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In-depth review for Sweden

in accordance with Article 5 of Regulation (EU) No. 2011/1176 on the prevention and correction of macroeconomic imbalances

Accompanying the document

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

2022 European Semester – Spring Package

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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 – 2022 Spring Package" (COM(2022)600 final) that:

Sweden is experiencing imbalances. Vulnerabilities relate to high and rising house prices and high household indebtedness. In 2021, house prices moved further away from fundamental values with supportive financial conditions continuing to fuel housing demand. High household debt exposes Sweden to the risk of adverse shocks and a disorderly correction of housing prices, with potential harmful implications for the real economy and the banking sector. Private debt has risen further, a large share of which is concentrated in real estate, both commercial and housing, and most of household mortgage debt is at variable interest rates. Policy measures have not sufficiently addressed vulnerabilities relating to housing debt and potential house price overvaluations. Tax incentives for debt-financed housing remain, along with shortages in supply and identified shortcomings in the functioning of the rental market. Measures in the RRP only address the vulnerabilities in a partially satisfactory manner.

CONTENTS

1. Introduction 3

2. Assessment of macroeconomic imbalances 4

3. Thematic chapter: Housing market and property taxation 12

LIST OF TABLES

Table b.1.1: Selected exposures 9

Table 2.1: Selected economic and financial indicators (Part 1), Sweden 10

Table 2.2: Selected economic and financial indicators (Part 2), Sweden 11

Table 3.1: Selected housing indicators 16

LIST OF GRAPHS

Graph 2.1: Value of land and dwellings held by household (% of total assets) and their ratio 5

Graph b.1.1: Sectoral distribution of energy use and of energy imported from Russia 8

Graph b.1.2: Sweden goods and service trade balance – fossil trade contribution 9

Graph 3.1: Recurrent and other property taxes (% of GDP,2020) 14

Graph 3.2: Household debt (SEK mln) and tax expenditure (%of GDP, r-axis) 14

Graph 3.3: Sweden national average: Actual vs. 'attainable' house price change 15

Graph 3.4: Foregone municipal revenues from property fees due to the cap and lags in assessed value 15

1. INTRODUCTION

In 2021, over the previous annual cycle of surveillance under the Macroeconomic Imbalances Procedure (MIP), the Commission identified "macroeconomic imbalances" in Sweden. ([1]) These imbalances were related to risks of overvalued house prices coupled with high and rising household debt. The 2022 Alert Mechanism Report concluded that a new in-depth review (IDR) should be undertaken for Sweden with a view to assess the persistence or unwinding of imbalances. ([2])

The Swedish economy surpassed its pre-pandemic level in 2021, and more moderate growth is forecast in coming years. ([3]) The economy contracted by 2.9% in 2020, less than in many other Member States. It started to bounce back in mid-2020 when international supply bottlenecks eased and private consumption and exports picked up again. Decisive government measures supported the recovery and protected businesses, employment and stimulated consumption. Real GDP growth reached 4.8% in 2021 and by mid-2021, Sweden's real GDP had surpassed its pre-pandemic level. GDP growth is forecast at 2.3% in 2022 and 1.4% in 2023. The main drivers of GDP growth over the forecast horizon are private-consumption and net exports. In the wake of the Russian invasion in Ukraine the Swedish krona proved to be relatively exposed to changes in geopolitical uncertainty. Broad-based price increases across a range of goods and services are driving inflation. The strength of the recovery from the pandemic, possible structural lasting implications of the COVID-19 crisis and the geopolitical tensions associated to the war in Ukraine imply significant uncertainty for economic prospects.

This in-depth review presents the main findings of the assessment of imbalances. The assessment is backed by a thematic section on the housing market. Spillovers and systemic cross-border implications of imbalances are also taken into account. In addition, assessments of structural issues made in previous IDRs and in the context of fiscal assessments are also considered if relevant. The MIP assessment matrix is published in the 2022 Country Report for Sweden. ([4])

([1]) European Commission (2021), European Semester Spring Package 2021, COM(2021) 500 final.
([2]) European Commission (2021), Alert Mechanism Report 2022, COM (2021) 741 final.
([3]) Forecast data are from European Commission (2022), European Economic Forecast: Spring 2022, Institutional Paper 172.
([4]) European Commission (2022), Country Report Sweden 2022, SWD(2022)625 final.

2. ASSESSMENT OF MACROECONOMIC IMBALANCES

Assessment of gravity, evolution and prospects of macroeconomic imbalances

Private debt rose to 218% of GDP in 2021. After strong increases in the years before the global economic and financial crisis, private debt rose at a moderate pace between 2010 and 2018. Since, private debt growth accelerated and the private debt to GDP ratio reached 218% in 2021, from 213% in 2020. The debt of non-financial corporations was relatively stable from 2010 until 2019 with an average of 110% of GDP. By contrast, household debt, grew continuously over the period – despite the volatility in financial markets and the wider economy. Four-fifths of lending to households by monetary financial institutions is collateralised by housing, and represents mortgage debt. The increase was driven by the combination of low interest rates, the debt bias in taxation of owner-occupied housing and higher house prices fostered in part by supply bottlenecks and a strongly regulated rental market, which for many hampers renting as a viable alternative to buying a house.

