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COVER NOTE

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EUROPEAN
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Brussels, 24.5.2023
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COMMISSION STAFF WORKING DOCUMENT

In-depth review for Hungary

Accompanying the document

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

2023 European Semester – Spring Package

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European Commission

Hungary

In-Depth Review 2023

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

Hungary is experiencing imbalances. Vulnerabilities related to very strong price pressures and external and government financing needs have increased and are significant. Inflation has risen significantly and has not yet started moderating visibly. Should inflation remain elevated for an extended period, it would further undermine cost competitiveness and could leave financing costs elevated. The large current account deficit was strongly increased by the higher energy prices in 2022, and short-term external debt has risen. Improvements in the current account this year and next hinge on the expected further moderation of energy prices, but the current account deficit is nonetheless forecast to remain non-negligeable in 2023 and 2024. The high energy intensity of the economy is important for current account dynamics. The government deficit has been large, only partly driven by the policy responses to the pandemic and the energy crises, and accounts for much of the external borrowing of the economy. The government debt ratio decreased thanks to marked nominal GDP growth, but that may be challenged by a slowdown in activity and the persistence of high deficits. Sovereign borrowing costs have increased since 2021, and the government is facing an increasing interest burden, while debt maturity is still relatively low. House prices doubled over five years but price increases halted in late 2022. However, the likelihood of a substantial nominal price drop seems limited amid low household indebtedness, and also in light of the current high inflation environment. Policy inconsistencies have exacerbated the identified vulnerabilities. Effective coordination and clear demarcation of macroeconomic policies, underpinned by a strong institutional policy framework, is instrumental to safeguard fiscal and external sustainability as well as to anchor expectations. Timely and full implementation of structural reforms included in Hungary's Recovery and Resilience Plan is expected to help reduce macroeconomic vulnerabilities and support growth and adjustment in the medium term.

CONTENTS

LIST OF TABLES

LIST OF GRAPHS

1. INTRODUCTION

In 2022, over the previous annual cycle of surveillance under the Macroeconomic Imbalances Procedure (MIP), Hungary was not subject to an in-depth review to assess its vulnerabilities. ([1]) The 2023 Alert Mechanism Report published in November 2022 concluded that an in-depth review (IDR) should be undertaken for Hungary this year, with a view to examine newly emerging vulnerabilities and their implications. ([2]) The AMR found that in Hungary, concerns related to external sustainability, cost competitiveness, fiscal sustainability and house price developments continued increasing. The current account deficit widened in 2021 and was forecast to rise further, and the exchange rate had been on a depreciating trend. Unit labour costs increases had been very large for years and continued to be strong, with cost competitiveness maintained through nominal depreciation. Nominal house price growth had recently been among the highest in the EU, amidst limited supply and an estimated overvaluation of house prices. The government deficit remained high.

After strong GDP growth in 2021 which continued into 2022 the Hungarian economy contracted in the second half of 2022, with substantial new challenges emerging. ([3]) The economic recovery from the COVID-19 crisis that was sustained by strong fiscal stimulus came to an end in 2022, following the surge in energy prices in the wake of Russia's invasion of Ukraine, and globally tightening financing conditions. GDP growth slowed from 7.1% in 2021 to 4.6% in 2022, and further deceleration is projected to 0.5% in 2023. Inflation rose from an already high 5.2% in 2021 to 15.3% in 2022. Price increases were driven by rising commodity prices, currency depreciation, strong domestic demand and high wage growth, and tax hikes. Interest rates rose since 2021 but fiscal policy remained expansionary through 2022 and certain measures such as interest rate caps on bank deposits and various loans. The pass-through from energy and food prices to consumer prices was initially mitigated by price caps on motor fuel and certain food items, and low utility prices for households. The phase-out of some of these caps and the increase of residential energy prices from August 2022 mechanically adds to 2023 inflation. Thus, inflation is set to rise to 16.4% in 2023 before easing to 4% in 2024 thanks to the expected progressive moderation of energy prices and the cooling down of demand. Hungary's current account deficit soared in 2022 to 8.2% of GDP mostly due to high energy import costs, but it is projected to narrow in 2023-2024 in line with lower energy prices and the moderation of import demand. Going forward, unexpected external shocks could adversely affect the current account and fiscal balances. If inflation becomes entrenched at a high level, debt financing costs could also remain elevated.

