



March 2019

SWEDEN

2019 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR SWEDEN

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2019 Article IV consultation with Sweden, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its March 25, 2019 consideration of the staff report that concluded the Article IV consultation with Sweden.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on March 25, 2019, following discussions that ended on February 21, 2019, with the officials of Sweden on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on March 11, 2019.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Sweden.

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March 27, 2019

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IMF Executive Board Concludes 2019 Article IV Consultation with Sweden

On March 25, 2019, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation¹ with Sweden.

Solid domestic demand supported Sweden's growth averaging 2.4 percent in 2016–18 together with a halving of the current account surplus to 2 percent of GDP in 2018. Strong job creation reduced unemployment to a post-crisis low of 6.2 percent, but wage rises remained subdued at 2.6 percent in 2018. Headline inflation at around the 2 percent target rate in 2017-18 partly reflected rising energy prices, but core CPIF inflation remained below target at an average rate of 1.5 percent in 2018, broadly unchanged from 2016. The Riksbank deferred its first interest rate increase until late 2018, raising the repo rate by 25 basis points to -0.25 percent, and the Swedish krona depreciated 4.3 percent in effective terms in 2018.

But Sweden's growth is projected to slow to 1.2 percent in 2019 due to lower global growth and weaker domestic demand. Housing investment is expected to fall after a 6 percent housing price decline in late 2017 that followed a surge in luxury apartment completions. Housing prices have since stabilized and household credit growth eased to 5.3 percent y/y in 2018. Lower growth in 2019 implies that the fiscal surplus will likely be below the budget estimate of 0.9 percent of GDP. Yet, Sweden's fiscal buffers remain strong, with public debt moderate at 38 percent of GDP. The Riksbank has stated that the next repo rate increase will likely be in the second half of 2019, provided that the economic outlook and inflation prospects develop as it expects.

Executive Board Assessment²

Executive Directors agreed with the thrust of the staff appraisal. They commended the authorities for the sound economic performance in recent years, with strong domestic demand gains driving solid economic growth, rapid job creation, and a narrowing of the current account surplus.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

² At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summing up can be found here: <http://www.imf.org/external/np/sec/misctools/qualifiers.htm>.

Directors noted, however, a softer near-term growth outlook, with downside risks from weaker global growth and domestic demand. Against this background, they encouraged the authorities to strengthen the foundations for inclusive growth, particularly through housing and labor market reforms.

In view of the heightened economic uncertainties, Directors considered that monetary policy should remain cautious and data-dependent to ensure that inflation remains close to target and that inflation expectations are firmly anchored. They agreed that the Riksbank's deferral of further rate increases until the second half of 2019, dependent on the economic outlook and inflation prospects, was appropriate.

In light of Sweden's prudent policies and strong fiscal buffers, Directors welcomed the authorities' intention to allow the automatic fiscal stabilizers to operate fully in 2019. They also supported reducing the cyclically-adjusted surplus to the new medium-term target by 2020, given little risk of overheating from the resulting small stimulus at a time of slowing growth. A number of Directors considered that higher public investment needs arising from demographic shifts or other factors could be addressed by shifts in the budget, while consideration of a temporary cut in the medium-term surplus target would need to be balanced with preserving its credibility.

Directors commended the employment gains in recent years, while noting that unemployment among the foreign-born and low-skilled remains high. They welcomed the social partners' plan for "entry agreements" to enable migrants and the low-skilled to combine work and training at reduced cost to employers. Directors encouraged the social partners to update wage formation to reflect structural changes in the economy, such as by broadening the range of sectors that set the benchmark for wage rises.

Directors encouraged comprehensive housing market reforms to improve housing affordability, thereby supporting labor market mobility and inclusive growth. In addition to liberalizing rents for newly-built apartments, Directors saw merit in phasing out rent controls, cushioning the adjustment by expanding access to the housing allowance. To promote the efficient use of existing property, Directors favored higher recurrent property taxes, including by phasing out mortgage interest deductibility. They also supported strengthening competition in the construction sector to lower construction costs.

Directors welcomed the adoption of stricter mortgage amortization requirements, while calling for risks to remain under close watch, including by collecting household level balance sheet data. They supported continued review of the adequacy of banks' commercial property risk management and the health of commercial property borrowers. Directors emphasized that the authorities should continue work to correct any remaining deficiencies in Sweden's AML/CFT framework and to strengthen regional cooperation. They welcomed the authorities' exploration of the e-Krona and encouraged assessment of the potential economic implications of the digital currency, along with regulatory options to ensure reliable and efficient private payments.

Table 1. Sweden: Selected Economic Indicators, 2016–24



SWEDEN

STAFF REPORT FOR THE 2019 ARTICLE IV CONSULTATION

March 11, 2019

KEY ISSUES

Sweden's growth is expected to slow in 2019, with material downside risks from the global economy and domestic demand. From an estimated 2.3 percent in 2018, growth is projected to slow to 1.2 percent in 2019 as dwelling investment falls, consumption growth cools, and weaker global growth impacts exports.

A data-dependent approach to monetary policy is appropriate. Although underlying inflation is expected to rise gradually, uncertainties around this outlook have widened. Deferring further monetary tightening is appropriate, pending clearer signs that inflation outlook is consistent with durably meeting the inflation target.

Automatic fiscal stabilizers should operate fully and the surplus should decline to the new medium-term target by 2020. The fiscal surplus is estimated to have declined to just under 1 percent of GDP in 2018. Slowing growth is expected to further reduce the surplus in 2019. Reducing the surplus to be in line with the 0.33 percent of GDP medium-term target by 2020 would release modest resources to facilitate reforms. The resulting small fiscal stimulus poses little risk of overheating given slowing growth.

Labor market reforms should enhance employment of migrants and the low-skilled. Together with education and training improvements, reforms of public employment services and of employment protection should aim to lower the high unemployment rates of persons born outside Sweden and of the low-skilled.

The social partners should update wage formation to reflect structural changes in the Swedish economy. Including more sectors in forming the national wage norm, could help better align average wage rises with productivity trends and inflation expectations, facilitating inflation returning to target and interest rate normalization.

Reforms to improve housing affordability are needed even as macroprudential measures help contain household debt vulnerabilities. The tightening of amortization requirements is well-targeted and its effectiveness should be monitored. Plans to eliminate rent controls on new construction should be complemented by phasing out controls on existing apartments. Reforms of property taxes and interest deductibility, together with reforms to bolster construction would durably improve housing affordability over time, supporting labor mobility and inclusive growth. Any money laundering issues in domestic institutions should be addressed, work should continue to correct any framework deficiencies, and regional cooperation should be strengthened.

Approved by
**Mahmood Pradhan
 (EUR) and Martin
 Kaufmann (SPR)**

Discussions for the 2019 Article IV consultation were held in Stockholm during February 12–21. The mission comprised Messrs. Beaumont (head), Lindquist and Misch, and Mses. Bricco and Zhang (from HQ), and was assisted by Mr. Yang and Ms. Jarin (all EUR). The mission met with Ms. Andersson, Minister for Finance; Mr. Bolund, Minister for Financial Markets and Housing; Mr. Ingves, Governor of the Sveriges Riksbank; the parliamentary finance committee; and senior officials from the Financial Supervisory Authority, National Debt Office, Kommuninvest, Public Employment Service, and the National Mediation Office. It also met with representatives of the banking sector, labor unions, enterprises, construction sector, Fiscal Policy Council, National Institute of Economic Research and academics. Mr. Östros (OED) joined the discussions.

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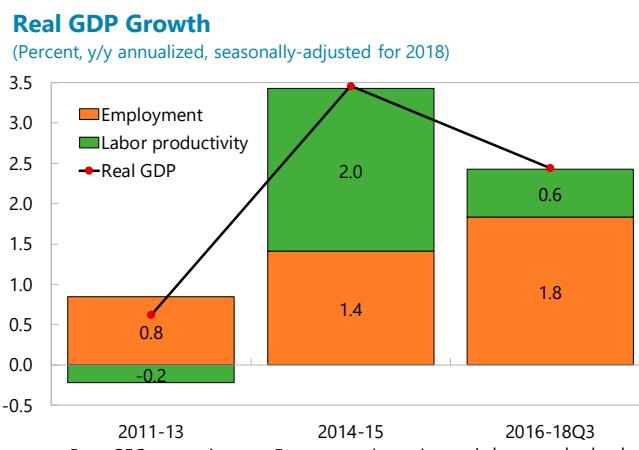
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RECENT DEVELOPMENTS

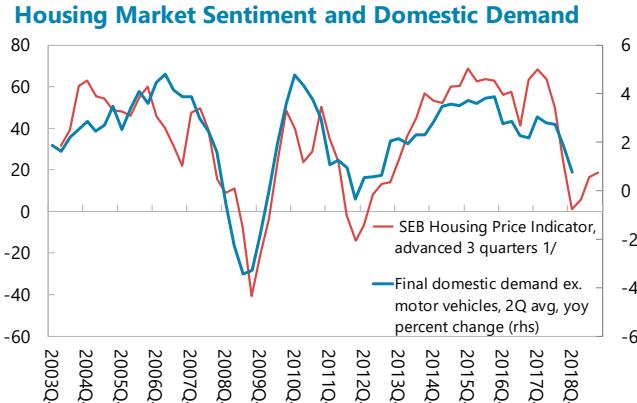
Sweden's solid growth appears to have slowed during 2018 as domestic demand cooled and exports were flat for most of the year. Wage rises remained subdued even as labor markets tightened, contributing to low underlying inflation and krona weakness. A mild decline in housing prices and slowing household lending have eased risks, yet construction is slumping despite high housing price levels, partly due to reduced availability of pre-sale financing for small developers.

1. Sweden's growth has moderated yet has still generated strong job gains in recent years. Impacted by the euro area double-dip recession, the Swedish economy stagnated in 2011–13, leading to a widening output gap and low inflation. European recovery and domestic monetary easing saw Swedish growth surge to 3.5 percent in 2014–15, with labor productivity rebounding sharply. Growth eased to a still robust 2.4 percent in 2016 to 2018:Q3, driven by domestic demand growing by around 3 percent y/y on average. Job creation accelerated as participation rose from already high levels, while labor productivity growth slowed to about 0.6 percent, a pace similar to that in other advanced economies.



Sources: Statistics Sweden; and IMF staff calculations.

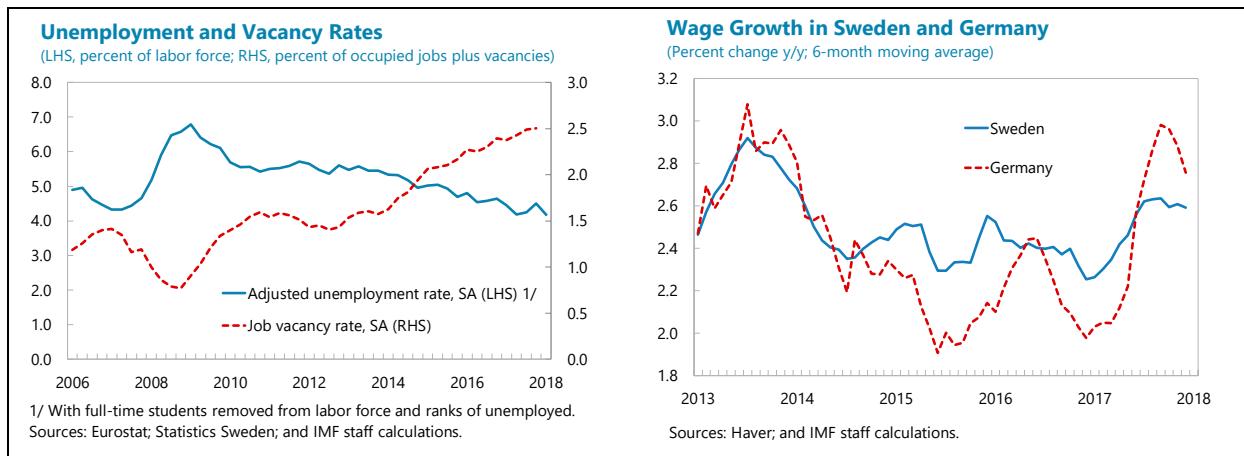
2. But weaker demand and exports are dragging on growth more recently. The third quarter saw a notable decline in domestic demand as both dwelling investment and private consumption fell, with the latter declining even excluding sharp tax-related swings in auto sales. This slowdown in domestic demand is likely partly in response to deteriorating housing market sentiment following the late 2017 housing price decline discussed below. At the same time, exports of goods were flat in 2018—until a sharp jump in Q4—consistent with global factors weakening exports in other European countries, and possibly also reflecting slowing growth in EU markets.



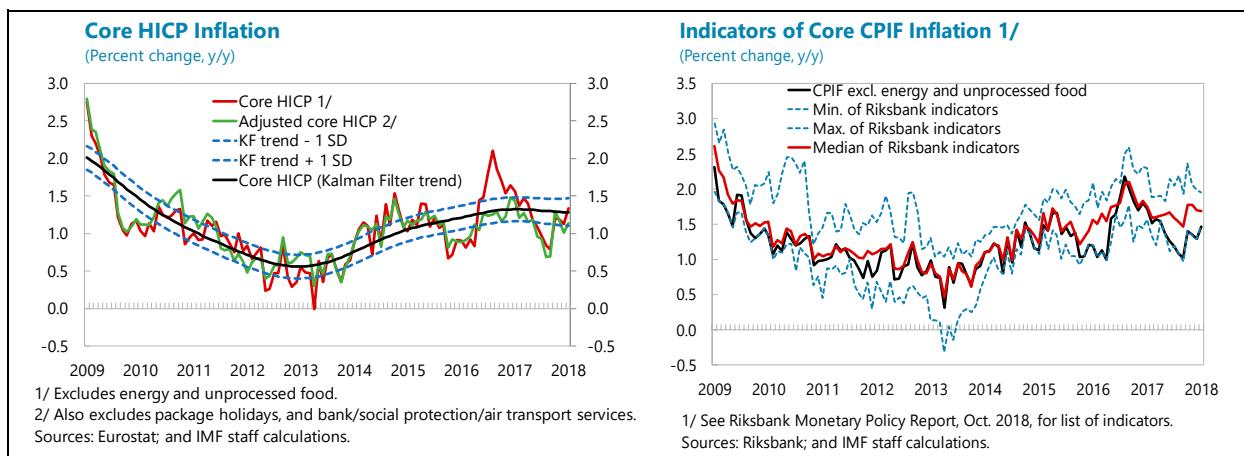
Sources: SEB, Haver Analytics, and IMF staff calculations.
Note: 1/ Share of households expecting housing price rises increases, net of those expecting decreases, in the next 12 months.

3. Despite strong employment gains, especially among the foreign born, wage growth remains low (Figure 3). Employment growth has averaged nearly 2 percent since 2015, led by 6.4 percent growth for foreign born persons, who accounted for 60 percent of employment gains.

Labor force participation (of 15–74 year olds) has increased to above 73 percent, led by a 2 percentage point increase in the participation rate of the foreign born to reach levels close to those born in Sweden. At the same time, unemployment has fallen to a post-crisis low of 6.2 percent in 2018:Q4 and job vacancy rates have risen to the highest level this century.¹ Despite this tight labor market, wage rises have only edged up to 2.6 percent y/y in 2018, from a subdued 2.4 percent y/y in 2015–17, moving similarly to German wage growth since late 2012.



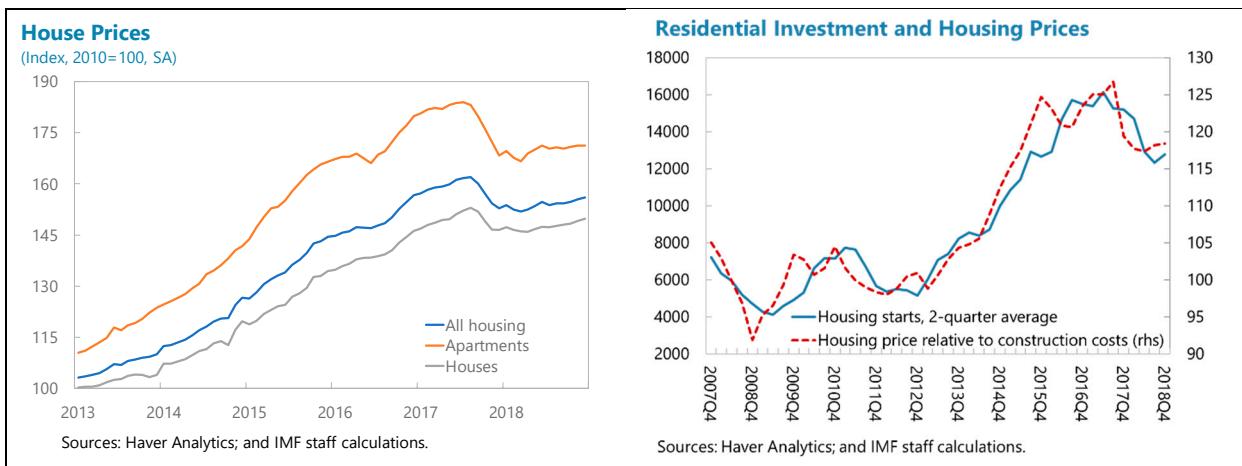
4. Underlying inflation remained broadly flat at below target rates in 2018. Headline inflation measures rose to around 2 percent from mid-2017, with energy prices playing a significant role (Figure 2).² Core HICP inflation—which excludes energy and unprocessed food—also rose to peak at 2.1 percent y/y in July 2017, only to fall back to 1.3 percent y/y by December 2018. This sharp temporary spike in core HICP inflation mainly reflects methodological changes for travel (Appendix I). An adjusted core HICP that excludes these items has been notably more stable in recent years, at around 1–1½ percent y/y, and the estimated trend in the core HICP has also been stable at 1¼ percent y/y. The Riksbank has a suite of core CPIF indicators, with the median of these running at 1.6 percent y/y, little changed from early 2017 before the impact of temporary factors.



¹ Excluding full-time students would lower Sweden's unemployment rate by about 2 percentage points.

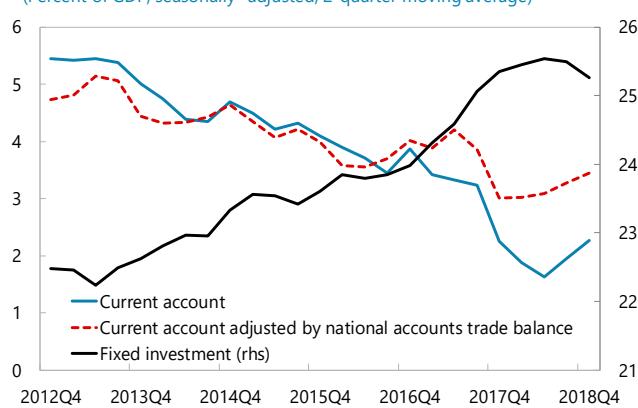
² Since September 2017, the Riksbank's inflation target is based on the national CPI with fixed interest rates (CPIF).

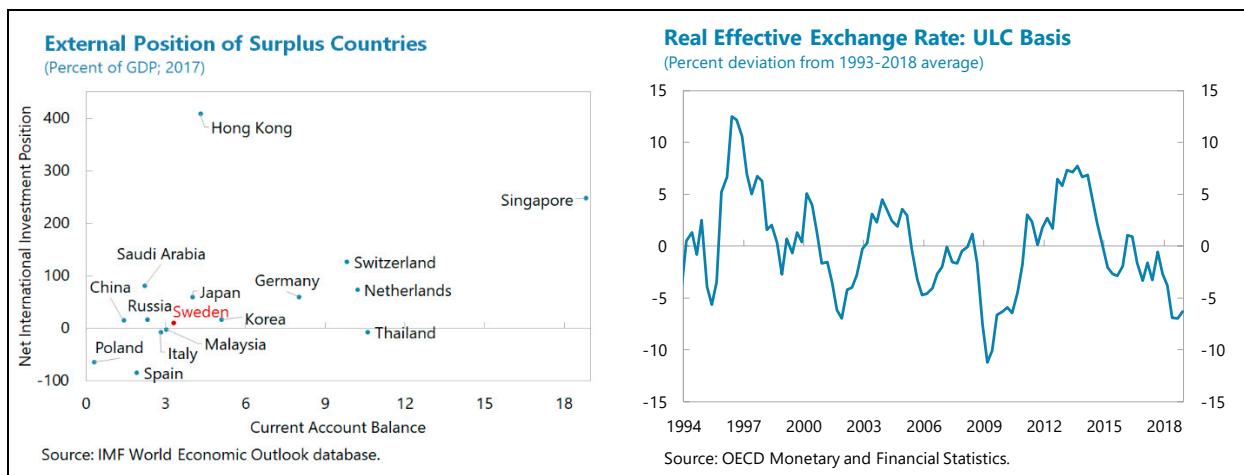
5. Housing prices went through a mild correction and housing starts have slumped even as housing price levels remain high. From their August 2017 peak, housing prices declined 6 percent in seasonally adjusted terms by end 2017, owing to a surge in apartment completions at the luxury end of the market. This price decline led to a sharp fall in household interest to purchase pre-sale rights to apartments yet to be completed. Price rises slowed to 2 percent y/y in 2018 and household expectations for housing price gains have fallen to levels well below 2013–17 norms. Relatedly, household credit growth eased to 5.3 percent y/y in December from 6.8 percent a year earlier (Figure 4). Housing starts have dropped about 16 percent in 2018—partly reflecting the reduced availability of pre-sale financing to smaller property developers—presaging the 14 percent fall in dwelling investment from 2018:Q1 to 2018:Q4.



6. The current account surplus has narrowed, but the krona remains weak. The Swedish current account balance has trended down since 2009 (Figure 8) as investment recovered to over 25 percent of GDP. From 2.8 percent of GDP in 2017, preliminary estimates are that the current account surplus fell to 2.0 percent in 2018, but this decline may be overstated given the large discrepancy between trade balance data from the national accounts and the BOP. Moreover, as factors not captured by the EBA model may also be driving Swedish savings-investment balances, assessments of Sweden's external position give greater weight to estimates from the EBA REER models and the ULC-based REER. The krona depreciated by 4.3 percent in effective terms in 2018 (Figure 5), possibly reflecting political uncertainties and prospects for slower rate hikes. The EBA REER models find an exchange rate gap of 17–19 percent in 2018, while the ULC-based REER was about 6 percent below historical average in 2018. Overall, staff assesses that the external position remained *moderately stronger* than the level consistent with medium-term fundamentals and policies in 2018 (Appendix II).

External Position and Investment (Percent of GDP; seasonally -adjusted; 2-quarter moving average)





PROSPECTS AND RISKS

7. Sweden's growth is expected to slow in 2019. Domestic demand will ease further in 2019 as lower housing starts continue to feed into investment and the consumption softening in 2018 may take time to unwind. Weaker trading partner growth prospects suggest export growth will remain low in the near-term. Overall, real GDP growth is expected fall to about 1.2 percent in 2019, before returning to near the estimated 2 percent rate of potential growth over the medium term. Unemployment is expected to remain around the current low levels with the modestly positive output gap closing by 2020. A gradual increase in inflation reflects a combination of slowly rising inflation in the euro area and some rise in Swedish unit labor cost growth, in part reflecting a recent pick up in German wages. Eventual interest rate normalization will likely be associated with some krona appreciation. Medium-term projections for the current account surplus to stabilize at around 3 percent of GDP are consistent with prospects for the age structure of the population (Appendix II).

Selected Macroeconomic Indicators							
(y/y percent change, unless noted otherwise)	2015	2016	2017	2018	2019	2020	2021
GDP	4.5	2.7	2.1	2.3	1.2	1.8	1.9
Domestic demand	4.2	3.2	2.7	2.0	1.1	1.9	2.1
Fixed investment	6.7	4.2	6.0	3.3	0.0	2.2	3.2
Exports of G&S	5.7	3.0	3.2	3.5	1.7	2.5	2.8
HICP core inflation (e.o.p)	1.2	0.9	1.6	1.3	1.5	1.5	1.8
Unemployment rate (percent)	7.4	7.0	6.7	6.3	6.3	6.3	6.4
Output gap (percent of potential)	0.3	0.5	0.9	1.2	0.3	0.1	0.0
Current account (percent of GDP)	4.1	3.8	2.8	2.0	2.4	2.5	2.6

Sources: IMF WEO, Riksbank, Swedish Ministry of Finance, Statistics Sweden, and Fund staff calculations.

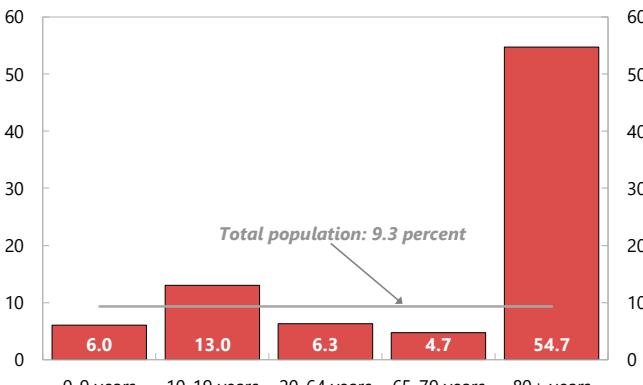
8. Downside risks to growth have increased. The fall in dwelling investment could exceed projections, depending in part on how the construction sector responds to the reduced availability of pre-sale financing. Weaker-than-expected global growth could stem from several factors, including a sharp tightening of global financial conditions and trade disruptions—perhaps related to

a no-deal Brexit—with growth vulnerabilities in the euro area particularly relevant (Appendix VI). Although goods exports are equivalent to over one-quarter of Sweden's GDP, analysis suggests that the direct impacts of tariffs are modest, with potential declines in global growth having most impact.

9. Although the housing market has cooled, household debt remains a macroeconomic vulnerability, and commercial property risks could be emerging. Aggregate household debt levels are not especially high (Figure 6), with the average loan-to-value ratio of 55 percent (and 67 percent for new loans) buffering house price declines. Although the risk of such declines appears to have moderated, vulnerabilities persist such as potential spillovers from financing difficulties among smaller property developers.³ [Analysis](#) by the Finansinspektionen (FI) finds households have sizable buffers against interest rate and other shocks, limiting the impact on debt service to banks. However, a macroeconomic vulnerability remains from the portion of households with high debt relative to their income (see section E), who may reduce consumption and reinforce an economic downturn, especially as almost three-quarters of mortgages have variable rates. Commercial property prices have been rising rapidly and valuations appear stretched by historical standards, although rental yields remain favorable relative to bonds which may reduce risks (Appendix III). However, a scenario with prolonged low inflation and interest rates could promote housing and commercial property price rises and exacerbate debt vulnerabilities.

10. In the next decade, Sweden also faces significant demographic shifts at both ends of the age spectrum. Sweden's old age dependency ratio is relatively high, but the increase in coming decades is at the lower end (Appendix V). However, the population over 80 years old is expected to rise 55 percent by 2030 while the total population rises 9 percent. The cohort aged 10–19 years also rises relatively quickly. In addition to having significant fiscal costs, these demographic shifts require higher employment in social services (section D).

**Population Growth from 2018 to 2030, by Age Cohort
(Percent)**



Sources: Statistics Sweden; and Ministry of Finance.

