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CORRIGENDUM

This document corrects document SWD(2022) 636 final of 23.05.2022.
Correction of figures in table 2.1.

The text shall read as follows:

COMMISSION STAFF WORKING DOCUMENT

In-depth review for the Netherlands

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

{COM(2022) 600 final} - {SWD(2022) 628 final} - {SWD(2022) 629 final} - {SWD(2022) 630 final} - {SWD(2022) 631 final} - {SWD(2022) 632 final} - {SWD(2022) 633 final} - {SWD(2022) 634 final} - {SWD(2022) 635 final} - {SWD(2022) 637 final} - {SWD(2022) 638 final} - {SWD(2022) 639 final}

On the basis of this in-depth review for the Netherlands 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:

The Netherlands is experiencing imbalances. Vulnerabilities relate to high private debt and a large current account surplus, which carry cross-border relevance. From a sector perspective, high savings and low domestic investment of non-financial corporations are the main structural drivers of the high and persistent current account surplus, which is well beyond the levels suggested by the country's fundamentals and increased further in 2021. Part of the external surplus and its recent dynamics are linked to operations of some large multinational corporations. Going forward, the surplus will likely remain high as its main drivers remain in place. Private sector debt remains high on account of both high household debt and corporate debt, the latter partly on account of intra-group cross-border debt of multinationals. High household debt makes households more vulnerable to shocks, given that strong house price increases have contributed to rising debt and house prices appear to be overvalued. Household debt is expected to remain elevated in light of continued house price growth and of distortions in the housing market that favour debt-financed home ownership in combination with a shortfall in housing supply. Limited policy steps have been taken but more needs to be done.

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1. INTRODUCTION

In 2021, over the previous annual cycle of surveillance under the Macroeconomic Imbalances Procedure (MIP), the Commission identified "macroeconomic imbalances" in the Netherlands. ([1]) These imbalances were related to high private debt level and large current account surplus, which carry cross-border relevance. The 2022 Alert Mechanism Report published in November 2021 concluded that a new in-depth review (IDR) should be undertaken for the Netherlands with a view to assess the persistence or unwinding of imbalances. ([2])

The Dutch economy rebounded in 2021 with an annual growth rate of 5% but substantial new uncertainties are emerging. ([3]) After a fall in GDP of 3.8% in 2020, the improved health situation and the gradual opening-up of the economy led to robust growth in private consumption of 3.5%. Net trade also contributed significantly to economic growth in 2021, with exports performing strongly, while imports lagged behind somewhat. The effective support measures put in place by the government kept corporate bankruptcies in check and protected employment. After an uptick in 2020, the unemployment rate dropped to 4.2% in 2021, below its pre-pandemic level and the number of vacancies exceeded the number of unemployed. Investment activity weakened during the year due to global supply chain disruptions and increasing labour shortages. Real GDP is forecast to increase by 3.3% in 2022 and 1.6% in 2023. The nominal GDP level in 2023 is forecast to be 19.0% above its 2019 level. Russia's invasion of Ukraine has placed a further drag on the economy. Surging energy prices in the later part of 2021 have resulted in a strong pick-up in inflation, with an annual inflation rate of 2.8% in 2021. Inflation is expected to pick up further in 2022 with Russia's invasion of Ukraine leading to further increases in energy prices and an overall inflation forecast of 7.4% in 2022.

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 and linked household debt developments. Spillovers and systemic cross-border implications of imbalances are also taken into account, including the spillover effects of the government's fiscal spending plans on other Member States. 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 the Netherlands. ([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 the Netherlands 2022, SWD(2022)621 final.

2. ASSESSMENT OF MACROECONOMIC IMBALANCES

Assessment of gravity, evolution and prospects of macroeconomic imbalances

The current account surplus, after consecutive declines in 2019 and 2020, rebounded to 9.5% of GDP in 2021. It continues to be among the highest in the euro area as a share of GDP and well above levels justified by fundamentals ('current account norm', ([9]) estimated at 3.2% of GDP in 2021), exceeding it by over 6 percentage points of GDP in 2021. A persistently high trade surplus in goods remains the main contributor from a trade perspective. From a sectoral and savings perspective, all domestic sectors have been contributing to the net savings surplus over the past decade, but non-financial corporations are the main driver. This pattern is linked to the strong presence of multinationals in the Netherlands. Due to deleveraging pressures after the global financial crisis, households have also been consistently contributing to the net lending position of the Dutch economy over the past decade. The high compulsory second pillar pension savings form another important driver of the overall household savings surplus. The government has also been in surplus for several years prior to the pandemic due to rising tax revenues and consolidation efforts but is a net borrower since 2020.

The pandemic has led to substantial shifts in the sectoral composition of the current account surplus. Net lending by non-financial corporations (NFC) increased to 4.4% in 2020, without offsetting the strong decline in net lending by financial corporations from 1.5 to 0.4% of GDP, leading to a decrease in the combined corporate sector's net lending from 5% to 4.8% of GDP in 2020. Over 2021, financial corporations have entered net borrowing territory, contributing -0.3% of GDP to the total economy's net lending, an effect driven by firm-specific developments and therefore, financial corporation's net savings are likely to revert back to their levels in past years. Owed in large part to rising oil prices and the resulting increase in earnings of Shell, the combined corporate sector's net savings have increased further in 2021 to 6.3% of GDP. The measures to mitigate the spread of the COVID-19 virus strongly curtailed household consumption and in combination with income support measures led to a strong increase in personal savings over 2020 and 2021, with household net lending reaching 6.3% and 5.8% of GDP respectively. The government moved strongly into net borrowing territory in 2020 with net borrowing of 3.7% in 2020 and 2.5% in 2021. The drop in net borrowing by the government together with the surge in net lending by the combined private sector led to a rebound of the current account surplus in 2021.

The current account surplus is forecast to decrease to 8.8% of GDP in 2022 and to 8.7% 2023. The structural drivers underpinning high household and corporate savings are expected to continue to contribute to current account surpluses. The end of pandemic-related restrictions curtailing consumption during early 2022 and increased inflation are expected to lead to a smaller household savings surplus. The corporate sector's net savings are expected to increase slightly, despite the relocation of Shell, which contributed roughly 1.4% of GDP to the economy's net savings in 2021. As of 1 January 2022, Shell is no longer a Netherlands-based firm. The government deficit is expected to increase somewhat in 2022, in part due to additional measures taken to cushion the impact of energy price increases. From a trade perspective, the forecast decline in the current account surplus is mainly caused by a worsening of the terms of trade, caused by surging energy, food and raw material prices, also associated to Russia's military aggression against Ukraine (see Box 2.2). For the coming years, recent tax reforms addressing incentives to retain earnings within small and medium-sized enterprises (SMEs) and the expansionary fiscal spending plans of the new government could have a dampening effect on the surplus (see Box 2.1). On the other hand, a normalisation of the terms of trade could be expected to improve the trade balance, leading to a current account surplus that is expected to stay roughly stable in 2023.

([9]) The 'current account norm' is the current account balance that can be explained by fundamentals. It is based on an empirical setup similar to IMF's EBA (Phillips, S., Catão, L., Ricci, L., Bems, R., Das, M., Di Giovanni, J., Unsal, D.F., Castillo, M., Lee, J., Rodriguez, J., and Vargas, M. (2013), "The external balance assessment (EBA) methodology", International Monetary Fund Working Paper 13/272). Fundamentals are slow-moving variables including, e.g. natural resources, demographics, or relative income. For details see Coutinho, L., Turrini, A., Zeugner, S. (2018), "Methodologies for the assessment of current account benchmarks", European Economy, Discussion Paper 86/2018.

