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**In-depth review for Sweden**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK, THE  
EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF  
THE REGIONS AND THE EUROPEAN INVESTMENT BANK**

**2023 European Semester – Spring Package**

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European  
Commission

Sweden

**In-Depth Review 2023**



**On the basis of this in-depth review for Sweden undertaken under Regulation (EU) No 1176/2011 on the prevention and correction of macroeconomic imbalances, the Commission has considered in its Communication “European Semester – 2023 Spring Package” (COM(2023) 600 final) that:**

**Sweden** continues to experience imbalances. Vulnerabilities relating to its real estate market and high private debt persist. Real estate prices are high, and have been rising until recently. House price increases have gone hand in hand with rising private debt. In 2022, against a backdrop of marked tightening in monetary and financing conditions, real estate prices started to decline visibly in what seems to be the start of an unwinding of the accumulated vulnerabilities. Prices remain significantly overvalued and are expected to decline further. The turnover in the real estate sector has recently declined markedly, and, as a result, demand for newly built dwellings has also fallen. The adverse developments have, so far, been limited to the construction and real estate sectors, which are now declining sharply after years of high growth. As a whole, the Swedish economy is expected to contract in 2023, with the changes in monetary conditions affecting the balance sheets of households and commercial real estate companies and their room to consume and invest. The impact of increased interest rates on mortgage payments is substantial, due to the prevalence of variable interest rates and very long duration mortgages. The impact of changing conditions on the financial sector has been limited; the sector is strong and records high profit margins and risk-weighted capital ratios, likely serving as a bulwark against a propagation of the real estate sector problems to the wider economy through the financial sector, although it is highly exposed to real estate. Policy progress has been limited. In particular, the tax system continues favouring homeownership through low recurrent property taxation and promotes debt-financed housing acquisition through significant tax deductibility of mortgage interest payments. In addition, the inefficient rental market has seen limited reform.

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# 1. INTRODUCTION

**In 2022, over the previous annual cycle of surveillance under the Macroeconomic Imbalance Procedure (MIP), the Commission identified “macroeconomic imbalances” in Sweden.** <sup>(1)</sup> These imbalances were related to high and rising house prices and high household indebtedness. The 2023 Alert Mechanism Report published in November 2022 concluded that an in-depth review (IDR) should be undertaken also this year for Sweden with a view to assess the persistence or unwinding of imbalances. <sup>(2)</sup> The AMR concluded that in Sweden, concerns related to persistently high house price growth and high household and corporate debt remained. Nominal house price growth, albeit declining remained high, amidst an estimated overvaluation of house prices.

**The Swedish economy is expected to contract in 2023 with rising interest rates and inflation reducing private consumption, lowering house prices and slowing down construction activity strongly.** <sup>(3)</sup> The economy started to feel the impact of higher energy prices and rising inflation already in 2022, when real GDP growth decelerated to 2.6% after 5.4% in 2021. Despite limited direct trade with Russia or Ukraine and a high share of domestic renewable energy production, Sweden’s electricity prices have increased in line with developments in the European electricity market. Together with a tightening of monetary conditions, this is constraining private consumption with a particularly large impact on highly indebted homeowners. The economy is projected to enter recession in the first half of 2023 on the back of falling real disposable income, higher mortgage interest payments, lower capital investments in the wider private sector and a weak housing sector. A slight improvement is expected in the second half of 2023 when foreign demand picks up, lower energy prices support households’ income and investments and the housing market stabilises. Real GDP growth is forecast at -0.5% in 2023 and 1.1% in 2024. Annual inflation is set to fall to 6.0% in 2023, after 8.1% in 2022. The Riksbank is expected to hike interest rates one more time, bringing the interest rate to 3.75%. Inflation expectations seem well anchored around the Riksbank’s inflation target of around 2.0%, which should support to bring back inflation to the target. Going forward, the main downward risks for the economy are linked to further and sustained declines in property prices and in real estate transaction volumes.

**This in-depth review presents the main findings of the assessment of macroeconomic vulnerabilities for Sweden.** Vulnerabilities related to housing in Sweden are also discussed in a horizontal thematic note that was recently published. <sup>(4)</sup> The MIP assessment matrix is published in the 2023 Country Report for Sweden. <sup>(5)</sup>

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<sup>(1)</sup> European Commission (2022), European Semester Spring Package 2022, COM(2022) 600 final.

<sup>(2)</sup> European Commission (2022), Alert Mechanism Report 2023, COM (2022) 381 final.

<sup>(3)</sup> European Commission (2023), European Economic Forecast: Spring 2023, Institutional Paper 200.

<sup>(4)</sup> European Commission (2023), Housing Market Developments: Thematic Note to Support In-Depth Reviews, European Economy: Institutional Papers, 197.

<sup>(5)</sup> European Commission (2023), Country Report Sweden 2023, SWD(2023) 627 final.

## 2. ASSESSMENT OF MACROECONOMIC VULNERABILITIES

### Gravity, evolution and prospects

**Private debt and house prices remain at high levels.** In 2022, consolidated private sector debt stabilised at 217% of GDP, following fast credit growth in the preceding years and in particular in 2021. Credit to non-financial corporations has replaced credit to households as the main driver of new credit to the non-financial private sector. As elevated inflation is set to boost nominal GDP, private debt relative to GDP is expected to fall in 2023 regardless of still substantial growth in nominal terms. The recent pattern in household debt growth is mirrored in house price developments as the dominant share of household debt has been used for housing acquisition. House prices peaked in nominal terms in March 2022. A year later, they stood 16% lower according to the HOX index for house prices in Sweden. In real terms house prices have declined even more. Transaction volumes also fell sharply over 2022, indicating a broad correction in the housing market (graph 2.3 b and e) with price declines throughout the country.

