ <http://www.oecd.org/eco/growth/indicatorsofproductmarketregulationhomepage.htm>

⁽³⁹⁾ The specific partnership programmes included in this initiative are (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/>

to improve researchers' careers and boost excellence in research, make universities engage in more external collaboration to tackle societal challenges, and promote gender balance.

4.5.2. ENERGY, RESOURCES AND CLIMATE

Climate policy

The All Party Committee on Environmental Objectives has developed a framework for a long-term climate policy. In June 2016 the Committee presented a comprehensive report proposing a number of long-term targets and indicators for making the country carbon-neutral by 2045. The proposed targets include a reduction of total greenhouse gas (GHG) emissions by 85 % by 2045 compared to 1990, as well as a 63 % reduction target by 2030 and a 75 % reduction target by 2040 compared to 1990 for sectors outside the EU Emissions Trading System (ETS). The Committee also suggested specific objectives for the transport sector. Its proposals are supported by a majority of parties in parliament. The government is now expected to present a climate bill to parliament.

Further emissions reductions in the transport sector are promoted through tax measures and pilot programmes. These target low-carbon emission vehicles and technologies like e.g. biofuels, which have become an important element in energy supply. By 2030 Sweden aims to reduce GHG emissions from domestic transport by 70 % compared to 2010 levels.

Sweden is expected to meet its EU 2020 GHG emissions target (covering sectors outside the ETS) by a wide margin (see Annex A). Nevertheless, CO₂ emissions from transport — accounting for 33 % of its total GHG emissions and more than 50 % of non-ETS emissions — remain a particular policy challenge.

Its current national climate and energy targets for 2020 sometimes go beyond its EU obligations. These include a 40 % reduction in total GHG emissions by 2020, compared to a 1990 baseline; at least 50 % share of renewable energy in final energy consumption; 10 % renewable energy in the transport sector; and 20 % improvement in energy efficiency.

Although Sweden is expected to overachieve its greenhouse gas target for 2020, the government intends to do more in this period. In July 2016 it announced that it will buy and cancel up to 7 million tonnes of allowances per year in the EU ETS from 2018 and onwards. It also intends to cancel any annual surplus of its annual emission allocations in 2013-2020 for sectors outside the EU ETS. The government has also increased the amount allocated for its climate investment programme to a total of SEK 3.5 billion (EUR 0.37 billion) in 2015-2020, and is leading an initiative called Fossil Free Sweden to stimulate industry and other stakeholders to phase out the use of fossil fuels.

Sweden's energy policies also contribute significantly to improving resource efficiency and emission reductions. The country has a well-developed waste policy promoting recycling and re-use, and reached a recycling rate for municipal waste close to 100 % in 2013.

Energy

A long-term energy strategy is being established based on the recommendations from a cross-party Energy Commission. The political agreement reached in June 2016 (supported by the government and three opposition parties) includes the objective to rely completely on renewable energy for electricity in 2040, while at the same time underlining that this should not be understood as a ban on nuclear energy beyond that date, reflecting a hard-reached compromise. In November 2016, a 2030 target for a 50 % improvement of energy intensity compared to 2005 was added to this agreement. The Energy Commission's final report was submitted to the government on 9 January 2017. The government is expected to submit a proposition to Parliament in 2017 based on this report.

The agreement does not explicitly cover all priorities of the Energy Union strategy. Nevertheless, it is a substantial step forward that could be used as a basis for establishing the integrated national energy and climate plan, which will be an essential element of the Governance of

the Energy Union⁽⁴⁰⁾. Concerning electricity, investment in new generation capacity is primarily incentivised through the Swedish-Norwegian certificate system for renewable energy. The Energy Commission agreed in June 2016 to remove the special production levy (*‘effektskatt’*) on nuclear energy by 2019 to improve the profitability of nuclear generation.

The energy system is characterised by very low use of fossil fuels and a high share of renewables in all sectors apart from transport, which remains predominantly dependent on oil products. At about 54 %⁽⁴¹⁾, the share of renewable energy in final energy consumption is among the highest in the EU and already exceeds the 2020 target of 49 %. On energy efficiency, Sweden has set comparably ambitious 2020 targets for both primary and final energy consumption. While energy consumption is decreasing, the country is some distance off reaching the target for primary energy in particular.

Nuclear energy together with renewables (notably hydropower) accounts for some 98 % of gross electricity generation. The electricity transmission system is well interconnected with the other Nordic countries (except Iceland) although connections with Finland could be further improved. The interconnection capacity for electricity of 25 %⁽⁴²⁾ will improve further once the NordBalt interconnector between Sweden and Lithuania becomes fully operational. The use of natural gas is limited to less than 2 % of gross inland consumption and gas security is for this reason not a major concern despite a total dependence on imports from Denmark. The PCI project Gothenburg LNG Terminal will also in due time provide a second entry point for supply to the gas grid.