House prices have been growing continuously in the Netherlands since 2014, reaching a record growth rate of 15% on average over 2021 and house price overvaluation have emerged as an additional risk over the past years. Between 2017 and 2020, prices grew by almost 8% on average in nominal terms and by about 6% in real terms. House prices in December 2021 were about 20% above their values one year earlier. Valuation gaps are growing continuously with price to income and price to rent ratios about 10% above their historical averages in 2020 and more than 20% above in 2021. The overall valuation gap reached about 9.7% in 2020 and more than 20.1% in 2021. Multiple factors contributed to surging prices and to the high level of household mortgage debt. These include tax incentives in favour of (debt-financed) homeownership, relatively lenient macroprudential regulation and an underdeveloped private rental market. Additionally, the structurally insufficient and inelastic supply of housing due to factors such as lacking buildable land and insufficient administrative capacity at the municipal level puts further upward pressure on prices (see section 3 for a detailed discussion of the Dutch housing market).

A number of one-off factors in combination with long standing distortions in the Dutch housing market can explain the surge in prices over 2021. Demand for housing in 2021 was boosted by pent-up household savings from 2020 and a reduction of the transfer tax for young homebuyers. These factors come on top of the long-standing structural factors favouring home ownership and low interest rates. In combination with structurally inelastic supply of housing, increased demand passed through to prices.

House prices are expected to keep increasing over the next years, albeit at lower rates than in 2021. Generous tax subsidies to incentivise home ownership remain in place, despite the gradual reduction of mortgage interest deductibility. Importantly, despite an increased yearly construction target of 100 000 dwellings, the supply-side bottlenecks are also likely to persist. The overvalued housing market could deter prospective homeowners somewhat while one-off factors driving price growth are expected to fade, moderating growth to some degree.

Private debt in the Netherlands stood at 229% of GDP. Household debt amounted to 100% of GDP in 2021, exceeding the fundamental and prudential benchmarks by wide margins. ([10]) Despite the high debt level, which largely consists of mortgage debt, the household sector has a high positive net asset position due to housing and pension wealth. Nonetheless, the household sector remains vulnerable to financial shocks since those assets are often illiquid and their prices subject to market risk. Moreover, there are intergenerational distributional challenges. Due to the housing market's homeownership bias described above, younger households in the Netherlands typically have relatively high levels of mortgage debt and low net assets, while older households have relatively high net assets due to accumulated pension wealth under the second pillar pension system. ([11]) Household debt to gross disposable income is one of the highest in the EU at 195% in 2020. The high mortgage debt reinforces pro-cyclicality of household finances since house price corrections can lead to an erosion of net assets and result in reduced consumption by households. NFC indebtedness decreased to 129% of GDP in 2021 but also substantially exceeds the fundamental and prudential benchmarks. Its high level is, however, largely driven by intra-group cross-border debt of multinationals and hence represents a lower risk than the headline number would suggest.

Private debt peaked at 268% of GDP in 2014 and has gradually declined thereafter, though this trend was briefly interrupted in 2020. The household debt as a share of GDP started to decline following the introduction of stricter macro-prudential rules after the global financial crisis (including for example a lowering of the maximum loan-to-value ratio to 100% and reduced incentives for interest-only mortgages). While rising house prices in 2021 resulted in a pick-up of mortgage credit growth, the overall household debt to GDP ratio declined somewhat thanks to strong nominal GDP growth. NFC debt as share of GDP has been gradually declining since 2014.

Private debt as a percentage of GDP can be expected to remain roughly stable in the next few years. Mortgage credit growth is likely to continue as house price growth is expected to remain strong. However, denominator effects are expected to keep the debt to GDP ratio stable, with the Commission's forecast showing a strong GDP growth rate for 2022 (largely thanks to a strong carry-over), though

([10]) Household debt in 2021 exceeded both the fundamental benchmark (by 26 pp of GDP) and the prudential benchmark (by 36 pp of GDP) and exceeded the euro area average by some 50 percentage points (see Table 3.2).
([11]) CPB, 2020. Are the savings of Dutch households optimal?

somewhat slower growth is forecast thereafter as further expansion is subdued by the impact of Russia's invasion of Ukraine. Overall, household indebtedness is likely to remain elevated as borrowing limits (notably the maximum loan-to-value ratio) remain high compared to EU peers and substantial fiscal incentives for mortgage-financed homeownership remain.

Assessment of MIP relevant policies

The impact of recent policy steps on the structural drivers of the savings surplus is likely to remain limited. Social partners and the government have agreed on a major reform of the second-pillar pension system that will likely be phased in from January 2023, with full implementation envisaged by 2027. While this addresses some key challenges of the existing system and lays the groundwork for more individual flexibility, its impact on the large mandatory savings imposed by the second pillar is likely to remain limited. With regard to the corporate sector, a tax reform by which debt owned by controlling shareholders to their companies would be partially taxed, will be delayed and may be softened according to the coalition agreement. While the reform would help to limit the incentives for small and medium businesses to retain earnings within their own company and increase incentives for investments, in practice it may only lead to a statistical effect, shifting part of small companies' savings surplus to the household sector. The impact on the overall savings surplus therefore remains uncertain. In contrast, according to the government's coalition agreement, the government is likely to remain in net borrowing territory for the years to come, putting downward pressure on the overall savings surplus of the economy.

The authorities have taken limited steps in the past years to address distortions in the housing market. Mortgage interest deductibility is gradually being reduced, cutting the maximum applicable rate to 37% by 2023. Nonetheless, a substantial subsidy on debt-financed homeownership remains. The authorities have also implemented changes to the transfer tax on house purchases. The tax (which stood at 2%) has been abolished for first-time house buyers and raised to 8% for buy-to-let investors. This increases the owner-occupied bias and risks undermining the development of the private rental market further. The authorities have also announced their intention to take measures to increase housing supply by raising their construction target from 75 000 to 100 000 dwellings per year. Substantial obstacles to this goal, such as labour shortages in the construction sector or limited administrative capacity at the municipal level, remain and the specific plans to address these are not known yet.

Conclusion

The Netherlands is facing vulnerabilities relating to high private debt level and large current account surplus, which carry cross-border relevance. The Netherlands has persistently recorded current account surpluses and private debt levels that are large both by international standards and above the fundamentals of the Dutch economy. The current account surplus largely stems from a surplus in goods trade. From a sectoral perspective, high savings and low domestic investment of non-financial corporations are the main structural drivers of the continued high current account surplus. After the introduction of pandemic-related restrictions in 2020, household sector savings jumped and, along with the increase in the corporate sector's surplus in 2021, more than offset the government's net borrowing in 2021. Private debt levels remain high due to both high NFC debt and high household debt, with the latter being especially problematic as it makes households vulnerable to economic shocks, given that house prices seem to be overvalued and strong house price increases over the past years have contributed to rising nominal mortgage debt. Going forward, the current account surplus and private debt are expected to remain high. Household debt is expected to remain elevated on the basis of strong house price growth and the various distortions in the housing market that favour debt-financed home ownership. Expansionary spending plans by the government could dampen the current account surplus to some degree towards the end of the government's mandate. A worsening of the terms of trade is expected to lower the current account surplus somewhat in 2022 and 2023. However, as the main drivers underpinning the surplus remain in place, the overall level is expected to remain above the prudential threshold. Exposures to energy prices are a particularly pressing concern due to the strong reliance of the Dutch economy on fossil fuels, along with foreign direct investment exposures to Russia that are non-negligible, which are likely to affect the current account balance in the short run (see Box 2.2).

Policy progress has been limited. Notably, despite a gradual reduction in the mortgage interest deductibility rate until 2023, a generous tax subsidy on owner-occupied housing will remain. In addition,

there is a shortfall in housing supply, the private rental market remains underdeveloped and macroprudential regulation continues to be relatively lenient. Regarding the elevated current account surplus, incentives for firms to retain earnings have only been partially addressed and high mandatory household savings through the pension system will remain in place despite the second pillar pension reform that will enter into force in 2027.