**Swedish house prices still seem overvalued.** On 5 April 2023, the Commission presented a horizontal thematic note on housing market developments, which also covers Sweden. It showed that over the last decade, house prices have increased by over 80% in nominal terms, with half of the increase taking place over the last three years. This growth in house prices has exceeded income growth considerably and accelerated with the pandemic. House price to income ratios were over 40% higher in the third quarter of 2022 compared to 2012, while house prices were estimated to be around 29% overvalued with the Commission model in 2022 (graph 2.3 c). The high valuation of houses is also reflected in the average years of income needed for a person to buy 100 square meters of living space. In Sweden, this indicator has risen from 8.4 years in 2009 to 11.4 years in 2022. Recent decreases in house prices have not been sufficient yet to offset higher mortgage interest rates and improve affordability sufficiently to allow a broader set of potential homeowners to enter the housing market.

**The increase in interest rates laid bare the economy's short-term vulnerability linked to household indebtedness and house prices.** Household debt to disposable income stood at 181 % in 2022, somewhat below its peak in 2021. Until early 2022, decreasing interest rates, however, still led interest expenditures to decline even as household debt grew, falling from 7% of income in 1995 to 2½% of income<sup>(6)</sup> when accounting for mortgage deductibility (Thedéen presentation for the Riksdag, 2023). The increase in mortgage rates quickly started to impact the debt service burden of households because mortgage rates are fixed for relatively short periods in Sweden. The Riksbank (2022) expects interest payments of households to rise to 6% in 2025. In response to the increased interest burden, households have shortened their interest fixation period (Finansinspektionen Mortgage Report 2023, p 22)<sup>(7)</sup>. However, having assumed debt with very long

<sup>(6)</sup> When accounting for mortgage interest deductibility and assuming all mortgagors can subtract 30% of their interest payments (ie. stay below the SEK 100,000 threshold).

<sup>(7)</sup> Some two thirds of new mortgages had an interest fixation period of twelve months or less in 2022 and only one in twenty had a loan fixation period longer than 36 months. New mortgagors with short interest fixation periods and long maturities

maturity and given the compensation that mortgagors need to pay banks to lengthen their fixation periods, this likely exposes households' budgets to interest fluctuations for the longer term.

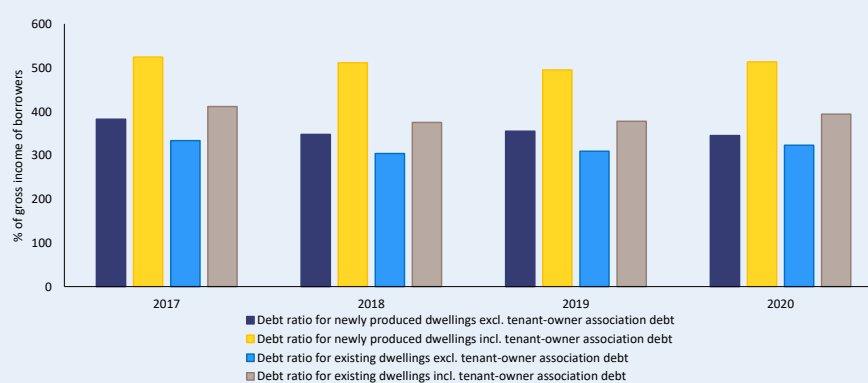
### Box 1 How debt of tenant-owner associations affects households

A particular feature of Sweden's housing market are the tenant-owner associations ("associations"), who grant the use of their apartments to their members, i.e. the tenant-owners. Each member owns a share in the association equivalent to an apartment. In other words, instead of owning an apartment directly, members own a share that gives them the right to occupy the apartment. There are about 35 000 registered tenant-owner associations in Sweden, of which about 29 000 own at least one building. Altogether, associations own more than 1.1 million apartments out of a total of 2.6 million apartments and a total of 5.1 million dwellings. Other apartments are predominantly rental apartments, owned by private companies or municipal housing companies.

Typically, the tenant-owner purchases a share on the open market and finances the acquisition through a bank mortgage. What is notable is that the association itself typically also has significant bank debt, taken up at the time when the association was formed and acquired the building from the developer. At the point of this first acquisition, the newly formed association sells the shares (one per apartment) to its founding members at a total cost that often is lower than the cost of the building. This means that a share in the association is itself a leveraged asset title. While the debt burden thus increases for new tenant-owners, their debt service burden is softened by a five-year amortization holiday in case they buy into a newly produced dwelling.

According to data from FI, the Swedish authority for financial supervision, Swedish tenant-owner associations themselves have debt amounting to on average SEK 6 300 per square meter (figures from 2020, up by 7.8% from 2019). Notably, for recently formed associations in (typically) newly built houses, average debt is more than twice that of the whole stock: SEK 13 700 per square meter in 2020, which is 6.2% higher than in 2019.

Graph 2.1: Household debt ratio excl./ incl. debt to tenant-owner associations



Source: FI (Swedish financial supervisory authority)

The association finances interest and amortisation payments (as well as taxes, renovations, building upkeep, etc) through monthly fees of its members. Any increase in mortgage rates is thus

for their mortgages face a significant cost if they want to extend their interest fixation period. Tenant-owners of apartments face even higher debt service burdens through the debt that their owner associations have assumed (see text box and graph 2.1). The debt of the association is not part of the formal amortization requirement and those tenant-owners that acquire a newly built apartment benefit from an amortization holiday of five years.

felt twice for association member households, as the interest on their own bank mortgage as well as the interest on the society's mortgage increases. The relative increase in the interest burden coming from the associations is, however, larger as neither the associations nor their members benefit from tax deductibility of the loans assumed by the associations.