The electricity market is fully deregulated and is characterised by a high level of competition on the retail market and a relatively low market concentration among generators. The wholesale market is an integrated part of the Nord Pol market and there is significant cooperation between

transmission system operators in the region. The wholesale price for electricity has increased over the last 18 months from a very low level, partly driven by the increasing global price for energy commodities such as oil and coal. It continues to be sensitive to the hydrological situation in Scandinavia (impacting hydro power). The electricity price paid by industrial consumers is among the lowest in the EU (European Commission, 2016d), which contributes to one of the lowest real unit energy costs (as per cent of value added) in the EU. Conversely, gas prices paid by industrial customers are higher than EU and OECD averages.

Environmental taxation

Sweden was one of the first countries to use green taxation and its use has been successful. While environment-related taxes as a share of GDP have not increased since 2001, this reflects the behavioural impact of these taxes, including an increased substitution towards biofuels in the transport sector and a phase-out of fossil fuels in domestic heating. The relative advantage for diesel vehicles has also eroded revenues from the higher-taxed petrol fuel as the vehicle stock has changed.

In recent years, there has been a focus on increasing contributions from carbon and energy taxes. Various reduced rates of the carbon tax on heating fuels in the non-ETS sectors have been progressively reduced and will be fully phased-out in 2018. The energy and carbon taxes on fossil fuels have been adjusted annually in line with the consumer price index since the 1990s, and for taxes on petrol and diesel this has now been complemented by introducing a schematic link to GDP growth from 2017⁽⁴³⁾. The share of taxes related to transport remains fairly modest, as is the case for environmental taxes more generally. However, the tax rate on diesel, petrol and heating oil remain among the highest in the EU.

4.5.3. TRANSPORT SECTOR

The railway system requires continued attention and investment, in particular for network maintenance and for removing

⁽⁴⁰⁾ See European Commission proposal for a Regulation on the Governance of the Energy Union, adopted on 30 November 2016; 2016/0375 (COD).

⁽⁴¹⁾ Preliminary figure for 2015, European Commission (2017).

⁽⁴²⁾ This figure is defined as the ratio between cross-border transmission capacity and installed generation capacity.

⁽⁴³⁾ Specifically, these taxes will be increased annually by an additional 2 pps. to reflect average GDP growth.

bottlenecks to cross-border traffic. The overall situation of the railway sector is broadly satisfactory: the sector is liberalised, many technical innovations (e.g. open data access) are embraced, volumes are increasing and the railway system is environmentally friendly. However, there are also persistent weak points, especially as regards the quality and robustness of rail infrastructure. Delays are a constant feature, in particular in severe weather conditions. There has been insufficient investment in cross-border connections. More generally, the growth of traffic volume has outpaced investment during the last decade, and this has opened up investment needs (see also 4.4.2).

Given Sweden's geographical location, all transport modes are important to support future export performance, and potential capacity bottlenecks need careful consideration.

In this context, maritime transport remains an important complementary transport mode as an essential part of short sea shipping within the EU intermodal chain. Following the government's action plan of 2015 for improved competitiveness of the shipping industry, the authorities introduced a tonnage tax system⁽⁴⁴⁾ from January 2017. The effects of this measure are expected to materialise over the coming years, and could be assessed based on the possible increase in the fleet, potential 'returning' tonnage under the Swedish flag and jobs created for seafarers and within the maritime cluster as a whole.

⁽⁴⁴⁾ Decision on 18.08.2016 not to raise objections (published in the *Official Journal of the European Union* on 16.09.2016)

ANNEX A

Overview Table

Commitments

Summary assessment ⁽⁴⁵⁾

| 2016 Country specific recommendations (CSRs) | |
|--|--|
| <p>CSR 1: Address the rise in household debt by adjusting fiscal incentives, in particular by gradually limiting the tax deductibility of mortgage interest payments or by increasing recurrent property taxes. Ensure that the macroprudential authority has the legal mandate to implement measures to safeguard financial stability in a timely manner. Foster investment in housing and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and by revising the design of the capital gains tax to facilitate more housing transactions.</p> <p>Address the rise in household debt by adjusting fiscal incentives, in particular by gradually limiting the tax deductibility of mortgage interest payments or by increasing recurrent property taxes.</p> <p>Ensure that the macro-prudential authority has the legal mandate to implement measures to safeguard financial stability in a timely manner.</p> | <p>Sweden has made limited progress in addressing CSR 1 (this overall assessment of CSR 1 does not include an assessment of compliance with the Stability and Growth Pact):</p> <p>No progress in adjusting fiscal incentives, i.e. changing the mortgage interest deductibility rules or property taxation.</p> <p>Limited progress on enhancing the legal mandate of the macroprudential authority. The authorities have achieved cross-party agreement on strengthening the macroprudential authority's mandate. However, concrete proposals are still to be published later in 2017, so it remains uncertain what form the new legal framework will</p> |