Authorities' Views

11. The authorities also expect growth to slow, with the Riksbank projecting growth at 1.3 percent in 2019, and they saw similar risks to the outlook with uncertainty regarding the strength of global and domestic demand. The Riksbank agrees that the Swedish krona could be weaker than its long-term equilibrium, but there is substantial uncertainty surrounding the exchange rate in the longer term. Estimates from October 2018 imply that the krona can be expected to appreciate by about 5–15 percent in real terms over the next 5–10 years.

³ Staff estimates an overvaluation of only 2 percent in 2018:H2 based on the methodology in Nan Geng, 2018, "Fundamental Drivers of House Prices in Advanced Economies," IMF Working Paper, 18/164.

POLICY DISCUSSIONS

12. The recently-formed government has agreed a reform agenda to promote inclusive growth while maintaining Sweden's prudent fiscal policy. Based on the "[January agreement](#)" with two center-right parties, a minority coalition government was formed in January following elections in September 2018. Some of the agreed measures will be adopted in the forthcoming Spring budget and the budget for 2020, but most reforms will be further developed and implemented during the term of the government. Key policy elements of the agreement include:

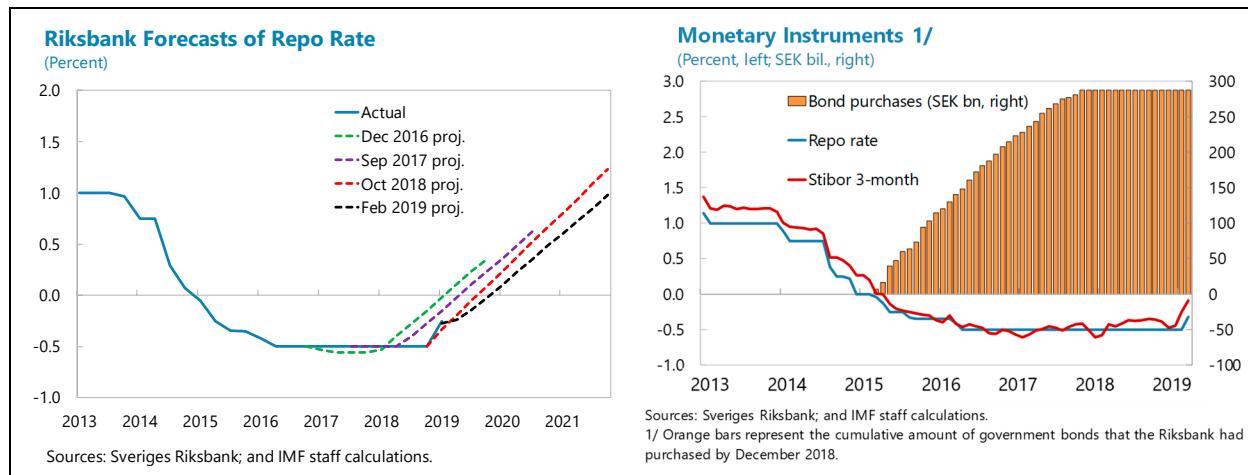
- **Fiscal:** while observing the medium-term fiscal framework, environmental taxes are to be raised to finance income and payroll tax cuts, an austerity-related levy on high incomes is to be abolished, and taxation and regulations for micro-enterprises will be simplified.
- **Labor market:** the social partners are asked to review employment protection, especially for SMEs, while maintaining legal certainty and protection against arbitrariness. The Public Employment Service is to be reformed to use private contractors for job placement.
- **Migrant integration:** training for refugees, including in Swedish, is to be intensified and citizenship will include a Swedish language test.
- **Housing:** liberalization of rent controls on new apartments is envisaged together with abolishing interest on deferrals of capital gains taxes on housing to facilitate mobility.

This consultation focuses on (i) labor markets including wage responsiveness at macroeconomic and sectoral levels (section B); (ii) housing markets including high housing prices (sections C, D, and E); and (iii) fiscal challenges, including demographic prospects in the coming decade (sections B and D).

A. Monetary and Exchange Rate Policies

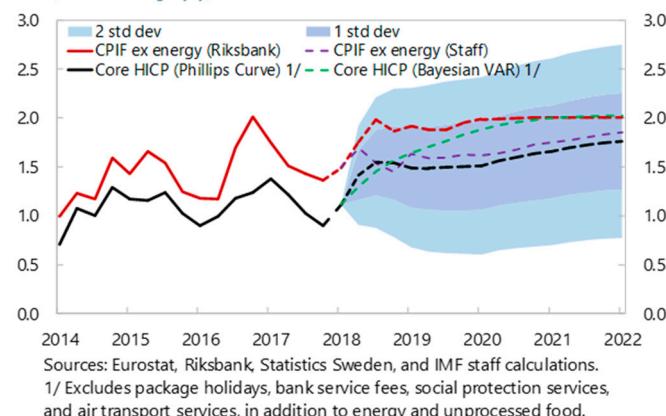
13. Monetary policy remains accommodative following the hike in the repo rate in late 2018. At the time of the 2017 Article IV consultation, the Riksbank expected to begin rate increases in mid-2018, but the first hike of 25 basis points was deferred until year end, lifting rates to -0.25 percent. The Riksbank noted that the need for highly expansionary policy had decreased slightly with headline inflation and expectations established around 2 percent. At the same time, it emphasized that policy stimulus will be decreased slowly and it further lowered forecasts for the repo rate. For similar reasons, in February 2019 the Riksbank's Executive Board chose not to extend a mandate that facilitated rapid intervention on the foreign exchange market, that had originally been adopted in early 2016 to signal its willingness to act if exchange rate developments put its price stability objective at risk.⁴ The Riksbank concluded government bond purchases in December 2017, having acquired some 40 percent of outstanding Swedish government bonds. Reinvestments of principal and coupon payments will continue until further notice.

⁴ The Riksbank remains able to intervene in the foreign exchange market with the approval of the Executive Board.



14. Inflation is expected to increase gradually, but significant uncertainty remains around the timing of durably reaching the inflation target. Aided by recent krona depreciation, the Riksbank projects CPIF excluding energy inflation to rise from 1.5 percent in 2018 to 1.9 percent in 2019, and to remain around that level subsequently. Staff expects a more gradual return to target, inflation reaching 1.7 percent by end-2019, and then rising toward the 2 percent target by 2021–22.⁵ This gradual inflation rise reflects projections for euro area inflation and an assumption that the recent increase in German wage growth continues, which, along with tight labor market conditions, would lift Swedish wage rises over time. The significant uncertainty around this central inflation outlook partly reflects uncertainties around euro area growth and inflation, including German wage rises.

Core Inflation Projections (Percent change, y/y)



15. A data-dependent approach to monetary policy should continue in view of these uncertainties. Headline inflation measures and inflation expectations have risen close to target in recent years. But, with underlying inflation low and expected to rise only gradually, headline CPIF inflation could fall below target during 2019, depending on global and domestic developments. It is essential to keep inflation expectations well anchored, especially with the next round of centralized wage negotiations approaching in early 2020. It is therefore appropriate that the Riksbank has deferred further rate increases until the second half of 2019, and has made them conditional on the economic outlook and inflation prospects evolving as it expects.

16. The innovative evaluation of issuing a central bank digital currency (CBDC) is garnering global attention. Cash usage in Sweden has fallen dramatically, with most payments made via

⁵ The staff projection for CPIF ex. energy is based on models of adjusted core HICP inflation, which was 1.1 percent in 2018:Q4 and is projected to rise by about one-quarter of a percentage point per annum in coming years.

credit/debit cards or mobile phones using [SWISH](#) (Appendix VII). Increasingly, retailers and even bank branches no longer accept cash, making it less attractive. The potential for a few private providers to dominate payments without a viable alternative prompted the Riksbank to launch the [e-krona project](#) in 2017 to evaluate over a few years the issuance of a CBDC. This work has included an initial assessment of the demand for e-krona, at roughly 1–2 percent of GDP.⁶ An exploration of financial stability implications notes that banks would be no more vulnerable to institution-specific deposit runs, as they already face the risk of deposit transfers to other banks. In further work, the authorities should also explore regulatory options to ensure reliable and efficient private payments, such as standards for business continuity and regulation of fees.

Authorities' Views

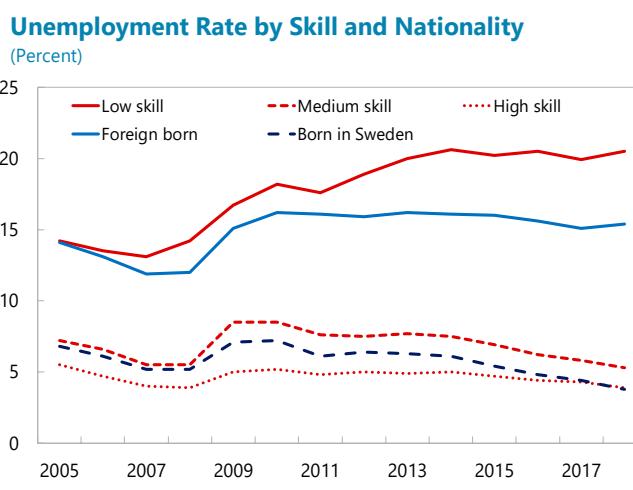
17. The Riksbank shared similar views on monetary policy, especially regarding the need to take into account uncertainty around developments abroad, the strength of domestic demand and the sustainability of underlying inflation pressures. Regarding an e-krona, consultation responses on the Riksbank's second e-krona report indicate a need to involve a wider set of institutions and additional policy measures in further analysis of how to address challenges from changes in payment patterns and payment markets in Sweden. Since this issue is of considerable importance, a broader inquiry into the challenges posed by the changes in the payment landscape may be warranted, including the possible role of an e-krona.

B. Labor Market Policies

18. Sweden has adopted labor market reforms in recent years, but challenges remain.

Seeking to raise employment of the low-skilled and migrants, the budget for 2018 boosted resources for education and streamlined active labor market policies with the aim of increasing employer participation.

Nonetheless, unemployment rates of the foreign born and low-skilled much exceed that of natives, partly reflecting high minimum wages in collective agreements and relatively strict employment protection.⁷ Despite Sweden's free floating exchange rate, nominal wage rises have become closely linked to those in Germany, with implications for inflation and monetary policy, and rigidities in relative wages impede mobility across sectors.⁸



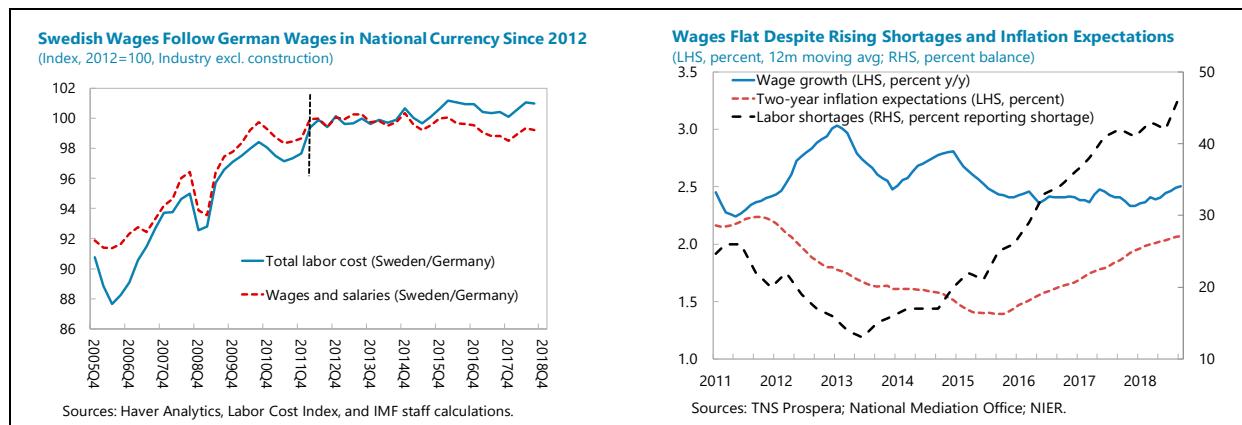
⁶ Sveriges Riksbank, [Economic Review 2018:3](#), Special issue on the e-krona.

⁷ Giang Ho and Kazuko Shirono (2015), [The Nordic Labor Market and Migration](#), IMF Working Paper WP/15/254.

⁸ The role of German wages in Swedish wage formation is analyzed in "Recent Wage Moderation in Sweden" in the [2017 Article IV Selected Issues paper](#). Box 1 of this paper provides a fuller description of wage formation in Sweden.

19. Further reforms, including of employment protection and public employment services, should support employment of the low-skilled and migrants, aided by enhanced education and training. The social partners' plan for [entry agreements](#), which is to be implemented in 2020, will help address these challenges by providing jobs for migrants and the long-term unemployed at a lower cost to employers as salaries will be supplemented by a state benefit for up to two years. Participants can take part in training courses agreed with the employer, including in Swedish, with the aim of gaining a permanent, full-time position with the employer. It is also important that the "January agreement" includes steps to strengthen the integration of migrants together with measures to enhance education and training. When the social partners review employment protection in collective agreements, in addition to considering increased exceptions for small- and medium-sized enterprises, other steps to facilitate labor market entry by the low-skilled and migrants should be evaluated, such as extending trial periods. Reforms of the Public Employment Service to use private providers for job placement need to be carefully designed and monitored to improve job matching and work skills development to ensure that migrants and other more difficult cases are not left behind.

20. Wage formation led by the industrial sector seeks to protect competitiveness. The agreement between industrial sector employers and unions sets a benchmark wage rise that other sectors are expected not to exceed, despite the industrial sector employing only 11 percent of workers. This centralized agreement is the principal wage driver, as "wage drift" over the agreement has declined notably. In practice, since 2012 nominal wages have remained quite stable relative to those in Germany (see chart) as the industrial sector seeks to maintain international competitiveness.⁹ In recent years the resulting wage rises have been subdued relative to the tightening of labor markets and rising inflation expectations. This has contributed to prolonging low inflation and low interest rates, which may also weaken the krona.



21. The social partners should consider updating wage formation to reflect structural changes in the Swedish economy, including the rise of other sectors such as services. One option is to broaden the range of sectors that set the benchmark for wage rises, with the National

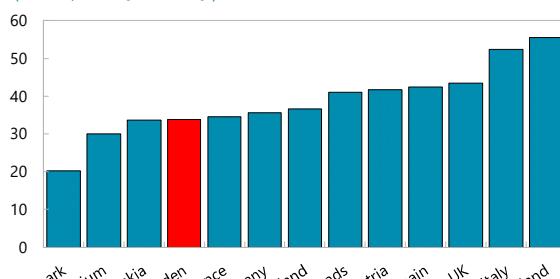
⁹ In practice, Sweden's free floating krona implies that matching Swedish nominal wage growth to that in Germany is not sufficient to stabilize relative ULC and maintain competitiveness.

Institute for Economic Research continuing to provide information to the social partners. Such an approach would likely tighten wage linkages to domestic economic trends such as inflation expectations, productivity, and business profitability, enhancing Swedish macroeconomic stability.¹⁰

22. Scope for wage variation across sectors should also be increased. Sweden's

pattern bargaining tends to limit wage differentiation across sectors, limiting flexibility to adapt to shifting labor demand including from demographic change.¹¹ To facilitate greater flexibility at the sectoral level to deviate up and down from the national benchmark, the [mandate](#) of the National Mediation Office in mediating sectoral wage negotiations should be amended to drop adherence to the industrial sector wage benchmark, to enable greater focus on its goals for real wage growth, higher employment, reducing labor market conflicts, and facilitating changes in relative pay.

Sectoral Wage Differentiation 1/
(Percent, 2017 Q2 - 2018 Q1)



Sources: Eurostat; IMF staff calculations.

1/ Standard deviation across sectors of sectoral average wages measured in percent of the national average wage.

Authorities' and Social Partners' Views

23. While recognizing the need for further progress on labor market challenges, such as decreasing the large differences in unemployment between domestic and foreign born, the authorities noted that Sweden's integration framework along with a high level of general welfare, such as the right to daycare, had contributed to labor participation rates among the foreign-born that were relatively high compared with national averages in European countries. The authorities are alert to "cherry picking" and other risks in using private employment services and they intend to study international experience on how to mitigate such problems. Unions emphasized that Sweden's employment protection was more flexible in practice than might appear, and they agreed that mediators sought agreements—including the value of terms and conditions—near the industrial wage benchmark. The social partners saw no barrier to broadening the range of sectors setting the wage norm, but they noted that the current system had delivered positive results in terms of employment, real income growth, and low labor disputes in the past two decades.

C. Housing Policies

24. High housing prices and high market rents increase vulnerabilities and inequality.

Despite their recent moderation, house prices have tripled in real terms since the mid-1990s, lifting the price-to-income (PTI) ratio to almost 30 percent above its 20-year average, with Stockholm's PTI nearly twice the national average and among the highest worldwide. New purchasers must take on

¹⁰ The OECD notes the possibility to take account of productivity and price developments in all tradable sectors, page 109 in [Employment Outlook 2018](#).

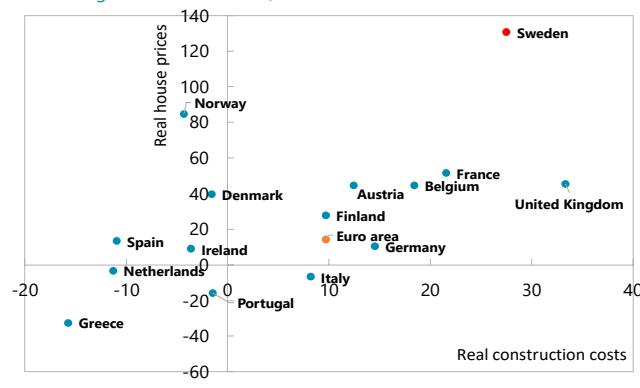
¹¹ See Swedish Labor Policy Council, 2016, [Time for Larger Wage Dispersion?](#)

high debts relative to income (DTI), typically at floating rates, a macrofinancial vulnerability (section E). Moreover, long queues for rent-controlled apartments meant that those unable to purchase housing had to pay much higher rents on subletted or newly constructed apartments, that are estimated to be 65 percent higher on average. An “insider-outsider” problem arises as labor mobility to the main centers is most impaired for those without parents able to assist with large down payments, impeding growth and exacerbating intergenerational and regional inequality.¹²

25. The “January agreement” includes promising steps but comprehensive housing reforms are needed given the scale of the problem. Key elements of a reform package include:

- **Making the rental market work:** in addition to fully liberalizing rents of newly constructed apartments, there is a need to phase out existing controls. A common approach is to apply market rents when there is a change in tenant. Access to the housing allowance could be expanded to cushion this adjustment (see below), while also applying a temporary “windfall” tax on significant rental income gains. To help reduce market rents more quickly, rental supply should be increased, such as by reducing impediments to sub-letting and to households renting out their own apartments, while containing macrofinancial risks from buy-to-let housing.
- **Taxing property to rebalance the housing market:** Sweden’s property tax was capped in 2008 to be among the lowest in the OECD, limiting the cost to households of occupying housing beyond their needs. A broad-based increase in the ceiling on the property tax would be most efficient, but an increase targeted to the main centers could be considered to incentivize mobility where it is most needed. Abolishing the interest on deferrals of capital gains taxes will help ease deterrents to mobility. An additional step to be considered is to tax only a portion of the capital gains on primary dwellings. Implementing a phase out of mortgage interest deductibility—which boosts housing demand and prices—would have limited impact on household finances currently given the low level of interest rates.¹³
- **Producing housing that is affordable:** it is important to simplify the planning process to reduce the cost of construction which have risen by over 28 percent in real terms over the past 15 years, compared with 10 percent in the euro area. Productivity in the construction sector should be enhanced by strengthening competition, including by harmonizing land sale procedures across the municipalities and preventing requirements beyond national building standards in the

House Prices and Construction Costs
(Percent change from 2002 to 2017)



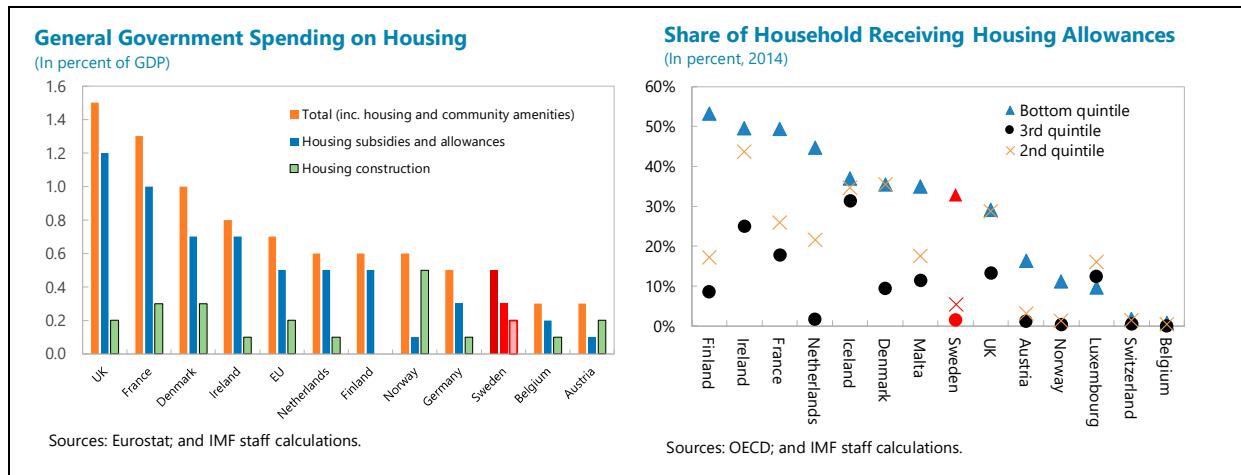
Sources: Eurostat, Haver Analytics, OECD, and IMF staff calculations.

¹² On housing prices impediments to labor mobility, see Poghosyan, 2018, “Regional Labor Mobility in Finland,” IMF WP/18/252, and Hsieh and Moretti, 2015, “Housing Constraints and Spatial Misallocation,” 21154, NBER.

¹³ See studies of distributional effects of lower MID and higher property tax by the Swedish Fiscal Policy Council.

approval process. The government should also expand existing subsidies for construction of affordable rental apartments, together with those for student and elderly housing in view of changing demographics.

26. Protecting households in the transition is important to help build broad consensus on comprehensive reforms. On average, the share of rental expenditure in disposable income would increase from 24 percent to 31 percent, with most impact on households in the lowest income decile, which could be cushioned by expanding payments under the existing housing allowance. However, this allowance is seldom paid to households in the second or third income quintiles, contributing to relatively low total expenditure on housing allowances in Sweden. There is a need to review the coverage and amounts of housing allowances to give confidence that a transition to market rents will be manageable.



Authorities' Views

27. The authorities recognize the long-standing structural weaknesses in the Swedish housing market. They emphasized that housing policies were politically contentious in Sweden, limiting the feasibility of some reforms that could be most effective in principle, such as raising property taxation. Nevertheless, implementing the measures included in the “January agreement” during the term of the government would represent a step forward.

D. Fiscal Policy

28. Sweden should maintain its practice of allowing full operation of automatic fiscal stabilizers.¹⁴ A surplus of about 0.8 percent of GDP is expected in 2018, implying a cyclically-adjusted surplus of about 0.5 percent.¹⁵ Public debt is projected at 38 percent of GDP in 2018, declining in a baseline scenario to below 30 percent by 2024 (Appendix IV) such that Sweden has substantial fiscal space were it to be needed. During the process of forming a new government,

¹⁴ Sweden's automatic stabilizers are relatively strong (see Figure 2.2 in the [2015 Spring Fiscal Monitor](#)).

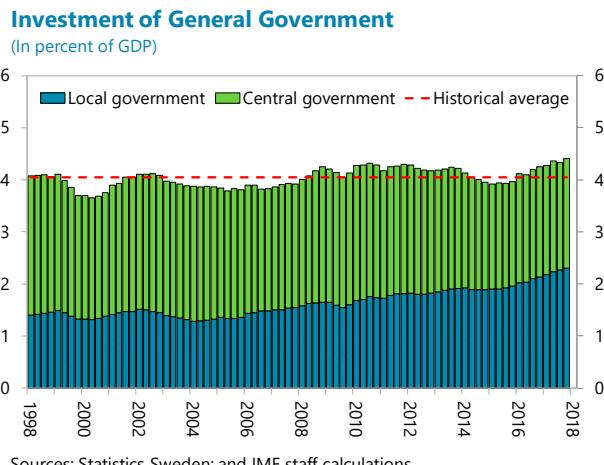
¹⁵ Fiscal data for 2018 are not yet available and estimates are subject to uncertainty. The National Institute of Economic Research estimates a decline in the structural fiscal balance of 0.3 percentage points in 2018 after adjusting for cyclical changes in the composition of tax base.

the parliament approved a 2019 budget proposed by the Alliance of center-right parties, which included modest tax cuts (0.3 percent of GDP). Given the subsequent reduction in the growth outlook for 2019, the surplus will likely be below the original estimate of 0.9 percent of GDP as the automatic fiscal stabilizers come into play. Sweden's practice of allowing these stabilizers to operate fully is especially useful given the downside risks to growth in 2019.

29. A lower medium-term surplus target is in effect from 2019. In 2016, Sweden modified its fiscal [framework](#), to lower the medium-term fiscal surplus target from 1 percent of GDP to 0.33 percent, with effect from 2019, and it also established a debt benchmark of 35 percent of GDP.¹⁶ This reduction in the surplus target still allows Sweden to maintain prudent fiscal buffers against adverse economic shocks. In particular, meeting the surplus target implies that the net financial worth of the general government, of 27 percent of GDP in 2017, will be broadly stable, declining only a few percentage points over 10 years in baseline projections.

30. Transitioning to the new medium-term target by 2020 would release modest resources to facilitate structural reforms to support inclusive growth. Undertaking this small stimulus (about 0.2 percent of GDP) in the next few years entails little risk over overheating given the low level of inflation, especially with domestic demand expected to slow. Staff assumes the surplus would be reduced to about 0.5 percent of GDP in 2019, mostly reflecting lower growth, but much depends on the specific measures adopted in the Spring budget and when they become effective.

31. Looking further ahead, a temporary cut in the surplus target could help address higher public investment needs from demographic shifts or other sources. Demographic changes in the coming decade are relatively rapid.¹⁷ Studies by the [Ministry of Finance](#) and the [Swedish Association of Local Authorities and Regions](#) indicate needs for at least 1,400 additional schools, 700 housing facilities for the elderly, and 93 healthcare facilities through 2026. Major infrastructure investments such as new railway lines are also being considered. If these factors raise public investment beyond past norms (see chart), a temporary cut in the medium-term surplus target should be considered.



Authorities' Views

32. The authorities confirmed that Sweden would allow the automatic fiscal stabilizers to operate fully. They noted that the transition to the new medium-term fiscal target had started in 2018, such that the remaining resources to be released from this transition were small. Preparations

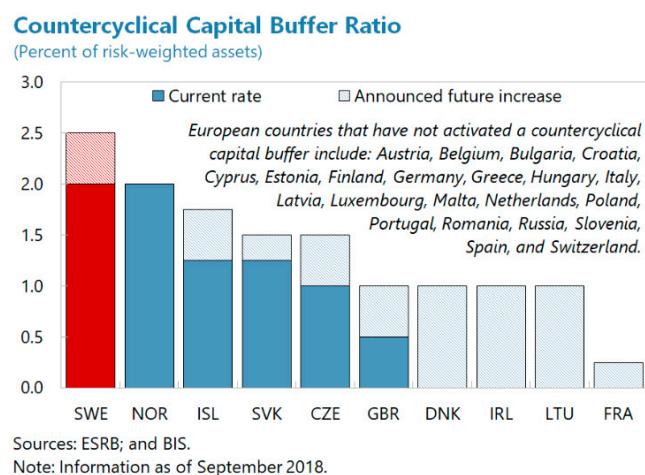
¹⁶ The fiscal framework is subject to review every eight years. The debt benchmark is not an additional operational target, rather the government is required to explain deviations of more than 5 percent of GDP from this anchor.