This in-depth review presents the main findings of the assessment of macroeconomic vulnerabilities for Hungary. The assessment is backed by a thematic section on pro-cyclical biases in economic policies in Hungary. Vulnerabilities related to external balances, competitiveness and housing in Hungary are also discussed in horizontal thematic notes that were recently published. ([4]) The MIP assessment matrix is published in the 2023 Country Report for Hungary. ([5])

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

([2]) European Commission (2022), Alert Mechanism Report 2023, COM (2022) 381 final.

([3]) European Commission (2023), European Economic Forecast: Spring 2023, Institutional Paper 200.

([4]) European Commission (2023), External Sustainability Analysis: Thematic Note to Support In-Depth Reviews, European Economy: Institutional Papers, 196. European Commission (2023), Inflation Differentials in Europe and

Implications for Competitiveness: Thematic Note to Support In-Depth Reviews, European Economy: Institutional Papers, 198. European Commission (2023), Housing Market Developments: Thematic Note to Support In-Depth Reviews, European Economy: Institutional Papers, 197.

(5) European Commission (2023), Country Report Hungary 2023, SWD(2023) 617 final.

2. ASSESSMENT OF MACROECONOMIC VULNERABILITIES

Gravity, evolution and prospects

The long upswing of the Hungarian economy since 2013 was bolstered by expansionary policies and ended amid deteriorating macroeconomic fundamentals. The Hungarian economy enjoyed a robust expansion before the COVID-19 pandemic, with GDP growth averaging close to 4% per year between 2013-2019. This was supported by several factors, including strong global growth, low energy prices, easy financing conditions, and the cyclical recovery of the real estate market and bank lending. In parallel, after achieving low budget deficit, price stability, and reduced reliance on external and foreign currency financing by the mid-2010s, fiscal and monetary policies became accommodative in the second half of the decade, giving further impetus to GDP growth through fiscal expansion, low interest rates, credit subsidies and currency depreciation. Some concerns emerged already by 2019: the current account turned from earlier surpluses to a small deficit, inflation crawled above the central bank target of 3%, construction costs and house prices soared. Policy stimulus strengthened during and after the COVID-19 pandemic, helping the economy to recover swiftly from the short-lived recession in 2020, and prolonging the expansion until early 2022. At the same time, the current account deficit widened, inflation accelerated, and public debt shifted to a higher path. These trends were magnified by changes in the global economic environment in 2022, as financing conditions tightened, and energy prices skyrocketed. These shocks sent the Hungarian economy into recession in the second half of 2022.

The current account balance deteriorated since 2016 and this trend was exacerbated by the rising energy bill in 2022. On 5 April 2023 the Commission published a horizontal thematic note on external sustainability, which also covers Hungary. The following analysis builds on the results on this note. The current account balance turned into a deficit of 3.9% in 2021, from a 4.5% of GDP surplus in 2016, driven by an 8.4 percentage point deterioration of the trade balance. This was mainly caused by strong import demand, although in recent years exports were also hindered by supply chain disruptions and the persistent impact of the COVID-19 pandemic on international tourism. In 2021, the current account was already below the estimated level that is consistent with the economy's fundamentals, although still above the level required to stabilise the net international investment position over the next 10 years. ([6]) The current account deficit widened further to 8.2% in 2022 as the energy trade deficit widened by 5.3 percentage points compared to 2021. ([7]) From a saving-investment perspective, the transition from earlier current account surpluses to a deficit initially reflected rising private sector investment which lowered the net financing position of non-financial

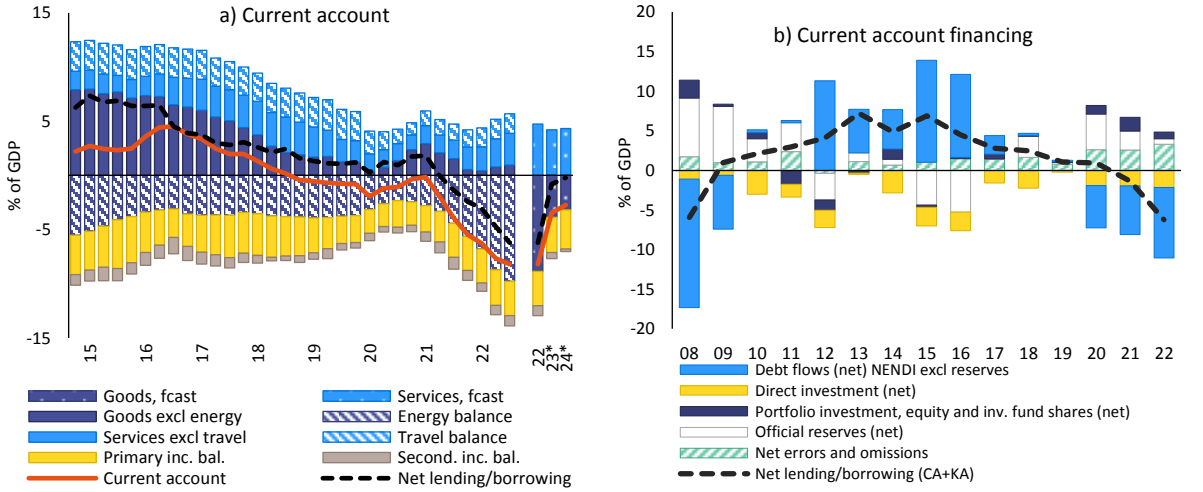
([6]) The fundamental-based current account norm is estimated by taking into account the country's income level, demographic trends, economic structure and financial development. Details of the methodology are described by Coutinho, L., A. Turrini and S. Zeugner (2018): Methodologies for the Assessment of Current Account Benchmarks. European Economy: Discussion Papers, 086.