⁽⁴⁵⁾ The following categories are used to assess progress in implementing the 2016 country-specific recommendations:

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

- no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);
- no non-legislative acts have been presented by the governing or legislator 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 that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:

- announced certain measures but these only address the CSR to a limited extent; and/or
- presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the CSR will be implemented;
- presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR

and/or

the Member State has adopted measures that address the CSR, but a fair amount of work is still needed to fully address the CSR as only a few of the adopted measures have been implemented. For instance: adopted by national parliament; by ministerial decision; but no implementing decisions are in place.

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

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

| | |
|---|---|
| <p>Foster investment in housing and improve the efficiency of the housing market, including by introducing more flexibility in setting rental prices and by revising the design of the capital gains tax to facilitate more housing transactions.</p> | <p>ultimately take (see 4.2.2).</p> <p>Some progress on fostering investment in housing and improving the efficiency of the housing market. The authorities have put forward a 22-point plan to increase land available for development, further streamline building regulations and shorten planning lead times, and to address a number of other specific inefficiencies in the housing market (see 4.2.3). However, the timeline and precise implementation form of most proposed measures remain uncertain. In addition, no significant policy action has been taken to introduce more flexibility in setting rental prices. A temporary reform of the deferral rules for capital gains taxes on property transaction was introduced, but this will probably have limited effect (as also discussed in 4.2.3).</p> |
| <p>Europe 2020 (national targets and progress)</p> | |
| <p>Employment rate target set in the 2014 NRP: well over 80 %.</p> | <p>Employment rate (%) in 2016 (Q3): 80.5 % (2015, 80.4 %; 2014, 80.0 %; 2013, 79.8 %; 2012, 79.4 %)</p> <p>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.</p> |
| <p>R&D target: 4 % of GDP</p> | <p>3.26% (2015)</p> <p>No progress towards the target. While public R&D intensity has grown by 1.3 % per year over the 2008-2015 period, business expenditure on R&D as a percentage of GDP decreased by 1.9 % per year over the same period, resulting in a slight decline in total R&D intensity. Sweden will reach its national target for 2020 only if the trend in business expenditure can be reversed.</p> |
| <p>National greenhouse gas (GHG) emissions target: -17 % in 2020 compared to 2005 (in non-ETS sectors)</p> | <p>According to the latest projections and taking into account existing measures, the target is expected to be achieved by a wide margin: -28 % in 2020 compared to 2005. Non-ETS emissions fell by 23% between 2005 and 2014.</p> |

| | |
|---|--|
| 2020 Renewable energy target: 49 % of final energy consumption | At about 54 % (preliminary figure for 2015 ⁽⁴⁶⁾), Sweden has already exceeded its 2020 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 reduced its primary energy consumption by 5 % from 46.24 Mtoe in 2014 to 43.7 Mtoe in 2015. Final energy consumption increased by 2 % from 31.19 Mtoe in 2014 to 31.76 Mtoe in 2015. More efforts are needed to meet the indicative national 2020 targets. |
| 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 2015: 7 % (2014, 6.7 %; 2013, 7.1 %; 2012, 7.5 %). The rate has remained close to the below 7 % target. |
| Tertiary education target: 45-50 % | Tertiary educational attainment (share of population 30-34 having successfully completed tertiary education) in 2015: 50.2 % (2014, 49.9 %; 2013, 48.3 %; 2012, 47.9 %). 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 12.4 % in 2015, according to the most recent feedback from national authorities (2014, 12.6 %; 2013, 12.7%; 2012, 13.1%) The target had already been reached and the trend remains good. |

⁽⁴⁶⁾ Renewable energy shares for 2015 are approximations and not official data, reflecting the available data (04.10.2016). See the Öko-Institut Report: Study on Technical Assistance in Realisation of the 2016 Report on Renewable Energy, <http://ec.europa.eu/energy/en/studies>.