¹⁷ See the Ministry of Finance's [June 2018 Economic Update](#) and associated demographic studies.

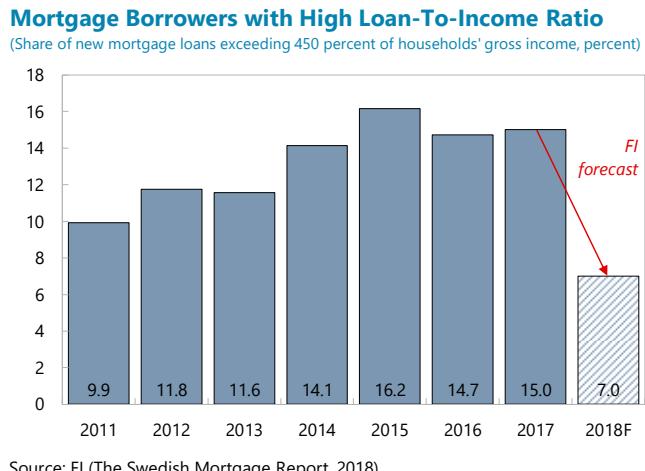
for the Spring budget were just getting underway, but they saw little room for measures without new financing while meeting the new surplus target. The Fiscal Policy Council considered that any adjustments to the medium-term surplus target, should be made at the eight-yearly reviews, which could take into account factors such as public investment needs.

E. Macrofinancial Stability

33. The macroprudential framework was strengthened and a well-targeted tightening of macroprudential measures was adopted. Addressing a key recommendation of the 2016 FSAP to enable timely and effective macroprudential action, the FI's macroprudential mandate was expanded from February 2018, giving it authority to apply measures subject to government approval but no longer requiring parliamentary approval. A stricter amortization requirement became effective in March 2018, raising minimum amortization on new mortgages with a loan-to-income (LTI) over 450 percent. Noting increased risk taking in the financial sector, the FI announced in September an increase of ½ percentage point in the countercyclical capital buffer to 2½ percent from September 2019, the highest in Europe.



34. Macroprudential policy should remain on alert and household level data collection enhanced to help evaluate its effectiveness. The recent decline in housing prices and subsequent stability have been associated with some slowing in household credit growth. As the stricter amortization requirements take hold, the FI expects the share of new high LTI mortgages to decline substantially, helping to contain vulnerabilities over time. The use of higher amortization targeted at high LTI loans provides greater flexibility for households than an outright LTI ceiling, but its effectiveness will need to be monitored closely, especially if low interest rates are prolonged. To facilitate such assessments, it is essential that household-level balance sheet data are collected.



35. Recent developments reinforce the need for strong anti-money laundering and counter-terrorist financing (AML/CFT) frameworks and for close regional cooperation.

Swedbank, the largest lender in Sweden, is reported by the news media to have handled about US\$4.3 billion in suspicious transfers in the Baltics between 2007 and 2015. Any issues in Swedish institutions should be identified and addressed. The authorities should continue to work to correct any remaining deficiencies in Sweden's AML/CFT framework. Given the highly integrated financial sector in the region, strong cooperation and frameworks are key to the effectiveness of the AML/CFT regime.

36. The banking system is robust, yet it faces challenges from financial innovation, requiring steps to contain prudential risks without preventing competition. Swedish banks maintain high profitability and capital levels, and sound loan books (Figure 8). However, new entrants into the mortgage market are capitalizing on innovations in financial services technology, relatively high profit margins on mortgages, and the ready availability of market funding from institutional investors.¹⁸ These nonbank entities provide low-cost mortgages to high-quality borrowers (with less than 60 percent LTV for instance) and transfer the credit risk to end-investors such as life insurers. Although these nonbanks are currently a small share of the mortgage market, it is important that they meet the same macroprudential and consumer protection requirements, while ensuring compliance costs are manageable. Commercial real estate is another area where nonbank financing is playing a growing role (Appendix III), but bank exposure remains material, and FI should continue to closely review the adequacy of banks' risk management along with the financial health of commercial property borrowers. In September 2018 one clearing member in Nasdaq Clearing defaulted, as collateral was insufficient to cover losses from trading power derivatives to which it was highly exposed. The FI should assess the adequacy of measures adopted to contain default risks and improve the efficiency of default management procedures.

Authorities' Views

37. The authorities agree that after the recent tightening of macroprudential measures, it would be appropriate to review the effectiveness of the steps taken before launching further measures. After exploring options to enhance household data collection, the authorities have concluded that new legislative authority would be required. The authorities take very seriously recent reports of banks in the Nordic-Baltic region being used for money laundering. The authorities agree on the need for broader regional cooperation and the Swedish and Estonian financial supervisors have initiated a joint investigation, with the participation of the authorities of Latvia and Lithuania. The authorities note that Sweden's AML/CFT framework has been strengthened in recent years, including through new legislation in 2017, and that FI has previously allocated additional resources to AML/CFT supervision. At the same time, they recognize that further action may be necessary.

¹⁸ See the Riksbank on [new players on the mortgage market](#) and the FI's [stability in the financial system](#) report.

STAFF APPRAISAL

38. After sustained strong performance, Sweden's economy is slowing. Accommodative monetary policy supported strong domestic demand gains in recent years, driving solid economic growth while narrowing the current account surplus. Job creation was rapid, especially among those born outside Sweden, although wage growth remained subdued and underlying inflation was broadly flat. Low inflation contributed to krona depreciation and the external position remained moderately stronger than the level consistent with medium-term fundamentals and policies in 2018. However, falling dwelling investment, softening consumption, and weaker exports are likely to slow growth notably in 2019, with material downside risks from the global economy and domestic demand.

39. A data-dependent monetary policy should continue. Aided by some depreciation of the krona, CPIF inflation excluding energy is expected to rise modestly by end 2019 and to gradually converge to target in following years, benefiting from a further pickup in wage rises. Yet this inflation outlook is subject to heightened uncertainty considering the risks to growth. The Riksbank's deferral of further rate increases until the second half of 2019, depending on whether the economic outlook and inflation prospects are as it expects, was appropriate in these circumstances.

40. Fiscal policy should also support Sweden's economic resilience. Given Sweden's strong fiscal buffers, its relatively strong automatic fiscal stabilizers should operate fully to cushion lower growth in 2019. Reducing the cyclically-adjusted surplus to the new medium-term fiscal target by 2020 would release resources to facilitate reforms. The resulting fiscal stimulus would be small, with low risk of overheating at a time of slowing growth and still low inflation. Looking ahead, if demographic or other factors require public investment above past norms, a temporary cut in the medium-term surplus target should be considered to avoid tax or spending adjustments while protecting fiscal buffers.

41. Labor market reforms should aim to support employment of the low-skilled and migrants, aided by enhanced education and training. The unemployment rate of the foreign born and low-skilled remains very high. The social partners' plan for "entry agreements" to enable migrants and the low-skilled to combine work and training at reduced cost to employers will help to address these challenges. When reviewing employment protection arrangements, the social partners should seek to facilitate labor market entry by the low-skilled and migrants. Reforms of the Public Employment Service need to be carefully designed and monitored to improve job matching and work skills development, especially for migrants and the low-skilled.

42. The social partners should consider updating wage formation to reflect structural changes in the Swedish economy, including the rise of other sectors such as services. Swedish wage rises tend to follow those in Germany, resulting in wage rises that are subdued relative to the tightness of domestic labor markets in recent years, contributing to low inflation, thereby prolonging low interest rates and a weak krona. One option is to broaden the range of sectors that set the benchmark for wage rises, which would likely tighten linkages to domestic economic trends such as inflation expectations and productivity, enhancing Swedish macroeconomic stability.

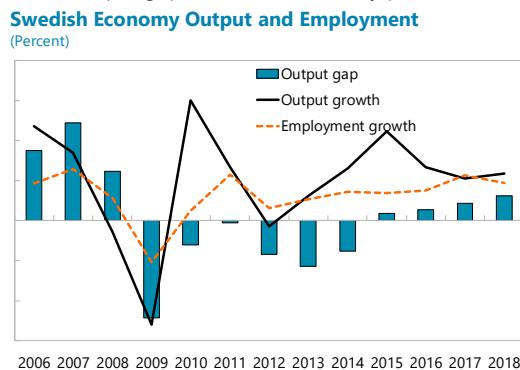
43. Comprehensive housing market reforms are essential to lower barriers to labor mobility and growth and to contain inequality. Tackling Sweden's dysfunctional housing market requires reforms of rent controls, tax policies, and construction regulation. In addition to fully liberalizing rents of newly constructed apartments, there is a need to phase out existing controls, such as by applying market rents when there is a change in tenant. Access to the housing allowance could be expanded to cushion this adjustment, while also applying a temporary "windfall" tax on significant rental income gains. To incentivize efficient property allocation, recurrent property taxes need to be increased—including by phasing out mortgage interest deductibility—while reducing taxes incurred when moving. To reduce construction costs, it is important to simplify the planning process, but productivity in the construction sector should also be enhanced by strengthening competition, including by reducing barriers at the municipal level.

44. Financial sector risks should continue to be monitored closely. The macroprudential stance is appropriate following the adoption of stricter mortgage amortization requirements, yet risks should remain under close watch. Hence, household level balance sheet data should be collected to enhance monitoring of macrofinancial risks and facilitate the design and evaluation of measures. In view of stretched commercial property valuations, the authorities should continue to review the adequacy of banks' risk management and the health of commercial property borrowers. Any AML/CFT issues in domestic institutions must be addressed, the authorities should continue to work to correct any remaining deficiencies in Sweden's AML/CFT framework, and regional cooperation should be strengthened. In future inquiries related to the e-krona, the authorities should also explore regulatory options to ensure reliable and efficient private payments.

45. It is proposed that the next Article IV consultation with Sweden take place on the standard 12-month cycle.

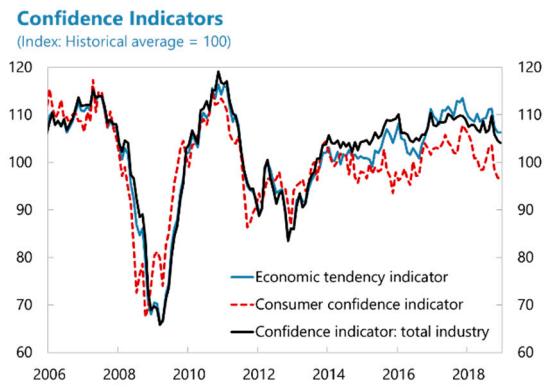
Figure 1. Sweden: Macroeconomic Indicators

Strong economic and employment growth has closed the estimated output gap and turned it mildly positive.



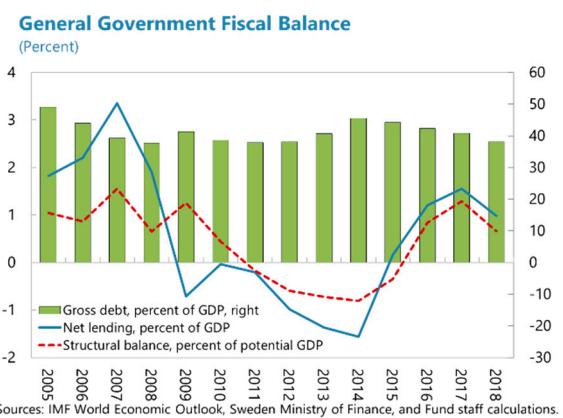
Sources: IMF World Economic Outlook, Statistics Sweden, and Fund staff calculations.

Confidence has recently declined across business and consumers...



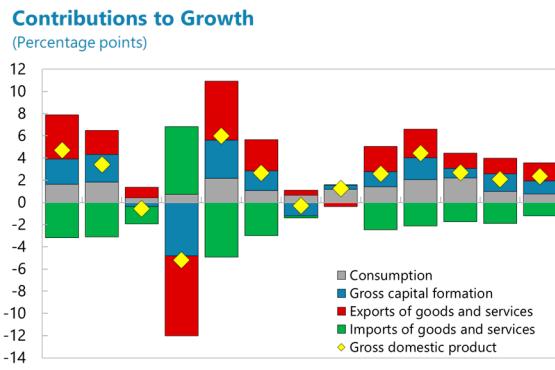
Sources: NIER; and Fund staff calculations.

Solid government finances are reducing the debt ratio.



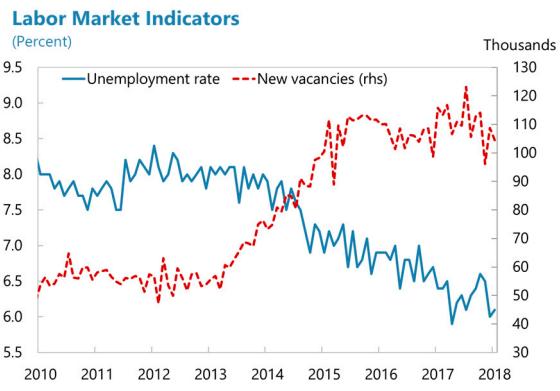
Sources: IMF World Economic Outlook, Sweden Ministry of Finance, and Fund staff calculations.

Investment and private consumption drove growth, with exports outweighed by imports in recent years.



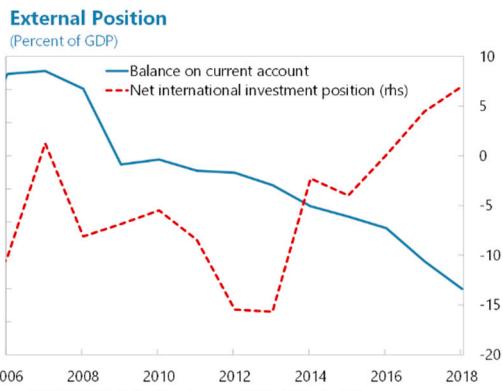
Sources: IMF World Economic Outlook; and Fund staff calculations.

...even as the labor market remains strong.



Sources: Employment Service, Statistics Sweden, and Fund staff calculations.

The current account surplus declined to 2 percent of GDP by 2018.

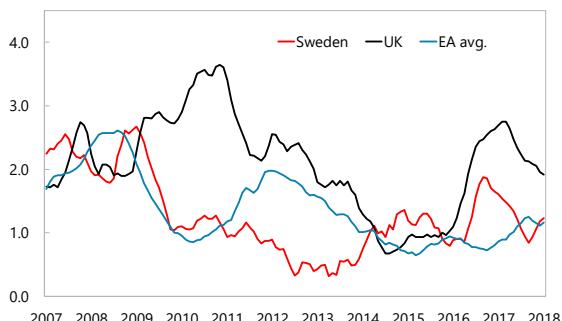


Sources: IMF WEO, Statistics Sweden, and IMF staff calculations.

Figure 2. Sweden: Inflation and Monetary Policy

Core HICP inflation increased in mid-2017 but subsequently subsided...

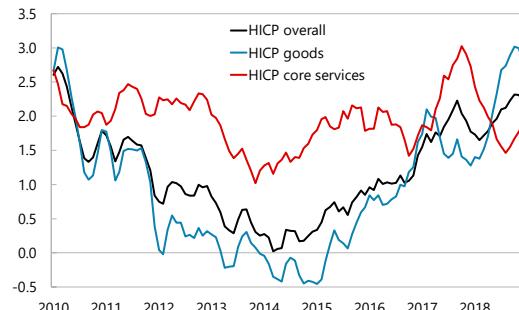
Core HICP Inflation
(Percent, y/y, 3-month average)



Sources: Eurostat and Fund staff calculations.

...as the impact of a mid-2017 increase in package holidays and bank fees and other services prices faded.

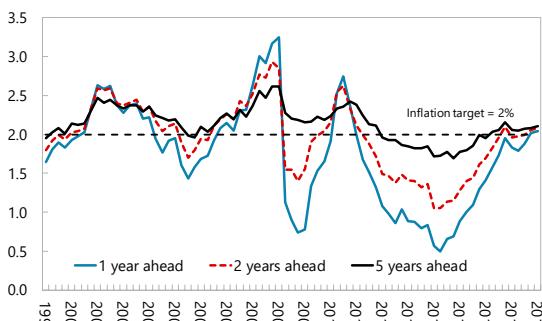
HICP Inflation
(Percent, y/y, 3-month average)



Sources: Haver Analytics and Fund staff calculations.

Survey measures of inflation expectations have risen to target, supported by monetary easing.

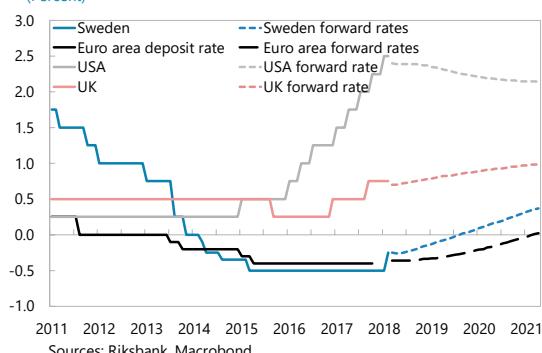
Inflation Expectations
(Percent)



Sources: TNS Prospera; and IMF staff calculations.

Markets expect the Riksbank to increase rates into positive territory sooner than the ECB.

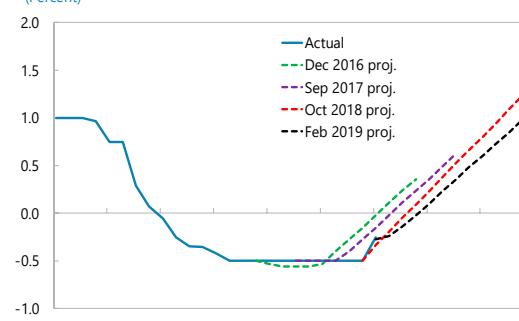
Actual Policy Rates and Expected Overnight Rates
(Percent)



Sources: Riksbank, Macrobond

The Riksbank deferred its first rate hike to late 2018 and also lowered the projected path for the repo rate.

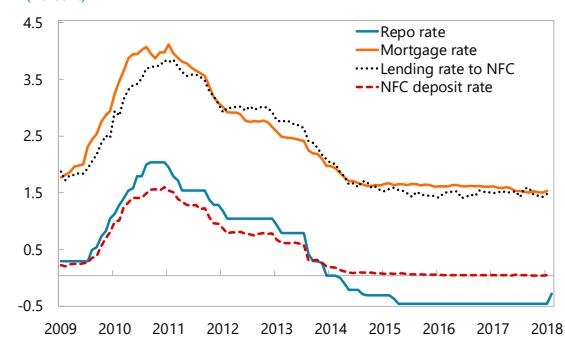
Riksbank Forecasts of Repo Rate
(Percent)



Sources: Sveriges Riksbank; and IMF staff calculations.

Accommodative monetary policies have kept retail lending and deposit rates low.

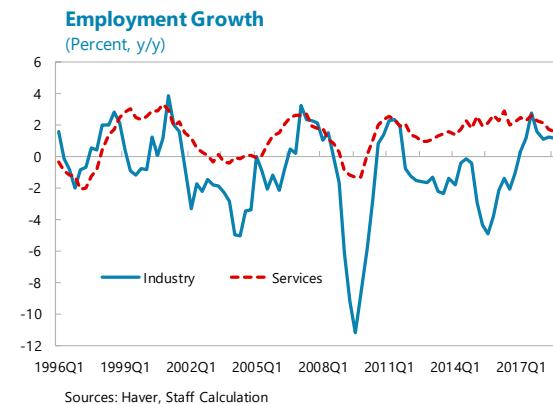
Interest Rates
(Percent)



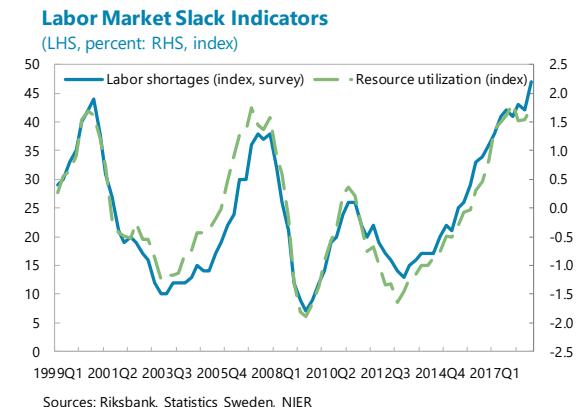
Sources: Statistics Sweden; and Fund staff calculations.

Figure 3. Sweden: Labor Market Developments

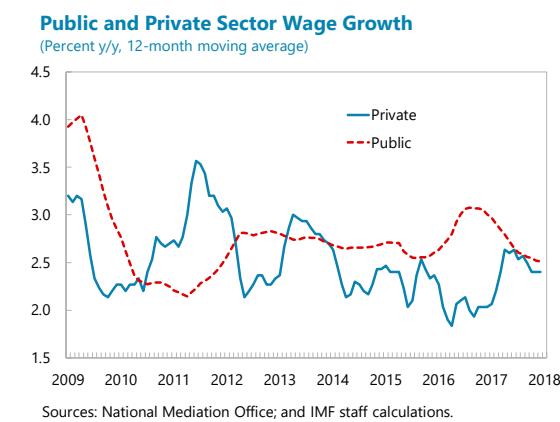
Strong employment growth, especially in the services sector...



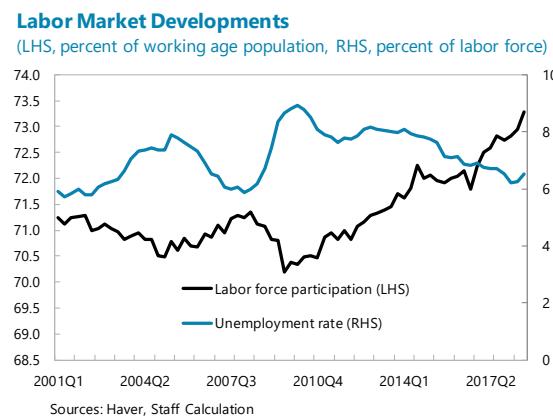
Survey and other indicators also point to rising labor shortages...



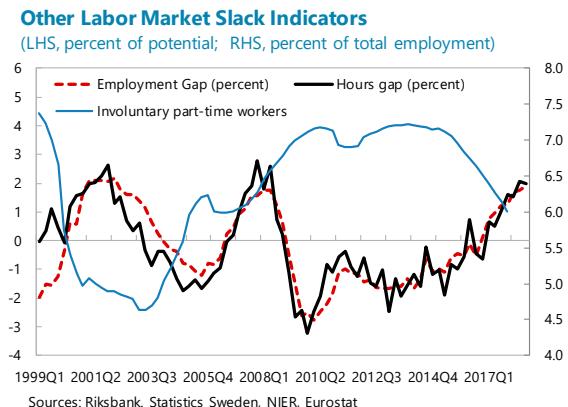
But wage growth remains subdued...



...lowered the unemployment rate to pre-crisis levels, even as labor force participation increased in recent years.



...and declining slack in the labor market.



...falling behind the sum of trend productivity growth and inflation expectations.

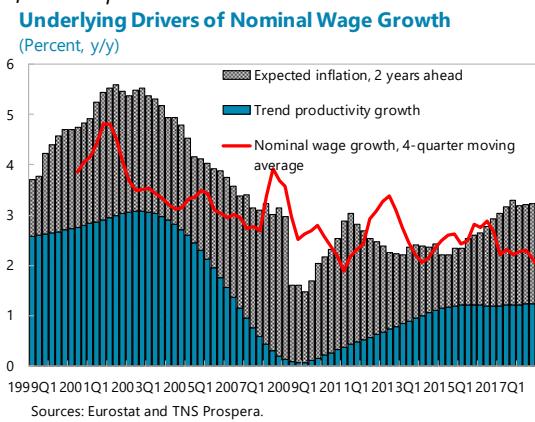
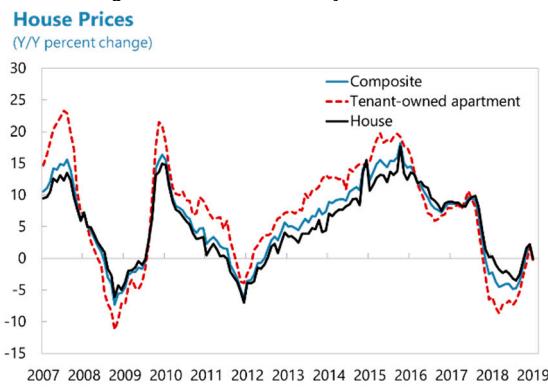


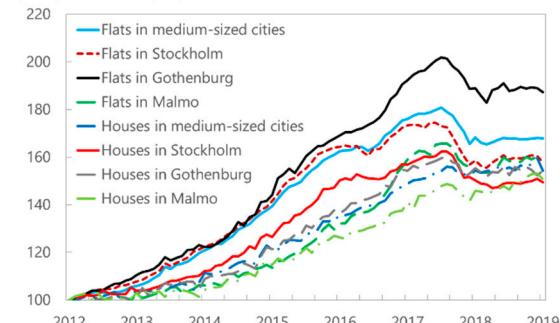
Figure 4. Sweden: Housing Market Developments

House prices have bottomed out and started to rise again after declining in late 2017 and early 2018...

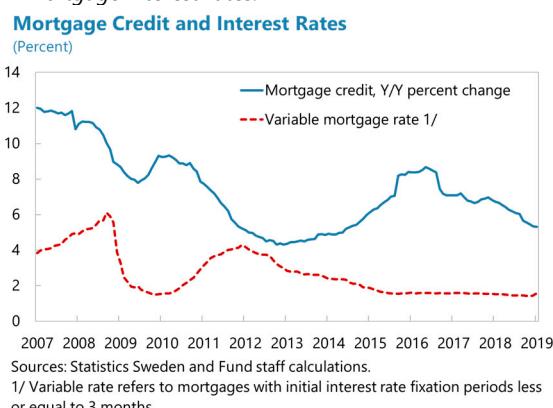


...with the decline led by a 10 percent drop in apartment prices in Stockholm.

Flat and House Price in Major Cities (Index, 2012M1=100, SA)

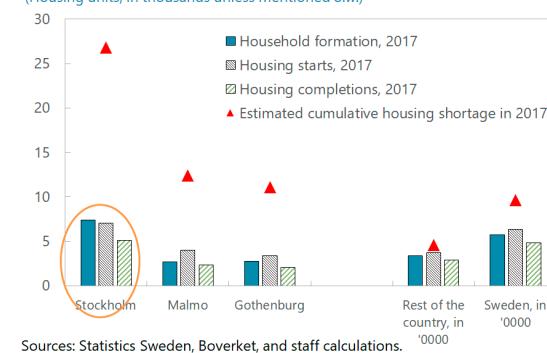


Growth in mortgage credit has edged down despite very low mortgage interest rates.