Based on the findings in this in-depth review, the Communication "European Semester – 2022 Spring Package" ([12]) sets out the Commission's assessment as to the existence of imbalances or excessive imbalances in the Netherlands, in line with Regulation 1176/2011.

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

Box 2.1: Spillover effects of public investment: The Netherlands.

Germany and the Netherlands have announced large public investment packages. To support the post-pandemic recovery, Germany and the Netherlands as the two Member States with the largest current account surpluses announced large investment plans. This box aims to quantify the impact of these packages on the Dutch economy and the rest of the euro area, distinguishing between the potential impacts of domestic package only and the joint stimulus (Dutch and German package) under different assumptions of the productivity of public capital.

The Commission's QUEST model to quantify the potential impact of announced investment plans in the Netherlands. ([1]) The plan could imply additional public investment of around €85bn until 2026, mainly geared towards addressing challenges such as climate change, excessive nitrogen deposits and insufficient housing supply. The simulations also consider defence spending of €14bn. As a stylised assumption for modelling purposes, half of it is classified as investment, following the assumptions outlined below. The total stimulus under consideration reaches around 1.3% of Dutch GDP on average (2022-2026), a large part taking place after 2023. The analysis further assumes that the stimulus is sustained, i.e. the public investment rate only gradually returns to baseline. Finally, focussing on spillover to the rest of the euro area, a second set of simulations is run jointly for the Dutch and German investment programmes (the latter amounts to around 0.8% of German GDP p.a. for 2022-2026). ([2])

The model simulations apply the following technical assumptions. Public capital in the model increases productivity. The model explicitly features short-run implementation delays for public investment, e.g. related to contracting time and planning horizons. Moreover, due to time-to-build frictions, investment takes time to translate into productivity gains. The output elasticity of public capital is set to 0.12, as suggested by meta-analysis (Bom and Ligthart, 2014). A low-productivity scenario highlights the importance of this assumption. ([3]) The simulation assumes that no neutralising fiscal measures are implemented for the first ten years. Monetary policy is assumed to retain its accommodative stance for 2022 and gradually normalise afterwards.

Table XX shows that, if implemented fully, the public investment programme can have considerable positive domestic GDP effects and cross-border spillovers. In line with earlier QUEST simulations, increasing public investment boosts output and enhances employment and wage growth in both the Netherlands and the rest of the euro area. ([4]) Based on the assumption of productive public capital, the additional investment boosts demand and potential growth. There are positive trade spillovers to the rest-of-the euro area from higher import demand in the Netherlands (and Germany) and a euro depreciation. Except for the first year, the current account (in % of GDP) declines relative to baseline. Importantly, the assumed accommodative monetary policy limits the crowding out effects of private demand and increases positive spillover in the monetary union.

There are substantial downside risks. The low productivity scenario highlights the importance of selecting high-quality investment projects. While sizable effects remain, the growth impact (especially in the long run) is substantially lower when public investment is allocated to less productive uses. Besides the productivity effects, the simulated impact depends strongly on the assumption that the plans are carried out in full. If the actual investment fell short of the announced plans, the positive domestic and spillover effects would be considerably lower.

Table b.1.1: Simulation results of public investment programme scenarios

	2022	2023	2024	2025	2026	2027	2028	2029	2030
Only NL plan (high productivity)									
GDP Netherlands	0.1	0.4	1.0	1.4	1.5	1.3	0.9	0.8	0.8
Current account NL (%GDP)	0.0	-0.2	-0.3	-0.4	-0.5	-0.4	-0.3	-0.2	-0.1
GDP rest of the euro area	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Joint stimulus (NL&DE, high productivity)									
GDP Netherlands	0.2	0.6	1.3	1.7	1.7	1.5	1.1	0.9	0.9
Current account NL (%GDP)	0.0	-0.1	-0.2	-0.4	-0.4	-0.4	-0.3	-0.2	-0.2
GDP rest of the euro area	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Joint stimulus (NL&DE, low productivity)									
GDP Netherlands	0.1	0.5	1.0	1.3	1.3	1.0	0.5	0.2	0.2
Current account NL (%GDP)	0.0	-0.1	-0.3	-0.4	-0.5	-0.4	-0.3	-0.3	-0.2
GDP rest of the euro area	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: The table reports the GDP level and the current account balance in %-deviation and pp-deviation from baseline, respectively. The first three rows consider only the NL investment plan. The rest of the euro area excludes Germany and the Netherlands. Source: Commission services.

([1]) For information on the QUEST model, see Burgert et. al (2020) A Global Economy Version of QUEST: Simulation Properties, ECFIN Discussion Paper 126 and https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/economic-research/macroeconomic-models_en#quest-macroeconomic-model

([2]) Box XX in the corresponding in-depth report on Germany provides further details.

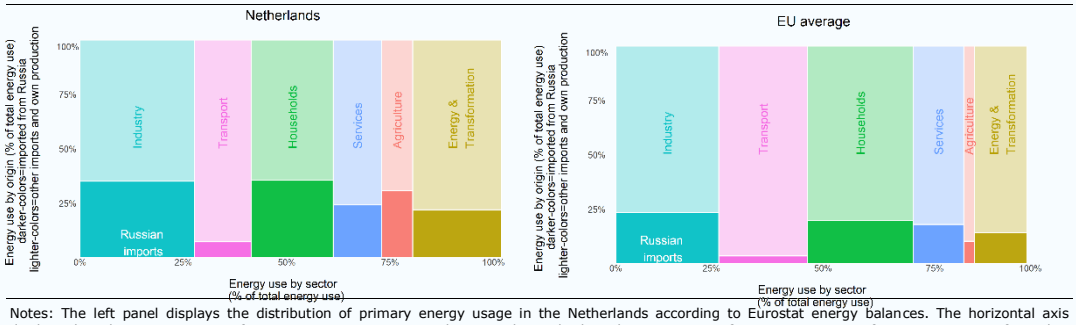
([3]) In this case, the output elasticity is set to 0.05, in line with the lower bound considered in Leeper et al. (2010). Government Investment and Fiscal Stimulus, Journal of Monetary Economics, 57, 1000–12.

([4]) See, European Commission (2017) and European Commission (2020).

Box 2.2: Exposures to the commodity price surge, and to Russia

This box summarises 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 has been aggravated by the Russian military aggression against Ukraine. This box reviews the risks for the macroeconomic vulnerabilities in the Netherlands. Available data suggest that exposures to energy prices are a particularly pressing concern, along with exposures to Russia that are non-negligible. Both factors will affect the current account balance in the short run, yet do not seem likely to impact macroeconomic vulnerabilities over the medium term.