ANNEX B

MIP Scoreboard

Table B.1: **The MIP Scoreboard for Sweden**

| | | | Thresholds | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | |
|--|---|------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| External imbalances and competitiveness | Current account balance, (% of GDP) | 3 year average | -4%/6% | 6.6 | 5.8 | 5.7 | 5.5 | 5.2 | 5.0 | |
| | Net international investment position (% of GDP) | | | -35% | -5.6 | -8.0 | -14.6 | -12.7 | -0.4 | 4.1 |
| | Real effective exchange rate - 42 trading partners, HICP deflator | 3 years % change | ±5% & ±11% | -3.3 | 2.9 | 10.1 | 5.1 | -3.6 | -7.9 | |
| | Export market share - % of world exports | 5 years % change | -6% | -12.5 | -11.8 | -18.9 | -16.6 | -9.1 | -9.3 | |
| | Nominal unit labour cost index (2010=100) | 3 years % change | 9% & 12% | 8.3 | 5.6 | 4.0 | 8.6 | 6.9 | 3.6 | |
| Deflated house prices (% y-o-y change) | | | 6% | 6.4 | 0.8 | 0.7 | 4.7 | 8.2 | 12.0 | |
| Private sector credit flow as % of GDP, consolidated | | | 14% | 5.3 | 6.9 | 2.3 | 4.8 | 5.9 | 6.5 | |
| Internal imbalances | Private sector debt as % of GDP, consolidated | | | 133% | 189.0 | 190.7 | 192.3 | 192.1 | 192.9 | 188.6 |
| | General government sector debt as % of GDP | | | 60% | 38.3 | 37.5 | 37.8 | 40.4 | 45.2 | 43.9 |
| | Unemployment rate | 3 year average | 10% | 7.7 | 8.2 | 8.1 | 7.9 | 8.0 | 7.8 | |
| Total financial sector liabilities (% y-o-y change) | | | 16.5% | 2.9 | 3.4 | 5.3 | 8.6 | 13.5 | 2.3 | |
| New employment indicators | Activity rate - % of total population aged 15-64 (3 years change in p.p) | | | -0.2% | 0.0 | 0.6 | 1.4 | 2.0 | 1.6 | 1.4 |
| | Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p) | | | 0.5% | 0.8 | 0.7 | 0.4 | -0.2 | -0.1 | 0.0 |
| | Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p) | | | 2% | 5.6 | 2.6 | -1.3 | -1.2 | 0.1 | -3.3 |

Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report. For REER and ULC, the first threshold applies to euro area Member States.

Source: European Commission

ANNEX C

Standard Tables

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

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|-------|-------|-------|-------|-------|-------|
| Total assets of the banking sector (% of GDP) | 281.7 | 286.6 | 278.8 | 288.4 | 286.7 | 283.3 |
| Share of assets of the five largest banks (% of total assets) | 57.8 | 57.4 | 58.3 | 58.5 | 57.8 | - |
| Foreign ownership of banking system (% of total assets) | 8.4 | 8.6 | 8.7 | 9.6 | 9.3 | - |
| Financial soundness indicators: ¹⁾ | | | | | | |
| - non-performing loans (% of total loans) | 0.6 | 0.5 | 0.5 | 1.4 | 1.2 | 1.1 |
| - capital adequacy ratio (%) | 11.8 | 12.1 | 12.3 | 22.2 | 24.1 | 24.2 |
| - return on equity (%) ²⁾ | 10.6 | 11.3 | 11.1 | 11.8 | 11.2 | 6.4 |
| Bank loans to the private sector (year-on-year % change) | 5.5 | 3.6 | 3.0 | 5.1 | 4.4 | 7.0 |
| Lending for house purchase (year-on-year % change) | 5.6 | 4.7 | 5.4 | 6.4 | 8.4 | 7.8 |
| Loan to deposit ratio | 215.3 | 207.8 | 201.9 | 201.0 | 195.7 | 193.6 |
| Central Bank liquidity as % of liabilities | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Private debt (% of GDP) | 190.7 | 192.3 | 192.1 | 192.9 | 188.6 | - |
| Gross external debt (% of GDP) ¹⁾ - public | 17.3 | 18.0 | 18.7 | 21.9 | 20.4 | 17.1 |
| - private | 63.8 | 61.2 | 54.9 | 54.5 | 49.5 | 49.3 |
| Long-term interest rate spread versus Bund (basis points)* | -0.3 | 9.7 | 55.1 | 55.3 | 22.3 | 45.8 |
| Credit default swap spreads for sovereign securities (5-year)* | 35.7 | 36.2 | 14.3 | 9.9 | 9.5 | 14.2 |

(1) Latest data Q2 2016.

(2) Quarterly values are not annualised

* Measured in basis points.

Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: Labour market and social indicators