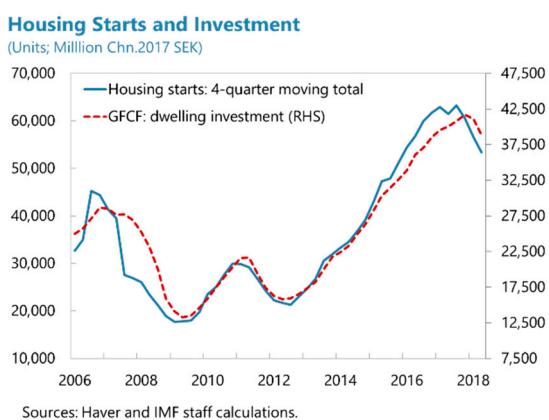


Even though house prices remain high and there remains substantial cumulative supply shortfalls, ...

Housing Construction relative to Needs (Housing units, in thousands unless mentioned o.w.)

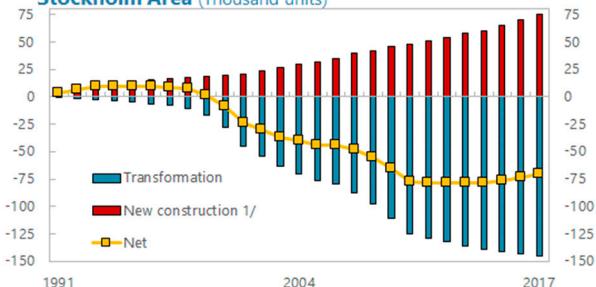


...housing starts are slowing down, which likely indicates a decline in dwelling investment.



Meanwhile, continued conversion of apartments into condominiums continued to limit the increase in the supply of rental housing.

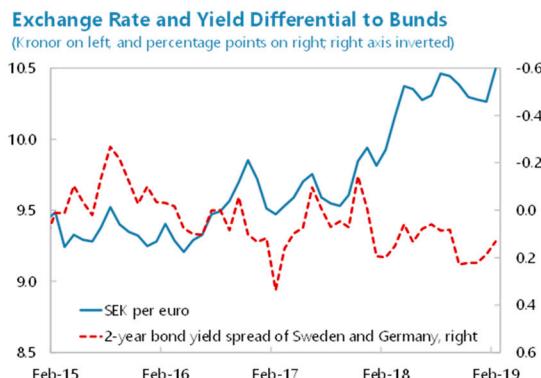
Change in the Stock of Rental Apartments in Greater Stockholm Area (Thousand units)



1/ "New construction" is a net figure, consisting of entirely new buildings minus torn down old buildings plus the net change in the number of apartments as a consequence of renovation and rebuilding. The latter two categories are numerically very small; if presented separately, they would hardly be discernible in the diagram.

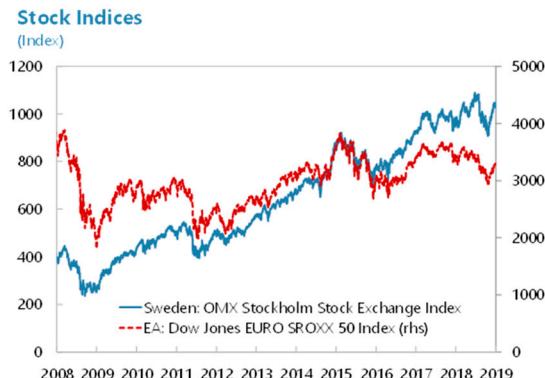
Figure 5. Sweden: Select Financial Market Indicators

The krona weakened most of 2018 even as spreads to bonds remained flat, possibly reflecting political uncertainty and low inflation.



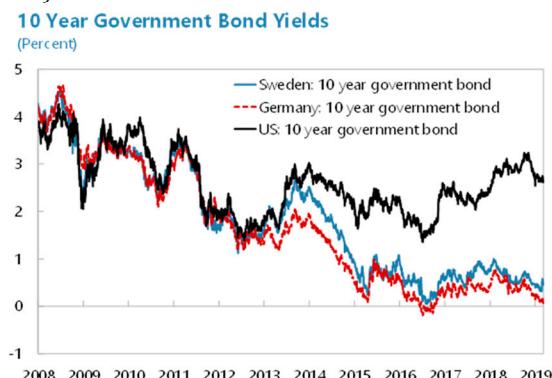
Sources: Sveriges Riksbank; Haver; and IMF staff calculations.

Swedish equity prices climbed to all-time records.



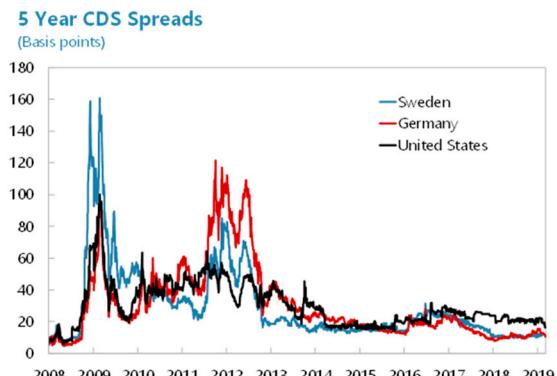
Source: Bloomberg Finance L.P.

Yields on government bonds track those of German bonds closely...



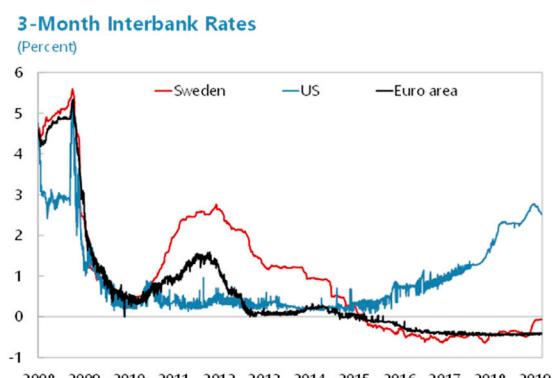
Sources: Bloomberg Finance L.P.

...and market assessments of credit risk remain minimal.



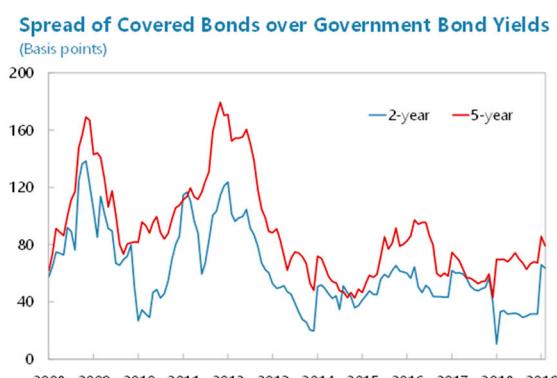
Source: Bloomberg Finance L.P.

Interbank rates hover around the policy rate...



Sources: Sveriges Riksbank; and IMF staff calculations.

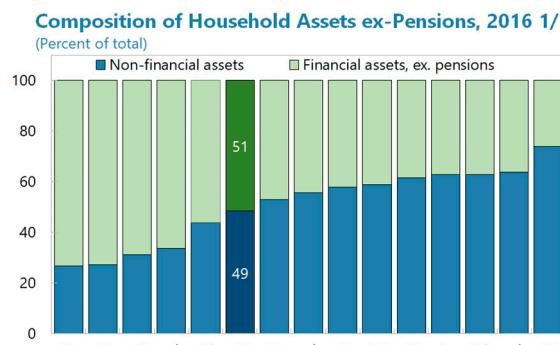
...and banks also enjoy low credit spreads on covered bonds to fund mortgages.



Sources: Riksbank; and IMF staff calculations.

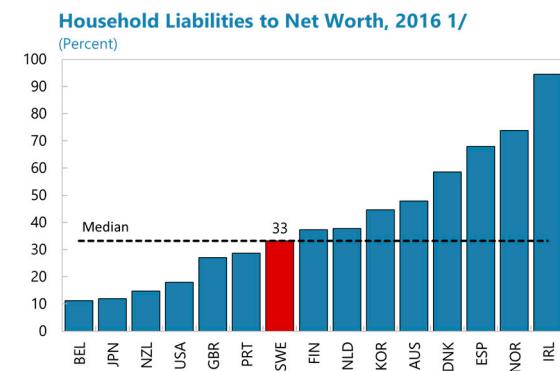
Figure 6. Sweden: Cross-Country Household Balance Sheet Indicators

Swedish household assets are broadly evenly split across financial and non-financial assets...



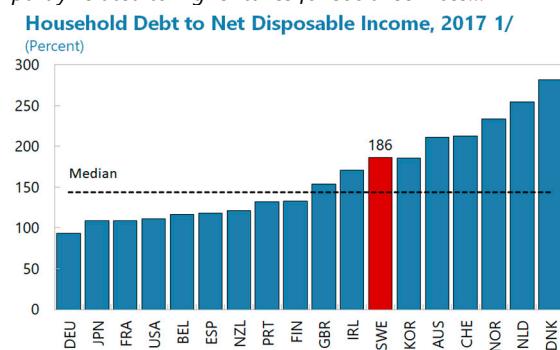
Sources: Haver; OECD; Sveriges Riksbank; and IMF staff calculations.
1/ 2015 data for NOR; 2014 data for PRT.

Household debt relative to net worth is just above median of these peers with high housing ownership...



Sources: Haver; OECD; Sveriges Riksbank; and IMF staff calculations.
1/ 2015 data for NOR; 2014 data for PRT.

Debt to disposable income is higher than the median, partly related to higher taxes for social services...

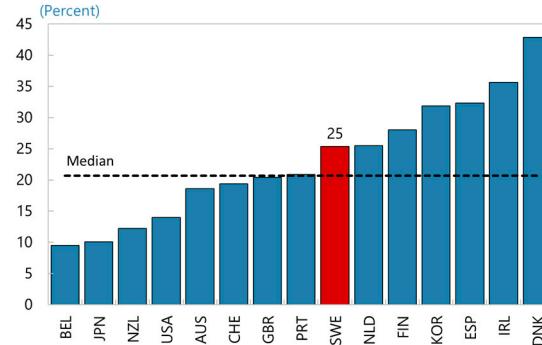


Sources: OECD.
1/ 2016 data for DEU, FRA, USA, BEL, ESP, FIN, JPN, GBR, IRL, CHE, AUS; 2015 data for NZL.

* Comparator countries have similar income levels to Sweden and high home ownership.

...with household debt representing about ¼ of assets.

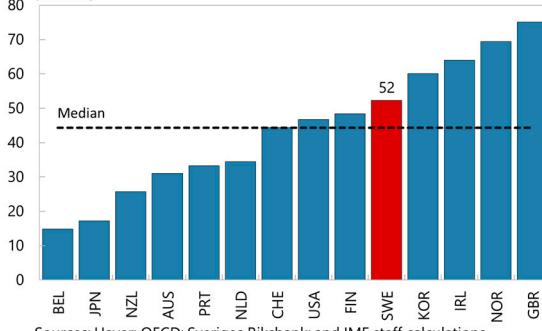
Household Liabilities to Assets, 2016 1/ (Percent)



Sources: Haver, OECD, Sveriges Riksbank, and IMF staff calculations.
1/ Total assets excluding pensions. 2015 data for NOR; 2014 data for PRT.

...and debt levels relative to the value of housing in Sweden are also just above the median.

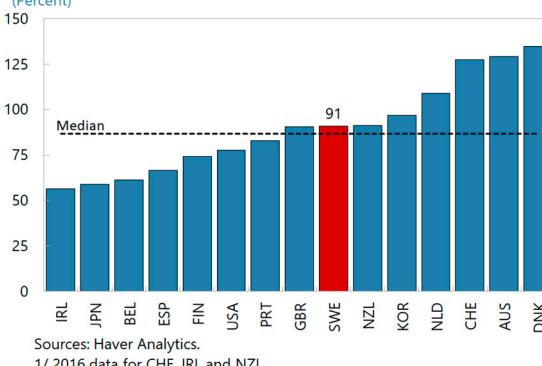
Household Liabilities to Non-Financial Assets, 2016 1/ (Percent)



Sources: Haver; OECD; Sveriges Riksbank; and IMF staff calculations.
1/ 2015 data for NOR; 2014 data for PRT.

...but household debt relative to GDP is around the median, similar to the U.K.

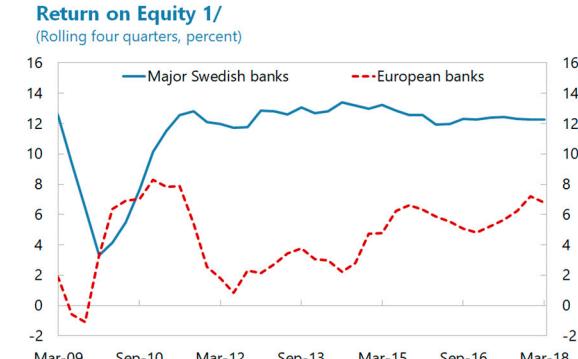
Household and NPISHs Debt to GDP, 2017 1/ (Percent)



Sources: Haver Analytics.
1/ 2016 data for CHE, IRL and NZL.

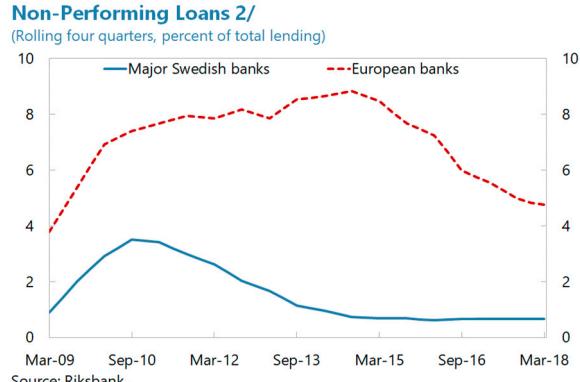
Figure 7. Sweden: Banking Sector Developments

Swedish bank profitability remains strong and exceeds European averages despite negative interest rates in recent years...



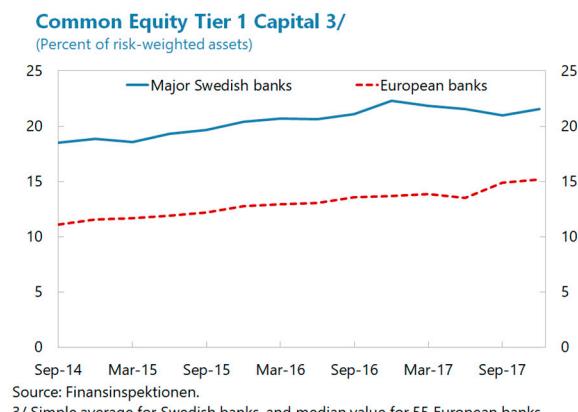
1/ Calculated over a sample of European banks. Adjusted for nonrecurring items.

... and Swedish banks maintain high loan quality after resolving NPLs to a normal level post-crisis.



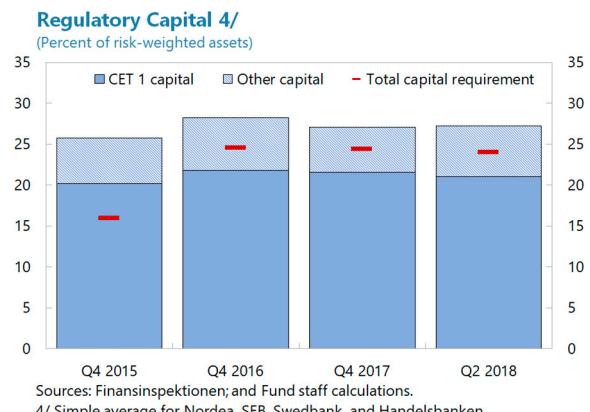
2/ Calculated over a sample of European banks. Simple averages.

Capital positions of the major Swedish banks are healthy...



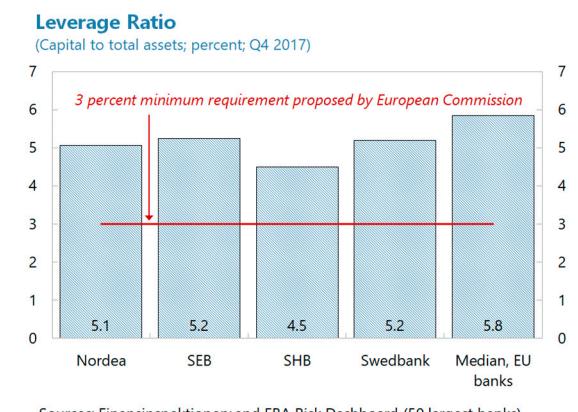
3/ Simple average for Swedish banks, and median value for 55 European banks.

...and comfortably above regulatory minima...

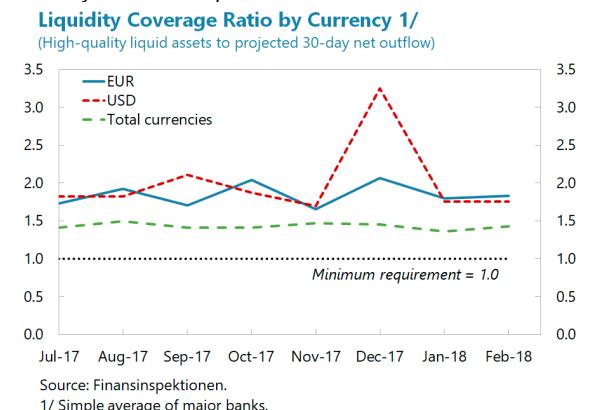


4/ Simple average for Nordea, SEB, Swedbank, and Handelsbanken.

...with a leverage ratio around 5 percent for most banks.



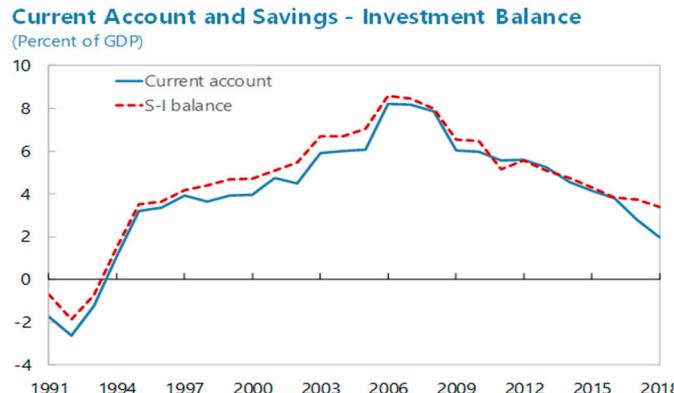
Banks have good liquidity buffers for short-term foreign currency and total exposure.



1/ Simple average of major banks.

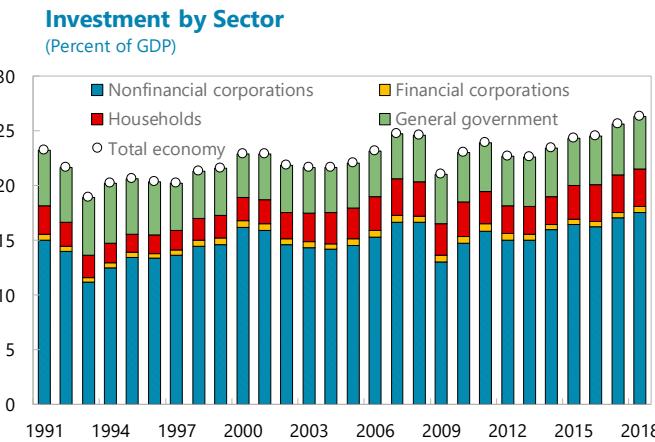
Figure 8. Sweden: Current Account and Savings-Investment Decomposition

Sweden shifted to an external surplus in the wake of the early-1990s financial crisis and pension reforms. The current account surplus rose to about 8 percent of GDP when the share of prime savers peaked in 2008, and has since declined to 3 percent.



Sources: Statistics Sweden; and IMF staff calculations.

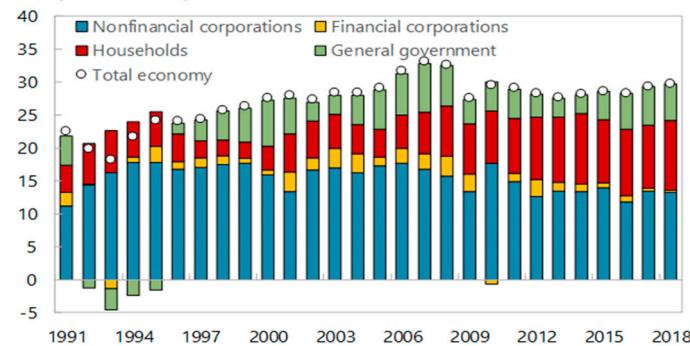
Investment of nonfinancial corporates steadily recovered from its crisis dip, which together with rising residential investment in recent years, drove total investment to new highs.



Sources: Statistics Sweden; and IMF staff calculations.

Total savings have remained high since the mid-2000s, with a decline in nonfinancial corporate savings being offset by higher household savings.

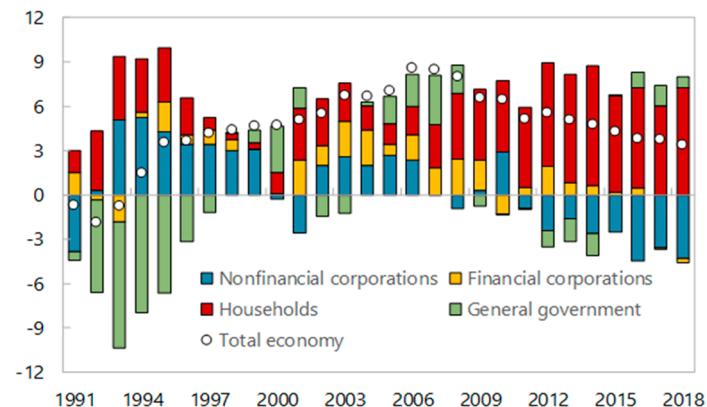
Savings by Sector (Percent of GDP)



Sources: Statistics Sweden; and IMF staff calculations.

The external surplus is largely due to the household sector's savings-investment balance, as corporate sector investment exceeds its savings, and the general government has relatively little net impact.

Savings - Investment Balances by Sector (Percent of GDP)



Sources: Statistics Sweden; and IMF staff calculations.

Table 1. Sweden: Selected Economic Indicators, 2016–24

	2016	2017	Projections					
			2018	2019	2020	2021	2022	2023
Real economy (percent change)								
Real GDP	2.7	2.1	2.3	1.2	1.8	1.9	2.0	2.0
Domestic demand	3.2	2.7	2.0	1.1	1.9	2.1	2.0	2.0
Private consumption	2.9	2.2	1.2	1.7	2.1	2.1	2.0	2.0
Public consumption	3.6	0.0	0.9	1.3	1.2	1.0	1.0	1.0
Gross fixed investment	4.2	6.0	3.3	0.0	2.2	3.2	3.0	3.0
Net exports (contribution to growth)	-0.4	-0.5	0.4	-0.1	0.0	0.1	0.1	0.1
Exports of G&S	3.0	3.2	3.5	1.7	2.5	2.8	2.8	2.8
Imports of G&S	4.3	4.8	2.9	2.0	2.7	2.9	2.8	2.8
HICP inflation (e.o.p.)	1.4	1.8	2.2	1.8	1.7	1.9	2.0	2.0
HICP core inflation (e.o.p.)	0.9	1.6	1.3	1.5	1.5	1.8	2.0	2.0
Unemployment rate (percent)	6.9	6.7	6.3	6.3	6.3	6.4	6.5	6.6
Gross national saving (percent of GDP)	28.3	28.4	28.3	28.5	28.8	29.0	29.4	29.7
Gross domestic investment (percent of GDP)	24.5	25.6	26.3	26.1	26.3	26.5	26.7	26.9
Output gap (percent of potential)	0.5	0.9	1.2	0.3	0.1	0.0	0.0	0.0
Public finance (percent of GDP)								
Total revenues	49.9	49.9	49.5	49.4	49.3	49.1	49.1	49.1
Total expenditures	48.8	48.4	48.7	48.8	49.0	48.8	48.8	48.8
Net lending	1.1	1.5	0.8	0.5	0.3	0.3	0.3	0.3
Structural balance (as a percent of potential GDP)	0.7	1.2	0.5	0.4	0.3	0.3	0.3	0.3
General government gross debt, official statistics	42.4	40.8	39.0	37.2	35.5	33.9	32.3	30.9
Money and credit (year-on-year, percent change, eop) 1/								
M3	7.5	8.0	5.9	6.6
Bank lending to households	7.1	6.8	5.3	5.3
Interest rates (percent, end of period) 1/								
Repo rate 2/	-0.5	-0.5	-0.5	-0.25
Ten-year government bond yield	0.5	0.7	0.5	0.4
Mortgage lending rate	1.6	1.6	1.5	1.5
Balance of payments (percent of GDP)								
Current account	3.8	2.8	2.0	2.4	2.5	2.6	2.7	2.8
Foreign direct investment, net	-2.6	2.0	1.6	0.1	0.2	0.4	0.4	0.6
International reserves, changes (in billions of US dollars) 3/	4.2	0.4	-1.1
Reserve cover (months of imports of goods and services)	3.5	3.3	3.0
Net international investment position	0.1	4.4	6.9	7.6	8.4	9.1	10.0	10.8
11.7								
Exchange rate (period average, unless otherwise stated)								
SEK per euro 4/	9.5	9.7	10.3	10.5
SEK per U.S. dollar	8.6	8.5	8.7
Nominal effective rate (2010=100)	97.1	96.2	91.5
Real effective rate (2010=100) 5/	94.5	93.7	89.4
Fund position (December 31, 2018)								
Quota (in millions of SDRs)	4,430							
Reserve tranche position (in percent of quota)	10.5							
Holdings of SDRs (in percent of allocation)	98.5							
Other Indicators								
GDP per capita (2017, USD): 52,925; Population (2017, million): 10.1; Main products and exports: Services, including computer and information; motor vehicles, forest products; Key export markets: Germany, Norway, United Kingdom.								
Sources: IMF WEO, Riksbank, Swedish Ministry of Finance, Statistics Sweden, and Fund staff calculations.								
1/ Data for 2019 is as of January.								
2/ Mortgage rates for new contracts.								
3/ Data for 2018 are as of Q4 2018.								
4/ Data for 2019 is as of February.								
5/ Based on relative unit labor costs in manufacturing.								