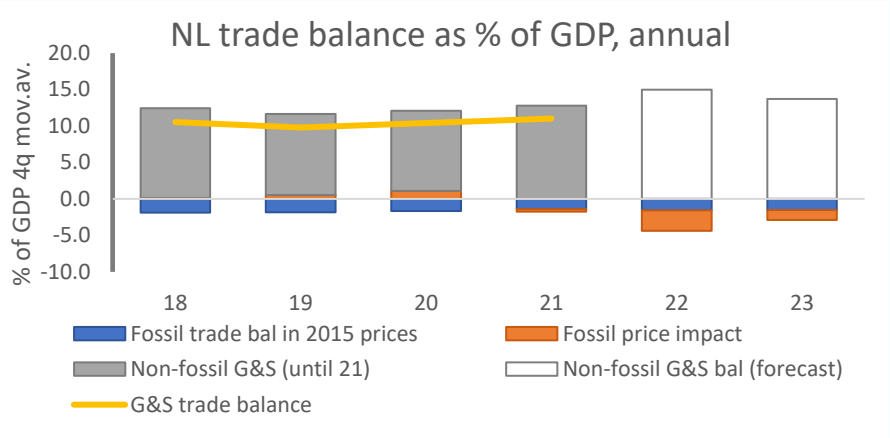
Graph b.2.1: Sectoral distribution of energy use and of energy imported from Russia



Notes: The left panel displays the distribution of primary energy usage in the Netherlands according to Eurostat energy balances. The horizontal axis displays the relative importance of energy-consuming sectors. The vertical axis displays the importance of energy importance from Russia in satisfying that need. Note that this dependence on Russia differs according to sectors' 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 Dutch distribution of energy usage by sector is roughly comparable to the EU average with a slightly higher energy dependence of the industry sector (Graph b.2.1). The Dutch economy uses more fossil energy sources compared to its GDP than most EU Member States, whereas its share of renewable energy production remains among the lowest in the EU (Table b.2.1). Since the Dutch economy relies considerably more on natural gas than the EU average, it is particularly exposed to the recent commodity price surge. This concerns in particular the industry sector as well as energy transformation (notably electricity production), which both depend strongly on imported fuel (Table b.2.1). The household sector is likely less directly exposed to the commodity price increase, as gas prices are already quite high for Dutch households on account of taxes and fees. ([1]) Carrying over the wholesale gas price to consumer prices thus results into a smaller proportional price increase for consumers vis-a-vis industry. Such price increases do not suggest a strong impact on the repayment capacity of indebted households.

Graph b.2.2: Netherlands 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 net import quantities of fossil energy sources.

Beyond GDP, the fuel price surge is likely to have a strong direct impact on the trade balance – notably if indigenous gas production continues to decline as planned. The commodity price effect is expected to depress the trade balance in 2022 by 2.5 pp. of GDP (see Graph b.2.2), which comes on top of the impact from the residence change of Royal Dutch/Shell (see Box X.X). This sizeable terms-of-trade effect is unlikely, however, to make a significant dent into the high level of the overall current account surplus.

The Netherlands' reliance on natural gas also implies a non-negligible exposure to supply disruptions related to Russia's war against Ukraine. Although Russian gas accounts for a lower share of total imports than in the rest of the EU, this is offset by the strong Dutch reliance on gas overall (see Table b.2.1), with particular vulnerabilities for household residential use and electricity production. Moreover, the Netherlands is an important euro area financial centre. Consequently, financial exposures to Russia are higher than for other Member States in terms of GDP, but remain small when compared to the size of overall Dutch external assets. Financial sanctions and related effects can thus be surmised to have a minor potential effect on the Dutch economy. Likewise, economic links with Russia beyond the commodity trade seem small.

Table b.2.1: Selected exposures

Trade & financial exposures	unit	NL	EU
Domestic value added embodied in exports to Russia	% of GDP	0.4%	0.4%
Non-energy Russian import content in final demand	% of GDP	0.3%	0.4%
Russian tourist nights spent	% of total 2019	0.9%	2.7%
FDI assets held in Russia	% of 2020 GDP	10.4%	2.5%
Portfolio & other inv. assets held in Russia	% of 2020 GDP	1.1%	0.9%
FDI liabilities towards Russia	% of 2020 GDP	3.9%	1.2%
Portfolio & other inv. liabilities towards Russia	% of 2020 GDP	1.8%	1.1%
Consolidated banking exposures towards Russia	% of 2021 GDP	0.7%	0.5%

Energy mix	unit	NL	EU
Solids fossil fuels (incl. peat)	% of Gross inland consumption 2020	5.7%	10.8%
Oil and petroleum products	% of Gross inland consumption 2020	38.7%	32.7%
Natural gas	% of Gross inland consumption 2020	43.7%	24.4%
Renewables and waste	% of Gross inland consumption 2020	10.5%	19.0%
Nuclear	% of Gross inland consumption 2020	1.3%	13.1%
Commodity exposures	**unit**	**NL**	**EU**
Net petroleum imports from all countries	% of GDP 2021	3.1%	1.2%
Crude oil imports from Russia '20	% of oil imports	26.5%	25.7%
Net gas imports from all countries	% of GDP 2021	0.5%	0.6%
Gas imports from Russia '20	% of gas imports	30.3%	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) Taxes, including VAT, excises and levies make up more than half of the gas price in the Netherlands making the increase in the energy price faced by families proportionally quite limited compared to countries were taxes are very low.

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

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	2.3	0.0	1.7	2.4	2.0	-3.8	5.0	3.3	1.6
Potential growth (1)	1.9	0.9	1.0	1.6	1.8	1.5	1.6	1.6	1.7
Contribution to GDP growth:									
Domestic demand	1.9	-0.7	1.2	2.1	2.3	-3.5	3.7	3.0	1.9
Inventories	0.0	0.0	0.1	0.1	0.3	-0.3	-0.3	0.0	0.0
Net exports	0.3	0.8	0.2	0.2	-0.7	0.0	1.7	0.3	-0.4
Contribution to potential GDP growth (1):									
Total Labour (hours)	0.4	0.2	0.6	1.0	1.0	0.8	0.8	0.7	0.7
Capital accumulation	0.7	0.5	0.4	0.5	0.7	0.5	0.6	0.6	0.6
Total factor productivity	0.8	0.3	0.1	0.1	0.2	0.2	0.3	0.3	0.3
Output gap (2)	-0.9	-1.3	-1.5	1.2	1.4	-3.9	-0.7	0.9	0.8
Unemployment rate	5.7	5.8	7.5	4.9	4.4	4.9	4.2	4.0	4.2
Harmonised index of consumer prices (HICP)	1.7	1.9	0.9	1.6	2.7	1.1	2.8	7.4	2.7
GDP deflator	2.0	1.0	0.8	2.4	3.0	2.3	2.4	3.8	3.3
External position									
Current account balance (% of GDP), balance of payments	7.7	7.2	8.7	10.8	9.4	7.0	9.5	8.8	8.7
Trade balance (% of GDP), balance of payments	8.5	8.4	9.9	10.5	9.8	10.4	11.0	.	.
Primary income balance (% of GDP)	1.0	0.4	0.0	1.1	0.4	-1.7	-0.7	.	.
Secondary income balance (% of GDP)	-1.8	-1.6	-1.3	-0.8	-0.9	-1.7	-0.9	.	.
Current account explained by fundamentals (CA norm, % of GDP) (3)	3.2	4.0	3.5	3.5	3.5	3.4	3.2	3.2	3.1
Required current account to stabilise NIIP above -35% of GDP over 20Y (% of GDP) (4)	-0.1	0.3	1.8	2.5	2.9	3.4	4.8	3.5	3.2
Capital account balance (% of GDP)	-0.4	-0.3	-0.1	-0.1	0.0	0.0	0.1	.	.
Net international investment position (% of GDP)	-5.2	10.3	50.3	72.8	89.9	113.9	93.8	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (5)	-67.4	-73.2	-43.9	-17.0	-1.8	9.2	22.2	.	.
Net FDI flows (% of GDP)	4.6	5.8	6.7	7.6	4.7	-4.6	10.7	.	.
Competitiveness									
Unit labour costs (ULC, whole economy)	0.4	2.3	0.2	2.3	2.9	8.3	-1.0	1.9	3.2
Nominal compensation per employee	2.3	2.2	1.1	1.9	2.9	4.7	2.1	3.1	3.7
Labour productivity (real, hours worked)	1.6	0.2	0.6	-0.3	-0.2	-1.1	2.5	0.5	0.1
Real effective exchange rate (ULC)	-0.3	0.3	-0.4	1.5	-0.2	.	.	.	.
Real effective exchange rate (HICP)	-0.5	-0.8	0.2	1.5	0.4	1.8	0.1	.	.
Export performance vs. advanced countries (% change over 5 years)	6.1	-0.1	-5.0	-0.7	-1.8	7.9	.	.	.
Private sector debt									
Private sector debt, consolidated (% of GDP)	229.6	244.6	259.6	243.6	232.3	233.7	229.0	.	.
Household debt, consolidated (% of GDP)	106.6	116.6	111.2	103.4	99.6	103.0	99.5	.	.
Household debt, fundamental benchmark (% of GDP) (6)	68.7	74.1	77.3	74.1	72.6	76.0	73.4	.	.
Household debt, prudential threshold (% of GDP) (6)	51.1	48.4	55.4	62.9	65.6	63.9	63.5	.	.
Non-financial corporate debt, consolidated (% of GDP)	123.0	128.0	148.4	140.2	132.7	130.7	129.5	.	.
Corporate debt, fundamental benchmark (% of GDP) (6)	102.4	107.9	115.7	113.3	111.5	116.9	113.5	.	.
Corporate debt, prudential threshold (% of GDP) (6)	77.8	74.8	81.6	92.4	95.4	94.4	94.1	.	.
Private credit flow, consolidated (% of GDP)	11.9	7.6	4.4	5.6	-0.1	-1.3	10.7	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	9.4	9.0	6.4	7.2	5.0	4.8	6.3	7.3	6.8
Households, net lending (+) or net borrowing (-) (% of GDP)	-2.1	1.4	3.6	2.2	2.6	6.3	5.8	4.3	4.0
Net savings rate of households (% of net disposable income)	3.4	6.9	10.0	9.8	11.4	17.8	17.3	.	.