([7]) While the horizontal note used the data up until Q3 2022, the data here has been updated with the information for the whole 2022, where it became available. The main messages remained unchanged.

corporations. In 2020, the rise in the current account deficit was driven by the large net borrowing of the government. Since 2021, the government began to reduce its deficit, but the position of the private sector worsened. This was particularly pronounced for non-financial corporations, which moved from net lending of 2.1% of GDP in Q1 2021 to net borrowing of -3.9% of GDP by the end of 2022, driven by high investment and inventory accumulation.

The current account is expected to improve substantially in 2023 and 2024, owing to lower energy prices, but will remain in deficit. It is forecast to improve to around -3% of GDP by 2024 mainly driven by the improving trade balance. Nonetheless, the current account will remain below the balanced level suggested by economic fundamentals. The energy trade balance is set to improve due to lower expected energy import costs, while the non-energy balance is projected to increase with the slowdown of domestic demand. The forecast remains highly sensitive to the evolution of energy prices, as a uniform 10% increase in oil, gas and electricity import prices is estimated to worsen the trade balance by some 0.4% of GDP. The capital account surpluses are forecast to increase going forward, and an improvement in net lending/borrowing is projected for 2023 and 2024. The transfers from the EU budget under the RRF and the MFF represent an important external financing source for Hungary, projected at around 2.5% of GDP on average per year between 2022 and 2026 (in net terms). From the sectoral perspective, the improvement after 2022 is expected to be driven by lower net borrowing of the corporate sector, while the net lending of households is projected to decline. The government borrowing is expected to decrease somewhat, although it is set to remain substantial in 2023 and 2024.

Graph 2.1: **The current account and its financing**



Source: European Commission services

EU fund inflows and foreign direct investment (FDI) play an important role in external financing, but external borrowing also increased in recent years. The net inflow of EU funds amounted to an annual average 2.7% of GDP since Hungary's accession to the EU in 2004. About 0.8 percentage point of these appeared directly in the current account balance, while the rest were capital transfers. In 2022, net transfers from the EU amounted to 2.2% of GDP, almost entirely in the form of capital transfers. Net FDI inflows fluctuated between 1-2% of GDP in recent years, rising to 2.2% in 2022. FDI flows were shaped by several trends: steady inflows through greenfield investments and reinvested earnings, outward investment by Hungarian firms, and repurchases of foreign stakes in Hungarian companies, sometimes by the government. Portfolio debt and other investment showed net outflows in the years before the pandemic crisis, but these turned into net inflows over recent years.

The net international investment position (NIIP) has remained broadly stable as a share of GDP, but short-term external debt has increased since 2019. Hungary has a NIIP close to -49% of GDP in 2022 (see Graph 2.2 a). This mainly reflects the stock of inward foreign direct investment, while the NIIP excluding non-defaultable instruments stood at -5.3% of GDP. The NIIP had improved until 2019, driven by private and public debt reduction. Since 2019 the NIIP remained broadly stable as a share of GDP, because high nominal GDP growth offset the accumulation of net external liabilities. Gross external debt, which decreased from 147.5% of GDP in 2011 to 53.3% by the end of 2019, increased again to 65.1% at the end of 2022. ([8]) Short-term external debt (up to one year, based on remaining maturity) also decreased until 2018, but it has risen more recently, to 20.8% of GDP at the end of 2022. Foreign reserves stood at some 22.5% of GDP (EUR 39.8 bn) in March 2023, exceeding short-term external debt, and amounting to slightly less than 3 months of 2022 imports.