Table 2. Sweden: General Government Statement of Operations, 2016–24

	2016	2017	Projections					
			2018	2019	2020	2021	2022	2023
Billions of SEK								
Revenue	2,187	2,284	2,371	2,446	2,535	2,624	2,730	2,840
Tax revenue	1,812	1,897	1,940	1,988	2,067	2,139	2,225	2,316
Taxes on income, profits, and capital gains	813	854	887	921	964	997	1,037	1,079
Payable by individuals	687	722	742	766	797	822	856	891
Payable by corporations	126	133	145	155	167	174	181	188
General taxes on goods and services	557	578	598	610	628	645	671	698
Other Taxes	442	465	456	457	476	497	517	538
Social Contributions	146	153	161	168	174	180	187	195
Grants	4	4	4	4	4	4	4	4
Other revenue	225	231	267	286	290	302	314	326
Interest income	23	23	24	25	26	27	28	29
Expenditure	2,138	2,216	2,332	2,419	2,518	2,608	2,713	2,823
Compensation of employees	552	580	612	644	674	718	747	778
Intermediate consumption	308	315	328	341	359	383	399	415
Interest payments	18	16	15	15	17	17	17	17
Social benefits	750	763	785	818	863	926	963	1,002
Expense not elsewhere classified	460	481	522	527	523	479	498	520
Net acquisition of nonfinancial assets	49	60	70	74	83	85	88	92
Gross operating balance	98	129	109	101	99	101	105	109
Net lending / borrowing	49	69	39	27	16	16	17	18
Percent of GDP								
Revenue	49.9	49.9	49.5	49.4	49.3	49.1	49.1	49.1
Tax revenue	41.3	41.4	40.5	40.1	40.2	40.1	40.1	40.1
Taxes on income, profits, and capital gains	18.5	18.7	18.5	18.6	18.7	18.7	18.7	18.7
Payable by individuals	15.7	15.8	15.5	15.5	15.5	15.4	15.4	15.4
Payable by corporations	2.9	2.9	3.0	3.1	3.2	3.3	3.3	3.3
General taxes on goods and services	12.7	12.6	12.5	12.3	12.2	12.1	12.1	12.1
Other Taxes	10.1	10.2	9.5	9.2	9.3	9.3	9.3	9.3
Social Contributions	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
Grants	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other revenue	5.1	5.0	5.6	5.8	5.6	5.6	5.6	5.6
Interest income	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Expenditure	48.8	48.4	48.7	48.8	49.0	48.8	48.8	48.8
Compensation of employees	12.6	12.7	12.8	13.0	13.1	13.4	13.4	13.4
Intermediate consumption	7.0	6.9	6.8	6.9	7.0	7.2	7.2	7.2
Interest payments	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Social benefits	17.1	16.7	16.4	16.5	16.8	17.3	17.3	17.3
Expense not elsewhere classified	10.5	10.5	10.9	10.6	10.2	9.0	9.0	9.0
Net acquisition of nonfinancial assets	1.1	1.3	1.5	1.5	1.6	1.6	1.6	1.6
Gross operating balance	2.2	2.8	2.3	2.0	1.9	1.9	1.9	1.9
Net lending / borrowing	1.1	1.5	0.8	0.5	0.3	0.3	0.3	0.3
Structural Balance (percent of potential GDP) 1/	0.7	1.2	0.5	0.4	0.3	0.3	0.3	0.3
Fiscal Impulse (expansionary +)	-1.1	-0.5	0.7	0.1	0.1	0.0	0.0	0.0
<i>Memorandum items:</i>								
Gross public debt (percent of GDP)	42.4	40.8	39.0	37.2	35.5	33.9	32.3	30.9
Net public debt (percent of GDP)	8.9	6.2	5.9	5.2	4.6	4.2	3.7	3.4
Real GDP growth (percent change)	2.7	2.1	2.3	1.2	1.8	1.9	2.0	2.0
Output gap (percent of potential GDP)	0.5	0.9	1.2	0.3	0.1	0.0	0.0	0.0
Nominal GDP (in billions of SEK)	4,385	4,579	4,791	4,954	5,144	5,340	5,557	5,782
2/ Structural balance takes into account output gaps.								

Sources: The 2019 Budget Bill; and Fund staff calculations.

1/ Structural balance takes into account output gaps.

Table 3. Sweden: Public Sector Balance Sheet, 2009–17

	2009	2010	2011	2012	2013	2014	2015	2016	2017
<i>Billions of SEK</i>									
Assets	5,414	5,686	5,967	6,143	6,467	6,923	7,089	7,594	7,985
Financial assets	2,381	2,504	2,667	2,792	2,948	3,321	3,404	3,659	3,837
Currency and deposits	81	66	101	97	90	172	157	165	181
Debt securities	313	330	333	343	342	441	450	489	600
Loans	487	486	515	541	664	727	778	810	813
Shares and other equity	1,169	1,240	1,369	1,443	1,483	1,597	1,562	1,728	1,780
Other financial assets	331	381	348	368	370	384	459	467	462
Capital stock net of depreciation	3,033	3,182	3,300	3,351	3,519	3,602	3,685	3,935	4,148
Liabilities	1,837	1,868	1,968	2,014	2,169	2,548	2,611	2,670	2,687
Financial liabilities	1,837	1,868	1,968	2,014	2,169	2,548	2,611	2,670	2,687
Currency and deposits	54	56	67	72	52	54	45	68	62
Debt securities	1,058	1,096	1,114	1,116	1,215	1,429	1,490	1,447	1,369
Loans	307	270	325	314	341	445	436	476	547
Other liabilities	418	446	463	511	560	620	639	679	709
Net worth	3,577	3,818	3,999	4,130	4,299	4,375	4,479	4,924	5,298
Financial net worth	544	636	699	778	780	773	794	989	1,150
<i>Percent of GDP</i>									
Assets	164.5	161.4	163.0	166.5	171.4	175.7	168.7	173.2	174.4
Financial assets	72.3	71.0	72.8	75.7	78.1	84.3	81.0	83.4	83.8
Currency and deposits	2.4	1.9	2.8	2.6	2.4	4.4	3.7	3.8	4.0
Debt securities	9.5	9.4	9.1	9.3	9.1	11.2	10.7	11.2	13.1
Loans	14.8	13.8	14.1	14.7	17.6	18.4	18.5	18.5	17.8
Shares and other equity	35.5	35.2	37.4	39.1	39.3	40.5	37.2	39.4	38.9
Other financial assets	10.1	10.8	9.5	10.0	9.8	9.8	10.9	10.6	10.1
Capital stock net of depreciation	92.1	90.3	90.1	90.8	93.2	91.4	87.7	89.7	90.6
Liabilities	55.8	53.0	53.8	54.6	57.5	64.7	62.1	60.9	58.7
Financial liabilities	55.8	53.0	53.8	54.6	57.5	64.7	62.1	60.9	58.7
Currency and deposits	1.6	1.6	1.8	2.0	1.4	1.4	1.1	1.5	1.4
Debt securities	32.1	31.1	30.4	30.3	32.2	36.3	35.5	33.0	29.9
Loans	9.3	7.7	8.9	8.5	9.0	11.3	10.4	10.9	11.9
Other liabilities	12.7	12.6	12.7	13.9	14.8	15.7	15.2	15.5	15.5
Net worth	108.7	108.4	109.2	111.9	113.9	111.0	106.6	112.3	115.7
Financial net worth	16.5	18.0	19.1	21.1	20.7	19.6	18.9	22.6	25.1
<i>Memorandum items:</i>									
GDP (SEK billions)	3,292	3,524	3,661	3,689	3,774	3,941	4,202	4,385	4,579

Sources: Eurostat; Statistics Sweden; and Fund staff calculations.

Table 4. Sweden: Balance of Payments Accounts, 2016–24

	2016	2017	Projections						
			2018	2019	2020	2021	2022	2023	2024
<i>Billions of SEK</i>									
Current Account Balance	166	128	94	121	126	137	150	163	172
Trade Balance	194	130	101	108	108	112	119	125	132
Exports of G&S	1,925	2,046	2,193	2,243	2,312	2,390	2,471	2,555	2,642
Imports of G&S	1,731	1,916	2,093	2,136	2,204	2,278	2,353	2,430	2,509
Factor income, net	-27	-3	-7	13	19	25	31	38	40
Financial Account Balance	-205	171	17	120	126	136	149	163	171
Investment Abroad 1/	-851	-821	-1,331	-547	-586	-713	-852	-932	-948
Investment in Sweden	-610	-989	-1,351	-667	-711	-849	-1,001	-1,095	-1,119
Reserves, change	36	3	-3	0	0	0	0	0	0
<i>Percent of GDP</i>									
Current Account Balance	3.8	2.8	2.0	2.4	2.5	2.6	2.7	2.8	2.9
Trade Balance	4.4	2.8	2.1	2.2	2.1	2.1	2.1	2.2	2.2
Exports of G&S	43.9	44.7	45.8	45.3	44.9	44.8	44.5	44.2	43.9
Imports of G&S	39.5	41.8	43.7	43.1	42.8	42.7	42.3	42.0	41.7
Factor income, net	-0.6	-0.1	-0.1	0.3	0.4	0.5	0.6	0.7	0.7
Financial Account Balance	-4.7	3.7	0.4	2.4	2.4	2.5	2.7	2.8	2.8
Investment Abroad 1/	-19.4	-17.9	-27.8	-11.0	-11.4	-13.3	-15.3	-16.1	-15.7
Direct Investment	0.9	4.2	3.6	3.4	3.4	3.3	3.1	2.9	3.0
Portfolio Investment	0.6	5.5	-1.1	3.3	3.4	3.1	2.7	2.6	2.5
Other Investment	0.3	3.9	2.4	3.6	3.7	3.1	2.6	2.7	3.1
Reserves	0.8	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Investment in Sweden	-13.9	-21.6	-28.2	-13.5	-13.8	-15.9	-18.0	-18.9	-18.6
Direct Investment	3.4	2.3	2.0	3.3	3.2	2.9	2.7	2.4	2.4
Portfolio Investment	-0.5	4.9	0.8	0.9	1.6	1.5	1.1	1.5	0.2
Other Investment	3.9	1.3	2.7	1.0	1.0	0.5	0.0	-0.6	0.2
Errors and Omissions	-1.0	0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
<i>Percent change</i>									
Exports of G&S 2/									
Value	-0.1	6.5	5.4	-1.8	4.6	4.6	5.5	5.4	5.6
Volume	2.6	2.9	2.5	1.5	2.4	2.8	2.8	2.8	2.8
Deflator	-2.6	3.5	2.9	-3.3	2.1	1.8	2.6	2.6	2.8
Imports of G&S 2/									
Value	1.0	10.8	7.4	-2.0	4.8	4.6	5.4	5.3	5.5
Volume	4.3	6.5	2.8	2.0	2.7	2.9	2.8	2.8	2.8
Deflator	-3.1	4.0	4.5	-4.0	2.0	1.7	2.5	2.4	2.6
<i>Memorandum</i>									
Net International Investment Position (Percent of GD)	0.1	4.4	6.9	7.6	8.4	9.1	10.0	10.8	11.7
Nominal GDP (SEK billion)	4,385	4,579	4,791	4,954	5,144	5,340	5,557	5,782	6,017

Sources: Statistics Sweden and Fund staff calculations.

1/ Positive number indicates an accumulation of foreign assets.

2/ Percent changes of exports of G&S and imports of G&S are calculated using numbers in USD terms.

Table 5. Sweden: Financial Soundness Indicators: Banks, 2012–17

	2012	2013	2014	2015	2016	2017
<i>(End of period, percent)</i>						
Capital Adequacy						
Regulatory Tier 1 and 2 capital to risk-weighted assets 1/	12.5	12.7	22.4	24.2	26.7	26.2
of which: Four major banks 2/	11.7	12.0	22.5	24.2	26.9	26.4
Regulatory Tier 1 capital to risk-weighted assets 1/	11.7	12.0	19.5	21.1	23.0	22.5
of which: Four major banks 2/	11.1	11.2	19.4	21.2	23.2	22.9
Total capital (CET1 + AT1 + T2) as percent of total assets	4.4	4.5	5.0	5.5	6.3	6.4
of which: Four major banks 2/	4.2	4.4	5.1	5.6	6.1	6.1
Asset quality and exposure						
Nonperforming loans to total gross loans	1.5	1.3	2.1	1.9	2.0	0.9
of which: Four major banks 2/	1.4	1.2	2.1	1.9	2.3	1.0
Nonperforming loans net of loan-loss provisions to capital	9.3	8.2	16.1	14.6	13.2	14.9
of which: Four major banks 2/	10.0	8.8	17.2	15.7	13.6	15.6
Loan-loss provisions to nonperforming loans	39.8	38.8	19.6	20.8	19.3	19.4
of which: Four major banks 2/	38.7	38.1	18.7	19.5	19.2	19.2
Large exposures as percent of tier 1 capital	29.5	20.0	8.5	...	25.1	22.2
of which: Four major banks	22.0	10.7	8.8	...	6.0	6.4
Earnings and profitability						
Return on assets (net income as percent of average total assets)	0.5	0.6	0.5	0.6	0.7	0.7
of which: Four major banks 2/	0.5	0.6	0.5	0.6	0.8	0.7
Return on equity (Net income as percent of average equity capital)	11.4	11.4	10.2	11.4	12.1	10.8
of which: Four major banks 2/	12.0	11.4	9.3	11.6	12.8	11.3
Net interest income as percent of gross income	55.4	55.3	50.3	50.6	46.9	48.7
of which: Four major banks 2/	58.3	58.6	55.2	52.6	47.5	49.8
Noninterest expenses as percent of gross income	63.2	63.9	32.0	59.2	27.4	38.3
of which: Four major banks	61.0	60.7	55.8	56.2	33.9	58.9
Noninterest income as percent of total income	51.7	53.7	62.3	45.5	34.4	53.1
of which: Four major banks	49.7	50.5	65.5	47.9	29.2	46.4
Trading income and foreign exchange gains (losses) to gross income	10.7	8.4	9.3	10.6	7.0	6.7
of which: Four major banks 2/	11.2	9.6	8.3	12.2	7.1	7.3
Personnel expenses as percent of noninterest expenses	52.2	53.9	57.4	48.5	45.3	54.1
of which: Four major banks 2/	59.4	60.5	68.5	54.0	44.5	45.6
Liquidity						
Liquid assets as percent of total assets	8.5	8.9	7.1	9.2	9.3	9.0
of which: Four major banks 2/	9.1	9.7	8.2	7.2	9.5	9.1
Liquid assets as percent of short-term liabilities 3/	22.2	19.6	15.8	15.1
of which: Four major banks 2/ 3/	23.7	20.6	16.2	15.4
Customer deposits as a percent of total (non-interbank) loans	52.9	53.8	56.5	52.6	53.0	54.7
of which: Four major banks 2/	50.9	52.7	54.5	50.3	49.2	50.5
Noninterbank loans to noninterbank deposits	148.8	145.9	140.7	152.4	188.6	182.9
of which: Four major banks 2/	158.0	153.7	149.5	165.4	203.4	197.9
Foreign exchange risk						
Foreign currency loans as percent of total loans	34.9	36.8	39.4	38.0	38.1	39.4
Foreign currency assets as percent of total assets	33.1	33.8	35.6	33.0	31.8	38.9
Foreign currency-denominated liabilities as percent of total liabilities	31.1	28.7	32.9	28.0	27.9	38.2

Sources: Financial Supervisory Authority, Riksbank, and Fund staff calculations.

1/ The calculations follow rules under Basel II, including transition rules as reported by the Riksbank. Without transition rules, the capital ratios would currently be higher due to lower risk-weighted assets (the result of banks' implementation of the IRB approach).

2/ On consolidated basis.

3/ The calculation of liquid assets follows the EBA guideline.

Table 6. Sweden: Financial System Structure, 2015–17

	2015			2016			2017				
	Total assets (in billions of SEK)	Percent of total assets	Percent of GDP	Number of institutions	Total assets (in billions of SEK)	Percent of total assets	Percent of GDP	Number of institutions	Total assets (in billions of SEK)	Percent of total assets	Percent of GDP
Four Major Banks, consolidated											
Nordea	5,476	25.4	130.3	1	5,335	23.7	121.7	1	5,157	22.3	112.6
Handelsbanken	2,418	11.2	57.6	1	2,513	11.2	57.3	1	2,636	11.4	57.6
S.E.B	2,092	9.7	49.8	1	2,166	9.6	49.4	1	2,082	9.0	45.5
Swedbank	1,996	9.2	47.5	1	1,994	8.9	45.5	1	2,032	8.8	44.4
<i>Total Top Four Banks</i>	<i>11,981</i>	<i>55.5</i>	<i>285.2</i>	<i>4</i>	<i>12,008</i>	<i>53.3</i>	<i>273.8</i>	<i>4</i>	<i>11,908</i>	<i>51.4</i>	<i>260.1</i>
Four major banking groups 1/											
Banks	6,820	31.6	162.3	6	6,944	30.8	158.3	6	9,355	40.4	204.3
Insurance companies	754	3.5	17.9	9	805	3.6	18.4	9	877	3.8	19.2
Mortgage credit institutions	2,594	12.0	61.7	3	2,742	12.2	62.5	3	2,822	12.2	61.6
Securities firms	4	0.0	0.1	2	4	0.0	0.1	2	5	0.0	0.1
Other credit market companies	109	0.5	2.6	6	117	0.5	2.7	7	138	0.6	3.0
Top four banks in Sweden	10,280	47.6	244.7	26	10,613	47.1	242.0	27	13,198	57.0	288.2
Other Banks in Sweden											
<i>Of which:</i>											
Banks	737	3.4	17.5	33	909	4.0	20.7	34	1,015	4.4	22.2
Savings banks	187	0.9	4.4	47	203	0.9	4.6	47	217	0.9	4.7
Mortgage credit institutions	390	1.8	9.3	2	439	2.0	10.0	2	532	2.3	11.6
Member bank	2	0.0	0.1	2	2	0.0	0.1	2	3	0.0	0.1
Other credit market companies	796	3.7	19.0	23	859	3.8	19.6	21	809	3.5	17.7
Total other banks in Sweden	2,112	9.8	50.3	107	2,413	10.7	55.0	106	2,576	11.1	56.3
Nonbank credit institutions											
Insurance companies	4,262	19.7	101.4	169	4,551	20.2	103.8	166	4,695	20.3	102.5
Life insurance	3,532	16.4	84.1	37	3,778	16.8	86.2	36	4,055	17.5	88.6
Nonlife insurance 2/	560	2.6	13.3	132	589	2.6	13.4	130	640	2.8	14.0
Pension funds	170	0.8	4.1	11	184	0.8	4.2	11	198	0.9	4.3
Mutual funds 3/	3,040	14.1	72.3	894	3,346	14.9	76.3	929	3,762	16.2	82.2
Other nonbank credit institutions											
Asset management firms	12	0.1	0.3	85	12	0.1	0.3	85	15	0.1	0.3
Securities firms	12	0.1	0.3	108	9	0.0	0.2	107	9	0.0	0.2
Total financial system	21,590	100.0	513.9	1,378	22,522	100.0	513.6	1,408	23,162	100.0	505.9
<i>of which : Total banking sector 4/</i>	<i>14,094</i>	<i>65.3</i>	<i>335.4</i>		<i>14,421</i>	<i>64.0</i>	<i>328.8</i>		<i>14,483</i>	<i>62.5</i>	<i>316.3</i>
Memorandum item:											
Foreign bank branches in Sweden	1,038	4.8	24.7	28	1,056	4.7	24.1	27	1,047	4.5	22.9
Swedish bank branches abroad	2,005	9.3	47.7	76	2,032	9.0	46.3	79	4,576	19.8	99.9

Sources: Financial Supervisory Authority, Riksbank, and Fund staff calculations.

1/ Includes all major nonbank financial institutions of the banking groups and branches in abroad.

2/ Not including minor local companies

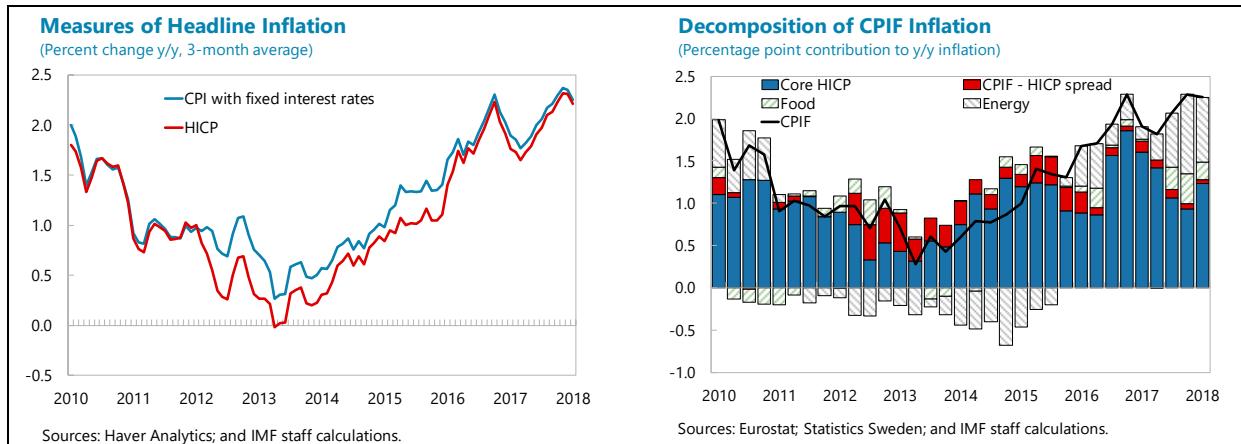
3/ Market value of funds

4/ Number of institutions is computed on unconsolidated basis.

Appendix I. Underlying Inflation Developments

1. Headline inflation has returned to the 2 percent target, boosted by energy price increases.

Both the CPI with fixed interest rates (CPIF)—used by the Riksbank to assess performance against its inflation target—and the internationally-comparable HICP have varied around 2 percent y/y since mid-2017. However, energy price increases have contributed heavily to headline inflation since 2016, together with food prices accounting for nearly half the headline rate in 2018.



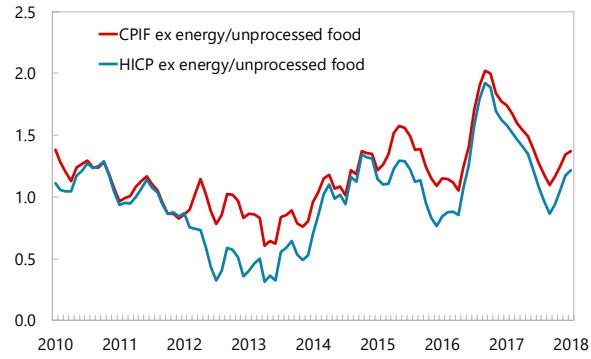
2. Traditional core inflation measures exhibit an unusual temporary spike in mid-2017, making them less useful as policy guides.

Core measures--excluding energy and unprocessed food--of both the CPIF and the HICP jumped to about 2 percent in mid-2017, only to decline quickly to as low as 1.0 and 0.8 percent y/y respectively by August 2018. This suggests that temporary factors other than energy and food drove up core inflation, making core inflation a less informative indicator of underlying inflation.

3. A change in methodology and one-off price hikes were the main contributors to the spike in core inflation. A change to the measurement of package holiday prices resulted in a large (about 20 percent m/m) increase in this component in June and July 2017. Despite a weight of only 1.6 percent in the core HICP, package holidays alone contributed 0.5 ppts to y/y core HICP inflation of 2.1 percent in July 2017. One-off increases in

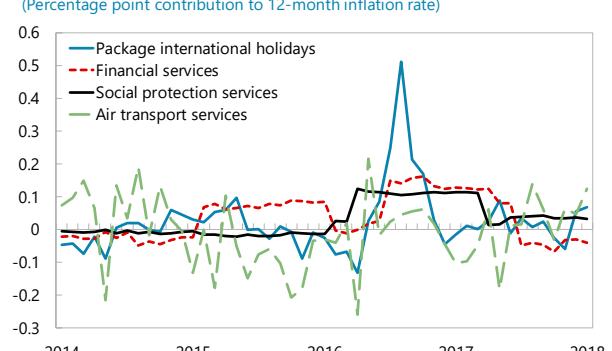
Traditional Measures of Core Inflation

(Percent change y/y, 3-month average)



Contributions to Core HICP Inflation 1/

(Percentage point contribution to 12-month inflation rate)

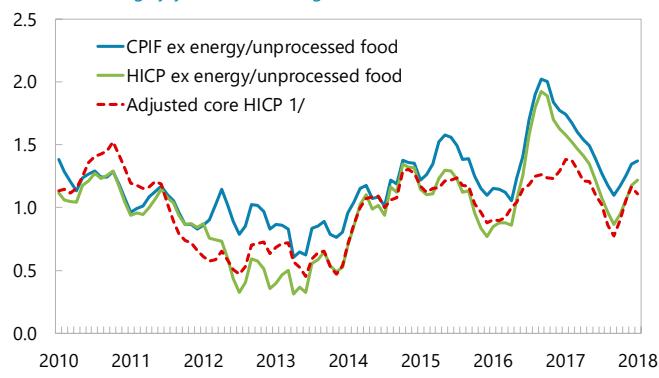


financial services fees (3.2 percent weight) in June 2017 and social protection services (1.5 percent weight) in March 2017 together contributed an additional 0.3 ppts to the July 2017 peak in core HICP inflation. In addition, the air transport services series (with a 1 percent weight) has made highly volatile contributions from month to month during this period.

4. A measure excluding these four components is notably more stable in recent years, at levels significantly below the inflation target. Removing these four components from the core HICP index produces an “adjusted core HICP.” As illustrated, the adjusted core HICP inflation rate is more stable in recent years, remaining around 1–1¼ percent y/y since 2015. It is notable that inflation in the traditional core HICP has recently declined to around this level.

5. Another approach to assessing underlying inflation is to use an estimate of the trend in the price index. The aim is to separate the temporary price level movements—such as the mid-2017 shocks—from a more stable trend. In a state space model, the core HICP is modelled as the sum of a stochastic trend with a slope that follows a random walk, plus a stationary AR(1) component for the temporary deviations from that trend. A Kalman filter estimate of the slope tends to be smooth, suggesting it captures the more persistent component of inflation. It shows a broadly flat profile around 1¼ percent over the last two years. Nonetheless, there is significant uncertainty around this estimate, with the standard deviation of 0.2 percent giving a 66 percent confidence interval of 1.1 to 1.5 percent.

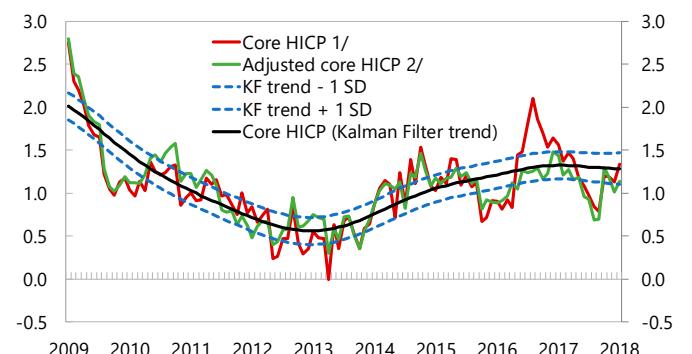
Additional Measures of Core Inflation (Percent change y/y, 3-month average)



1/ Ex. energy, unprocessed food, air travel, holidays, bank services, and social protection services.

Sources: Haver Analytics; and IMF staff calculations.

Core HICP Inflation (Percent change, y/y)



1/ Excludes energy and unprocessed food.

2/ Also excludes package holidays, and bank/social protection/air transport services.
Sources: Eurostat; and IMF staff calculations.