(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), The Netherlands**

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	4.1	-2.6	2.1	9.5	7.3	7.6	15.0	.	.
House price index, deflated	2.0	-3.7	1.1	7.1	4.6	6.0	11.6	.	.
Overvaluation gap (%) (7)	13.9	8.6	-9.8	0.7	3.9	9.7	20.1	.	.
Price-to-income overvaluation gap (%) (8)	12.8	6.2	-8.3	2.7	6.2	11.3	21.7	.	.
Residential investment (% of GDP)	5.9	4.8	3.6	4.9	5.1	5.3	5.4	.	.
Government debt									
General government balance (% of GDP)	-1.1	-3.8	-1.2	1.4	1.7	-3.7	-2.5	-2.7	-2.1
General government gross debt (% of GDP)	47.7	59.7	63.8	52.4	48.5	54.3	52.1	51.4	50.9
Banking sector									
Return on equity (%)	.	1.4	6.7	8.3	7.5	3.2	.	.	.
Common Equity Tier 1 ratio	.	11.5	16.0	18.8	18.9	19.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances)	.	2.4	2.4	1.8	1.7	1.7	.	.	.
Gross non-performing loans (% of gross loans) (9)	.	.	2.6	1.9	1.8	1.9	1.5	.	.
Cost of borrowing for corporations (%)	4.3	3.1	1.8	1.3	1.2	1.3	0.8	.	.
Cost of borrowing for households for house purchase (%)	4.4	4.6	2.9	2.4	2.0	1.8	1.7	.	.

(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

High demand for owner-occupied housing, structurally insufficient supply and a heavily subsidised social rental market have led to strong growth in house prices, overvalued houses and high levels of household debt. These developments raise concerns both regarding housing affordability and financial stability in the Netherlands. While there are currently only minor concerns regarding the sustainability of household debt, the illiquidity of households' assets makes them vulnerable in case of major price corrections on the housing market.

A number of policies are in place to improve housing affordability but supply side constraints limit their effectiveness. There are several tax subsidies in place that incentivise home ownership, partially aimed at first-time home buyers. However, their intended effects on affordability are mostly muted as demand stimulation under inelastic housing supply leads to rising prices. A large number of affordable housing is offered through the social rental sector. However, access to social housing is only to a limited degree means-tested and there are strong incentives to stay in the social rent sector even if one's income has increased substantially. Coupled with limited supply, this results in long waiting lists ([18]) to obtain housing in this sector and it is not guaranteed that those who need social housing the most receive it. At the same time, the private rental sector is underdeveloped and only offers a limited amount of housing at rather high rents, leaving households that are not eligible for social rent little alternative to purchasing a home.

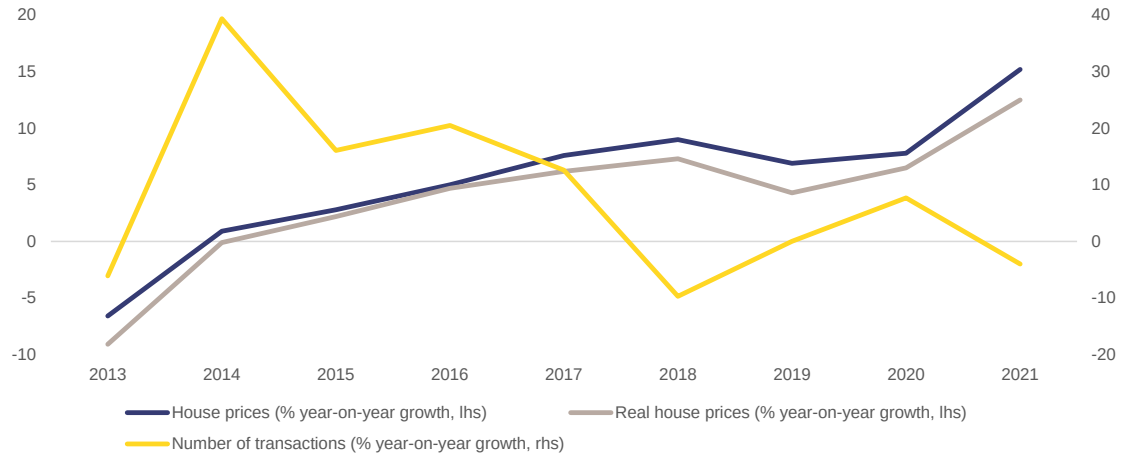
House price and household debt developments

House price growth has accelerated in 2021 compared to 2020 and there are clear signs of overvaluation. Nominal house prices have grown by 15% in 2021, up from below 8% in 2020 (see Graph 3.1). This was one of the strongest increases in the EU in 2021. This strong house price growth is not limited to major cities but has spread to the entire country (even though differences in house price levels between urban and rural regions persist). House prices in the Netherlands are now in overvaluation territory and clearly beyond what fundamentals, such as income, interest rates or residential investment, would justify based on historical data. The overall valuation gap stands at +20.1%, while the model-based gap is at +18.1%. Both gaps have roughly doubled since the end of 2020 ([19]) (see Graph 3.3). The price-to-rent and price-to-income ratios, expressed as a percentage deviation from their long-term average, climbed to 20.5% (6.7% in 2020) and 21.7% (11.3% in 2020) respectively for the Netherlands in 2021.

([18]) The Dutch Public Broadcasting Organization (NOS) gather data from housing associations, which showed that the waiting period to obtain a social rental house exceeds 7 years in more than 90 municipalities while in five municipalities (including Amsterdam) the average waiting time exceeds 17 years.

([19]) The overall overvaluation gap is estimated as an average of the price/income, price/rent and fundamental model valuation gaps. Long-term values for the price/income and price/rent ratios are computed over 1995-2016. For the model-based valuation gaps, a Vector Error Correction Model has been estimated for a panel of 21 EU countries, using a system of five fundamental variables; the relative house price, total population, real housing investment, real disposable income per capita and real long-term interest rate.