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 ⁴ |
|---|------|------|------|------|------|-------------------|
| Employment rate (% of population aged 20-64) | 79,4 | 79,4 | 79,8 | 80,0 | 80,5 | 81,2 |
| Employment growth (% change from previous year) | 2,1 | 0,7 | 1,0 | 1,4 | 1,5 | 1,7 |
| Employment rate of women (% of female population aged 20-64) | 76,5 | 76,8 | 77,2 | 77,6 | 78,3 | 79,3 |
| Employment rate of men (% of male population aged 20-64) | 82,1 | 81,9 | 82,2 | 82,2 | 82,5 | 83,1 |
| Employment rate of older workers (% of population aged 55-64) | 72,0 | 73,0 | 73,6 | 74,0 | 74,5 | 75,4 |
| Part-time employment (% of total employment, aged 15-64) | 25,2 | 25,0 | 24,7 | 24,5 | 24,3 | 23,9 |
| Fixed-term employment (% of employees with a fixed term contract, aged 15-64) | 16,5 | 15,9 | 16,3 | 16,8 | 16,6 | 16,3 |
| Transitions from temporary to permanent employment | 41,6 | 38,1 | 42,7 | 39,2 | 33,4 | : |
| Unemployment rate ¹ (% active population, age group 15-74) | 7,8 | 8,0 | 8,0 | 7,9 | 7,4 | 6,9 |
| Long-term unemployment rate ² (% of labour force) | 1,5 | 1,5 | 1,4 | 1,4 | 1,5 | 1,3 |
| Youth unemployment rate (% active population aged 15-24) | 22,8 | 23,7 | 23,6 | 22,9 | 20,4 | 18,9 |
| Youth NEET ³ rate (% of population aged 15-24) | 7,5 | 7,8 | 7,5 | 7,2 | 6,7 | : |
| Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training) | 6,6 | 7,5 | 7,1 | 6,7 | 7,0 | : |
| Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education) | 46,8 | 47,9 | 48,3 | 49,9 | 50,2 | : |
| Formal childcare (30 hours or over; % of population aged less than 3 years) | 32,0 | 35,0 | 34,0 | 37,0 | : | : |

(1) The unemployed are all those who were not employed but had actively sought work and were ready to begin working immediately or within 2 weeks.

(2) Long-term unemployed are those who have been unemployed for at least 12 months.

(3) Not in education, employment or training.

(4) Average of first three quarters of 2016. Data for total unemployment and youth unemployment rates are seasonally adjusted.

Source: European Commission (EU Labour Force Survey)

Table C.3: Labour market and social indicators (continued)

| Expenditure on social protection benefits (% of GDP) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|-------------|-------------|-------------|-------------|-------------|----------|
| Sickness/healthcare | 7.0 | 7.1 | 7.3 | 7.5 | 7.5 | : |
| Disability | 3.8 | 3.6 | 3.6 | 3.6 | 3.5 | : |
| Old age and survivors | 11.9 | 11.9 | 12.5 | 12.9 | 12.6 | : |
| Family/children | 2.9 | 2.9 | 3.0 | 3.1 | 3.1 | : |
| Unemployment | 1.3 | 1.1 | 1.2 | 1.3 | 1.1 | : |
| Housing | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | : |
| Social exclusion n.e.c. | 0.7 | 0.6 | 0.7 | 0.7 | 0.8 | : |
| Total | 28.0 | 27.7 | 28.7 | 29.5 | 29.0 | : |
| of which: means-tested benefits | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | : |
| Social inclusion indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| People at risk of poverty or social exclusion ¹ (% of total population) | 15.0 | 16.1 | 15.6 | 16.4 | 16.9 | 16.0 |
| Children at risk of poverty or social exclusion (% of people aged 0-17) | 14.5 | 15.9 | 15.4 | 16.2 | 16.7 | 14.0 |
| At-risk-of-poverty rate ² (% of total population) | 12.9 | 14.0 | 14.1 | 14.8 | 15.1 | 14.5 |
| Severe material deprivation rate ³ (% of total population) | 1.3 | 1.2 | 1.3 | 1.4 | 0.7 | 0.7 |
| Proportion of people living in low work intensity households ⁴ (% of people aged 0-59) | 6.0 | 6.9 | 5.7 | 7.1 | 6.4 | 5.8 |
| In-work at-risk-of-poverty rate (% of persons employed) | 6.5 | 6.8 | 6.7 | 7.1 | 7.8 | 7.1 |
| Impact of social transfers (excluding pensions) on reducing poverty | 51.7 | 49.8 | 48.5 | 45.4 | 47.0 | 46.1 |
| Poverty thresholds, expressed in national currency at constant prices ⁵ | 117228 | 117985 | 121033 | 123518 | 125495 | 129381 |
| Gross disposable income (households; growth %) | 3.0 | 5.7 | 4.2 | 2.4 | 3.8 | 3.6 |
| Inequality of income distribution (S80/S20 income quintile share ratio) | 3.5 | 3.6 | 3.7 | 3.7 | 3.9 | 3.8 |
| GINI coefficient before taxes and transfers | 43.8 | 43.9 | 43.6 | 43.9 | 44.7 | : |
| GINI coefficient after taxes and transfers | 24.2 | 24.4 | 24.8 | 24.9 | 25.4 | : |

(1) People at risk of poverty or social exclusion: individuals who are at risk of poverty and/or suffering from severe material deprivation and/or living in households with zero or very low work intensity.

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

(3) 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.