Appendix II. External Sector Assessment

	Sweden	Overall Assessment												
Foreign asset and liability position and trajectory	<p>Background. The Swedish net IIP reached 6.9 percent of GDP in 2018, up 2.5 percentage points in the year. It is expected to rise further in the medium term, reflecting the outlook for continued current account (CA) surpluses. It is worth noting that over the last decade, the average annual increase in the net IIP was about 1.5 percent of GDP, well below the average CA surplus of 4.6 percent of GDP. This gap may partly reflect negative valuation effects, but its persistence since 2000 suggests potential measurement issues. This is consistent with the large errors and omissions, which have averaged -1.8 percent of GDP in the past decade.</p> <p>Assessment. Gross liabilities were 252 percent of GDP in 2018, with about two-thirds being external debt (168 percent of GDP). Although rollovers of external debt (which include banks' covered bonds) pose some vulnerability, risks are moderated by the banks' liquidity and capital buffers. Sweden's strong FX reserves and low public debt help ensure capacity to manage pressures.</p>	<p>Overall Assessment: Sweden's external position in 2018 was <i>moderately stronger</i> than the level consistent with medium-term fundamentals and desirable policies. Subsequent developments do not point to a change in the external position.</p>												
Current account CA Assessment 2018	<p>Background. The CA balance is estimated to have fallen to 2.0 percent of GDP in 2018, from 2.8 percent in 2017 and well below its average in the past decade (4.6 percent). This CA balance decline is led by the trade balance, including a decline in the oil balance of 0.4 percent of GDP. However, estimates are preliminary and subject to potential data revisions given differences between the SNA and BOP trade balance.</p> <p>Assessment. The cyclically adjusted current account is estimated at 2.3 percent of GDP in 2018, 1.1 percentage points above the cyclically adjusted EBA norm of 1.2 percent of GDP. However, the estimated EBA norm for Sweden has been below the actual CA balance for the past two decades, suggesting that factors not captured by the model may also be driving Sweden's savings-investment balances. Overall, staff assesses Sweden's CA gap at 1.1 percent of GDP in 2017, within a range of +/- 1.5 percent of GDP, reflecting uncertainty around the EBA estimated norm.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Actual CA</td> <td style="padding: 2px;">2.0</td> <td style="padding: 2px;">Cycl. Adj. CA</td> <td style="padding: 2px;">2.3</td> <td style="padding: 2px;">EBA CA Norm</td> <td style="padding: 2px;">1.2</td> <td style="padding: 2px;">EBA CA Gap</td> <td style="padding: 2px;">1.1</td> <td style="padding: 2px;">Staff Adj.</td> <td style="padding: 2px;">0.0</td> <td style="padding: 2px;">Staff CA Gap</td> <td style="padding: 2px;">1.1</td> </tr> </table>	Actual CA	2.0	Cycl. Adj. CA	2.3	EBA CA Norm	1.2	EBA CA Gap	1.1	Staff Adj.	0.0	Staff CA Gap	1.1	<p>Potential policy responses: A mildly expansionary fiscal policy stance—consistent with converging to the lower medium-term surplus target—should support demand going forward. Overall investment is high, but may decline relative to GDP owing to a slump in construction. It remains important to implement reforms to help restore a higher level of residential investment. Reforms to facilitate migrant integration into the labor market should be implemented to raise potential output and also reduce household uncertainties around the sustainability of Sweden's strong social model. Overtime, some appreciation of the krona is expected when inflation returns to target.</p>
Actual CA	2.0	Cycl. Adj. CA	2.3	EBA CA Norm	1.2	EBA CA Gap	1.1	Staff Adj.	0.0	Staff CA Gap	1.1			
Real exchange rate	<p>Background. The Swedish krona depreciated by 4.3 percent in real effective terms in 2018 relative to its average level in 2017, as underlying inflation remained low and political uncertainties developed around the September elections and extended government formation process.</p> <p>Assessment. EBA analysis suggest a gap of -17 percent and -19 percent using the REER index and level approaches, respectively, for 2018. In contrast, in 2018 the ULC based REER index is only 6 percent below its 25-year average, well within its +/- 12.5 percent historical fluctuation range. Applying a 0.35 semi-elasticity of CA to REER to the CA gap of 1.1 percent +/- 1.5 percent of GDP gives a valuation range for the <i>krona</i> of 1 to -7 percent. Given uncertainties related to EBA's CA gap estimates for Sweden, staff gives greater weight to estimates from the EBA REER models and the ULC based REER position and assesses the <i>krona</i> to be undervalued by 5 to 15 percent. This REER gap is expected to be temporary, with the krona likely to appreciate in the medium term as monetary policy eventually normalizes.</p>													
Capital and financial accounts: flows and policy measures	<p>Background. Given their size and funding model, Sweden's large banks remain vulnerable to liquidity risks stemming from global wholesale markets even though banks have improved their structural liquidity measures in recent years.</p> <p>Assessment. Macroprudential policies implemented in recent years (increases in capital buffers of domestic banks and mortgage amortization regulations on the household side) can help contain vulnerabilities and hence potential liquidity risks. Continuing to monitor an extended (three-month) Liquidity Coverage Ratio in U.S. dollars and euros will remain useful in ensuring the adequacy of the FX liquidity buffers of banks.</p>													
FX intervention and reserves level	<p>Background. The exchange rate is freely floating. Foreign currency reserves stood at USD 60 billion in December 2018, which is equivalent to 21 percent of the short-term external debt of monetary and financial institutions (primarily banks) and about 11 percent of GDP.</p> <p>Assessment. In view of the high dependence of Swedish banks on wholesale funding in foreign currency, and the disruptions in such funding that have occurred at times of international financial distress, Sweden should maintain adequate foreign reserves.</p>													

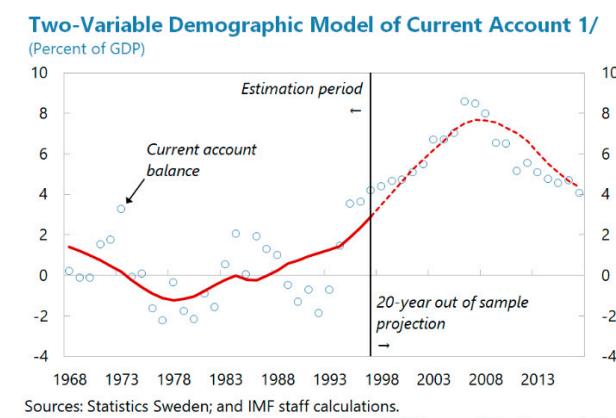
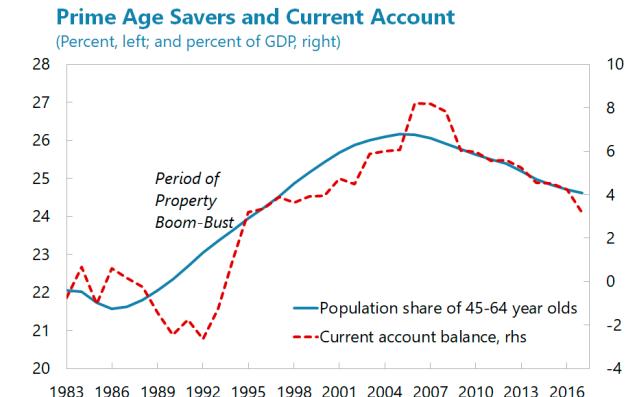
Notes on the External Sector Assessment

6. Revisions to the specification of the 2018 external balance assessment (EBA) model increased Sweden's EBA current account (CA) norm. The [2018 External Sector Report](#) undertook significant refinements of the EBA framework for assessing countries' external balance position. For Sweden, this resulted in an almost 3 percentage point increase in the EBA current account norm, to 1.8 percent of GDP in 2017 up from -1 percent of GDP under the previous model.

7. Nonetheless, based on the historical performance of the EBA CA model, staff gives greater weight to exchange rate models in assessing Sweden's external position. The fitted values of the EBA CA model for Sweden have been below the actual current account balance for the past two decades. These prolonged and substantial deviations suggest that factors not captured by the EBA model may also be driving Sweden's savings-investment balances. Given uncertainties related to the EBA CA model gap estimates for Sweden, staff gives greater weight to estimates from the EBA REER models and the ULC based REER position.

8. The wide historical swings in Sweden's current account balance are associated with the age structure of the population. Staff analysis of Swedish household saving found the old and young age dependency ratios to be significant explanatory variables.¹ Similarly, the major rise and decline in Sweden's current account broadly mirrors the share of prime age savers (persons aged 45–64), aside from a temporary deviation during the property boom-bust in the late 1980s and early 1990s.

9. Demographic factors appear to be statistically robust drivers of trends in Sweden's current account. A two-variable model that includes the share of children (0–14 year olds) in addition to the share of prime savers, was estimated for the 30-year period 1968–97. Its 20-year out of sample projections match the historical rise and fall in Sweden's current account without large deviations. Based on official demographic projections by age group, this simple model suggests the current account will average about 3 percent of GDP over the medium-term.



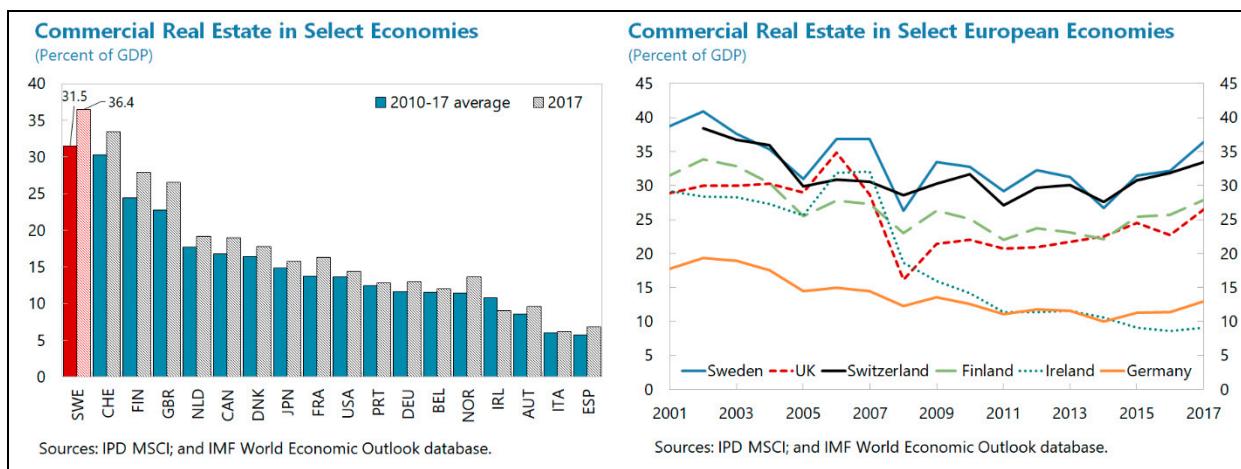
¹ See "High Household Savings in Sweden," [2017 Article IV Selected Issues](#) paper.

Appendix III. Commercial Real Estate Market¹

The commercial real estate (CRE) market is substantial in Sweden, utilizing sizable financing including bank lending. Strong growth in prices relative to rents has led to stretched valuations, especially if required rates of returns revert to historical norms. Increased reliance on bond financing and short interest rate fixing periods call for continued close monitoring to protect macrofinancial stability.

1. Commercial real estate is important for Swedish financial stability. The commercial property market has experienced substantial volatility historically, with implications for macrofinancial stability.² Indeed, the 1990s banking crisis in Sweden followed an asset price boom that was amplified by financial deregulation in the mid-1980s, leading to a collapse in commercial property prices exceeding 60 percent in 1990–92.³ Defaults in the commercial property sector, such as construction companies and CRE developers, were the main source of bank credit losses, contributing to the wider banking-currency crisis which had major adverse macroeconomic impacts.

2. Sweden has a relatively large commercial property sector. MSCI estimates the size of the CRE market at nearly SEK 1.7 trillion (\$200 billion) in 2017, or around 36 percent of GDP, making it among the largest in the world in relation to GDP.⁴ By comparison, the value of Swedish residential dwellings was about 150 percent of GDP in 2017. Unlike the U.K. and Ireland, Sweden faced a mild and partly temporary decline in CRE market value during the global financial crisis, and following valuation increases in recent years, total CRE market values are broadly in line with pre-crisis levels.



¹ This appendix benefits greatly from discussions with Neil Crosby (University of Reading) and Christina Gustafsson (KTH Royal Institute of Technology in Stockholm).

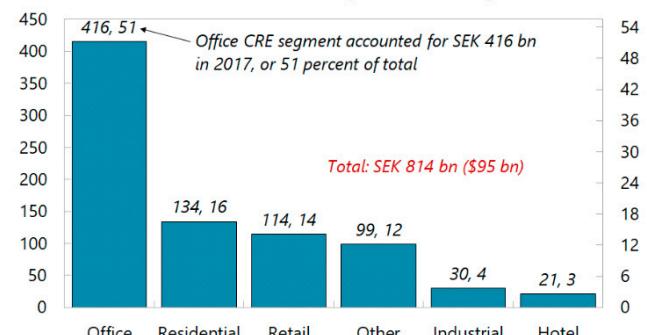
² Commercial real estate (CRE) refers office buildings, shopping malls, hotels, restaurants, etc. that are often leased or rented to businesses. Some definitions treat industrial properties as a subset of CRE.

³ See Englund (2015), The Swedish 1990s banking crisis: A revisit in the light of recent experience, Stockholm School of Economics [Working Paper](#).

⁴ Earlier [estimates](#) by the Riksbank put the size of the CRE market closer to 40 percent of GDP.

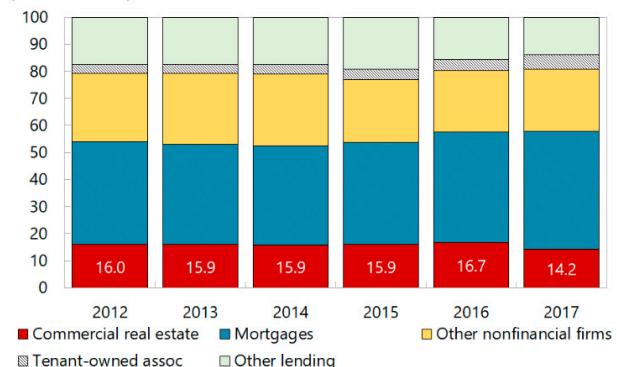
3. Marketable commercial real estate in Sweden is primarily office space. In the subset of commercial property assets that are sufficiently marketable to be included in MSCI's commercial property index,⁵ about half are in the office segment, predominantly in the three largest cities, Stockholm, Gothenburg, and Malmö. Some 16 percent of commercial real estate assets are in residential real estate (via multi-family dwellings, rental housing, and special-purpose housing) while 14 percent are retail properties.

Sweden: Commercial Real Estate Capital Value 1/
(2017; billions of Swedish kroner, left; and percent of total, right)



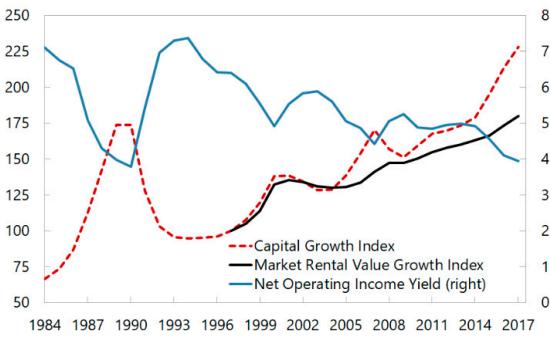
4. The financing structure of CRE has been changing but banks still have substantial exposure. Commercial property operators and developers rely primarily on debt financing from banks and nonbank financial institutions. But borrowing from financial markets has risen, with the FI estimating that one-quarter of the total interest-bearing debt of real estate companies was in bonds in 2017, up from about 5 percent in 2006. This direct exposure to wholesale funding can amplify market shocks to CRE borrowers and restrict their ability to rollover debt if rates rise suddenly. The availability of equity financing has also increased, often via cross-border inflows. Nonetheless, Swedish banks have significant lending exposure to commercial property, at 14 percent of their loan book in 2017. Yet, banks are funding a declining share of the CRE market, with bank loans declining from 45 percent of CRE market value in 2012 to 35 percent in 2017.

Credit Portfolio Composition of Major Swedish Banks
(Percent of total)



5. Recent property price and rental developments imply a decline in rental yields to low levels by historical standards, but spreads over bonds remain significant. Prices of CRE assets rose by almost 30 percent in 2015–17, with prices of office and retail properties recovering more strongly than the rest of the commercial property market from the 2008 slump. The price gains are far ahead of the steady 3 percent annual average increase in commercial property rents

Sweden: CRE Growth and Value Indices and Yield
(Index, 1997 = 100; and percent, right axis)

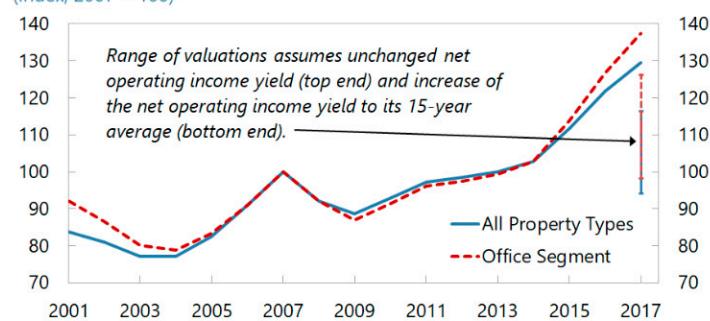


⁵ Marketable CRE assets are those with more turnover and better availability of price and rental data. MSCI tracks SEK 814 billion in marketable CRE assets, or about half of the total market size (SEK 1.7 trillion) as of 2017.

over the last 20 years. As a result, nominal yields of CRE assets declined to around 4 percent in 2017, down from an average of 5 percent in 2005–15. This brings CRE yields back to near their early 1990s lows, ahead of the property bust. But, at the same time, the spread of CRE yields to 10-year government bond yields has increased since the global financial crisis from $\frac{1}{4}$ percentage point to $3\frac{3}{4}$ percentage points currently. This spread increase could reflect domestic and external QE reducing bond yields with less spillover to less liquid assets like CRE, but it may partly be owing to a need for greater compensation due to investor caution. The FI [notes](#) that the combination of low yields and rapidly rising prices have historically been an indicator of future price falls, therefore increased monitoring of imbalances is needed.

6. Commercial property prices appear somewhat stretched, with estimated valuation gaps sensitive to changes in required returns. Staff analysis using standard market value and mortgage lending value models suggests some 13 percent overvaluation of the MSCI broad CRE index at current yield levels, assuming that rental values and net operating income yields remain unchanged.⁶ If yields were to revert to their 15-year average (approximately 5 percent), the estimated overvaluation would increase to 35 percent. Office properties appear to be overvalued by 10 to 38 percent under similar assumptions.

Commercial Real Estate Property Values and Valuation 1/ (Index, 2007 = 100)



Sources: MSCI IPD; and Fund staff calculations.

1/ The valuation is the average of the market value and mortgage lending value methodologies (see Crosby, N. and Hughes C (2011), "The basis of valuations for secured commercial property lending in the UK." *Journal of European Real Estate Research*, Vol 4, No. 3, pp 225-42).

7. Analysis by the authorities of borrowers' repayment capacity suggests that risks to financial stability are contained, but the sensitivity to rising rates has increased. [Analysis](#) by the Riksbank of commercial property firms listed on the Swedish stock exchange finds that large interest rate shocks and substantial revenue declines are required for these firms to generate insufficient cash flows to meet their short-term debt liabilities. Similarly, in its 2018 [Stability in the Financial System](#) report, the FI notes the increase in the interest coverage ratio of CRE firms, as well as the reduction of their debt/equity leverage ratio, and concludes that the quality of commercial property credit is satisfactory. Yet, the FI warns that real estate companies are subject to greater refinancing risk due to their large debt and relatively short interest rate fixation periods, so it intends to continue monitoring developments.

⁶ Following the methodology described in Crosby and Hughes (2011), the basic models assume that the property rents at its rental value and the rental value estimate is also the net operating income (NOI). The capitalization rates for the mortgage lending value model are estimated using a long-term trend estimate for the NOI yield via an HP filter with parameter equal to 100 (annual data).

Appendix IV. Debt Sustainability Analysis

Sweden Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario (in percent of GDP unless otherwise indicated)

	Debt, Economic and Market Indicators ^{1/}										As of January 22, 2019		
	Actual			Projections									
	2007-2015 ^{2/}	2016	2017	2018	2019	2020	2021	2022	2023				
Nominal gross public debt	40.4	42.4	40.8	39.0	37.2	35.5	33.9	32.3	30.9				
Public gross financing needs	9.5	10.7	7.1	6.2	7.5	6.9	7.4	6.7	6.2				
Real GDP growth (in percent)	1.6	2.7	2.1	2.3	1.2	1.8	1.9	2.0	2.0				
Inflation (GDP deflator, in percent)	1.9	1.6	2.3	2.2	2.2	2.0	1.9	2.0	2.0				
Nominal GDP growth (in percent)	3.5	4.4	4.4	4.6	3.4	3.8	3.8	4.1	4.1				
Effective interest rate (in percent) ^{4/}	2.8	1.0	0.9	0.9	1.0	1.1	1.4	1.5	1.9				
Contribution to Changes in Public Debt													
	Actual			Projections							cumulative	debt-stabilizing	
	2007-2015	2016	2017	2018	2019	2020	2021	2022	2023				
Change in gross public sector debt	0.0	-1.8	-1.5	-1.8	-1.8	-1.8	-1.6	-1.6	-1.4	-9.9			
Identified debt-creating flows	-0.3	-1.4	-3.9	-2.1	-1.2	-1.1	-0.9	-0.9	-0.8	-7.1			
Primary deficit	-0.3	-1.0	-1.4	-0.6	-0.3	-0.2	-0.1	-0.1	-0.1	-1.4			
Primary (noninterest) revenue and grant ^{5/}	49.0	49.3	49.4	49.0	48.9	48.8	48.6	48.6	48.6	292.6			
Primary (noninterest) expenditure	48.7	48.3	48.0	48.4	48.5	48.6	48.5	48.5	48.5	291.1			
Automatic debt dynamics ^{5/}	0.0	-0.4	-2.5	-1.5	-0.9	-1.0	-0.8	-0.8	-0.7	-5.7			
Interest rate/growth differential ^{6/}	-0.3	-1.4	-1.4	-1.5	-0.9	-1.0	-0.8	-0.8	-0.7	-5.7			
Of which: real interest rate	0.3	-0.3	-0.6	-0.6	-0.5	-0.4	-0.2	-0.2	0.0	-1.8			
Of which: real GDP growth	-0.6	-1.1	-0.9	-0.9	-0.4	-0.6	-0.6	-0.7	-0.6	-3.9			
Exchange rate depreciation ^{7/}	0.4	1.0	-1.1			
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Residual, including asset changes ^{8/}	0.3	-0.4	2.4	0.3	-0.5	-0.6	-0.6	-0.6	-0.7	-2.8			

Debt-Creating Flows
(in percent of GDP)

projection →

Source: IMF staff.

cumulative

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

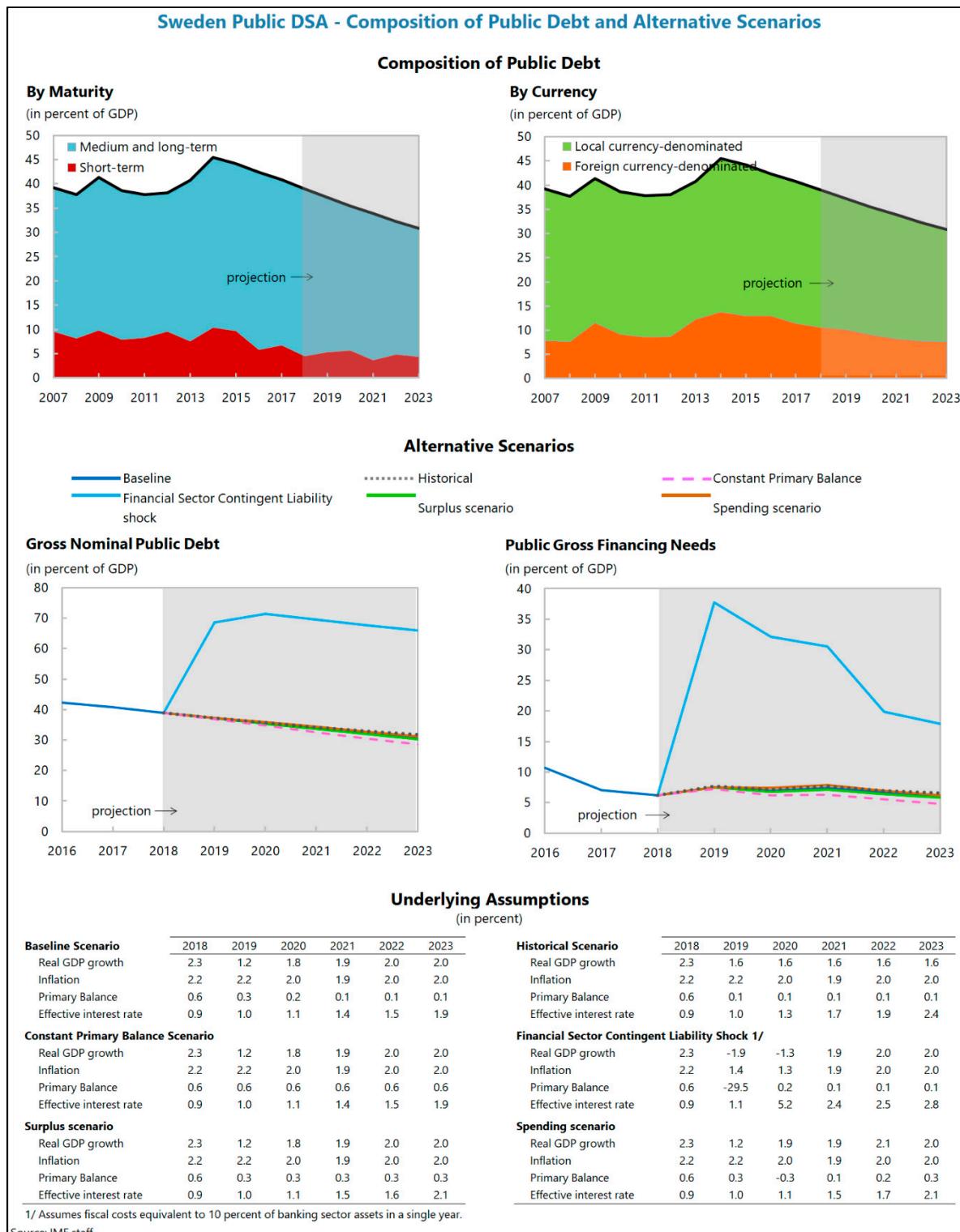
5/ Derived as $(r - \pi(1+g) - g + ae(1+\pi)) / (1+g+\pi+g\pi)$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+\pi)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

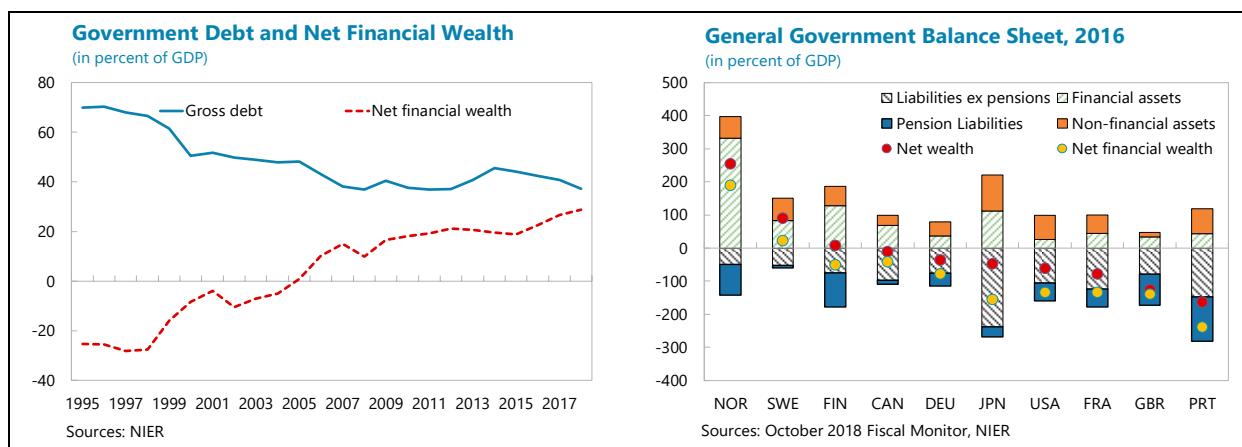
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.