Graph 3.1: **Growth in house prices and number of transactions**



Source: Eurostat, CBS

Household debt, primarily made up of mortgages, stood at 99.5% of GDP in 2021, the second highest rate in the EU and far above the prudential threshold. Growth in new residential mortgages to households has picked up strongly over 2021, reaching a year-on-year growth rate of 1.3% in November, the highest since December 2011 (DNB). Overall nominal mortgage growth reached 4.1% in 2021 (see Graph 3.3). Compared to the aftermath of the financial crisis of 2008, concerns regarding the sustainability of household debt are now more limited. The share of mortgages with variable rates is relatively small standing at 15.1% in 2020 and decreasing further to 12.3% in 2021, while 60% of new mortgages have fixed rates for at least 10 years. These figures suggest that households are rather well protected against potential increases in interest rates on mortgages. Additionally, since 2008 measures ([20]) have been taken to reduce the uptake of interest-only mortgages. ([21])

Nonetheless, the European Systemic Risk Board (ESRB) identified high vulnerabilities related to the Dutch residential real estate market in 2022. ([22]) The assessment is based on signs of overvaluation on the housing market and insufficiently tight macroprudential regulation given the high levels of household debt. According to the ESRB's report, the macroprudential policy-mix is appropriate but the tightness of measures is only partially sufficient to address the build-up of systemic risks in the real estate sector. In particular, the recommendations by the ESRB from 2019 to tighten borrower-based measures, such as limits to the loan-to-value ratio and debt service-to-income ratios, have not been addressed sufficiently.

Therefore, housing-related financial stability risks remain as the upper limit to the loan-to-value (LTV) ratio for residential mortgages of 100% is exceptionally high by EU standards. ([23]) The illiquidity of households' assets (primarily homes and pensions) in combination with high household debt and house prices makes them furthermore vulnerable to economic shocks. Price corrections, which can be potentially large in overvalued markets, could result in an evaporation of a households' net assets and thereby affect also households' consumption patterns. The high household debt and high house prices therefore reinforce the pro-cyclicality of households' finances. Further financial stability concerns stem from the growing number of first-time buyers with (partially) interest-only mortgages. Due to the high house prices and low interest rates, these buyers choose partial interest-only mortgages despite not being able to deduct interest payments from their taxable income anymore.

([20]) As from 1 January 2013, mortgage interest deductibility is no longer possible for interest only mortgages.
([21]) In general, these mortgages have to be repaid after 30 years – though an extension is possible if the lender agrees and based on an assessment of the borrower's financial situation.
([22]) ESRB (2022), Vulnerabilities in the residential real estate sectors of EEA countries
([23]) Note that not all households borrow up to this maximum limit. The latest DNB estimates (Q2 2021) show an average LTV ratio for first-time house-buyers of around 86%.

To increase banks' resilience to house price corrections, Dutch authorities have taken some macro-prudential measures. In autumn 2019, an average minimum risk weight for IRB banks ([24]) (Article 458 measure) was announced and it entered into force in March 2020. In light of the outbreak of the pandemic, the measure was delayed and entered into force only in January 2022. It therefore remains to be seen to what degree it will affect banks' willingness to extend mortgages. Contrary to ESRB recommendations, borrower-based measures have not been tightened.

Drivers of housing demand

Both cyclical and structural factors underpin the recent surge in house prices. Excess savings accumulated by households during 2020 due to the pandemic were spent in 2021 to some degree on housing. The savings rate (as a share of gross disposable income) grew by more than 6 percentage points over 2020 to 24% and subsequently fell to 23.4% in 2021 (see Table 3.2). It is forecast to further normalise in 2022 to around 19%. In addition, the Dutch authorities announced in 2020 that the transfer tax on transactions for home buyers below the age of 35 would be abolished in 2021 in an effort to ease the burden of high house prices on this group. This led prospective buyers to delay home purchases until the beginning of 2021 and may have slightly improved their relative position on the housing market but fuelled overall demand. Behavioural effects pushed up prices further with the tight market prompting existing homeowners looking to move to a new house to adopt a 'buy first, sell later' strategy, effectively bringing the market to a stand-still. The limited supply available on the market in turn prompted house buyers to use pent-up savings to overbid out of 'fear of missing out'.

The Dutch tax system is a structural driver of housing demand as well as household debt. Notably, home ownership has been incentivized through substantial tax benefits, which include mortgage interest deductibility (MID) paired with the so-called 'Hillen Act' as well as tax-exempt donations for the purchase of homes. When a home is financed with a mortgage, the MID allows households to deduct interest payments from their taxable income. Mortgage interest will be deductible from taxable income at a maximum rate of 37.05% by 2023. A further phasing out is not planned at this point. Even though the deductibility rate being gradually reduced, substantial benefits for homeowners remain. Furthermore, under the 'Hillen Act', homeowners with little or no mortgage are fully exempt from any tax payments on their home. ([25]) Lastly, limited donations for the purpose of purchasing a home are tax-exempt. The government has announced that this possibility will be abolished by 2024. The CPB Netherlands Bureau of Economic Policy Analysis estimates that house prices would fall by about 9% relative to the status quo if all tax measures incentivizing homeownership were abolished. ([26]) Taxing houses in a similar way as other assets (i.e. subject to a wealth tax) would reduce prices by up to 13%.

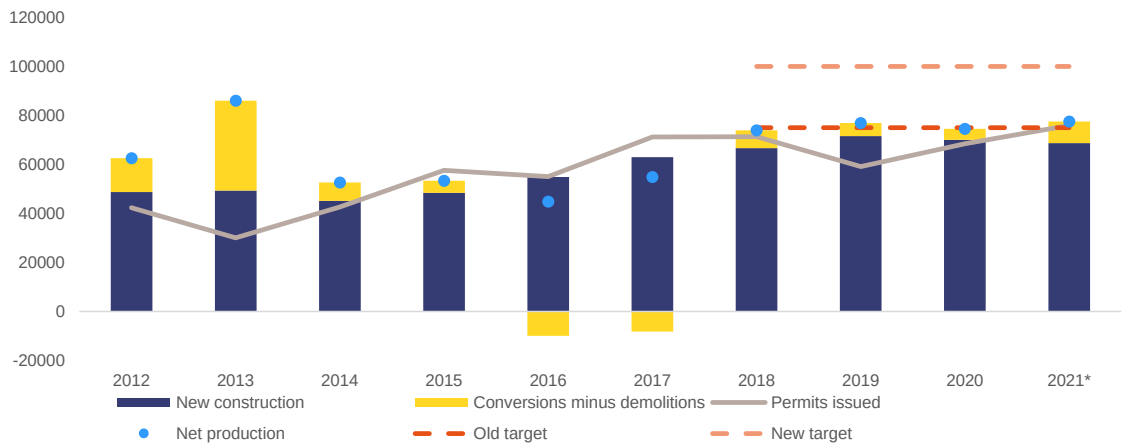
Demand side pressures are aggravated by the relatively inelastic housing supply in the Netherlands. ([27]) There is empirical evidence that house prices respond more strongly to changes in local earnings in places with tight supply constraints. ([28]) Measures aimed at increasing affordability by supporting the spending capacity of house buyers are thus likely to result in sharp house price increases, thereby aggravating distortions in the housing market and affordability issues rather than alleviating them. Both low interest rates as well as recent policy changes affecting demand (i.e. the abolishment of the transfer tax for first-time house buyers) therefore likely have a larger effect on prices in the Netherlands due to the inelastic supply.