UC, a private credit rating company, surveyed households living in tenant-owner associations that were formed in 2018 or more recently and concluded that in a scenario of a mortgage interest increase of 2 pps, 71% would face association fee hikes between 5 and 20%. In case of an increase by 3 pps, 46% of households would be expected to pay between 15 and 40% more. <sup>(9)</sup>

**In addition, higher interest rates, a weak economy and working from home pose risks to commercial real estate valuations and profitability.** Concerns have increased related to commercial real estate (CRE) companies and their exposure to real estate market developments, resulting in a 40% drop in their market values on the Stockholm stock exchange in 2022. This drop reflected mostly the increased leverage, higher yield requirements and the decline in property prices. For CRE companies having invested in office space, changes in working patterns following the pandemic pushes down demand and, thereby, property valuations and rental yields. Indebtedness has grown over the years and stood at SEK 1.8 trillion in 2022 (FI stability report I 2023), representing a quarter of all debt of non-financial corporations and about 30% of GDP. Market financing has generally become more difficult for CRE companies in 2022 and they have had to increasingly rely on bank loans for their funding. Looking at CRE debt maturing in between 2023 and 2025, Handelsbanken (2022) estimates that some 20% to 25% relates to CRE firms that might have difficulties accessing market or bank funding under current circumstances and could be forced to sell assets to compensate for any lack of funding. This would be equivalent to a funding gap of SEK 20 – 30 bn per year from 2023 until 2025.

**House prices are likely to decline further, while the interest burden is set to increase with rising mortgage rates, but risks of feedback loops seem contained.** Even if Swedish mortgagors have short fixation periods for their mortgage rates, not all mortgage rates have been reset since rates started to increase. The Riksbank (2023, Feb monetary policy report) estimates that around half of the increase in mortgage rates has so far been passed on to the existing stock of outstanding loans. With the recent shift to shorter fixation periods and the remaining half of outstanding loans not having to be renegotiated, further increases in mortgage rates would risk putting disposable income and house prices under pressure even more. At the same time, households have generally good buffers. Therefore, it seems unlikely that lower house prices could lead to a downward spiral where a sharp drop in demand negatively affects employment, income and then again house prices.

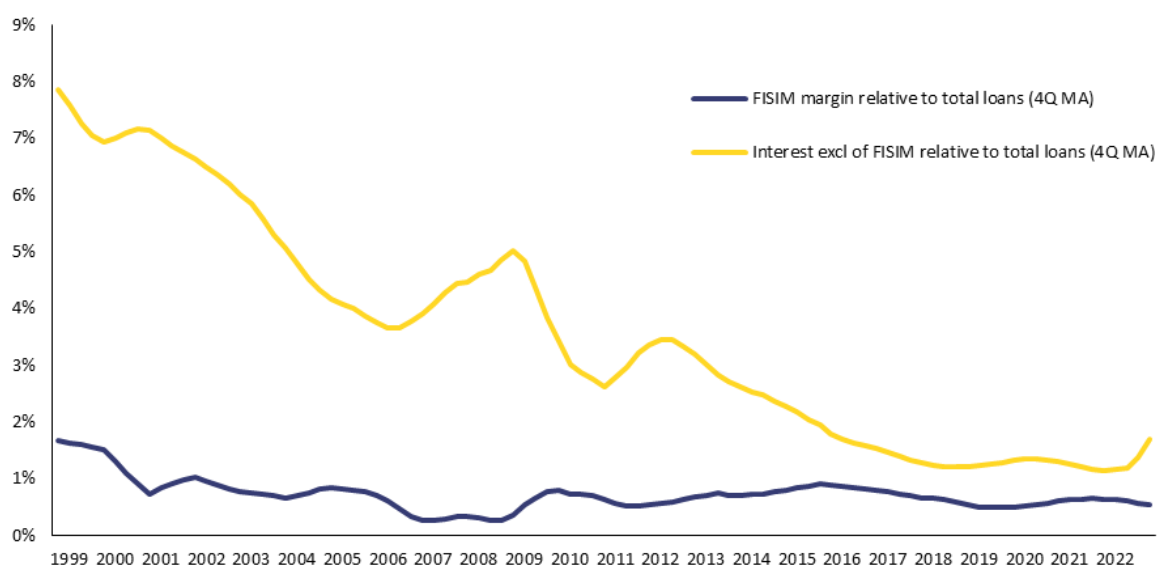
**Construction activity declines sharply after years of higher output.** High construction activity helped to close the construction gap between growth in number of households and the number of dwellings (Boverket, 2022). However, newly started construction of dwellings fell to 56 500 units in 2022 after 68 400 units in 2021 (December prognosis for 2022). Boverket (regional outlook) estimates that between 2022 and 2030 571 000 new dwellings need to be built, 73% of these in the metropolitan regions of Stockholm, Gothenburg and Malmö. While over time, Swedish construction investment has been relatively responsive to price increases - the OECD (2019) estimates Sweden's long-run supply elasticity at 2.01 - the surge in capital costs, in input costs, a shortage of cement and a drop in demand for new housing is set to lead to a large deceleration in construction activity in the short run.