Appendix V. Sweden's Intertemporal Fiscal Position

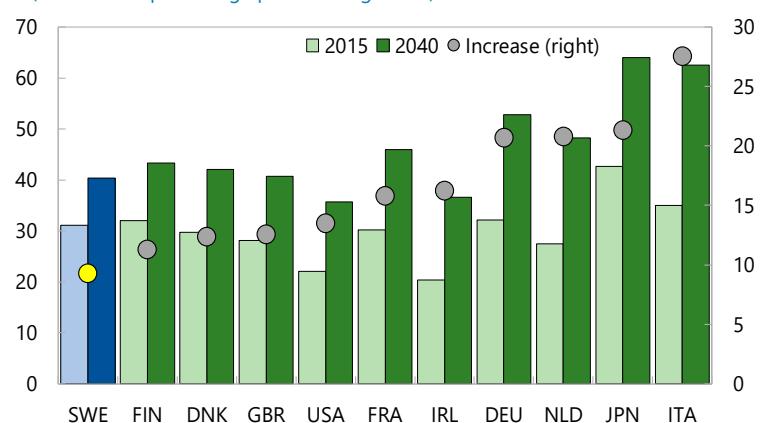
Sweden's fiscal position is sustainable in the face of population aging given its sound initial balance sheet condition and relatively small expected increases in total aging-related expenditures. The latter is largely attributed to reforms that result in falling public pension spending as a share of GDP as the pension system switches from public to private schemes. Although other social expenditures, especially long-term care, are rising more rapidly than public pensions, the expected increases are lower than in peer countries thanks to more favorable demographic trends.

1. Sweden's general government balance sheet is sound. Over the past two decades Sweden's gross debt has fallen from around 70 to 40 percent of GDP, a relatively low level by international standards. Net financial wealth, defined as financial assets less gross debt, turned positive in mid-2005, reaching 29 percent of GDP in 2018. Financial assets consist mainly of public pension funds, holdings in state-owned enterprises, and more liquid investment assets. The Swedish government also has sizable non-financial assets, bringing net wealth up to 90 percent of GDP, higher than most advanced economies.



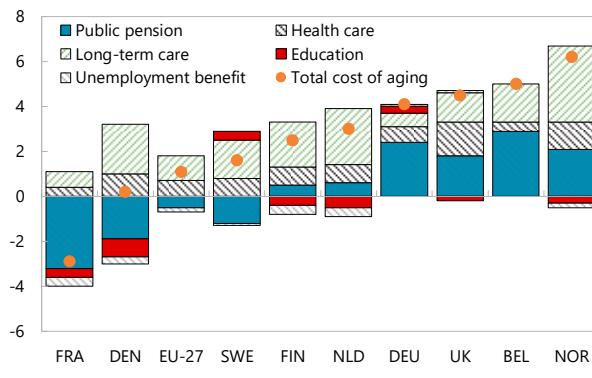
2. Sweden's population aging is smaller than in many advanced economies. Sweden has an old age dependency ratio of about 30 percent, similar to Germany. Yet, the increase in this ratio by 2040 is among the lowest in advanced economies, at 10 percentage points, about half that expected in Germany. Sweden's relatively favorable demographic prospects reflect a combination of higher fertility and immigration.

Old Age Dependency in Select Economies 1/ (Percent and percentage points on right axis)



3. The expected increase in total aging-related expenditures is among the lowest in advanced EU countries. By 2070, the total aging-related expenditures are expected to increase by only 1.6 percentage points (ppts) of GDP in Sweden, much lower than Norway (6.2 ppts), Germany (4.1 ppts) and the U.K. (4.5 ppts). Looking into the individual components, long-term care contributes most to the increase, with its expenditure share rising by 1.7 ppts from 2016 to 2070. Health care (excluding long-term care) expenditure is also expected to increase, by 0.8 ppts. Public pension expenditure, on the other hand, is projected to fall as a share of GDP, as discussed below. Expected changes in other social spending such as education and unemployment benefits are relatively marginal.

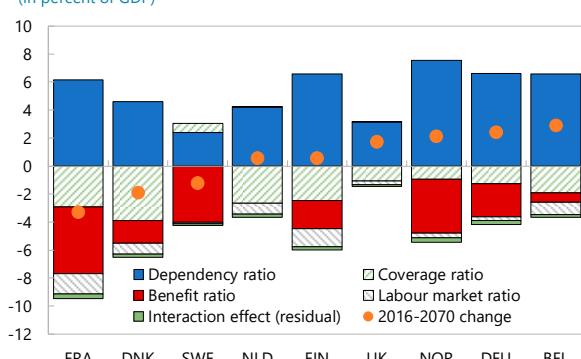
Expected change of aging-related expenditures from 2016 to 2070
(in percent of GDP)



Sources: European Commission 2018 Ageing Report

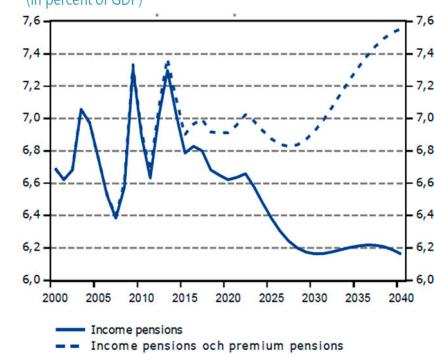
4. Sweden's pension reforms are the key driver of the projected decline in public pension spending as a share of GDP.¹ A decomposition exercise from the European Commission shows that the change in public pension expenditures is mainly driven by four factors—the dependency ratio, coverage ratio, benefit ratio, and labor market dynamics.² In Sweden, a falling benefit ratio contributes the most to the deceleration of public pension expenditures, primarily because a smaller share of pension payments come from the public pensions (the income pension), and more from the premium pension (private investment funds not included in general government).³ As the new system grows in importance, the public part of pension expenditure declines throughout the

Contributions to change in public pension expenditures, 2016-2070
(in percent of GDP)



Sources: European Commission 2018 Ageing Report

Income and premium pension expenditures, 2000-40
(in percent of GDP)



Sources: Statistics Sweden and NIER

¹ "A Reformed Pension System," Memorandum of the Pension Working Group, 1992, Edward Palmer, "The Swedish Pension Reform Model: Framework and Issues," 2000.

² European Commission, "The 2018 Ageing Report," May 2018.

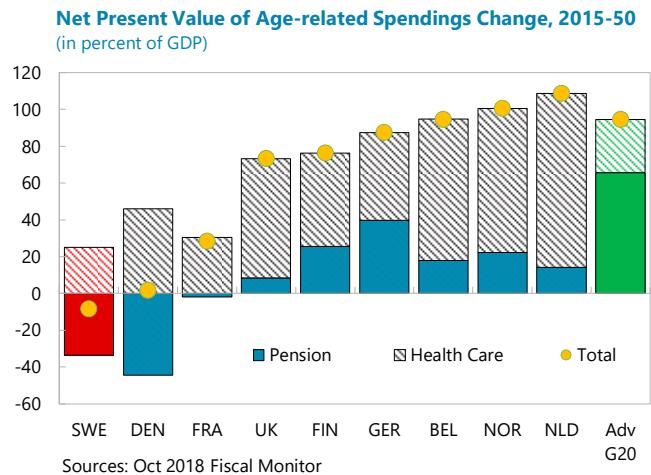
³ The investment funds consist of securities or shares that pensioners select.

projection period, even as the total pension spending still rises faster than GDP.⁴ A secondary contributor is the “sustainability factor” introduced during the pension reform that requires the pension system to smooth out the pension payments over a longer period of retirement in anticipation of rising life expectancy.⁵ The relatively favorable demographic outlook also contributes to smaller increase in public pension spending in Sweden.

5. Other social spending is projected to rise more rapidly, especially long-term care.

Health care excluding long-term care spending, currently at around 7 percent of GDP, is close to the EU average. It is projected to rise as a share of GDP to 7.7 percent by 2070, which is relatively modest thanks to Sweden’s favorable demographics with the population becoming healthier and aging at a slower pace than its peers. Long-term care spending, largely affected by the old and very old (over 80 year old) population, is projected to increase more rapidly, to almost 5 percent of GDP in the next five decades from just over 3 percent 2016. This can be due to longer life expectancy, higher coverage rates of long-term care recipients, and more formally qualified care-givers.

6. Despite the rising fiscal cost from an aging population, the government’s balance sheet remains sustainable in the long run. The net present value (NPV) of the change in future public spending on pensions and health care is negative, contributing positively to Sweden’s intertemporal net wealth.⁶ Even accounting for the rise in long-term care spending, the total increase in aging costs is not expected to weigh heavily on the fiscal position going forward. Based on the projections by the National Institute of Economic Research (NIER), total government consumption (including publicly-funded welfare services such as health care, schools and elderly care), is projected to rise from 26 to 28 percent of GDP, which is offset by falling social transfers (including public pensions) from 14 to 12 percent of GDP. Government investment is expected to remain broadly unchanged at around 4.5 percent of GDP. The revenue ratio would also stay flat at around 44 percent of GDP assuming unchanged tax policy. This spending and revenue outlook yields positive net lending throughout the projection period at around 0.5 percent of GDP. Hence, NIER projects Sweden’s net financial wealth to rise from 26 percent in 2016 to close to 30 percent in 2040.



⁴ “The Pension System and Pension Projections Until 2060,” Ministry of Finance, 2014.

⁵ “Fiscal Sustainability Report 2018,” National Institute of Economic Research, 2018.

⁶ The calculation for long-term care is not available from the October 2018 Fiscal Monitor.

Appendix VI. Update on the 2016 FSAP Recommendations

	Recommendations and Authority Responsible for Implementation	Time*
<i>Financial Stability</i>		
1	Introduce a cap on the debt-to-income ratio (MoF/FI)	NT
	Status: Finansinspektionen (FI) has introduced, with the Government's consent, a stricter amortization requirement for new mortgage holders who take on large loans in relation to their income. After March 1, 2018, new mortgage holders who borrow more than 4.5 times their gross income, i.e. pre-tax income, must amortize at least 1 percentage point more of their mortgage per year. This change has been introduced through amendments to the amortization requirement that was adopted in 2016. Consequently, a new mortgage credit granted to households with a debt-to-income ratio exceeding 4.5 must be amortized by at least 1 percent if the loan-to-value ratio is below 50 percent and by at least 2 percent if the loan-to-value ratio exceeds 50 percent but is less than 70 percent and, finally, by at least 3 percent if the loan-to-value ratio exceeds 70 percent.	
2	Remove tax incentives to hold real estate assets and fund them with debt (MoF)	NT
	Status: The existence of mortgage interest tax relief in Sweden has most likely contributed to the level of household debt. Measures affecting mortgage interest deductibility must however be seen in a long-term perspective and be handled with great care, due to the potential negative effects that a change may have on households' financial position and economic growth. The design of the tax system can also have an impact on the functioning of the property market. To increase the mobility on the property market, the Government implemented more generous rules for deferring capital gains tax in 2016.	
3	Timely adoption of a leverage ratio as a backstop (FI)	NT
	Status: FI views the Leverage Ratio as an important backstop element of the post-crisis reforms and supports its near term implementation across the EU through the upcoming legislative regulation package, CRR II. As such, the authorities view the adoption of the Leverage Ratio as being on track.	
4	Monitor an extended (three-month) LCR in euro and U.S. dollar (FI)	NT
	Status: FI continuously reviews the supervisory methods for liquidity and funding risks. FI has introduced Pillar 2-requirement on top of the European requirement for a liquidity coverage ratio (LCR) according to the Commission's delegated act. The EU requirement became a binding minimum requirement in the EU from January 1, 2018 and the former Swedish LCR-requirement was repealed. In addition to the EU minimum requirement for LCR, FI introduced a specific liquidity requirement (in Pillar 2) for LCR in EUR and USD respectively during 2018, in all SREPs for credit institutions belonging to Supervisory Categories 1 and 2. The Pillar 2 requirement applies through a joint decision taken in October and will follow the same main principles as for Pillar 2 capital requirements. As a part of FI's liquidity stress testing project (mentioned below in point 7), the authority has developed a tool to replicate LCR in different currencies through the use of the EBA Maturity Ladder reporting template. This tool enables the authority to replicate and monitor extended LCR outcomes for different terms – e.g. three-months and beyond in all significant currencies including euro and USD. The output from the stress-test tool will also serve as an important input for Pillar 2 measures for structural liquidity risks. In sum, FI has followed the recommendation to adopt an extended (three-month) LCR in euro and USD.	
5	Introduce regular surveys on the distribution of household balance sheets (RB)	I
	Status: The Riksbank has been collecting household-level data on incomes, mortgages and other bank loans since 2013. That data lacks information on household assets. FI has been collecting microdata on new mortgage borrowers, including home values. That data however also lacks financial assets, and is a snapshot of new borrowers. Currently, RB and FI are investigating the possibility to collect detailed information on household incomes, liabilities, financial and housing assets. This project has made significant progress, but many obstacles remain, not least regarding the authorities' legal rights to collect and process personal data, making the outcome of the project as of yet uncertain.	

	Recommendations and Authority Responsible for Implementation	Time*
	<i>Financial Stability</i>	
6	Introduce regular stress tests of corporate resilience (FI)	I
	<p>Status: FI is currently working with the public datasets from Statistics Sweden (Structural business statistics, FEK) that contains information on enterprises financial performance. Initial steps towards developing a stress testing framework for corporate resilience has been taken but FI needs more granular corporate credit data to be able to develop the stress tests. A joint project between FI, RB and Statistics Sweden has been initiated with the purpose to collect two new databases, a credit database (KRITA, similar to ECBs AnaCredit) and a securities holdings database (VINN, similar to ECBs SHS). With the necessary data in hand a corporate credit resilience exercise, similar to the existing household exercise, will be developed. While the data reporting has commenced, access to the full data by RB and FI analysts is expected possible from Autumn 2019. Moreover, in the Spring 2019 FI has performed a collection of micro level data on exposures as well as counterparty data to the commercial real estate sector (CRE). With this granular data an assessment of risks and vulnerabilities in the CRE sector will be conducted.</p>	
7	Improve stress testing framework for banks and insurance companies (FI, RB)	I
	<p>Status: FI is currently working to improve the stress testing framework within the authority. During 2018 FI has been working on a project that aims to improve and develop the broader framework within the authority for the stress testing of banks. FI is applying the EBA's 2018 stress test scenario to the IMF's 'Solvency Stress Testing Framework' to form an in-house view of stressed losses. Within this framework, FI has particularly focused its efforts on utilizing more granular time series of credit loss data than previously used, covering the main sector and country exposures, and developing a satellite credit loss model. The stress testing framework will be used in the future to regularly assess the resilience in the banking sector and during 2018 to assess the banks' EBA stress test results. The work will continue in 2019 with a focus on extending the work in 2018 by, increasing the point-in-timeliness of credit losses given a new accounting standard, developing satellite models for net interest income and net fee and commission income, and the generation of adverse macro-financial scenarios.</p> <p>FI has also developed a methodology on liquidity stress testing, including indicators on credit institutions' capacity to hold satisfactory volumes of liquid assets in time of stress. The stress test uses variables from the EBA technical reporting template of the Maturity Ladder and derive an approximate time dependent liquidity coverage ratio (LCR). The RB has developed a similar method.</p> <p>Furthermore, FI in 2018 developed an internal tool for stress testing of market risks in insurance companies, based on data from the regular Solvency 2-reporting. Following changes in market prices, the effects on financial strength and solvency ratios can be estimated.</p> <p>Further, FI and RB participate in the ESRB stress testing task force in order to monitor and influence the European stress testing exercises and the work and research currently being done in other countries and organizations.</p> <p>RB is in progress in building a comprehensive stress testing framework with modeling approaches as suggested by the FSAP. Specifically, RB is using more granular data on banks' exposures to model interest income and is extending previous credit risk models to account for non-linear effects. RB is also working on incorporating micro data in the stress testing methods for credit risk.</p> <p>FI and RB have bi-monthly meetings to coordinate Sweden's efforts to improve the stress testing frameworks. FI has also held meetings with Bank of England and ECB to learn from their experiences with macro-based stress tests while RB has held meetings with the Dutch Central Bank.</p>	
	<i>Macroprudential Policy, Systemic Risk Oversight, and Systemic Liquidity Management</i>	
8	Give FI a clear legal mandate for macroprudential policy, ensuring that FI has tools to address systemic risks in a timely and effective manner (MoF)	I
	<p>Status: In December 2017 Parliament passed a law, which the Government had presented during the fall of 2017, that has broadened FI's macroprudential toolbox. The legislative changes entered into force in February 2018. The law strengthens FI's legal mandate to take measures to counteract financial imbalances on the credit market, such as household indebtedness. Since these types of measures may have macroeconomic impacts and may affect the finances of private individuals, the law includes a requirement for FI to obtain the Government's consent before any new regulations are adopted.</p>	
9	Give the FSC, or a similar body, a statutory basis with power to issue recommendations, preferably with a 'comply or explain' attribute; expand its mandate to include crisis preparedness; establish two preparatory groups: (i) systemic risk monitoring; and (ii) crisis preparedness and management (MoF)	MT

	Recommendations and Authority Responsible for Implementation	Time*
<i>Macroprudential Policy, Systemic Risk Oversight, and Systemic Liquidity Management</i>		
	<p>Status: The Government's assessment is that the FSC can be a forum for discussion and cooperation but that it cannot issue recommendations with a "comply or explain" attribute, since this would be unconstitutional. Neither the Government nor any other authority is allowed to determine how another authority should decide in a particular case or how that authority should apply law (as stated in Section 2 of the Swedish Instrument of Government, which regulates the independence of administration). The fact that a Government minister is a member of the FSC could furthermore raise concerns of ministerial rule in such a set-up.</p> <p>The Swedish constitution does not prevent authorities from issuing recommendations to the Government, together or separately. However, neither the Government nor any other public authority can have an obligation to comply or explain in such circumstances.</p>	
10	Amend the RB Act to: (1) clarify the RB's role in financial stability, including by confirming the RB's authority to extend liquidity assistance for financial stability purposes; and (2) ensure the RB is in a strong financial position and protected from potential losses on such liquidity assistance (MoF)	MT
	<p>Status: At the request of the Committee on Finance, the Government appointed a parliamentary committee tasked with reviewing the monetary policy framework and the Riksbank Act in December 2016. Representatives of all parliamentary parties are included in the committee, which shall report on its mission to the Government by November 30, 2019. The committee will, among other things, investigate how specific the Riksbank Act should be on the monetary policy objective as well as clarify the RB's responsibility for financial stability. In October 2017 the Government amended the task of the committee to also include a review of the laws governing i.a. the financial independence, and balance sheet.</p>	
11	Seek to establish swap agreements with central banks in the Nordic countries, the Fed, and the ECB, aiming to strengthen the availability of ELA in relevant currencies (RB)	NT
	<p>Status: In December 2016, representatives of the central banks in the Nordic and Baltic countries signed a Memorandum of Understanding (MoU) on cooperation regarding banks with cross-border operations. The MoU concerns sharing information and cooperation with regard to banking groups that have operations in more than one Nordic-Baltic country and involves an intensification of the cooperation between the central banks in Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, and Sweden. Banks with subsidiaries and branches in several countries play an important role in the financial markets of the Nordic and Baltic countries. Cross-border banking groups provide benefits and improve efficiency in the financial system. At the same, they increase the risk that a problem arising in one bank or banking group can affect financial stability in more than one country. More in-depth cooperation between the central banks is therefore essential for financial stability. This MoU replaces the earlier agreements between the Nordic central banks signed in 2003 and the one between Sveriges Riksbank and the Baltic central banks in 2006. The MoU is not legally binding.</p>	
	<i>Financial Sector Regulation and Supervision</i>	
12	Broaden FI's mandate to issue binding regulations on safety and soundness issues (MoF)	MT
	<p>Status: FI has a relatively broad mandate which allows it to issue regulations in a number of areas, please see Chapter 16, Section 4 p. 4 of the Banking and Financing Business Act (SFS 2004:297). There have, however, been circumstances where adjustments to laws or ordinances have been necessary to allow FI to take action, and such circumstances may also arise in the future. One important example where a broader mandate was needed is the issuance of credit risk standards. Legislative action has been taken and a broader mandate on the issuance of credit risk standards that entered into force on August 1, 2018.</p>	
13	Ensure that the same level of protection is provided to occupational pensions as to life insurance (MoF)	NT
	<p>Status: When implementing the Directive on Institutions for Occupational Retirement Provision (IORP II) in Sweden, the EU regulatory framework will be complemented with a risk-based solvency regulation. Proposals to this effect has been put to a public consultation in July 2018. The proposed entry into force of the new legal provisions is May 1, 2019.</p>	

	Recommendations and Authority Responsible for Implementation	Time*
	<i>Financial Sector Regulation and Supervision</i>	
14	Improve the availability and quality of investment fund data and enhance FI's ability to conduct stress testing and other analyses for investment funds (FI)	NT
	Status: FI is preparing new regulation that will enable enhanced data collection and thus acquire improved quality data from investment funds. Further, the information required will also enable FI to perform stress tests when needed.	
15	Enhance cross-border supervisory cooperation, including in the supervision of systemic bank branches and cross-border management of investment funds (FI)	NT
	Status: A memorandum of understanding (MoU) has been agreed between countries in the Nordic-Baltic stability group in order to entail a coordinated approach to supervisors responsible for systemic branches. The MoU regulates how the competent authority, the home and host authority, should, within the framework of supervisory colleges established either under Article 116 or under Article 51(3) of Directive 2013/36/EU (CRD), cooperate to prudentially supervise and coordinate monitoring, including the assessment of recovery planning, for certain systemic important branches requiring intensified supervision. Furthermore, and in light of the application of EBA Guidelines on the supervision of Significant Branches (EBA/GL/2017/14), FI together with the other Nordic authorities have ongoing work to implement such intensified supervision. FI has also started an initiative for investment firms similar to one within investment funds which is a cooperation between the Nordic countries. In addition to regular contact on current supervision issues the Nordic participants meet twice a year. The cooperation tasks are among others cross border supervision. Furthermore, FI participates in the work program of the Joint Committee of the European Supervisory Authorities which includes a task for the subcommittee on Consumer Protection and Financial Innovation that focuses on cross border supervision of financial services (JC SC CPFI Sub-group on cross border supervision of retail financial services). The work aims e.g. at enhancing the cooperation between home and host competent authorities in the supervision of firms providing cross-border retail financial services.	
	<i>Crisis Readiness, Management, and Resolution</i>	
16	Under the FSC's auspices, ensure agency-specific and national financial crisis preparedness, including a national crisis management plan, updated bi- and multilateral cooperation MoUs, and regular single- and multi-agency financial crisis simulation exercises (MoF/NDO/FI/RB)	NT, C
	Status: The FSC secretariat and the preparatory group (i.e. the Government and the authorities) plan and implement regular crisis simulation exercises (so far on three occasions: autumn 2016, spring 2017, and spring 2018). Under the FSC work is ongoing regarding a common crisis management plan. Simultaneously, the respective authorities are in the process of implementing financial crisis preparedness within their own operational frameworks. Regular work is also performed to update cooperation MoUs.	
17	Seek to revamp the Nordic-Baltic Stability Group, supported by updated bi- and multilateral MoUs, to strengthen crisis preparedness and management, including regular financial crisis simulations exercises (MoF/NDO/FI/RB)	NT, C
	Status: The Swedish authorities, with the Ministry of Finance (MoF) in lead, initiated a work to revamp the Nordic Baltic Stability Group, NBSG, at the NBSG meeting in Stockholm October 2016. At the meeting in 2016 it was decided that the tasks and mandate of the NBSG should be revised in order to reflect the regulatory development regarding crisis management, recovery and resolution (BRRD) which has taken place since the founding MoU. An international drafting group revised the existing MoU during 2017. The new MoU was adopted in February 2018. The MoF coordinated the work on the new MoU and FI, RB and National Debt Office (NDO) have taken active part in the drafting. The revised MoU is focused on financial stability, information exchange, general work to enhance preparedness of future crisis management and joint crisis simulation exercises. The parties to the MoU are Ministries, Central Banks, Financial Supervisory Authorities, and Resolution Authorities of the Signatory Countries.	