(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) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices = 100 in 2006 (2007 survey refers to 2006 incomes)

Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: Product market performance and policy indicators

| Performance indicators | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Labour productivity (real, per person employed, year-on-year % change) | | | | | | |
| Labour productivity in industry | 15.85 | 1.90 | -0.48 | 0.69 | 1.38 | 4.23 |
| Labour productivity in construction | 2.43 | -4.85 | -8.23 | -4.50 | 0.62 | 6.66 |
| Labour productivity in market services | 1.33 | 2.70 | 2.71 | 3.26 | 2.93 | 2.67 |
| Unit labour costs (ULC) (whole economy, year-on-year % change) | | | | | | |
| ULC in industry | -17.32 | 1.62 | 5.66 | 1.45 | 1.79 | -0.70 |
| ULC in construction | 0.70 | 10.27 | 10.80 | 6.71 | 1.95 | -1.66 |
| ULC in market services | -1.60 | 1.71 | 2.52 | -0.46 | -0.67 | 0.80 |
| Business environment | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Time needed to enforce contracts ¹ (days) | 314.0 | 314.0 | 314.0 | 321.0 | 321.0 | 321.0 |
| Time needed to start a business ¹ (days) | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 7.0 |
| Outcome of applications by SMEs for bank loans ² | na | 0.20 | na | 0.57 | 0.71 | 0.38 |
| Research and innovation | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| R&D intensity | 3.22 | 3.25 | 3.28 | 3.31 | 3.15 | 3.26 |
| Total public expenditure on education as % of GDP, for all levels of education combined | 6.98 | 6.82 | 7.38 | 7.43 | na | na |
| Number of science & technology people employed as % of total employment | 49 | 50 | 51 | 52 | 54 | 55 |
| Population having completed tertiary education ³ | 28 | 29 | 30 | 31 | 33 | 34 |
| Young people with upper secondary education ⁴ | 87 | 87 | 86 | 86 | 87 | 87 |
| Trade balance of high technology products as % of GDP | 0.14 | 0.11 | -0.14 | 0.09 | -0.07 | -0.11 |
| Product and service markets and competition | | | | 2003 | 2008 | 2013 |
| OECD product market regulation (PMR) ⁵ , overall | | | | na | 1.61 | 1.52 |
| OECD PMR ⁵ , retail | | | | 0.72 | 0.60 | 0.60 |
| OECD PMR ⁵ , professional services | | | | 0.77 | 0.55 | 0.55 |
| OECD PMR ⁵ , network industries ⁶ | | | | 2.30 | 2.20 | 1.87 |

(1) The methodologies, including the assumptions, for this indicator are shown in detail at:

<http://www.doingbusiness.org/methodology>.

(2) 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 scored as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or if the outcome is not known.

(3) Percentage population aged 15-64 having completed tertiary education.

(4) Percentage population aged 20-24 having attained at least upper secondary education.

(5) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail at: <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

(6) Aggregate OECD indicators of regulation in energy, transport and communications.

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.5: **Green growth**

| Green growth performance | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Macroeconomic | | | | | | | |
| Energy intensity | kgoe / € | 0.14 | 0.13 | 0.13 | 0.13 | 0.12 | 0.11 |
| Carbon intensity | kg / € | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | - |
| Resource intensity (reciprocal of resource productivity) | kg / € | 0.59 | 0.61 | 0.61 | 0.62 | 0.62 | 0.62 |
| Waste intensity | kg / € | 0.35 | - | 0.45 | - | 0.46 | - |
| Energy balance of trade | % GDP | -1.6 | -1.8 | -1.7 | -1.5 | -1.4 | - |
| Weighting of energy in HICP | % | 10.99 | 11.99 | 11.68 | 11.01 | 10.69 | 9.64 |
| Difference between energy price change and inflation | % | 2.0 | 0.7 | -3.9 | -0.4 | -2.5 | -4.1 |
| Real unit of energy cost | % of value added | 9.5 | 9.6 | 9.7 | 8.8 | 8.9 | - |
| Ratio of environmental taxes to labour taxes | ratio | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | - |
| Environmental taxes | % GDP | 2.6 | 2.4 | 2.4 | 2.4 | 2.2 | - |
| Sectoral | | | | | | | |
| Industry energy intensity | kgoe / € | 0.17 | 0.16 | 0.17 | 0.17 | 0.16 | - |
| Real unit energy cost for manufacturing industry excl. refining | % of value added | 13.5 | 13.8 | 13.0 | 12.3 | 12.3 | - |
| Share of energy-intensive industries in the economy | % GDP | - | - | - | - | - | - |
| Electricity prices for medium-sized industrial users | € / kWh | 0.08 | 0.09 | 0.08 | 0.08 | 0.07 | 0.06 |
| Gas prices for medium-sized industrial users | € / kWh | 0.05 | 0.05 | 0.05 | 0.06 | 0.05 | 0.04 |
| Public R&D for energy | % GDP | 0.04 | 0.04 | 0.04 | 0.03 | 0.04 | 0.03 |
| Public R&D for environmental protection | % GDP | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 |
| Municipal waste recycling rate | % | 48.1 | 47.3 | 47.2 | 48.7 | 49.9 | 48.0 |
| Share of GHG emissions covered by ETS* | % | 38.2 | 35.7 | 34.7 | 36.3 | 35.9 | 32.9 |
| Transport energy intensity | kgoe / € | 0.52 | 0.48 | 0.46 | 0.46 | 0.47 | 0.47 |
| Transport carbon intensity | kg / € | 1.23 | 1.13 | 1.04 | 1.01 | 0.99 | - |
| Security of energy supply | | | | | | | |
| Energy import dependency | % | 36.6 | 36.3 | 28.7 | 31.6 | 32.0 | 30.1 |
| Aggregated supplier concentration index | HHI | 20.0 | 24.5 | 16.3 | 16.6 | 21.8 | - |
| Diversification of energy mix | HHI | 0.28 | 0.29 | 0.32 | 0.30 | 0.31 | - |