([24]) Under the Basel II framework and the Internal Ratings Based (IRB) approach, banks are allowed to use their own risk models in the calculation of necessary regulatory capital
([25]) This tax benefit for non-mortgage homeowners is smaller than the tax benefit enjoyed by mortgage holders through the MID. For the latter group, the mortgage-related tax deduction is generally larger than the tax due on the imputed (rental) income from their home.
([26]) Kansrijk Woonbeleid – update 2020, CPB
([27]) See section 3 for a summary of the reasons why housing supply is inelastic in the Netherlands
([28]) Christian A. L. Hilber, Wouter Vermeulen, The Impact of Supply Constraints on House Prices in England, *The Economic Journal*, Volume 126, Issue 591, 1 March 2016, Pages 358–405, https://doi.org/10.1111/ecoj.12213

Supply side factors

Housing construction in the Netherlands picked up in recent years but a substantial shortage in housing stock remains. The Dutch authorities estimate that an additional 279 000 homes would have been needed to satisfy demand in 2021, equivalent to 3.5% of the total housing stock. ([29]) Shortages in large metropolitan areas are especially severe, amounting to 5-7% of the local housing stock. ([30]) Shortages sharply increased after the global financial crisis resulted in a marked decline in residential construction. ([31]) The construction of new houses recovered gradually in recent years and the net production of new houses hovered around the target set by the authorities in 2018 (see Graph 3.2). To catch-up on shortages resulting from the dip in construction before 2018, the authorities have announced that the target for the production of new houses will be raised to 100 000 units per year, which would require a significant ramping up of housing construction.

Graph 3.2: **Realised supply of housing and official targets**



Source: CBS

Increasing labour shortages in the Dutch economy as a whole and the construction sector specifically hamper the capacity of construction firms to scale up their activities in the short term. Global supply chain disruptions emerging during the COVID-19 pandemic furthermore drove up prices and delivery times of input materials, leading to delays while also adversely affecting profitability of construction firms. According to Statistics Netherlands, the share of Dutch construction firms reporting shortages of input factors, such as labour, material or land, increased sharply towards the end of 2021. Uncertainty about environmental protection measures and nitrogen emissions ([32]) furthermore lead to a decrease in building permits in 2019. Temporary measures have been put in place to allow the issuance of permits to pick up again though a more permanent solution is yet to be found.

A lack of planning capacity in municipalities and limited buildable land represent additional factors that make Dutch housing supply structurally inelastic. ([33]) First, residential planning is done at a regional level with municipalities deciding on zoning plans and estimating how much housing supply is needed. This is not necessarily conducive to addressing overall housing needs. ([34]) Second, processes for changing zoning plans, obtaining building permits and meeting all regulatory requirements are cumbersome and time-consuming. The difficulties in changing zoning plans are aggravated by considerable vested interests ([35]) from existing homeowners who may try to delay or prevent the approval

([29]) Staat van de Woningmarkt 2021, BZK
([30]) Rapportage Primos 2019, ABF Research, 2019
([31]) Country Report Netherlands, 2019, European Commission.
([32]) The Dutch framework for reducing nitrogen deposition was in May 2019 ruled to be insufficient as a basis to grant permits for new construction projects.
([33]) The responsiveness of housing supply to house price rises in the Netherlands is one of the lowest among OECD countries (Caldera et al., 2013).
([34]) Michielsen et al., 2019, Het bouwproces van nieuwe woningen, CPB.
([35]) While there is a general support in the Netherlands to increase housing supply, existing home-owners may have incentives to try and object the new housing projects in their neighbourhood ('not in my backyard') due to concerns about for example increased traffic, loss of recreational areas and/or loss the value of existing housing stock.

of new building projects. Third, there is a lack of buildable land and numerous competing land uses (i.e. housing, recreational, nature, agriculture). Fourth, the drop in residential construction after the financial crisis prompted municipalities to scale down relevant real estate and planning expertise in municipalities which resulted in a loss of planning capacity, making it difficult for local administrations to cope with the growing demand for housing of the past years.

Existing supply side constraints, both structural and cyclical, pose downside risks to reaching the new target of 100 000 newly built houses per year. Complementary policy measures aimed at alleviating constraints in the short term as well as structurally increasing the elasticity of housing supply are needed. The authorities announced the intention to remove institutional barriers that have hampered the supply of housing and to take a leading role in spatial planning. These plans are at an early stage and further details are not yet available.

Rental market and housing affordability

A heavily regulated and subsidized social rental sector adds to housing market distortions in the Netherlands. Policies in the social rental sector increase the overall level of subsidization and stimulation of demand in the housing sector (as social housing companies act as buyers in the market) and thus contribute to housing overvaluation. The subsidization of the social rental sector furthermore crowds out the private rental sector which results in a relatively small sector that forms only 13% of the total housing stock. The resulting expensive and limited private rental options contribute to the bias towards owner-occupancy, as there is a lack of viable alternatives to buying a house. Especially middle-income households – whose earnings are above the social-housing ceiling yet often insufficient to comfortably afford private-sector rents – can be pushed into (largely mortgage financed) home ownership.

In 2020, the social rental sector in the Netherlands accounted for around 29% of the total housing stock, far exceeding the EU-average. Houses in this sector are intended to provide lower income groups with affordable housing, but incentives exist for tenants to stay put in the same rental house as rent increases for existing tenants are limited and only to a limited degree tied to increases in income. Households below a certain income threshold renting in the social sector furthermore receive an allowance that increases with the value of rent. There are a number of other measures subsidizing and stimulating the social rent sector, including discounts on the sale of building land, state guarantees on loans extended to social housing corporations and requirements for the construction sector to build a minimum percentage of rental houses (at project level). In total, the subsidy for social rental houses is estimated to be around 25% of the gross market rental rate. ([36])

Housing allowances are mostly rent rather than income-dependent and rents are heavily regulated. This provides an incentive to overconsume, i.e. living in a larger house than necessary or optimal. Policies in the social rental sector are furthermore relatively untargeted with subsidies per household depending only on income to a limited degree. The large gap between social rents and market rents in combination with an underdeveloped private rental market results in long waiting lists for social rental houses, with some households on the lower income scale not being able to find affordable housing while households with potentially more options are also incentivized to remain in the social rental sector.

Recently adopted policy measures discourage buy-to-let investments and risk further undermining the private rental market. The transfer tax on house purchases for buy-to-let investors was increased from 2% to 8%, with a further increase to 9% planned. In addition, possibilities for municipalities to ban buy-to-let purchases altogether have been increased. The authorities intend to abolish the tax levied on the housing stock in the social rental sector – which would increase the overall level of subsidization in the social rental sector. At the same time, the authorities have announced measures to make rents more income-dependent and rent allowance dependent on income instead of rent, which could reduce distortions and improve effectiveness of social rental policies, although the authorities are yet to develop these plans further.

([36]) Kansrijk Woonbeleid, CPB, 2020

Table 3.1: **Selected housing market 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)	2.0	-3.6	1.2	7.1	4.6	6.0	11.6	8.8	9.9	13.5	13.9
Nominal house price, yoy growth	%	(a)	4.1	-2.5	2.2	9.5	7.3	7.6	15.0	11.2	13.0	16.8	18.7
Price to income in level [1]	years	(b)	10.7	10.1	8.7	9.7	10.1	10.5	11.5				
Valuation gaps													
Price to income gap [2]	%	(c)	12.8	6.2	-8.3	2.7	6.2	11.3	21.7	16.6	19.5	24.4	25.7
Price to rent gap [2]	%	(c)	15.0	8.2	-14.2	-2.7	1.9	6.7	20.5	14.2	18.1	23.7	25.3
Model valuation gap [3]	%	(c)	13.9	11.4	-6.9	2.2	3.5	11.1	18.1	14.2	16.0	20.4	21.4
Average house price gap [4]	*%*	(c)	13.9	8.6	-9.8	0.7	3.9	9.7	20.1	15.0	17.9	22.8	24.1
Housing credit													
Bank mortgages (% GDP)	%	(d)	62.0	58.0	61.5	61.8	60.2	61.9	59.9				
Bank mortgages, yoy growth	%	(d)	5.8	0.5	4.6	-0.5	2.3	1.2	4.0				
Housing supply													
Residential construction - dwellings (% GDP)	%	(e)	5.9	4.9	3.6	4.9	5.1	5.3	5.4				
Residential construction - dwellings, yoy growth	%	(e)	6.4	-9.3	9.6	9.3	3.4	-2.6	3.3				
Non-residential construction (% GDP)	%	(e)	5.6	5.9	5.3	5.3	5.6	5.8	5.7				
Value added in the construction sector, yoy growth	%	(e)	5.4	-3.9	4.1	4.8	5.6	-0.8	2.5				
Building permits, yoy growth	%	(a)	5.8	-15.0	16.6	2.7	-19.0	12.6	13.1				
Number of transactions, yoy change	%	(f)	3.7	-9.6	17.5								
Other housing market indicators													
Share of owner-occupiers, with mortgage or loan	%	(a)	56.4	59.6	60.2	60.5	60.4	60.7					