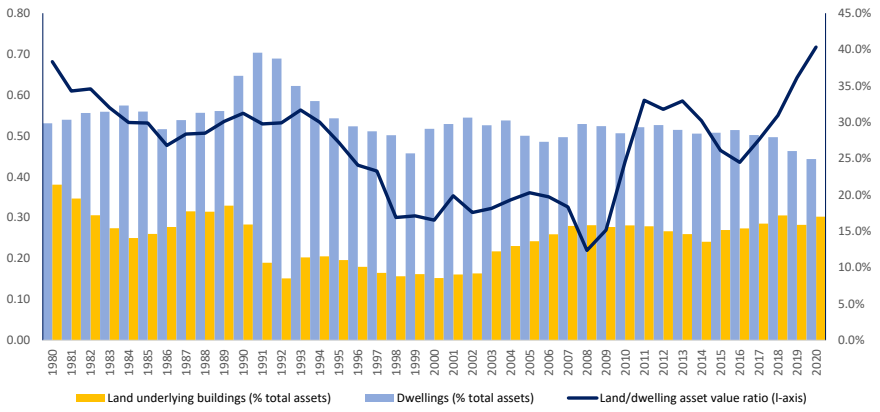
House prices accelerated in 2021 from a trend that already outpaced growth of household income. Prices almost quadrupled between 1996 and 2021, whereas disposal income less than doubled over that period. Nominal house prices grew by 10.2% year-on-year in 2021, while in real terms they increased by 8.1% year-on-year. These are high growth rates by historical standards and the highest since 2015. Several factors seem to be behind the recent acceleration in house price growth: policy stimulus including (expectations of) low to negative real interest rates, a temporary relaxation in prudential regulation, declining capital gains taxes on houses and the spreading of remote working. Although housing investment has recovered from the slump during and following the global financial and economic crisis, and approved construction permits doubled between 2015 and 2021 compared to 2009-2014, this was not sufficient to offset increasing demand. New housing supply is still falling short of the current needs. ([5])

Swedish property prices appear to be significantly above their fundamental values. Price-to-income and price-to-rent ratios were about 40-62 % above their long-term average as of 2021. The actual price-to-rent ratio has an upward bias because of rent regulation in Sweden. A model-based estimate suggests prices are slightly above levels suggested by fundamentals, but this for a large part reflects exceptionally low interest rates. Overall, the estimated valuation gaps for Sweden are among the highest in the EU. The ESRB has recently confirmed the high valuation of Swedish real estate ([6]) and put Swedish housing prices at 51% above their estimated equilibrium level in their model estimation (2021 Q2), the highest in the European Economic Area. House prices out of line with fundamentals suggest a risk of a disorderly correction. The latter could be triggered by, for instance, an external shock, or a rapid rise in the after-tax mortgage interest rates. Because Swedish homeowners typically fix their interest rates for short time periods, interest rate increases pass through relatively quickly to their debt service costs.

The value of land has risen even faster than property prices. Graph 2.1 shows the share of dwellings and of land underlying dwellings as a percentage of total assets held by households. The line in the graph reflects the ratio between the two: the land-to-dwelling asset value ratio. Following a decline between 1980 and 2008, the ratio has quickly returned to above the level of the early 1980s and is now at the highest recorded level. This suggests, first, that buildable land is in scarce supply but, second, might also indicate that offering new buildable land can bring down the costs of homeownership. It is difficult to assess the risks to overvaluation but there are cases in which high value of land compared to the dwelling reflects overvaluation and both tax and other institutional inefficiencies (see, e.g. Noguchi 1994 ([7])).

([5]) https://www.boverket.se/sv/om-boverket/publicerat-av-boverket/nyheter/bostadsbyggandet-okar-med-15-procent-och-66-000-bostader-borjar-byggas-under-aret/
([6]) ESRB (2022), "Vulnerabilities in the residential real estate sectors of the EEA countries", February 2022
([7]) Noguchi, Y. (1994), "*Land prices and house prices in Japan"*, in *Housing Markets in the United States and Japan*, NBER edited by Yukio Noguchi and James Poterba, Chicago University Press, January 1994

Graph 2.1: **Value of land and dwellings held by household (% of total assets) and their ratio**



Source: SCB

The rental market does not function well and is hardly an alternative to the purchase market. The vacancy rate for rental dwellings is among the lowest in the EU as well as compared to neighbouring countries (0.6% in 2019 vs 5.2% in Denmark in 2018 and 10.2% in Finland in 2015 – according to the latest available data ([8]). The rental market is characterised by long waiting queues and below market rents. Those depending more on public housing, i.e. those with lower incomes, face an increasingly tight rental market, with the share of public housing for rent out of the total housing stock having declined from 23% in 2001 to 18% in 2018.

The short-fall of housing supply is expected to decrease gradually. Sweden's National Board of Housing, Building and Planning ([9]) estimates that in 2021 some 66,000 new dwellings have been added to the housing stock, mostly in multi-dwellings buildings. For 2022, it expects 66 500 dwellings to be added to the housing stock and, again, mostly in multi-dwelling buildings. If realized, this would reduce the short-fall in supply. The National Board estimated the accumulated deficit at just under 200 000 dwellings in 2020. Planning and building regulations in combination with an apparent reluctance to offer buildable land in some municipalities, weak competition in the construction sector and the lack of rental market reforms still stiffen the reaction of supply to increased demand.

House price growth is expected to slow. The strong labour market and increasing household disposable income are expected to support house prices. However, this should be counteracted by the downward pressure that is expected to come from the already high valuations, construction at a pace above household formation (despite the fact that recent reduced supply and price increases of building materials could dent construction) and rising interest rates. A risk to the housing market is the high indebtedness of first-time buyers. A prolonged increase in interest rates will hit in particular this group that assumed high debt to enter the housing market and their ability to move up the property ladder will be reduced. Moreover, for potential homeowners the entrance into the housing market will become even more costly. Policy actions can attenuate the housing market risks by promoting appropriate conditions for new housing supply including of public housing, reforming the rental market and by letting off steam on the demand side through reducing the regressive tax bias favouring homeownership. The latter would also reduce foregone tax revenue.

The banking sector continues to have sound financial and capital ratios but has a large exposure to housing and commercial property loans. On average, non-performing loans ratios of Swedish banks are among the lowest in the EU at 0.9% in the second quarter of 2021. While risk-weighted capital ratios are above prudential requirements, the level of own funds on a non-risk weighted basis is comparatively low, as evidenced by the leverage ratio. The return on equity of banks dropped significantly in the wake of the COVID-19 crisis in early 2020, veered back during the year but was still below historical performance in the 2021Q3, at 8%. Bank balance sheets remain heavily skewed towards housing and commercial

([8]) ECB, Statistical Data Warehouse
([9]) Boverket (2021), "Building projections for 2021 and 2022", December 2021

property loans. Real estate mortgage loans to households constituted 68% of GDP and 33% of total bank assets as of 2021 Q3 and mortgage loans to non-financial corporations constituted 32% of GDP and 15% of total bank assets. ([10]) Households' total net wealth has continued to improve as equity and house prices rose and the corporate sector is generally well funded with sufficient access to capital through markets and/or banks. These bank assets, and those of other financial institutions providing property financing, are exposed to declines in house prices. Swedish bank claims outside Sweden represented 18% of total assets at the end of 2021. Of that 18% share, the rest of the EU represented 82% with Swedish banks having a particularly strong presence in Baltic countries ([11]). Sweden's financial exposures to Russia are also below the EU average (see box 2.1).