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas (GHG) 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 a percentage of total value added for the economy.

Environmental taxes over labour taxes and GDP: from European Commission's database, 'Taxation trends in the European Union'.

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added (in 2005 EUR).

Real unit energy costs for manufacturing industry excluding refining: real costs as a percentage 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 000MWh 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 greenhouse gas emissions (excl. land use, land use change and forestry) as reported by Member States to the European Environment Agency.

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR).

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

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels.

Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels.

* European Commission and European Environment Agency.

Source: European Commission (Eurostat) unless indicated otherwise

REFERENCES

Almega (2016), *Förtydliganden av lönestöden för personer med funktionsnedsättning som medför nedsatt arbetsförmåga*, DS 2016:14, Stockholm.

Arbetsförmedlingen (2016), *Arbetsförmedlingens lägesbedömning av arbetet med snabbspåren*, Arbetsförmedlingen, Stockholm.

Burgert, M., D'Souza P. and Vermeulen G. (2016), 'House price and indebtedness growth in Sweden: a model-based assessment of policy options', *European Economy Economic Briefs*, Issue 21, December 2016, Publications Office of the European Union, Luxembourg.

Council of Europe, European Commission Against Racism and Intolerance (ECRI) (2012), *ECRI Report on Sweden (fourth monitoring cycle)*, CRI(2012)46, Publications Office of the European Union, Luxembourg.

Crowe C., Dell'Araccia G., Igan D. and Rabanal P. (2011), 'How to Deal with Real Estate Booms: Lessons from Country Experiences', *IMF Working Paper WP/11/91*, International Monetary Fund Publications Services, Washington, D.C.

Cuerpo, C., Kalantaryan, S and Pontuch, P. (2014), 'Rental market regulation in the European Union', *European Economy Economic Papers* 515, Publications Office of the European Union, Luxembourg.

Edmark, K., Frölich, M. and Wondratschek, V. (2014), 'Sweden's school choice reform and equality of opportunity', *IFAU Working paper* 2014:16, IFAU, Uppsala.

Emanuelsson, R. (2015), 'Supply of housing in Sweden', *Sveriges Riksbank Economic Review* 2015:2, Sveriges Riksbank, Stockholm.

European Commission (2017), 'Renewable Energy Progress Report', COM (2017) 57 final, Brussels.

European Commission (2016a), 'Country Report Sweden 2016', *Commission Staff Working Document* (2016) 95, Publications Office of the European Union, Luxembourg.

European Commission (2016b), *PISA 2015: EU performance and initial conclusions regarding education policies in Europe*, Directorate-General Education and Culture, Brussels.

European Commission (2016c), *2016 SBA Fact Sheet – Sweden*, <http://ec.europa.eu/DocsRoom/documents/20302/attachments/34/translations/en/renditions/native>

European Commission (2016d), 'Energy prices and costs in Europe', *Commission Communication* (2016) 769, Publications Office of the European Union, Luxembourg.

European Commission (2015a), 'Country Report Sweden 2015', *Commission Staff Working Document* (2015) 46, Publications Office of the European Union, Luxembourg.

European Commission (2015b), 'The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060)', *European Economy* 3/2015, Publications Office of the European Union, Luxembourg.