(') Forecast. The forecast of house prices is computed on the basis a housing valuation model shared with Member States in the context of the EPC LIME working group. The forecasts represent real house price percentage changes expected based on economic fundamentals (population, disposable income forecast, housing stock, long-term interest rate, and the price deflator of private final consumption expenditure), as well as the error correction term summarising the adjustment of prices towards their long-run relation with fundamentals. The source for the forecast of other variables is Ameco.
(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", Discussion Paper 101, European Commission, available in "https://ec.europa.eu/info/publications/assessing-house-prices-insights-houselev-dataset-price-level-estimates_en".
(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 and Turrini, Assessing House Price Developments in the EU (2017) available in "https://ec.europa.eu/info/publications/economy-finance/assessing-house-price-developments-eu_en" and revision notes presented to LIME in October 2019 and June 2020.
(4) The average house price gap is the simple average of the price-to-inome, price-to-rent and model valuation gaps.

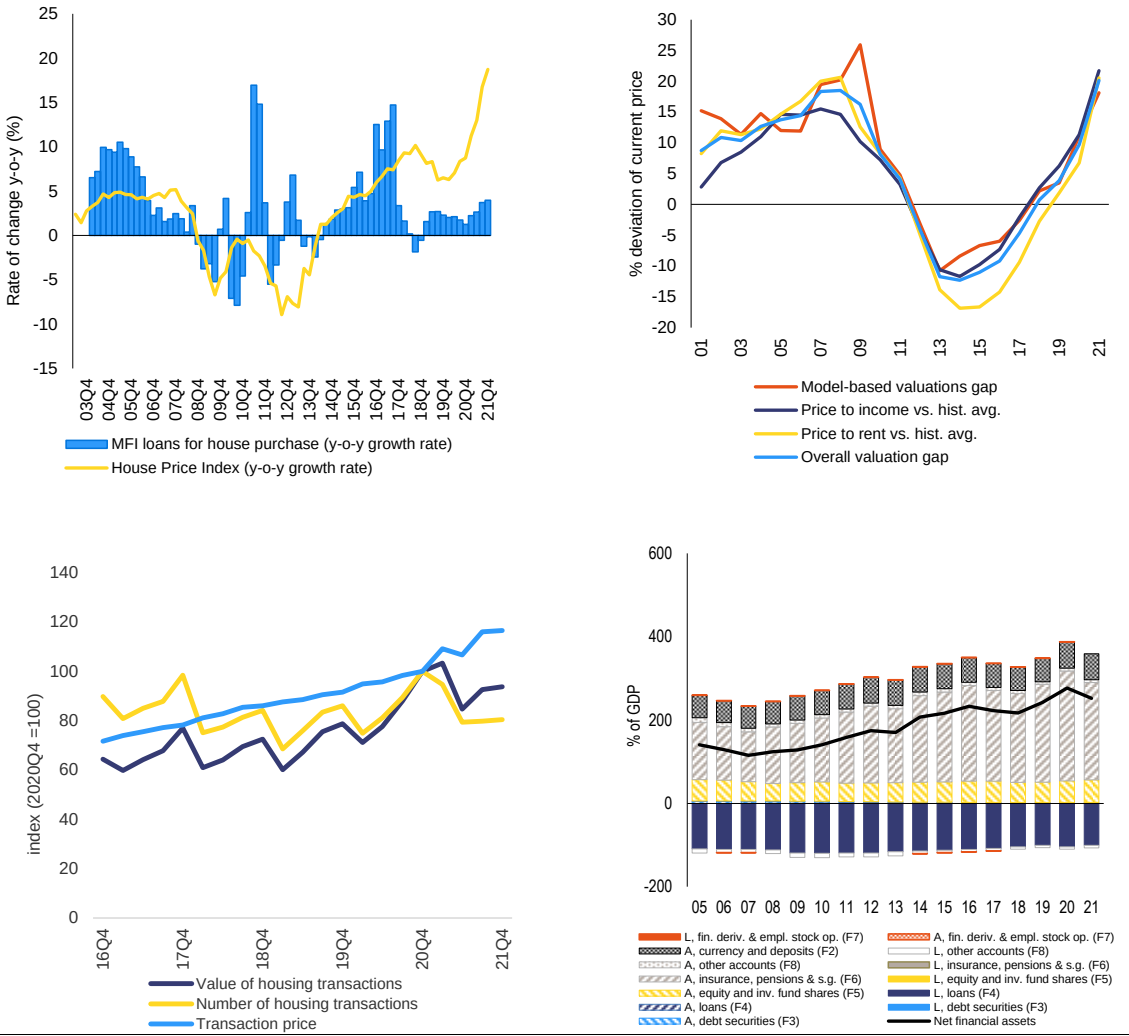
Sources: Sources: Eurostat, OECD, ECB, BIS, Ameco, national sources, European Commission calculations.

Table 3.2: **Selected household debt indicators**

		2003-07	008-12	013-19	2020	2021	2022f	21Q1	21Q2	21Q3	21Q4
	Source										
Stocks											
Debt, consolidated (% of GDP)	*(a,d)*	107	117	108	103	100		104	102	101	101
Debt, consolidated (% of potential GDP)	*(a,b,d)*	106	115	108	99	99		99	99	99	100
Prudential threshold (% of GDP)	*(c)*	51	48	58	64	64	63				
Fundamental benchmark (% of GDP)	*(c)*	68	74	76	76	73	72				
Debt (% of gross disposable income)	*(a,b,d)*	209	232	216	198	195		197	196	196	197
Interest paid (% of gross disposable income) [2]	*(a,b)*	6.6	5.5	2.0	1.2			1.0	1.3	1.1	
Debt (% of gross financial assets)	*(a,d)*	43.1	43.3	33.1	26.7	27.9		27.7	27.6	27.8	28.0
Share of variable rate loans for house purchase (%)	*(d)*	27.2	21.1	17.3	15.1	12.3					
Domestic loans in forex (% of dom. loans)	*(d)*	0.1	0.2	0.2	0.1	0.1					
Flows											
Credit flows (transactions, % of GDP) [2]	*(a)*	7.3	2.9	0.7	1.8	3.8	3.2	3.0	4.4	5.1	3.4
Benchmark for flows (% of GDP)	*(c)*	3.6	2.6	1.7	2.2	2.1	2.1				
Savings rate (% gross disposable income)	*(b)*	10.3	14.1	16.6	24.0	23.4	19.3				
Investment rate (% gross disposable income)	*(b)*	14.4	11.7	10.6	12.7	13.2	12.9				
p.m. Bank HH NPLs (% of HH loans) [1]	*(d)*			1.4	1.3						

(f) European Commission forecast, . (1) Gross non-performing bank loans and advances to Households and non profit institutions serving households (% of total gross bank loans and advances to Households and non profit institutions serving households). (2) Quarterly data is annualized.
Source: (a) Eurostat, (b) Ameco, (c) European Commission calculations, (d) ECB.

Graph 3.3: **Selected housing market and household debt indicators**



Source: Eurostat, ECB, Commission services calculations.