Assessment of MIP relevant policies

The initial strong policy response to COVID-19, which supported the housing market, is set to be progressively reduced. The broad and strong policy response to dampen the impact of the crisis on the economy had a monetary policy, a financial supervision and a fiscal dimension. These included the temporary suspension of the amortisation requirement, the broad set of government support measures to individuals and businesses, as well as reduced liquidity constraints in the financial system (liquidity support including covered bonds purchases, release of the countercyclical capital buffer, temporary easing of liquidity coverage ratios, encouraging suspension of dividend payments). Together with the lowering of the capital gains tax on housing, these measures supported the housing market and house prices.

Some limited policy measures have been taken to address the housing market and household debt imbalances. The Financial Supervisory Authority (Finansinspektionen, FSA) reinstated the amortisation requirement as from 1 September 2021. The FSA is also set to raise the countercyclical capital buffer from 0 to 1% effective as of 29 September 2022. The capital buffer of banks for housing loans was maintained through an extension of the risk-weight floor for residential mortgage exposures. Outside of the housing market, the FSA raised capital requirements specifically for bank loans for commercial real estate. Moreover, the FSA recommended banks to be restrictive in using earnings for dividend pay-outs and share buybacks from December 2020 until September 2021 ([12]). On the supply side of the housing market, Sweden continued investment support of comparatively limited amounts for rental housing and housing for students and amendments to the building and planning act. In March 2022, the Government Official Report (SOU 2022:14) on the division of tasks between the state and municipalities in the field of housing policy was presented. It is a first step towards more social sustainability of housing ([13]).No actions have been taken to reform the rental market (liberalising rents in newly produced and existing rental real estate) or to address the debt bias in housing taxation. The change in the capital gains tax is set to increase turnover in the housing market by facilitating housing moves. On the other hand, the windfall in capital gains could spur house price increases, in particular in higher price segments and in holiday homes. The full and unconditional tax deductibility of mortgage interest payments and the low ceiling on recurrent property taxation have not been addressed. Planning and building regulations in combination with the approaches differing between municipalities, weak competition in the construction sector and the high level of rent control limit the supply of new houses. The Swedish RRP contains three measures to ease building regulations, one investment measure for rental and student accommodation (expected to lead to the construction of 4 800 dwellings) and the reduction of the capital gains tax in two steps (removing interest payments on deferred capital gains and raising the maximum amount that can be deferred).

Conclusion

Sweden is facing vulnerabilities relating to high and rising house prices and high household indebtedness. In 2021, house prices moved further away from fundamental values and high household debt exposes Sweden to potential adverse shocks and a possible disorderly correction of the housing market prices with harmful implications for the real economy and the banking sector. Given the strong

([10]) Most figures in these paragraph refer to consolidated banking statistics as reported by the ECB for 2021Q3. Figures for foreign exposures refer to unconsolidated MFI balance sheet statistics as reported by the ECB.
([11]) Statistics Sweden, Financial Market Statistics
([12]) https://fi.se/en/published/press-releases/2020/financial-firms-must-be-restrictive-with-dividends-until-september-2021/
([13]) Among its proposals are to enact a new Housing Supply Act, ensuring that there is a national as well as municipal plans for the provision of housing, and that municipalities are required to give rental guarantees to families with children.

presence of Swedish banks in other Member States, spillover effects cannot be excluded. Private-sector debt has risen to well above 200% of GDP with concerns mounting due to the large share of real estate – both commercial real estate and housing. Households have increasingly assumed debt as the interest rate declined, making them vulnerable to changes in the interest rate for their debt service costs. Furthermore, fiscal incentives for housing loans imply foregone tax revenue and may divert investment in productive and innovative assets. Exposures to energy prices are a particularly pressing concern, while exposures to Russia are significantly lower than the EU average (see box 2.1).

Policy measures have not sufficiently addressed vulnerabilities relating to housing debt and house price imbalances. While the Swedish authorities have used macro-prudential policies to assuage the fall-out from the pandemic and reversed these, tax incentives for debt financed housing remain, along with shortages in supply and lack of actions to reform the rental market. At the same time, supportive financial conditions continued to add to housing demand.

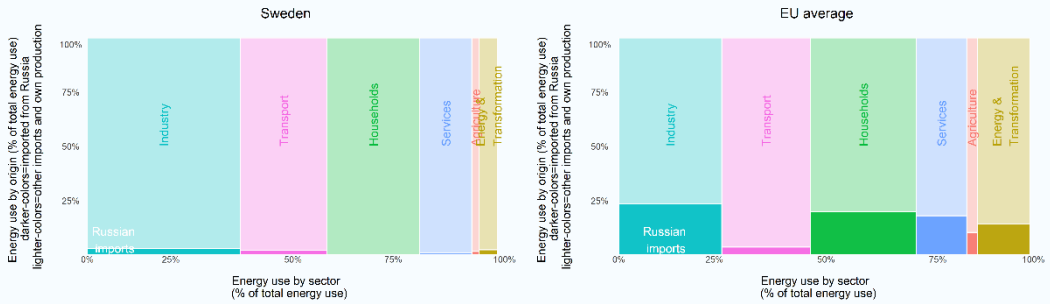
Based on the findings in this in-depth review, the Communication "European Semester – 2022 Spring Package" ([14]) sets out the Commission's assessment as to the existence of imbalances or excessive imbalances in Sweden, in line with Regulation 1176/2011.

([14]) European Commission (2022), European Semester Spring Package 2022, COM(2022)600 final.