<sup>(9)</sup> <https://www.uc.se/pressartiklar/pressrelease/3219825--Efter-Riksbankens-besked---kraftiga-avgiftsh%C3%B6jningar-undrar-f%C3%B6r-h%C3%B6gt-skuldsatta-bostadsr%C3%A4ttsf%C3%B6reningar/>



**The impact on the financial sector from the adverse real estate market developments is limited.** Swedish banks have very sound risk metrics with a low share of non-performing loans, a solid interest rate margin and high risk-weighted capital ratios. The exposure to real estate is, however, high with around three quarters of the financial institutions' lending portfolio linked to the real estate market through mortgages and CRE companies<sup>(9)</sup>. The good financial buffers of households, owing to strict stress testing of the ability to service debt in adverse scenarios, reduce the risk of sharp increases in non-performing loans on household mortgages. In addition, banks benefit from earlier high growth in deposits that ensure low funding costs. Indeed, the interest margin and banks' profitability have increased as lending rates rose more than the interest on deposits over the past year. However, this increase in the interest margin started from a low level as previously volume rather than margins was the driver of banks' profits. A challenge for Swedish banks seems, therefore, to maintain high profitability as credit volumes are likely to fall in the current economic environment (see graph 2.2).

Graph 2.2: **Margin between the cost of funds and the interest rate charged to borrowers (FISIM margin) and interest excluding FISIM margin, relative to total loans**



Source: Statistics Sweden

### Developments in commercial real estate require close attention given banks' exposure.

Stress tests suggest that a sizable portion of debt owed by CRE companies is vulnerable to adverse developments. Riksbank (2022) reports an increase in bank lending to commercial property companies from "just over" 30% of total bank lending to non-financial corporations in 2012 to 44% in 2021. This increased exposure has led to several analyses of the credit risk associated with CRE debt. Recently, the FSA (2022) and the IMF (2023) have estimated the debt at risk in adverse scenarios at between 20 % and 35% of all CRE debt<sup>(10)</sup>. This CRE debt could no longer be serviced out of net income. In the FSA's analysis, the credit losses would amount to SEK 45 billion or 4.5 % of bank lending to CRE firms. This would roughly equal "the capital banks have set aside for lending to the commercial real estate sector". The analyses show an important heterogeneity among CRE

<sup>(9)</sup> Mortgages to households represented 52% of financial institutions lending portfolio at the end of 2022. Bank lending to NFCs represented 38% of the total loans outstanding with CRE companies representing 44 % of banking lending to NFCs and the lending to tenant-owners associations 21% (Riksbank, 2023 = presentation Thedein 31 January).

<sup>(10)</sup>

companies where the majority of companies will not be forced into fire-sales even if the value of their properties shows a significant decline.

## Assessment of MIP relevant policies

**Underlying causes of the macroeconomic vulnerabilities associated with private debt and real estate prices remain in place.** Policies contributing to macroeconomic vulnerabilities have not been addressed and the risk is that these will drive again a debt-financed diversion of house prices from their fundamentals. The tax expenditures promoting debt-financed housing acquisition and low recurrent property taxation have not been addressed. As a consequence, the higher tax expenditures resulting from higher tax deductions (due to higher mortgage payments) are borne by all tax payers, including those renting and newcomers wanting to buy their first house. The reduction of these tax expenditures could actually be designed in such a way that benefits newcomers facing difficulties to acquire their first house. One example to clarify the relative impact of redesigning tax treatment of housing is if the mortgage interest deductibility would be limited to the value of the first house acquired (with a cap on that value to avoid sponsors leading to inequality in housing opportunities).

**Policy actions have been limited to changes in building permits and some tightening of macroprudential regulation.** Over the years, the tax system has continued to favour homeownership through low recurrent property taxation and promoted debt-financed housing acquisition. The rental market saw limited reform and average rents are still well below market rents, resulting in long waiting lists and a very low vacancy rate relative to other EU Member States. These issues have still not been addressed. Some policy was implemented that is expected to ease permitting procedures. Over the past year, macroprudential policy was tightened through an announcement that the Countercyclical Buffer rate will be raised at the end of June 2023.

**Numerous inquiries give direction for other policy measures to avoid risks of macroeconomic imbalances.** A particularly appealing policy suggestion with an eye to interest developments after this tightening cycle is to reduce the interest difference compensation that mortgagors need to pay when moving to longer interest fixation periods. The government has launched an inquiry that will report on its findings by 23 September 2023 at the latest. For some time, a need has been identified to better understand the assets and liabilities of individual households. Establishing a database with microdata would help in understanding at a granular level the impact of policies related to and the distribution of exposure to macroeconomic vulnerabilities among the population. The particularly large impact that increasing interest rates have on tenant-owners attests to a need to include the debt of tenant-owners associations in borrower-based prudential measures, i.e., by including it in the calculation of LTV and LTI ratios to determine amortization requirements.

## Conclusion

**Sweden is facing vulnerabilities relating to its real estate market and high private debt.** Over the last decade, real estate prices have persistently risen faster than income and rents, driven predominantly by supportive financial conditions. The increases in prices have gone hand-in-glove with increases in private debt, exposing Swedish real estate value to changes in monetary and financing conditions. The rapid increase in interest rates since last year's in-depth review has laid bare the economy's vulnerability linked to household indebtedness and house prices. The changes

in financial conditions affect property valuation and directly impact the debt service burden of households and the exposure of commercial real estate companies. For potential home buyers the increases in mortgage rates make housing less affordable and the price declines increase uncertainty, leading to a fall-out in housing demand. The turnover in residential real estate has declined and demand for newly built dwellings declined as a consequence. The impact of the adverse developments in the housing market has, so far, been limited to industries directly affected by the adverse developments in real estate, i.e. construction and real estate activities. Strong metrics of the financial sector, reflected in high profit margins and risk-weighted capital ratios, serve as a bulwark against a propagation of real estate problems to the wider economy. Still, the financial sector is highly exposed to real estate and its profits appear to have increasingly become dependent on loan volume rather than interest margins. In the initial phase of the tightening cycle, the interest margins have increased and further strengthened the solidity of the Swedish financial sector.