	Recommendations and Authority Responsible for Implementation	Time*
	<i>Crisis Readiness, Management, and Resolution</i>	
	At the meeting of the NBSG in November 2016 it was decided to start the preparations for holding a regional (Nordic-Baltic) crisis simulation exercise in early 2019. A working group under the NBSG (working group on financial crisis simulation, led by the Riksbank) has been formed with representatives from the Nordic-Baltic Central Banks, Financial Supervisory Authorities, Resolution Authorities, and Ministries of Finance. A first meeting was held in Stockholm in January 2017. It was decided to initiate a call for tender process in order to select an external consultant to help with preparing and running the simulation exercise. The call for tenders was concluded in the fall of 2017. The preparatory team under the working group has since January been preparing the exercise. A dry run will take place in October and the actual simulation in January 2019. Apart from the aforementioned Nordic-Baltic authorities and the contracted external consultants, the Single Resolution Board (SRB), the SSM (ECB) as well as the EU Commission have been involved in the preparatory work.	
18	Expedite resolution planning for systemic financial institutions (NDO)	I
	<p>Status: In December 2017, the NDO formally decided on resolution plans for all 162 banks and other financial institutions in Sweden under the remit of the BRRD. The NDO's current assessment is that ten institutions are systemically important in Sweden and these institutions therefore have more complex resolution plans. The remaining 152 institutions may be placed into bankruptcy or enter into liquidation proceedings without threatening financial stability. The decisions concerning the four cross-border banks (Handelsbanken, Nordea, SEB, and Swedbank), were taken jointly in each respective resolution college. As Nordea changed its domicile to Finland in Fall 2018, no resolution plan is produced by the NDO for Nordea 2018. Instead, the NDO is cooperating with the SRB and the Finnish resolution authority to enable a smooth transition and to put in place a transitional resolution plan as early as possible in 2019.</p> <p>The NDO has also set an MREL requirement which applies from January 1, 2018. The MREL decision applies to the size of the capital base and stock of eligible liabilities that the institution must have at minimum. The requirement is already met by all institutions. For the 9 systemically important banks, the recapitalization component of MREL should be fully met with subordinated liabilities, by January 1, 2022 at the latest. This way, it is clear that investors in these subordinated liabilities will bear the costs after shareholders if an institution fails. Updated decisions on resolution plans and MREL were taken in December 2018 and the updated MREL requirements applies from January 1, 2019.</p> <p>Irrespective of whether a financial institution is managed by resolution or bankruptcy, the deposit guarantee applies.</p>	
19	Define strategies for liquidity assistance to banks in resolution, and conclude a cooperation agreement for the solvency and viability assessment of institutions that need ELA (RB/NDO/FI)	I
	<p>Status: There is currently ongoing work regarding liquidity in resolution between the NDO and the members of the resolution colleges of the four Swedish cross-border banks. This includes, among other things, mapping access to relevant central banks' standard facilities and available public sector mechanisms such as resolution funds. Preliminary findings show that resolution by itself is not a hindrance for an institution having access to central banks' ordinary facilities. This is in line with the NDO's view that an institution in resolution that is to be recapitalised, or that has already been recapitalised, should in general be considered solvent. However, central banks stress that provision of such facilities is generally at the discretion of the central bank and conditional on eligibility criteria such as solvency and ability to mobilise eligible collateral. In contrast to the Bank of England and the Bank of Canada, none of the relevant central banks have lending facilities solely designed for liquidity support in resolution. Since ordinary central bank lending is provided on a collateral basis, the amount of liquidity available for an institution in resolution is in practice limited by the amount of available eligible collateral held by the institution. In addition to central bank facilities, public sector backstop mechanisms specially designed to support a resolution process have been established in three relevant jurisdictions, for Swedish banks, (Sweden, Banking Union, and Denmark). All the mechanisms have their origins in the BRRD and are therefore similar in many aspects. For example, all arrangements can be used to issue both loans and guarantees and are flexible in terms of currency and duration.</p> <p>In addition to the discussion in the resolution colleges, the NDO and RB has an ongoing bilateral dialogue focused on practical aspects of liquidity support to banks under resolution. Discussions are also ongoing within the Swedish Financial Stability Council as well as in the EU context.</p> <p>Further, there is an ongoing parliamentary review of the Riksbank Act including analysis of RB's role in ensuring liquidity in resolution.</p>	

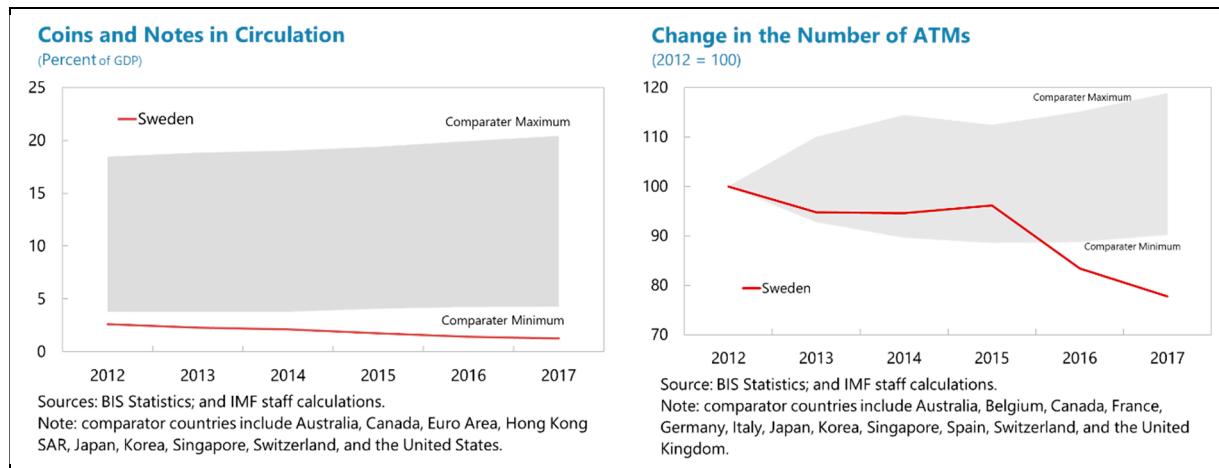
	Recommendations and Authority Responsible for Implementation	Time*
	<i>Resources</i>	
20	Increase financial and human resources allocated for prudential supervision, and recovery and resolution planning, to ensure that resource levels are commensurate with the size and complexity of Sweden's financial sector and home-country responsibilities (MoF/FI/NDO)	I
	<p>Status: FI has received a substantial increase in their resources over the past years. In the Government's budget for 2017, the authority received an additional contribution of SEK 15 million specifically in order to handle new regulations and strengthen the banking oversight. Moreover, FI was allocated an additional SEK 25 million in the supplementary budget for 2017 for increased bank supervision, i.a. due to Nordea's branchification.</p> <p>In its budget proposal for 2018 the Government has allocated another SEK 80 million to FI. The increase has been made in order for the FI to strengthen the bank supervision, including the branchification of Nordea, and for further strengthening work against money laundering and the financing of terrorism, new regulations and to integrate sustainability into existing and new regulations and in financial supervision.</p> <p>The NDO was appointed as resolution authority in 2015. Since then, the NDO has developed its financial stability department. All resolution planning work is funded by the state budget, but all administrative costs for carrying out resolution is imposed on the institution under resolution, or if that is not possible, on the resolution reserve (i.e. the industry collectively). The Government deems that the level of the NDO's appropriation is well balanced. The Government will review the level of the appropriation on an annual basis in accordance with the Swedish central Government budget process.</p> <p>In terms of human resources, the NDO has increased its staff at the <i>Department for financial stability and consumer protection</i> from 11, 5 FTEs when the FSSA 2016 was published (November) to 19 FTEs today, i.e. a 40 percent increase.</p>	

* C = continuous; I (immediate) = within one year; NT (near term) = 1–3 years; MT (medium term) = 3–5 years

Appendix VII. The Riksbank's E-Krona Project

Several central banks have begun to explore the merits and risks of issuing a Central Bank Digital Currency (CBDC). The e-krona project initiated in early 2017 has attracted much international attention and put the Riksbank at the forefront of the development of CBDCs.

1. Declining use of cash is making it less useful. From already low levels in percent of GDP, cash circulating in Sweden has almost halved over the last five years, diverging from trends in some comparator economies. In addition, the number of automated teller machines (ATMs) has fallen by over 20 percent since 2012, outpacing the decline in all comparator countries, although this could also be a cause of the decline in cash usage or related to other factors, such as a merging of ATM networks across banks. [Riksbank surveys](#) find that consumers increasingly experience situations in which they cannot use cash, and the share of consumers that use cash has fallen significantly over the last four years, as they instead rely on mobile apps and credit/debit cards. Moreover, survey-based estimates show that two-thirds of Swedish retailers expect to no longer accept cash by 2030.



2. What problems might arise if cash disappears? In time, it is possible that cash can no longer be used for payments with virtually all payments being made digitally using privately owned and controlled systems. From the Riksbank's perspective, such a scenario is concerning as:

- First, strong network externalities lead to high market concentration in the digital payment market, potentially allowing significant inefficiencies.
- Second, economic vulnerabilities from disruptions in existing payment systems would increase. The Riksbank's options to address such disruptions are limited when cash is no longer used, especially as much private payment infrastructure is located abroad.
- Third, parts of the population are unable to use the technology for digital payment systems or could be denied access by payment system operators in future, effectively excluding them from being able to make payments efficiently.

- Fourth, trust in the monetary system could be eroded in a financial crisis because bank deposits can no longer be converted into risk-free central bank money.
- Finally, future developments in digital payment systems would be guided by private profit-maximization rather than societal benefits.

3. The e-krona project seeks to address these concerns. The e-krona would complement physical cash and be a digital claim on the central bank. The e-krona could offer a competitively neutral infrastructure which could lower payments costs. The e-krona payment system could be built in a more robust way with some offline functionality ensuring continuity when private systems fail. The e-krona could also be designed in a simple and user-friendly way to address the needs of parts of the population. The availability of e-krona would enable the general public to access risk-free assets at all times. Finally, with an e-krona available, the state would be able to better influence the design of payment systems.

4. Understanding the demand for e-krona as a store of value is essential from a financial stability perspective. During a financial crisis, the e-krona, which as a central bank money, is a risk-free asset, could become more attractive leading to deposit flight. However, [Juks \(2018\)](#) argues that historical evidence makes such a scenario unlikely. He further suggests that the e-krona be designed in a way to mitigate adverse effects on financial stability.

5. Preliminary estimates suggest that demand for the e-krona to make payments will be modest. [Segendorf \(2018\)](#) estimates that demand for the e-krona to meet transaction needs will not exceed the demand for cash amounting to 1–2 percent of GDP. His estimation relies on the assumption that a fixed share of payments will be made in e-krona, together with estimates of the volume of payments and assumptions on liquidity management.

6. However, such estimates are subject to significant uncertainty. First-mover advantages of existing payment systems, and other technological innovations and improvements in the payment market, could weigh on the use of e-krona to make payments, at least initially. At the same time, demand could be higher depending on the additional benefits and incentives relative to existing payment systems which will be driven by the exact design of the e-krona. In addition, the extent to which the government uses e-krona in making and receiving payments will shape demand as well.

7. Future work plans. The Riksbank has already published two reports on the e-krona in 2017 and 2018, respectively.¹ But the exact design of the e-krona is still being discussed, and currently, separate workstreams are evaluating and specifying the legal, technical and economic details of issuing e-krona which is scheduled to be tested in 2020. Once the tests are completed, the Swedish parliament would have the option to adopt new legislation to underpin e-krona issuance.

¹ These reports are available here: <https://www.riksbank.se/en-gb/payments--cash/e-krona/>

Appendix VIII. Risk Assessment Matrix¹

(Scale—high, medium, or low)

Source of Risks	Overall Level of Concern	
	Relative Likelihood ¹	Impact if Realized
1. Sharp tightening of global financial conditions. Could be triggered by a sharp increase in U.S. interest rates (prompted by higher-than-expected inflation) or a rise in risk premia.	Low-Medium <ul style="list-style-type: none"> Swedish banks are reliant on wholesale funding and are directly and indirectly exposed to international financial markets. 	Medium <ul style="list-style-type: none"> Higher bank funding costs translate into higher lending interest rates and curtailed lending, weighing on growth. Adverse impact could be mitigated by safe-haven flows, limiting the rise in Swedish spreads.
Policy response:	Preventively, reduce vulnerabilities of the financial sector and preserve fiscal buffers. In the event, provide liquidity support, including in foreign currency.	
2. Weaker-than-expected global growth. Reflecting vulnerabilities in Euro Area, U.S., or China. Unsustainable macroeconomic policies or uncoordinated Brexit could be contributing factors.	Medium- High <ul style="list-style-type: none"> Sweden's economy is small and highly open with strong links to European markets. Sensitivity to shocks could be increased by high household debt and more limited space for additional monetary easing. 	Medium <ul style="list-style-type: none"> As exports and income decline, investment will slow as well, further reducing growth. Inflation will decline with falling growth, lower import prices, and possibly with an appreciation of the krona.
Policy response:	Provide additional monetary support, let automatic fiscal stabilizers operate fully, and make faster structural fiscal adjustment (easing) to medium-term targets.	
3. Rising protectionism and retreat from multilateralism. Escalating trade actions and spreading isolationism threatens global trade system and regional integration. Increased uncertainty leads to financial market volatility which exacerbates consequences for growth.	High <ul style="list-style-type: none"> Sweden is a small open economy, particularly exposed to international trade in machinery. Sweden could be negatively impacted uncoordinated Brexit, with Sweden's exports to the U.K. over 2 percent of its GDP. 	High <ul style="list-style-type: none"> Higher barriers to trade—particularly those on Sweden's vehicles and machinery exports—would dampen exports and investment and weaken growth Uncertainty over Brexit negotiations could weigh on confidence and investment. A negative shock to the U.K. following Brexit would hit Swedish exports.
Policy response:	Provide monetary and fiscal support, reform wage setting to facilitate sectoral reallocation of labor and capital.	
4. Significant property price and/or construction decline in Sweden. Price declines could possibly affect commercial property markets and/or residential property.	Medium <ul style="list-style-type: none"> High house prices mainly reflect supply not matching rising demand driven by population, incomes, financial assets, and interest rates. House price levels remain high despite recent declines, but the slow reduction in supply shortfalls mitigates downsides. Commercial property values appear stretched but significant spreads over bond yields may cushion risks. 	High <ul style="list-style-type: none"> Dwelling investment would fall, potentially exacerbated by financing difficulties of smaller developers. Significant impact on consumption and employment lowers growth. Investment and collateral values for lending could be undermined by sizable falls in commercial property prices. Loan quality impacted, primarily of firms serving domestic market, but capital buffers provide significant protection. Lending could be curtailed if doubts about the quality of covered bonds rise, elevating bank funding costs.
Policy response:	Monitor the effectiveness of recent macroprudential measures and supervise banks commercial real estate lending closely. In the event, provide monetary stimulus and funding support to banks.	

¹ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of the IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding this baseline ("low" is meant to indicate a probability below 10 percent, "medium" between 10 and 30 percent, and "high" between 30 and 50 percent).



SWEDEN

STAFF REPORT FOR THE 2019 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

March 11, 2019

Prepared by

European Department
(In Consultation with Other Departments)

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FUND RELATIONS

(As of January 31, 2019)

Membership Status: Joined: August 31, 1951; Article VIII.

General Resources Account:	SDR Million	Percent of Quota
Quota	4,430.00	100.00
Fund holdings of currency (Exchange Rate)	3,967.21	89.55
Reserve Tranche Position	462.80	10.45
Lending to the Fund		
<i>New Arrangements to Borrow</i>	182.37	

SDR Department:	SDR Million	Percent Allocation
Net cumulative allocation	2,248.96	100.00
Holdings	2,214.50	98.47

Outstanding Purchases and Loans: None

Latest Financial Arrangements: None

Projected Payments to Fund:

(SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2019	2020	2021	2022	2023
Principal					
Charges/Interest	0.47	0.42	0.42	0.42	0.42
Total	0.47	0.42	0.42	0.42	0.42

Exchange Rate Arrangements:

The Krona has been floating freely since November 19, 1992. Sweden has accepted the obligations of Article VIII (sections 2(a), 3 and 4) and maintains an exchange system free of restrictions on payments and transfers for current international transactions, apart from those notified to the Fund pursuant to Decision No. 144-(52/51).

Resident Representative: None

Article IV Consultation:

Sweden is on the 12-month consultation cycle.

FSAP Participation:

A mandatory FSAP has been conducted in time for the 2016 Article IV consultation, in line with the five-year cycle for members or members' territories with financial sectors that are determined to be systemically important pursuant to Decision No. 15495-(13/111), adopted December 6, 2013.

National Accounts: Sweden publishes the national accounts according to the *European System of Accounts (ESA) 2010* since September 2014.

Government Finance Statistics: Government finance statistics (GFS) are compiled on an accrual basis according to the *ESA 2010* methodology and reported to Eurostat on a quarterly and annual basis. Fiscal data in the *GFSM 2014* framework is reported through the Eurostat convergence project with the IMF. The IMF GFS datasets cover data on the general government operations and financial balance sheet.

External Sector Statistics: Sweden publishes external sector statistics based on the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* format since December 2014.

Monetary and Financial Statistics: Monetary statistics are timely and of good quality. Monetary data reported for *International Financial Statistics* are based on the European Central Bank's (ECB) framework for collecting, compiling, and reporting monetary data.

Financial Sector Surveillance: Sweden has reported Financial Soundness Indicators beginning from 2005 up to 2018Q3 along with metadata, which are available on the IMF's website (<http://data.imf.org/>).

STATISTICAL ISSUES

(As of March 1, 2019)

I. Assessment of Data Adequacy for Surveillance	
General: Data provision is adequate for surveillance. The country has a full range of statistical publications, many of which are on the internet. The quality and timeliness of the economic database are generally very good.	
II. Data Standards and Quality	
Subscriber to the Fund's Special Data Dissemination Standard Plus (SDDS Plus) since February 11, 2015.	A data ROSC was published in September 2001, followed by an update in November 2002.

Sweden: Table of Common Indicators Required for Surveillance
(As of March 1, 2019)

	Date of latest observation	Date received	Frequency of Data ⁷	Frequency of Reporting ⁷	Frequency of Publication ⁷
Exchange Rates	Current	Current	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities ¹	2019/02/23	2019/02/26	W	W	W
Reserve/Base Money	2019/02/23	2019/02/26	W	W	W
Broad Money	2019/02/23	2019/02/26	W	W	W
Central Bank Balance Sheet	2019/02/23	2019/02/26	W	W	M
Consolidated Balance Sheet of the Banking System	2019/01	2019/02	M	M	M
Interest Rates ²	Current	Current	D	D	D
Consumer Price Index	2019/01	2019/02	M	M	M
Revenue, Expenditure, Balance and Composition of Financing ³ —General Government ⁴	2018/Q3	2018/12	Q	Q	A
Revenue, Expenditure, Balance, and Composition of Financing ³ —Central Government	2019/01	2019/02	M	M	A
Stocks of Central Government and Central Government-Guaranteed Debt ⁵	2019/02	2019/03	M	M	M
External Current Account Balance	2018 Q3	2018/12	Q	Q	Q
Exports and Imports of Goods and Services	2018 Q3	2018/12	Q	Q	Q
GDP	2018 Q4	2019/02	Q	Q	Q
Gross External Debt	2018 Q3	2018/12	Q	Q	Q
International Investment Position ⁶	2018 Q3	2018/12	Q	Q	Q

1/ Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

2/ Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

3/ Foreign, domestic bank, and domestic nonbank financing.

4/ The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

5/ Including currency and maturity composition.

6/ Includes external gross financial asset and liability positions vis-à-vis nonresidents.

7/ Daily (D), weekly (W), monthly (M), quarterly (Q), annual (A), irregular (I); and not available (NA).

**Statement by Mr. Ostros, Executive Director for Sweden and
Ms. Karjanlahti, Senior Advisor to Executive Director**
March 25, 2019

On behalf of the Swedish authorities we would like to thank the mission team for the report as well as for the open and constructive policy discussions during the Article IV consultation with Sweden. The authorities broadly agree with the conclusions and recommendations in the staff report.

Recent macroeconomic development and outlook

The Swedish economy has maintained a high level of activity in recent years and growth has been high. In the beginning of 2019 however, both domestic and global indicators have shown signs of a slowdown. Swedish GDP is therefore expected to grow at a slower pace in 2019. Declining dwelling investments and a softening household consumption are expected to contribute to this development. In recent years, the employment rate has increased to historically high levels and unemployment has decreased. Looking ahead, labor market developments are expected to be more subdued as GDP growth slows down. Sweden is a small open economy and is therefore strongly affected by global economic developments. Looking ahead, there are several factors, such as the United Kingdom's withdrawal from the European Union and the trade tensions between the United States and other countries that can dampen global demand, affecting Swedish exports. The main domestic risks include a further fall in housing prices, although these prices stabilized in 2018 after falling in the second half of 2017.

Fiscal policy

The Government agrees with the IMF's assessment of the overall fiscal outlook and that Sweden should maintain the practice of allowing full operation of automatic fiscal stabilizers. We also agree with the position that undertaking a small stimulus in the next few years entails little risk of overheating given the low level of inflation, especially with domestic demand expected to slow. The Government shares the view that the fact that demographic changes in the coming decade are relatively rapid and will raise demand for public investment going forward.

The Government notes the IMF's recommendation to consider a temporary cut in the medium-term surplus target if factors raise the need for public investment beyond past norms. The Government agrees that it should be possible to review the target on account, for instance, of changes in assessments of demography or debt growth. However, to avoid revisions of the target level being made in a way that reduces the credibility of the target, it is important to carry them out in a predictable way. Therefore, once adopted, a surplus target remains in place, but is reviewed every eighth year.

Monetary policy

Swedish monetary policy has been very expansionary during the last couple of years, with a negative policy rate and extensive purchases of government bonds. After a long period with a policy rate of -0.50 percent, the Executive Board of the Riksbank raised the repo rate to -0.25 percent at its December monetary policy meeting and it was held there at the monetary policy meeting in February 2019.

Somewhat reducing the support from monetary policy is now appropriate assuming the good economic developments and improvements in the inflation picture continue, including an inflation rate close to target. In the main scenario, the strong economic activity, rising cost pressures in combination with slightly higher global inflation pressures are providing preconditions for inflation to remain close to target in the coming years.

Nonetheless, in the light of mainly external downside risks, the Riksbank shares the IMF's view that it is appropriate to closely monitor incoming data to ensure that inflation remains close to target and that inflation expectations are firmly anchored. There is uncertainty about the global economic outlook – in particular relating to the underlying strength of the euro area economy, trade tensions between the United States and other countries, and the United Kingdom's withdrawal from the European Union. Developments in the Swedish housing market also entail a substantial risk to household consumption, although housing prices have stabilized over the past year.

The cautious approach to monetary policy is reflected in the repo rate path, which indicates only gradual increases in the coming years. Net purchases of government bonds ended in December 2017, but principal payments and coupon payments continue to be reinvested. Monetary policy thus remains expansionary. Future policy will be determined by the economic outlook and inflations prospects.

Financial stability and macroprudential policy

The financial system operates well at present. The banks have high capital adequacy ratios and high profitability. However, the Swedish banking system is large, interconnected, and dependent on market funding, which entails structural vulnerabilities.

The authorities agree that after the recent tightening of macroprudential measures, this is an appropriate time to review the effectiveness of the steps already taken, while remaining well prepared to implement further measures if needed. Housing prices and household indebtedness in Sweden have been rising for a long time, which is a source of concern. However, there has been a marked slowdown in the growth of household debt lately. In December 2018 household mortgage debt growth was 5.6 percent, which is the slowest rate in over four years (while still being higher than growth in GDP and disposable income), and house prices have been falling moderately. The moderation in house price and slowdown in debt growth indicate that risk build-up has eased somewhat, but the high prices and high and rising household debt remain a vulnerability for the general economy and possibly also for financial stability. The implemented amortization requirement, and the further tightening of

this requirement targeting households with high debt relative to income, have contributed to reduce the vulnerability. The authorities will continue to monitor the situation carefully, and the FSA will present a report in June 2019 with an evaluation of the measures introduced.

Recently, nonbank providers of mortgage credit have begun to enter the mortgage market but have so far only captured a very small market share. In order to ensure that these new mortgage providers do not threaten the efficiency of macroprudential measures, the FSA recently expanded the scope of the amortization requirement to include these new players. The authorities also carefully monitor risks in the commercial property market where prices have been rising rapidly, valuations are high, and the sector could be sensitive to rising interest rates or a more severe macroeconomic downturn. Risks within the sector are thus elevated. Swedish banks have large exposures to this sector, which makes it important to monitor the adequacy of banks' risk management carefully.

In 2018, a clearing member in Nasdaq Clearing defaulted, which was a reminder of the importance of establishing a regime for the recovery and resolution of central counterparties. However, there was no risk to financial stability in connection with this default, as the losses were absorbed in accordance with the current EU-regulation (EMIR). The event is currently under investigation by the FSA.

The Swedish banking sector is closely interconnected with its neighboring countries and therefore cooperation amongst the authorities within the Nordic-Baltic region is essential to safeguard financial stability and ensure preparedness should a crisis arise. Efficient arrangements between authorities and sound buffers kept by the banks must be ensured and require close engagement and dialogue. The authorities remain committed to continue to deepen the already strong regional cooperation. As an example of these efforts, a regional financial crisis-simulation exercise, prepared by a working group led by the Riksbank, was carried out in January 2019.

The authorities take very seriously recent reports of banks in the Nordic-Baltic region being used for money laundering. The Swedish and Estonian FSAs have initiated a joint investigation into the Swedish banks handling of money laundering in the Baltics, with the participation of the authorities of Latvia and Lithuania. The authorities agree on the need for broader regional cooperation to enhance anti-money laundering efforts. The authorities note that Sweden's AML/CFT framework has been strengthened in recent years, including through legislation introduced in 2017, and through additional resources being allocated to the FSA for the AML/CFT supervision. At the same time, the authorities recognize that further action may be necessary.

The Riksbank's e-krona project has raised considerable national and international interest. The consultation responses on the Riksbank's second e-krona report, indicate a need to involve a wider set of institutions and a broader scope of additional policy measures in further analysis of how to address challenges from changes in payment patterns and payment markets in Sweden. Since this issue is of considerable importance, a broader inquiry into the

challenges posed by the changes in the payment landscape is warranted, including the possible role of an e-krona.

Housing and tax issues

The authorities concur with the IMF that there are challenges in the housing market. High construction costs and how to improve the use of existing property are, for example, challenges that need to be addressed and this could be done in different ways. Support for construction of more affordable rental housing is vital which is why the investment grant for rental dwellings and student housing implemented in 2016 will continue as part of the January Agreement between the parties forming the Government (the Social Democrats and the Green Party), the Center Party, and the Liberals.

The on-going housing policy process of making the planning and building permit process smoother, faster, and more predictable will continue as an integral part of the January Agreement. Furthermore, the impact of quality and location of the apartments in the existing stock of rental housing on the rent setting is to be examined and, where it is not sufficient, measures will be proposed in order to make rents better reflect how housing consumers value these utility factors. Moreover, the agreement also states that a liberalization of how rents are set in new construction will be investigated and implemented. Finally, the process of negotiating collective agreements concerning rent will be made more efficient.

The Government has also implemented reforms to improve the functioning of the housing market. The threshold for deferring capital gains taxation has been temporarily removed and will give greater incentives for those with high capital gains to move in the near future. In the January Agreement it is agreed to abolish the interest on deferrals of capital gains taxation on housing to facilitate mobility. The Government is continuously looking at different possibilities to improve the functioning of the housing market.

The design of the tax system is one of many factors that influence the level of household debt. Any potential measures in this area must be seen in a long-term perspective and therefore need to be based on a broad political consensus. Changes must be handled with great care due to the potential negative effects on growth. General changes to the rules on mortgage interest deductibility will affect those who have already borrowed money to buy a house or part of a tenant-owned property. The conditions for households' investment in housing must be predictable as this is one of the largest financial decisions a household can make. Any changes to deductibility should be gradually phased-in.

Labor market

The Swedish labor market is performing well, with the highest employment rate in the EU (82.5 percent among ages 20-64 years as of 2018:3) and falling unemployment (6.2 percent among ages 15-74 as of 2018:4). Despite this, too many people are unemployed and too many people still have trouble finding work, particularly those who have not completed upper secondary school or those who are born outside Europe. At the same time, employers have difficulties finding people with the right skills. Labor shortages are considerable in

several parts of the Swedish labor market. The authorities agree with the IMF that it is important to invest in education and training to equip unemployed women and men who lack the relevant education, training, and experience to fill the vacant jobs. Many steps have been taken in that direction already. In 2016, the Government, together with the social partners, put in place fast tracks to shorten the time between arrival to Sweden and entry into the labor market in professions with a shortage. In 2018, an education and training obligation was introduced for newly arrived immigrants considered to need education and training to find work. The social partners' negotiations on new ways to facilitate labor market entry for people with a weak attachment to the labor market are still ongoing and welcomed by the government.

It is the social partners in the manufacturing industry sector that set the national wage benchmark. As a small export-dependent economy, Sweden needs to maintain international competitiveness. The manufacturing industry can best assess the scope for cost increases without affecting competitiveness. This model has worked well for Sweden. The real wages have had an annual real growth of 2 percent for over 20 years, while the employment rate is the highest in the EU. At the same time labor peace and competitiveness have been maintained. In the 70s and 80s there was no national wage benchmark and the nominal wage increases were absorbed by high inflation which, on average, led to the absence of real wage growth for more than 20 years. To abandon the prevailing, and hitherto successful, wage benchmark could be risky. The Government's view is that any change regarding a wider range of sectors in setting the national benchmark needs to be initiated by the partners themselves. The Government is aware that deviations may be needed in some cases to facilitate relative wage changes but has no plans to change the National Mediations Office's (NMO) mandate. The wage benchmark should not be regarded as an absolute wage roof. If the negotiating partners agree on exceeding the benchmark, the NMO will not interfere.