Box 2.1: Exposures to the commodity price surge, and to Russia

This box summarizes risks and exposures regarding the commodity price surge, and the importance of direct links with the Russian economy. The surge of commodity prices since 2021 had been aggravated by the Russian military aggression against Ukraine. This box reviews the risks for the macroeconomic vulnerabilities in Sweden. Available data suggest that exposures to energy prices are a concern, while exposures to Russia are significantly lower than the EU average. The rise in energy prices that started in 2021 and that accelerated recently has been large and prolonged, and contributes to a generalized price increase. Inflation in 2021 was 2.7% in contrast with 0.7% in 2020, is forecast to accelerate to 5.3% in 2022, and moderate subsequently.

Graph b.1.1: Sectoral distribution of energy use and of energy imported from Russia



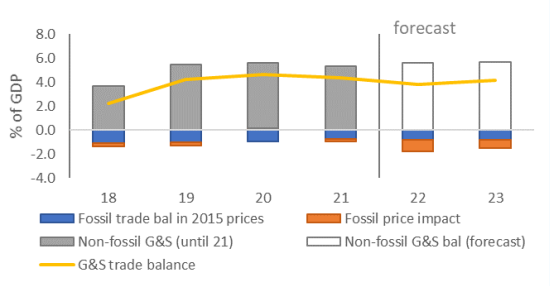
Notes: The left panel displays the distribution of primary energy usage in Sweden according to Eurostat energy balances. The horizontal axis displays the relative importance of energy-consuming sectors. The vertical axis puts in evidence the importance of energy imports from Russia in satisfying that need. Note that this dependence on Russia differs according to sector's use of natural gas vs oil and coal. For comparison, the right hand panels displays the same concept for the EU aggregate. Russian imports include oil and petroleum products,natural gas and solid fossil fuels.
Sources: Eurostat and European Commission services calculations

The Swedish economy depends less on energy imports and on imports from Russia than the EU average ([1]). This reflects the reliance of the Swedish economy on renewables and nuclear energy. Solid fossil fuels, crude oil, and natural gas account for less than 25% of gross inland energy consumption. On oil and gas, the share of Swedish imports from Russia is also below the EU average. In 2020 Sweden imported 8% of its crude oil and 13% of its gas imports from Russia, compared to whereas the 26% for crude oil, and 44% for gas in the EU aggregate.

The distribution of energy usage by sector is roughly comparable to the EU average except for the industrial sector, which uses a higher share of energy. The Swedish economy uses less fossil energy sources compared to its GDP than most EU Member States (Graph b.1.1). The transport sector and in particular the road transport is the main user of the imported petroleum products. The industrial sector, which is the main user of energy, relies mostly on electricity and biofuels, with the use of fossil fuels decreasing in the last years. Electricity and district heating account for more than 80% of the energy used in the residential and service sector ([2]).

The fuel price surge is likely to have an impact on the trade balance. The commodity price effect is expected to depress the trade balance in 2022 by 1 pp. of GDP (see Graph b.1.2). This terms-of-trade effect is unlikely, however, to make a significant dent into the overall current account surplus.

Graph b.1.2: Sweden goods and service trade balance – fossil trade contribution



Notes: The graph displays the trade balance as % of GDP, and highlights net trade of petroleum products, natural gas and solid fossil fuels (mainly coal), in 2015 import prices. The 'fossil price impact' component details the impact of price changes on the (also changing) real trade balance. 2022 and 2023 figures reflect central assumptions of the Commission spring forecast, notably combining the forecasted fossil price evolution with broadly forecasted import quantities of fossil energy sources.

On the top of lower energy exposures to supply disruptions related to Russia's aggression against Ukraine, Sweden's financial and trade exposures to Russia are also below EU average. The lower-than-average exposure of the Swedish economy is also evident in trade and investment. The value added produced in Sweden for Russian final demand is comparable with the EU average. In the similar vein, non-energy Russian import content in Swedish final demand equals 0.4% of GDP (see Table b.1.1). On tourism, FDI assets and liabilities, portfolio assets or liabilities or banking exposures to Russia, the Swedish economy exposures are significantly lower than the EU on average.

Table b.1.1: Selected exposures

Trade & financial exposures	unit	SE	EU
Domestic value added embodied in exports to Russia	% of GDP	0.3%	0.4%
Non-energy Russian import content in final demand	% of GDP	0.4%	0.4%
Russian tourist nights spent	% of total 2019	0.9%	2.7%
FDI assets held in Russia	% of 2020 GDP	0.8%	2.5%
Portfolio & other inv. assets held in Russia	% of 2020 GDP	0.4%	0.9%
FDI liabilities towards Russia	% of 2020 GDP	0.1%	1.2%
Portfolio & other inv. liabilities towards Russia	% of 2020 GDP	0.1%	1.1%
Consolidated banking exposures towards Russia	% of 2021 GDP	0.0%	0.5%

Energy mix	unit	SE	EU
Solids fossil fuels (incl. peat)	% of Gross inland consumption 2020	3.2%	10.8%
Oil and petroleum products	% of Gross inland consumption 2020	17.7%	32.7%
Natural gas	% of Gross inland consumption 2020	2.6%	24.4%
Renewables and waste	% of Gross inland consumption 2020	51.1%	19.0%
Nuclear	% of Gross inland consumption 2020	25.4%	13.1%
Commodity exposures	**unit**	**SE**	**EU**
Net petroleum imports from all countries	% of GDP 2021	0.9%	1.2%
Crude oil imports from Russia '20	% of oil imports	7.7%	25.7%
Net gas imports from all countries	% of GDP 2021	0.1%	0.6%
Gas imports from Russia '20	% of gas imports	12.7%	43.6%

Notes: data source Eurostat for commodity exposures, European Commission Figaro for value-added exposures, BIS for consolidated banking exposures, European Commission FinFlows for other financial exposures. Energy gross inland consumption excludes net imports of electricity and derived heat.

([1]) Sweden energy dependence ratio (net imports over gross available energy) was 33.5% in 2020, while in the same year the EU energy dependence ratio was 57.5%.

([2]) Source: Energy in Sweden 2021 – an overview, Swedish Energy Agency.