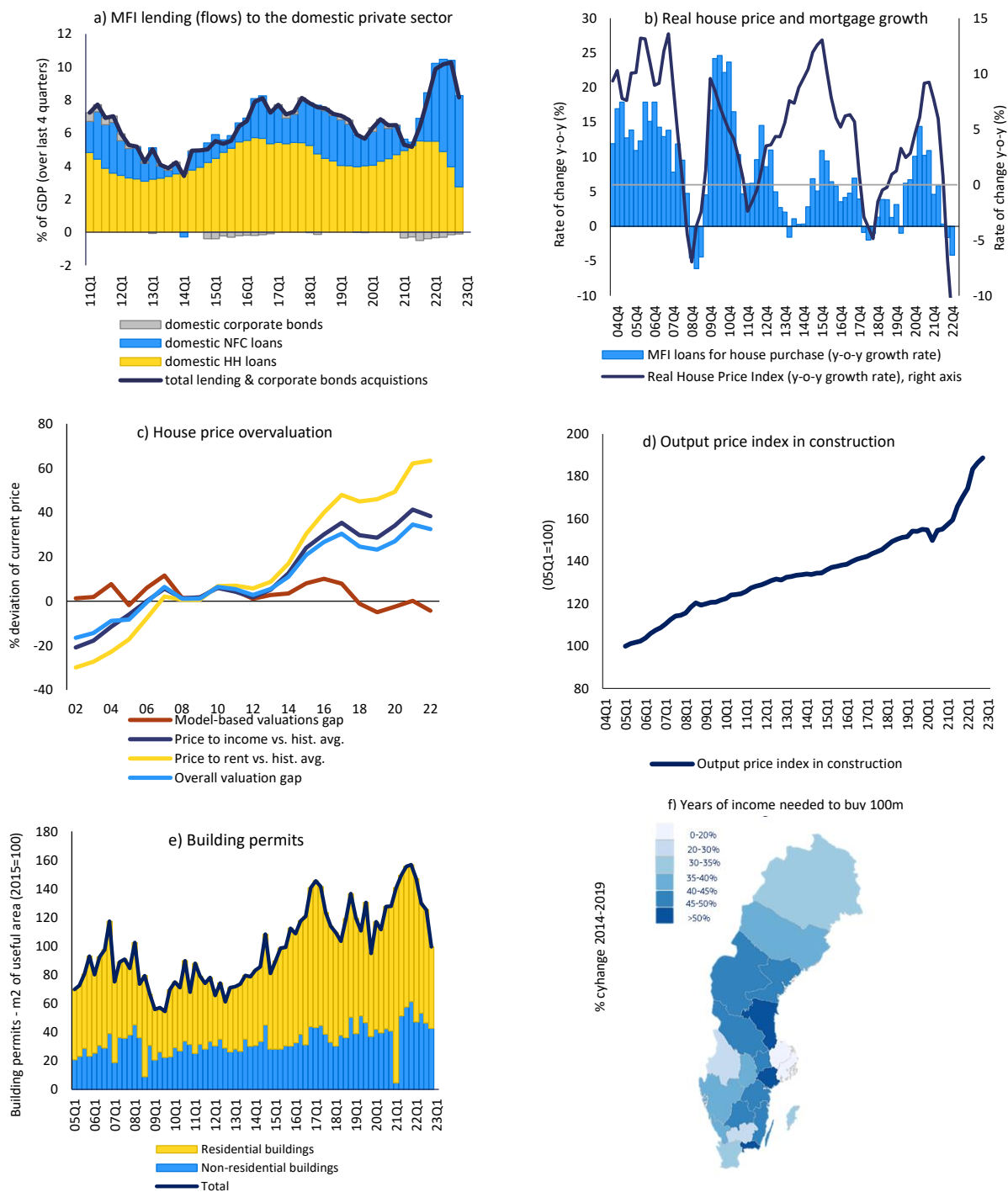
**Policy progress has been limited.** Over the years, the tax system has continued to favour homeownership through low recurrent property taxation and promoted debt-financed housing acquisition through the generous tax deductibility of mortgage interest payments. The rental market saw limited reform and average rents are still well below market rents, resulting in long waiting lists and a very low vacancy rate relative to other EU Member States. These policy factors behind the macroeconomic vulnerabilities still need to be addressed. Through expanding analyses of the commercial real estate companies' financial situation, policy makers are increasingly aware of the risks. However, beyond a scheduled increase in the counter-cyclical capital buffer banks need to hold in anticipation of shocks to the economy in June 2023 and a 2020 increase in capital requirements applying to real estate, no significant macroprudential policy action is yet designed.

**Based on the findings in this in-depth review, the Communication “European Semester – 2023 Spring Package” sets out the Commission’s assessment as to the existence of imbalances or excessive imbalances in Sweden, in line with Regulation 1176/2011. <sup>(11)</sup>**

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<sup>(11)</sup> European Commission (2023), European Semester Spring Package 2022, COM(2023) 600 final.