European Commission (2015c), *People in the EU – statistics on geographic mobility*, http://ec.europa.eu/eurostat/statistics-explained/index.php/People_in_the_EU_statistics_on_geographic_mobility

- European Commission (2015d), 'Challenges to Member States' Investment Environments', *Commission Staff Working Document* (2015) 400, Publications Office of the European Union, Luxembourg.
- European Commission (2014). 'Tax Reforms in EU Member States, 2014 Report', *European Economy* 6/2014, Publications Office of the European Union, Luxembourg.
- European Mortgage Federation (2016), 'Quarterly Review of European Mortgage Markets – Q2 2016', *EMF Quarterly Review*, European Mortgage Federation, Brussels.
- Finanspolitiska Rådet (2016), 'Svensk finanspolitik', *Finanspolitiska rådets rapport 2016*, Finanspolitiska Rådet, Stockholm.
- Finansinspektionen (2016a), *Stability in the Financial System*, Ref. 16-5491, Finansinspektionen, Stockholm.
- Finansinspektionen (2016b), *The Swedish Mortgage Market (2016)*, Ref. 16-3183, Finansinspektionen, Stockholm.
- Företagarna (2016), Småföretagsbarometern, *Riksrapporten / September 2016*, Företagarna, Stockholm.
- IMF (2016), 'Sweden: 2016 Article IV Consultation Staff Report', *IMF Country Report* No. 16/353, International Monetary Fund Publications Services, Washington, D.C.
- IMF (2015), 'Sweden, Selected Issues paper', *IMF Country Report* No. 15/330, International Monetary Fund Publications Services, Washington, D.C.
- Konkurrensverket (2015), 'Bättre konkurrens i bostadsbyggande?', *Rapport 2015:4*, Konkurrensverket, Stockholm.
- Lundberg, J. and Waldenström, D. (2016), 'Wealth Inequality in Sweden: What can we learn from capitalised income tax data?', *IZA Discussion Paper* No. 9902, IZA, Bonn.
- Skolverket (2016a), 'Samlad redovisning och analys inom yrkesutbildningsområdet', *Rapport 442*, Skolverket, Stockholm.
- Skolverket (2016b), 'Invandringens betydelse för skolresultaten', *Aktuella Analyser 2016*, Skolverket, Stockholm.
- Skolverket (2016c), *Slutbetyg i grundskolan, våren 2016*, Dnr 2016:01383, Skolverket, Stockholm.
- Skolverket (2016d). 'Slutredovisning: Uppdrag att svara för utbildning', *Regeringsuppdrag*, DNR 2011:643, Skolverket, Stockholm.
- Skolverket (2015a), 'Skolverkets lägesbedömning 2015', *Rapport 421*, Skolverket, Stockholm.
- Skolverket (2015b), *Redovisning av uppdrag om prognos över behovet av olika lärarkategorier*, Dnr U2014/4128/S, Skolverket, Stockholm.
- OECD (2017), *OECD Economic Surveys: Sweden 2017*, OECD Publishing, Paris http://dx.doi.org/10.1787/eco_surveys-swe-2017-en
- OECD (2016a), *Working Together: Skills and Labour Market Integration of Immigrants and their Children in Sweden*, OECD Publishing, Paris.

- OECD (2016b), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, OECD Publishing, Paris.
- OECD (2016c), *Education at a Glance 2016: OECD Indicators*, OECD Publishing, Paris.
- OECD (2014a), *International Migration Outlook 2014*, OECD Publishing, Paris.
- OECD (2014b), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, OECD Publishing, Paris.
- Ölcer D. and van Santen, P. (2016), 'The indebtedness of Swedish households: Update for 2016', *Sveriges Riksbank Economic Commentaries*, No. 5, 2016, Sveriges Riksbank, Stockholm.
- SOU (Statens offentliga utredningar) (2016a), *En översyn av överskottsmålet*, SOU 2016:67, Stockholm.
- SOU (Statens offentliga utredningar) (2016b), *En gymnasieutbildning för alla – åtgärder för att alla unga ska påbörja och fullfölja en gymnasieutbildning*, SOU 2016:77, Stockholm.
- SOU (Statens Offentliga Utredningar) (2016c), *Samling för skolan: nationella målsättningar och utvecklingsområden för kunskap och likvärdighet: delbetänkande*, SOU 2016:38, Stockholm.
- SOU (Statens Offentliga Utredningar) (2016d), *På goda grunder – en åtgärdsgaranti för läsning, skrivning och matematik*, SOU 2016:59, Stockholm.
- SOU (Statens Offentliga Utredningar) (2015), *Plats för fler som bygger mer*, SOU 2015:105, Stockholm.
- Sveriges Byggindustrier (2016), *De 50 största bygg- och anläggningsföretagen i Sverige efter omsättning 2015*, Sveriges Byggindustrier, Stockholm.
- Sveriges Riksbank (2016). *Financial Stability Report 2016:2*, Sveriges Riksbank, Stockholm
- World Bank (2016), *Doing Business 2017: Equal Opportunity for All*, World Bank Publications, Washington D.C.
- World Economic Forum (2016), *The Global Competitiveness Report 2016–2017*, World Economic Forum, Geneva.