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

all variables y-o-y % change unless otherwise stated	2003-07	2008-12	2013-17	2018	2019	2020	2021	forecast 2022	forecast 2023
Real GDP	3.5	0.7	2.6	2.0	2.0	-2.9	4.8	2.3	1.4
Potential growth (1)	2.8	1.7	2.0	2.2	2.0	1.7	1.9	1.7	1.7
Contribution to GDP growth:									
Domestic demand	2.8	1.0	2.8	1.4	0.3	-2.5	4.8	2.1	0.6
Inventories	0.2	-0.1	0.2	0.3	-0.1	-0.7	0.4	0.1	0.1
Net exports	0.5	-0.1	-0.3	0.3	1.8	0.2	-0.4	0.0	0.7
Contribution to potential GDP growth (1):									
Total Labour (hours)	0.5	0.7	0.8	0.8	0.6	0.4	0.5	0.4	0.5
Capital accumulation	0.7	0.6	0.7	0.8	0.8	0.7	0.8	0.8	0.8
Total factor productivity	1.6	0.4	0.5	0.6	0.7	0.6	0.6	0.5	0.5
Output gap (2)	1.1	-1.6	-0.5	0.5	0.4	-4.2	-1.4	-0.8	-1.2
Unemployment rate	6.7	7.9	7.6	6.5	7.0	8.5	8.8	7.8	7.0
Harmonised index of consumer prices (HICP)	1.5	1.9	0.9	2.0	1.7	0.7	2.7	5.3	3.0
GDP deflator	1.4	1.7	1.7	2.4	2.5	1.8	3.0	4.3	3.9
External position									
Current account balance (% of GDP), balance of payments	6.8	6.1	3.6	2.7	5.5	6.1	5.5	4.9	5.8
Trade balance (% of GDP), balance of payments	6.5	5.2	3.8	2.3	4.4	4.7	4.4	.	.
Primary income balance (% of GDP)	1.8	2.6	1.4	2.0	2.9	3.5	3.0	.	.
Secondary income balance (% of GDP)	-1.4	-1.7	-1.5	-1.6	-1.9	-2.1	-1.9	.	.
Current account explained by fundamentals (CA norm, % of GDP) (3)	0.8	0.7	0.5	0.5	0.5	0.6	0.7	0.7	0.7
Required current account to stabilise NIIP above -35% of GDP over 20Y (% of GDP) (4)	-0.5	-0.1	-0.4	-0.1	0.3	0.7	0.6	0.8	0.9
Capital account balance (% of GDP)	-0.1	-0.2	-0.1	0.0	0.0	0.1	0.2	.	.
Net international investment position (% of GDP)	-12.9	-8.9	-6.4	8.1	16.2	14.1	17.8	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (5)	-23.0	-22.1	-17.5	-14.7	-8.1	-6.4	-5.6	.	.
Net FDI flows (% of GDP)	2.8	2.5	1.2	0.0	4.8	2.9	4.4	-0.2	2.1
Competitiveness									
Unit labour costs (ULC, whole economy)	1.1	2.8	1.4	3.5	1.5	4.3	0.8	2.6	3.2
Nominal compensation per employee	3.9	3.0	2.3	3.8	3.0	2.5	4.3	2.7	3.7
Labour productivity (real, hours worked)	2.7	0.1	1.0	0.4	2.3	0.3	2.2	0.3	0.1
Real effective exchange rate (ULC)	-0.3	1.2	-1.1	-3.4	-4.9	.	.	.	.
Real effective exchange rate (HICP)	-0.8	0.0	-1.7	-3.9	-3.8	3.0	3.0	.	.
Export performance vs. advanced countries (% change over 5 years)	4.7	-5.8	-9.2	-8.8	-4.4	5.0	.	.	.
Private sector debt									
Private sector debt, consolidated (% of GDP)	151.2	190.5	193.7	195.2	198.7	212.5	218.0	.	.
Household debt, consolidated (% of GDP)	59.7	75.1	83.7	88.1	88.5	94.6	93.7	.	.
Household debt, fundamental benchmark (% of GDP) (6)	58.1	65.9	72.7	74.3	74.8	79.5	78.3	.	.
Household debt, prudential threshold (% of GDP) (6)	47.8	53.6	66.9	67.7	72.2	71.5	70.3	.	.
Non-financial corporate debt, consolidated (% of GDP)	91.5	115.4	110.0	107.1	110.2	117.9	124.3	.	.
Corporate debt, fundamental benchmark (% of GDP) (6)	80.8	87.2	92.2	91.7	91.5	96.4	94.6	.	.
Corporate debt, prudential threshold (% of GDP) (6)	61.6	64.9	81.8	79.0	82.5	82.9	82.0	.	.
Private credit flow, consolidated (% of GDP)	11.1	7.8	7.7	8.9	10.0	12.6	16.9	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	4.7	2.1	-1.8	-3.3	-1.9	1.1	-0.8	0.5	1.3
Households, net lending (+) or net borrowing (-) (% of GDP)	0.5	3.9	5.2	5.1	6.5	7.6	6.7	4.9	4.1
Net savings rate of households (% of net disposable income)	4.7	10.4	13.0	13.6	15.7	18.0	16.9	.	.

(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 reach and stabilise the NIIP at -35% of GDP over the next 20 years. 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 2022-05-02, where available; European Commission for forecast figures (Spring forecast 2022)

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

all variables y-o-y % change unless otherwise stated	2003-07	2008-12	2013-17	2018	2019	2020	2021	forecast 2022	forecast 2023
Housing market									
House price index, nominal	10.1	3.2	8.5	-0.9	2.5	4.2	10.2	.	.
House price index, deflated	9.0	1.5	7.3	-3.3	0.4	3.0	8.1	.	.
Overvaluation gap (%) (7)	-7.6	1.8	18.0	24.3	23.1	26.5	34.8	.	.
Price-to-income overvaluation gap (%) (8)	-5.8	3.1	21.6	29.8	28.6	33.7	40.2	.	.
Residential investment (% of GDP)	3.7	3.7	4.7	5.2	4.7	5.0	5.3	.	.
Government debt									
General government balance (% of GDP)	1.3	-0.1	-0.1	0.8	0.6	-2.7	-0.2	-0.5	0.5
General government gross debt (% of GDP)	45.8	38.2	42.4	38.9	34.9	39.6	36.7	33.8	30.5
Banking sector									
Return on equity (%)	.	10.0	11.5	11.9	10.6	8.1	.	.	.
Common Equity Tier 1 ratio	.	10.1	19.5	18.6	19.8	20.8	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances)	.	0.6	1.0	0.8	0.9	0.8	.	.	.
Gross non-performing loans (% of gross loans) (9)	.	.	1.3	1.0	1.1	1.0	0.9	.	.
Cost of borrowing for corporations (%)	.	.	1.2	1.2	1.5	1.4	1.4	.	.
Cost of borrowing for households for house purchase (%)	.	.	1.6	1.5	1.5	1.4	1.4	.	.