Graph 2.3: Selected graphs, Sweden



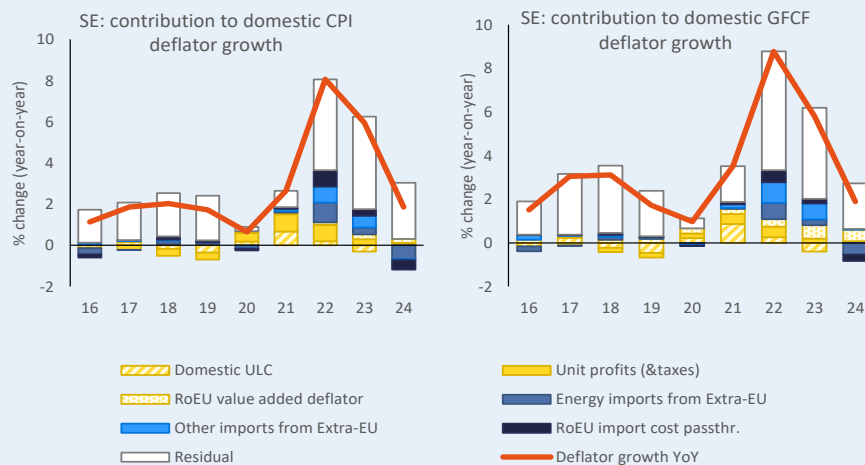
Source: Eurostat, Statistics Sweden and European Commission services

## Box 2: Inflation exposures and cross-border pass-through

**This box sheds light on the sources of inflation in Sweden and its spill-overs with EU partners.** The period since 2021 has been characterized by pandemic aftershocks and global supply chain disruptions compounding global inflationary pressures and a surge in commodity prices triggered by Russia's war of aggression against Ukraine. As a result, inflation in Sweden surged to unprecedented levels. In response, wages and profits also picked up across the EU, which further added to price pressures in Sweden. With input-output data, domestic inflation can be decomposed into the contributions from key cost factors. Taking into account some data limitations, the framework can be used to attribute consumer and investment price changes to i) extra-EU import price changes, which include both directly imported inflation and inflation passed through from EU partners import costs ii) domestic unit labour cost changes iii) domestic unit profit changes, including indirect taxation changes and iv) rest-of-EU value added price changes. <sup>(12)</sup>

**Data suggests that inflation in Sweden increased strongly on account of imported inflation in 2022, and domestic drivers are expected to remain subdued over the forecast horizon.** In 2022, as shown in Graph 2.4, increased costs of energy and non-energy imports as well as import inflation passed through EU countries contributed strongly to the increase in consumer and investment inflation. The contribution from domestic value added prices, namely wages and profits, was limited. Going forward, domestic inflation drivers are expected to remain muted. Imported inflation is set to subside in 2023 and to turn negative in 2024. Spill-overs from value added inflation in other EU countries is set to sustain higher, particularly investment, inflation in 2023 and 2024.

Graph 2.4: **Components of gross fixed capital formation deflator growth and consumer price inflation**



Source: European Commission services

<sup>(12)</sup> The graphs below are based on national accounts data and the Commission's Spring 2023 forecast, which are combined through a 'Ghosh' matrix based on Eurostat's Figaro input-output available for 2015-2020. HICP is taken as the measure of the price of private consumption, including non-residents. Energy import prices from extra-EU reflect realised median prices until 2022, and energy price assumptions underlying the Spring forecast thereafter. Other goods prices reflect median European prices per industry until 2022, and forecast non-energy goods and service trade prices for 2023-2024. Value added deflators are assumed to affect all industries within a country to the same degree. Changes in import prices and value added deflators are assumed to affect demand prices with a delay of 7 months for consumption and investment inflation, respectively. For a similar analysis using an input-output-based methodology, see "Inflation Differentials in Europe and Implications for Competitiveness: Thematic Note to Support In-Depth Reviews" European Commission 2023, Institutional paper 198.