(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 Philiponnet, 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 2022-05-02, where available; European Commission for forecast figures (Spring forecast 2022)

3. THEMATIC CHAPTER: HOUSING MARKET AND PROPERTY TAXATION

The Swedish economy has been identified with imbalances related to high house prices and household debt since 2011. Sweden's real estate market registered strong house price growth during the pandemic, while household debt continued to increase, further aggravating vulnerabilities (see chapter 2). In previous publications, the European Commission ([26]) already analysed in more detail the underlying drivers of these imbalances, in particular the tax incentives stemming from mortgage interest deductibility and low property tax, the regulated rental market and the lack of housing supply. In addition, housing affordability was covered, focusing on different developments in the income and house price distribution, concluding that for households with lower incomes entering the owner occupied housing market became increasingly difficult. In this thematic chapter, the previous analysis is complemented with an assessment of the fiscal costs associated with relatively low housing taxation in Sweden.

Both the owner-occupied and the rental market, lack sufficient supply and are only limited substitutes for each other. The owner and tenant-owned occupation rate of housing in Sweden is around 60% and the rental market represents around 40%. Both markets face a shortage of supply and the related policy challenge of increasing the housing stock. The rental market is regulated, resulting in rents that do not reflect market conditions and limited supply, resulting in long waiting times and therefore incentivising ownership. The most important incentives in the purchase market come from currently very low interest rates and tax incentives supporting the uptake of household debt. For households without the capacity to acquire a home because of low wealth and/or too low income, the purchase market is no alternative for the rental market. This group cannot benefit from policy incentives lowering the user costs of housing and has to cope with long waiting times in the rental market.

Tax expenditures supporting home ownership are significant. The Swedish tax system allows households to deduct 30% of interest expenditures from payable income taxes up to an amount of SEK 100 000. For deductions above SEK 100 000 the rate declines to 21%. Although all interest expenditures are deductible, mortgage interest payments are dominant in the interest deductions from taxes. Graph 3.2 shows an estimate of the tax expenditure's size since 2009. In this estimate, the applied average mortgage rates were 2 ½% in 2009 and 2010, 4% in 2011 and 2012, 3% in 2013, 2 ¾% in 2014 and 2% from 2015 onwards. According to bank balance sheet data, 91% of the loans to households consisted of loans collateralized by property in 2021Q3. ([27]) This is taken as the reference for calculating the cost of the mortgage interest deductibility. The applicable deduction rate is assumed to be 30%. The tax expenditure was an estimated 0.75% of GDP in 2011 and 2012 when mortgage rates reached 4%. Since then, the costs of mortgage interest deductibility has fallen to around 0.4% of GDP per year as mortgage rates have fallen to around 2%.

The mortgage interest deductibility has dampened the windfall profit of lower interest rates to homeowners and incentivized new homeowners to take on larger debt. Declining mortgage interest rates lowered mortgage interest payments. Lower mortgage interest payments imply a lower deductibility from taxes. A lower deductibility from taxes implies that after tax the interest payments have decreased less than they would have without deductibility. Thereby, the mortgage interest deductibility dampened the positive impact of declining mortgage rates for existing homeowners. At the same time, house prices have increased by more over the past eight years than the net positive impact of 'after-tax' mortgage interest payments and other factors affecting housing affordability can explain (see Graph 3.3). If house prices increased by more than can be explained by after-tax decreases in interest rates and other fundamentals determining the maximum attainable house price (see Andrle et al, 2019 ([28])) than these new homeowners have likely increased debt levels. Indeed, such an increase in debt for new homeowners

([26]) European Commission (2020), "*Country report Sweden 2020"*, European Commission Staff Working Document SWD(2020) 526 and European Commission (2020), "*In-Depth Review for Sweden 2021"*, European Commission Staff Working Document SWD(2021) 412

([27]) The figures quoted here refer to domestic banking groups from ECB consolidated banking statistics.

([28]) Andrle, M., Plašil, M., and Hunt, B.L. (2019), "*Assessing House Prices in Canada*", IMF Working Paper 2019 (248)

is in line with data on new mortgages (Finansinspektionen, 2021 ([29]). The mortgage interest deductibility (MID) enables households to increase debt levels, as their after-tax budget constraint is looser than without the MID. That is, under the budget constraint of households the deductibility creates more room for higher debt. These new homeowners are now more dependent on the MID for housing affordability than earlier cohorts.

Sweden has low taxes on real estate, which are capped at a low level. Recurrent taxes are levied in Sweden as municipal fees for residential buildings and as state taxes for industrial and commercial property. Recurrent property taxation is the major tax on properties in Sweden, even if low, and in most EU countries. In Sweden, property owners pay a local property fee (kommunal fastighetsavgift). This fee is capped at a low ceiling ([30]), resulting in a highly favourable tax treatment of owner-occupied housing compared to other investments, and low overall tax revenues from property by international standards (see Graph 3.1). Both tax revenues from recurrent property tax (0.7% of GDP in 2020) and other taxes (0.4% of GDP) are below the EU average (1.2% and 1.0% respectively). The lowering of the capital gains tax in July 2020 and January 2021 has likely reduced further revenue from property taxation.

Recurrent taxes do not live up to their revenue potential. The municipal fee funds local expenditures like schooling and infrastructure. The nominal tax rate is 0.75% of assessed value for most houses and 0.3% for apartments. As a consequence of the low cap, the fee is a fixed amount for most homeowners. There are also various exemptions and further limitations in place, like for pensioners or for new-build properties. The assessed value on which the rate is applied should represent 75% of the market value two years preceding the year of the assessment. Using data on the assessed value and the number of dwellings, Graph 3.4 below shows a rough estimate of the impact the cap has on local revenues compared to a situation without a cap. Graph 3.4shows the development of the assessed value and the hypothetical assessed value (75% of the market value in t-2). Taken together, the recurrent property tax is some ½ % of GDP below what it could be without a cap and with the assessed value closely following the legal reference value.