Table 2.1: Selected economic and financial indicators (Part 1), Sweden

|  | all variables $\gamma$ -o- $\gamma$ % change, unless otherwise stated |         |         |       |       |       |       |      | forecast |  |
|--|---|---------|---------|-------|-------|-------|-------|------|----------|--|
|  | 2003-07   | 2008-12 | 2013-18 | 2019  | 2020  | 2021  | 2022  | 2023 | 2024     |  |
| Real GDP   | 3.5   | 0.7     | 2.5     | 2.0   | -2.2  | 5.4   | 2.6   | -0.5 | 1.1      |  |
| Potential growth (1)   | 2.8   | 1.7     | 2.1     | 2.2   | 1.9   | 2.0   | 1.8   | 1.6  | 1.5      |  |
| <b>Contribution to GDP growth:</b>   |   |         |         |       |       |       |       |      |          |  |
| Domestic demand  | 2.8   | 1.0     | 2.6     | 0.3   | -1.5  | 5.0   | 2.2   | -1.4 | 0.5      |  |
| Inventories  | 0.2   | -0.1    | 0.2     | -0.1  | -0.7  | 0.5   | 1.0   | -0.7 | 0.0      |  |
| Net exports  | 0.5   | -0.1    | -0.2    | 1.8   | 0.0   | -0.1  | -0.6  | 1.6  | 0.7      |  |
| <b>Contribution to potential GDP growth (1):</b>                                     |   |         |         |       |       |       |       |      |          |  |
| Total Labour (hours)   | 0.5   | 0.7     | 0.8     | 0.6   | 0.4   | 0.5   | 0.5   | 0.6  | 0.5      |  |
| Capital accumulation   | 0.7   | 0.6     | 0.8     | 0.8   | 0.8   | 0.9   | 0.9   | 0.8  | 0.7      |  |
| Total factor productivity  | 1.5   | 0.4     | 0.5     | 0.8   | 0.7   | 0.6   | 0.4   | 0.2  | 0.3      |  |
| Output gap (2)   | 1.1   | -1.6    | -0.3    | 0.2   | -3.7  | -0.5  | 0.3   | -1.8 | -2.1     |  |
| Unemployment rate  | 6.7   | 7.9     | 7.4     | 7.0   | 8.5   | 8.8   | 7.5   | 7.7  | 8.2      |  |
| Harmonised index of consumer prices (HICP)   | 1.5   | 1.9     | 1.1     | 1.7   | 0.7   | 2.7   | 8.1   | 6.0  | 1.9      |  |
| GDP deflator   | 1.5   | 1.7     | 2.1     | 2.5   | 2.0   | 2.9   | 5.7   | 5.7  | 1.6      |  |
| <b>External position</b>   |   |         |         |       |       |       |       |      |          |  |
| Current account balance (% of GDP), balance of payments                              | 6.8   | 6.1     | 3.4     | 5.3   | 5.9   | 6.5   | 4.3   | 5.8  | 6.2      |  |
| Trade balance (% of GDP), balance of payments  | 6.5   | 5.2     | 3.5     | 4.4   | 4.5   | 4.6   | 2.4   | .    | .        |  |
| Primary income balance (% of GDP)  | 1.8   | 2.6     | 1.4     | 2.8   | 3.5   | 3.8   | 3.6   | .    | .        |  |
| Secondary income balance (% of GDP)  | -1.4  | -1.7    | -1.6    | -1.9  | -2.1  | -1.8  | -1.8  | .    | .        |  |
| Current account explained by fundamentals (CA norm, % of GDP) (3)                    | 0.6   | 0.5     | 0.2     | 0.3   | 0.4   | 0.5   | 0.5   | 0.5  | 0.4      |  |
| Required current account to stabilise NIIP above -35% of GDP over 20Y (% of GDP) (4) | -0.5  | -0.2    | -0.2    | 0.5   | 0.4   | 0.9   | 1.3   | 1.4  | 1.7      |  |
| Capital account balance (% of GDP)   | -0.1  | -0.2    | -0.1    | 0.0   | 0.1   | 0.0   | 0.1   | .    | .        |  |
| Net international investment position (% of GDP)                                     | -12.9   | -8.9    | -4.0    | 13.5  | 9.9   | 23.8  | 39.8  | .    | .        |  |
| NENDI - NIIP excluding non-defaultable instruments (% of GDP) (5)                    | -23.0   | -22.1   | -17.0   | -10.2 | -9.7  | 0.0   | -5.4  | .    | .        |  |
| Net FDI flows (% of GDP)   | 2.8   | 2.5     | 1.5     | 1.2   | 0.7   | 1.1   | 2.5   | .    | .        |  |
| <b>Competitiveness</b>   |   |         |         |       |       |       |       |      |          |  |
| Unit labour costs (ULC, whole economy)   | 1.0   | 2.8     | 2.8     | 1.5   | 3.4   | 0.2   | 2.9   | 4.8  | 2.8      |  |
| Nominal compensation per employee  | 3.9   | 3.0     | 2.6     | 2.9   | 2.5   | 4.3   | 2.8   | 4.0  | 3.7      |  |
| Labour productivity (real, hours worked)   | 2.7   | 0.1     | 0.9     | 2.3   | 1.1   | 2.7   | 0.3   | -1.5 | 0.4      |  |
| Real effective exchange rate (ULC)   | -0.6  | 1.9     | -0.9    | -3.9  | 0.3   | 3.1   | -5.4  | -6.8 | -1.0     |  |
| Real effective exchange rate (HICP)  | 1.0   | 0.3     | -1.6    | -3.7  | 2.6   | 3.1   | -6.2  | .    | .        |  |
| Export performance vs. advanced countries (% change over 5 years)                    | 3.8   | -5.6    | -8.3    | -4.6  | 3.7   | 5.9   | .     | .    | .        |  |
| <b>Private sector debt</b>   |   |         |         |       |       |       |       |      |          |  |
| Private sector debt, consolidated (% of GDP)   | 151.2   | 190.5   | 194.0   | 200.0 | 212.8 | 214.8 | 208.8 | .    | .        |  |
| Household debt, consolidated (% of GDP)  | 59.7  | 75.1    | 84.5    | 88.5  | 93.7  | 92.3  | 88.4  | .    | .        |  |
| Household debt, fundamental benchmark (% of GDP) (6)                                 | 49.8  | 53.8    | 59.6    | 62.7  | 67.6  | 67.2  | 67.9  | .    | .        |  |
| Household debt, prudential threshold (% of GDP) (6)                                  | 40.9  | 41.3    | 47.0    | 51.9  | 53.5  | 54.2  | 54.2  | .    | .        |  |
| Non-financial corporate debt, consolidated (% of GDP)                                | 91.5  | 115.4   | 109.5   | 111.5 | 119.2 | 122.5 | 120.5 | .    | .        |  |
| Corporate debt, fundamental benchmark (% of GDP) (6)                                 | 50.9  | 51.6    | 53.5    | 55.5  | 59.8  | 60.1  | 60.8  | .    | .        |  |
| Corporate debt, prudential threshold (% of GDP) (6)                                  | 55.3  | 55.0    | 61.1    | 63.8  | 67.2  | 66.0  | 65.4  | .    | .        |  |
| Private credit flow, consolidated (% of GDP)   | 11.1  | 7.8     | 7.9     | 9.7   | 14.4  | 16.6  | 10.8e | .    | .        |  |
| Corporations, net lending (+) or net borrowing (-) (% of GDP)                        | 4.7   | 2.1     | -2.0    | -1.7  | 1.9   | 0.5   | -0.5  | 1.3  | 1.0      |  |
| Households, net lending (+) or net borrowing (-) (% of GDP)                          | 0.5   | 3.9     | 5.2     | 6.4   | 6.9   | 6.1   | 4.3   | 5.6  | 6.0      |  |
| Net savings rate of households (% of net disposable income)                          | 4.7   | 10.4    | 13.1    | 15.5  | 17.0  | 15.9  | 13.4  | .    | .        |  |

(e) estimate based on ECB quarterly data

(1) Potential output is the highest level of production that an economy can reach without generating inflationary pressures. The methodology to compute the potential output is based on K. Havik, K. Mc Morrow, F. Orlandi, C. Planas, R. Raciborski, W. Roeger, A. Rossi, A. Thum-Thysen, V. Vandermeulen, The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps, COM, European Economy, Economic Papers 535, November 2014.