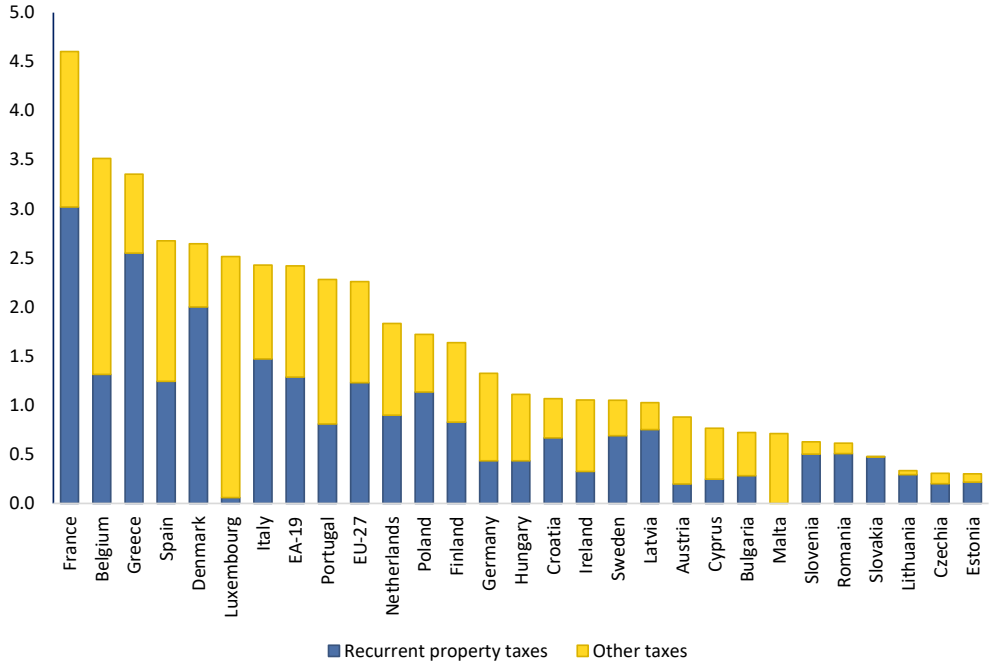
The tax advantages for owner-occupied housing and rental market regulation lead to inefficiencies and inequity in the housing market. The interest deductibility and relatively low property taxes in Sweden seem to have had little positive impact on housing affordability, whereas they have reduced tax revenues for the state, which could have for instance been used to lower taxes on labour (see Burgert et al, 2016) ([31]) or promoting investments in public housing. Moreover, these tax advantages have contributed to increased property prices and, thereby, reduced the attainability of house acquisition, while access to rented accommodation is subject to long waiting times. Finally, the low tax revenue accruing to municipalities reduces their incentive to offer buildable land for housing projects and capacity to finance schooling and infrastructure.

([29]) Finansinspektionen (2021), "The Swedish Mortgage Market (2021)"

([30]) The nominal tax rate of the local property fee is 0.75 % of assessed value for most houses and 0.3 % for apartments, but the tax is capped at a relatively low level (as of 2018, SEK 7 812 and SEK 1 337 per year for single-family houses and apartments respectively). In practice, therefore, most owners pay a flat fee that does not scale up with property value or imputed rent level.

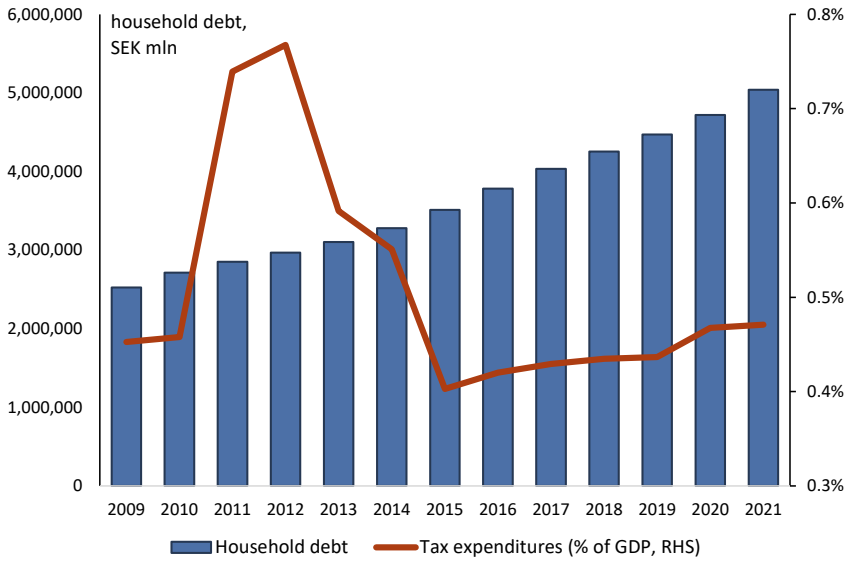
([31]) Burgert, M., D'Souza, P., and Vermeulen, G. (2016), "*House prices and indebtedness in Sweden: a model-based assessment of policy options"*, European Commission DG ECFIN Economic Brief 21