(2) Deviation of actual output from potential output as % of potential GDP.

(3) Current accounts in line with fundamentals ("current account norms") are derived from reduced-form regressions capturing the main determinants of the saving-investment balance, including fundamental determinants, policy factors and global financial conditions. See L. Coutinho et al. (2018), "Methodologies for the assessment of current account benchmarks", European Economy, Discussion Paper 86/2018, for details.

(4) This benchmark is defined as the average current account required to halve the gap between the NIIP and the indicative MIP benchmark of -35% of GDP over the next ten years, or to stabilise the NIIP at the current level if it is already above the indicative MIP benchmark. Calculations make use of Commission's T+10 projections. (5) NENDI is a subset of the NIIP that abstracts from its pure equity-related components, i.e. foreign direct investment (FDI) equity and equity shares, and from intracompany cross-border FDI debt, and represents the NIIP excluding instruments that cannot be subject to default.

(6) Fundamentals-based benchmarks are derived from regressions capturing the main determinants of credit growth and taking into account a given initial stock of debt. Prudential thresholds represent the debt threshold beyond which the probability of a banking crisis is relatively high, minimising the probability of missed crisis and that of false alerts. Methodology to compute the fundamentals-based and the prudential benchmarks based on Bricongne, J. C., Coutinho, L., Turrini, A., Zeugner, S. (2019), "Is Private Debt Excessive?", Open Economies Review, 1- 42.

**Source:** Eurostat and ECB as of 2023-04-28, where available; European Commission for forecast figures (Spring forecast 2023)

Table 2.2: Selected economic and financial indicators (Part 2), Sweden

| all variables y-o-y % change, unless otherwise stated                                    | 2003-07 | 2008-12 | 2013-18 | 2019 | 2020 | 2021 | 2022 | forecast |      |
|--|---------|---------|---------|------|------|------|------|----------|------|
|  |         |         |         |      |      |      |      | 2023     | 2024 |
| <b>Housing market</b>  |         |         |         |      |      |      |      |          |      |
| House price index, nominal   | 10.1    | 3.2     | 6.9     | 2.5  | 4.2  | 10.1 | 3.6  | .        | .    |
| House price index, deflated  | 9.0     | 1.5     | 5.5     | 0.4  | 3.3  | 8.0  | -3.4 | .        | .    |
| Overvaluation gap (%) (7)  | -5.7    | 2.9     | 19.3    | 22.8 | 26.2 | 33.3 | 29.0 | .        | .    |
| Price-to-income overvaluation gap (%) (8)  | -7.0    | 1.8     | 21.3    | 27.2 | 32.6 | 38.3 | 34.5 | .        | .    |
| Residential investment (% of GDP)  | 3.7     | 3.7     | 4.8     | 4.7  | 4.9  | 5.2  | 5.2  | .        | .    |
| <b>Government debt</b>   |         |         |         |      |      |      |      |          |      |
| General government balance (% of GDP)  | 1.2     | -0.1    | 0.0     | 0.6  | -2.8 | 0.0  | 0.7  | -0.9     | -0.5 |
| General government gross debt (% of GDP)   | 45.8    | 38.2    | 41.9    | 35.5 | 39.8 | 36.5 | 33.0 | 31.4     | 30.7 |
| <b>Banking sector</b>  |         |         |         |      |      |      |      |          |      |
| Return on equity (%)   | .       | 10.0    | 11.5    | 10.6 | 8.1  | 10.0 | .    | .        | .    |
| Common Equity Tier 1 ratio   | .       | 10.1    | 19.3    | 19.8 | 20.8 | 20.9 | .    | .        | .    |
| Gross non-performing debt (% of total debt instruments and total loans and advances) (9) | .       | 0.6     | 1.0     | 0.9  | 0.8  | 0.8  | .    | .        | .    |
| Gross non-performing loans (% of gross loans) (9)  | .       | .       | 1.2     | 1.1  | 1.0  | 1.0  | 0.8  | .        | .    |
| Cost of borrowing for corporations (%)   | .       | .       | 1.2     | 1.5  | 1.4  | 1.4  | 4.2  | .        | .    |
| Cost of borrowing for households for house purchase (%)                                  | .       | .       | 1.5     | 1.5  | 1.4  | 1.4  | 3.4  | .        | .    |

(7) Unweighted average of price-to-income, price-to-rent and model valuation gaps. The model valuation gap is estimated in a cointegration framework using a system of five fundamental variables; total population, real housing stock, real disposable income per capita, real long-term interest rate and price deflator of final consumption expenditure, based on Philipponnet, N., Turrini, A. (2017), "Assessing House Price Developments in the EU," European Economy - Discussion Papers 2015 - 048, Directorate General Economic and Financial Affairs (DG ECFIN), European Commission. Price-to-income and price-to-rent gaps are measured as the deviation to the long term average (from 1995 to the latest available year).

(8) Price-to-income overvaluation gap measured as the deviation to the long term average (from 1995 to the latest available year).

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

**Source:** Eurostat and ECB as of 2023-04-28, where available; European Commission for forecast figures (Spring forecast 2023)