Graph 3.1: **Recurrent and other property taxes (% of GDP,2020)**



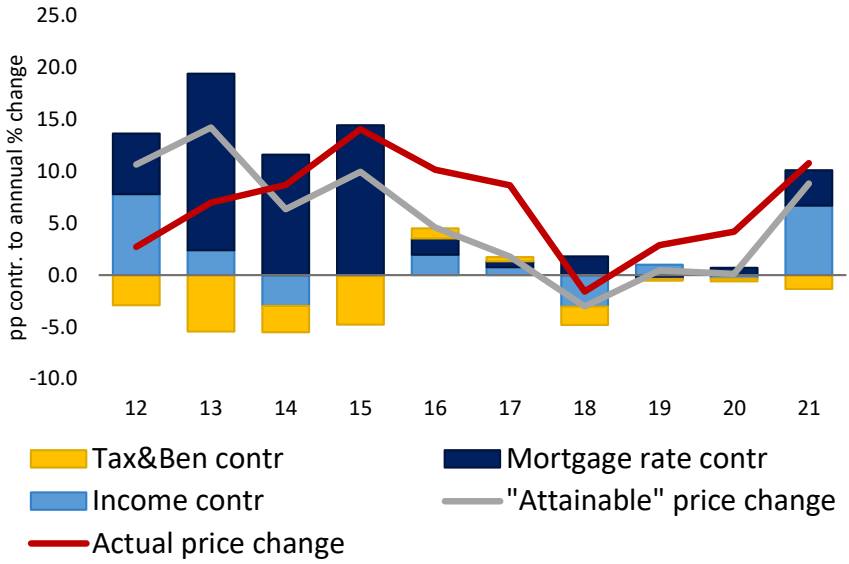
Source: Eurostat

Graph 3.2: **Household debt (SEK mln) and tax expenditure (%of GDP, r-axis)**



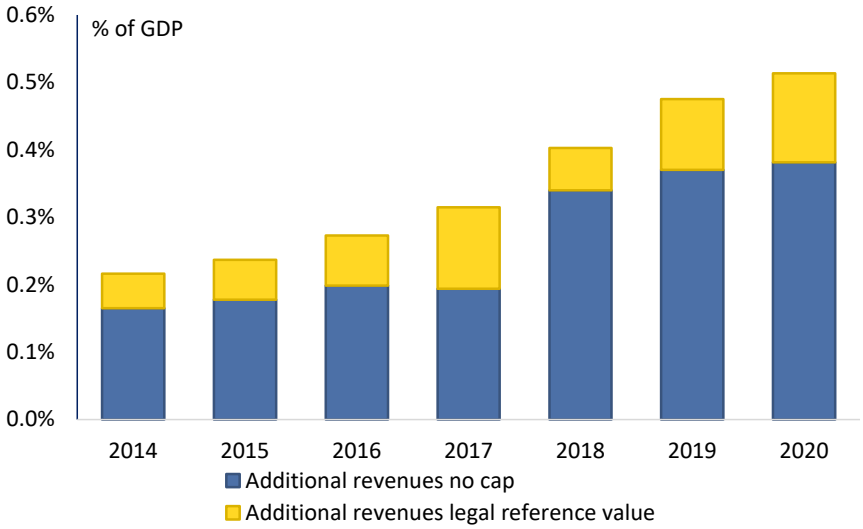
Source: SCB, Compricer.se and Commission services

Graph 3.3: **Sweden national average: Actual vs. 'attainable' house price change**



Source: JRC, Eurostat, Ameco, Commission services

Graph 3.4: **Foregone municipal revenues from property fees due to the cap and lags in assessed value**



Source: SCB, Commission services

Table 3.1: **Selected housing indicators**

			2003-07	2008-12	2013-17	2018	2019	2020	2021	21Q1	21Q2	21Q3	21Q4
House price developments	Unit	Source											
Real house price, yoy growth	%	(a)	9.0	1.6	7.4	-3.3	0.4	3.0	8.1	5.8	9.1	9.6	8.1
Nominal house price, yoy growth	%	(a)	10.1	3.2	8.5	-0.9	2.5	4.2	10.2	7.2	10.9	11.3	11.1
Price to income in level (1)	years	(b)	7.8	8.5	10.0	10.7	10.6	11.0	11.6	11.4	10.6	12.3	12.0
Valuation gaps													
Price to income gap (2)	%	(c)	-5.8	3.1	21.6	29.8	28.6	33.7	40.2	38.4	39.6	40.8	42.0
Price to rent gap (2)	%	(c)	-14.6	4.2	28.8	45.0	45.9	49.3	62.2	58.2	61.4	63.7	65.2
Model valuation gap (3)	%	(c)	-2.9	-3.4	1.2	-3.9	-6.8	-5.4	0.7	-1.3	-0.1	1.2	3.0
Average house price gap (4)	*%*	(c)	-7.8	1.3	17.2	23.6	22.6	25.8	34.4	31.8	33.6	35.2	36.7
Housing credit													
Bank mortgages (% GDP)	%	(d)	40.2	55.7	63.0	67.9	69.1	76.3	71.6				
Bank mortgages, yoy growth	%	(d)	13.6	10.1	4.2	1.3	3.1	10.1	4.6				
Housing supply													
Residential construction - dwellings (% GDP)	%	(e)	3.7	3.7	4.7	5.2	4.7	5.0	5.3				
Residential construction - dwellings, yoy growth	%	(e)	28.7	-4.6	11.0	-6.4	-6.5	3.3	11.1				
Non-residential construction (% GDP)	%	(e)	4.8	5.4	5.3	5.9	6.1	6.0	5.6				
Value added in the construction sector, yoy growth	%	(e)	9.6	-0.7	3.0	2.3	-0.9	0.9	0.4				
Building permits, yoy growth	%	(a)	15.8	-1.8	22.0	-16.6	-10.5	17.6	17.8				
Number of transactions, yoy change	%	(f)	5.1	-2.5	2.9	-4.8							
Other housing market indicators													
Share of owner-occupiers, with mortgage or loan	%	(a)	54.0	57.9	56.4	51.7	51.4	52.1					

(1) Price to income in level is the number of years of income necessary to buy an assumed 100m2 dwelling. See Bricongne, J-C, A Turrini, and P Pontuch, (2019), "Assessing House Prices: Insights from HouseLev, a Dataset of Price Level Estimates", European Economy - Discussion Paper 101, Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.
(2) Price-to-income and price-to-rent gaps are measured in deviation to the long term average (from 1995 to the latest available year).
(3) The model valuation gap is estimated in a cointegration framework with nominal house prices as the dependent variable and five fundamental explanatory variables: total population, real housing stock, real disposable income per capita, real long-term interest rate and price deflator of final consumption expenditure. See Philiponnet 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.
(4) Unweighted average of price-to-income, price-to-rent and model valuation gaps.
Source: (a) Eurostat, (b) Eurostat, OECD, ECB, BIS, Ameco, national sources, European Commission calculations, (c) European Commission calculations, (d) ECB, Ameco (e) Ameco (f) ECB .