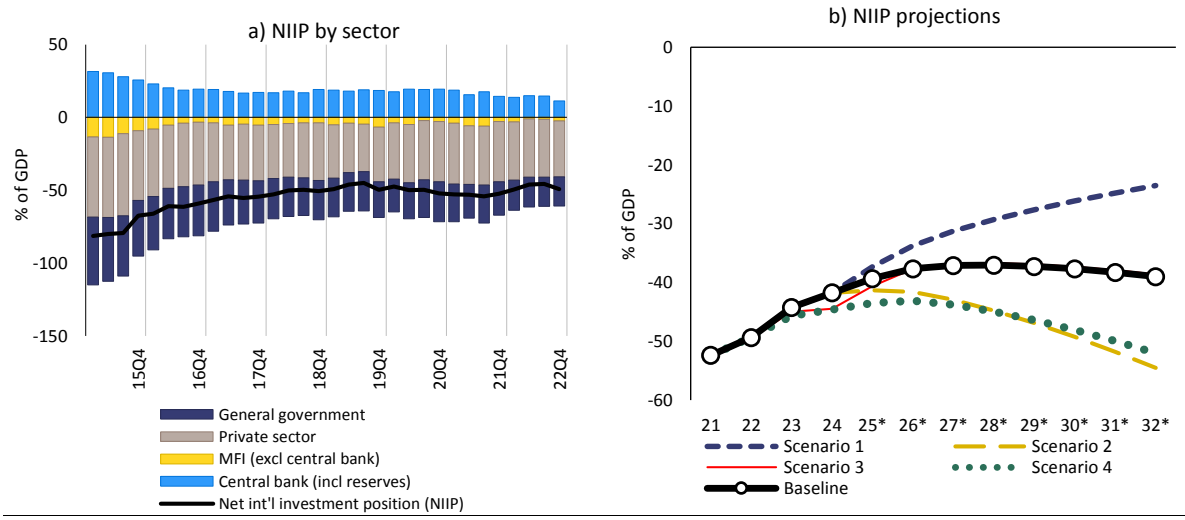
The outlook for the NIIP over the medium term is stable, but sensitive to energy prices and financing conditions. As shown by the NIIP projections for the next ten years under the baseline scenario of no-policy change and an unchanged trade balance beyond the forecast horizon, i.e., after 2024, the NIIP of Hungary is projected to improve somewhat to around -39% of GDP in 2032 (see Graph 2.2 b). Due to the uncertainty regarding the assumptions underlying the baseline projection, alternative scenarios are also considered. Graph 2.2 b shows the impact of alternative assumptions for energy import prices after 2024 (Scenarios 1 and 2). ([9]) Further scenarios show the sensitivity of NIIP projections to slower EU funds absorption in the short-term (Scenario 3) and to higher interest rates (Scenario 4). ([10]) The NIIP could reach in 2032 levels of around -24% of GDP or -55% under Scenarios 1 and 2, respectively. While alternative assumptions under Scenario 3 hardly affect the NIIP evolution beyond the short term. Under Scenario 4, the NIIP is projected to worsen to -52% of GDP by 2032.

([8]) These data refer to external debt excluding debt related to foreign direct investment and Special Purpose Entities (SPEs). The statistical treatment of Special Purpose Entities (SPEs) does not significantly influence Hungary's current account, but it affects the assessment of the gross external position. Differences can be particularly important for gross external debt when excluding stocks related to foreign direct investments (which are influenced by internal financing choices of multinational companies). With the inclusion of SPEs and FDI-related debt, gross external debt rose from 98.9% of GDP at the end of 2019 to 152.1% in 2022.

([9]) Scenario 1 assumes higher trade balance in 2025 and beyond by 2 pp of GDP compared to the baseline scenario, due to lower energy prices relative to the baseline. The more pessimistic Scenario 2 is the mirror image of Scenario 1, i.e. assuming lower trade balance in 2025 and beyond by 2 pp of GDP compared to the baseline.

([10]) Scenario 3 reflects a situation with no absorption in 2023 and 2024 of the RRF funds and structural funds from the 2021-2027 Multiannual Financial Framework, followed by a catching-up of EU fund absorption in later years. This also alters the dynamics of the trade balance and GDP growth, but it is not assumed to affect the risk premium on Hungary's external liabilities. Scenario 4 assumes that the yields on Hungary's external liabilities are permanently higher by 100 bps than in the baseline, driven by a higher risk premium on Hungarian government bonds.

Graph 2.2: **Net international investment position and projections**

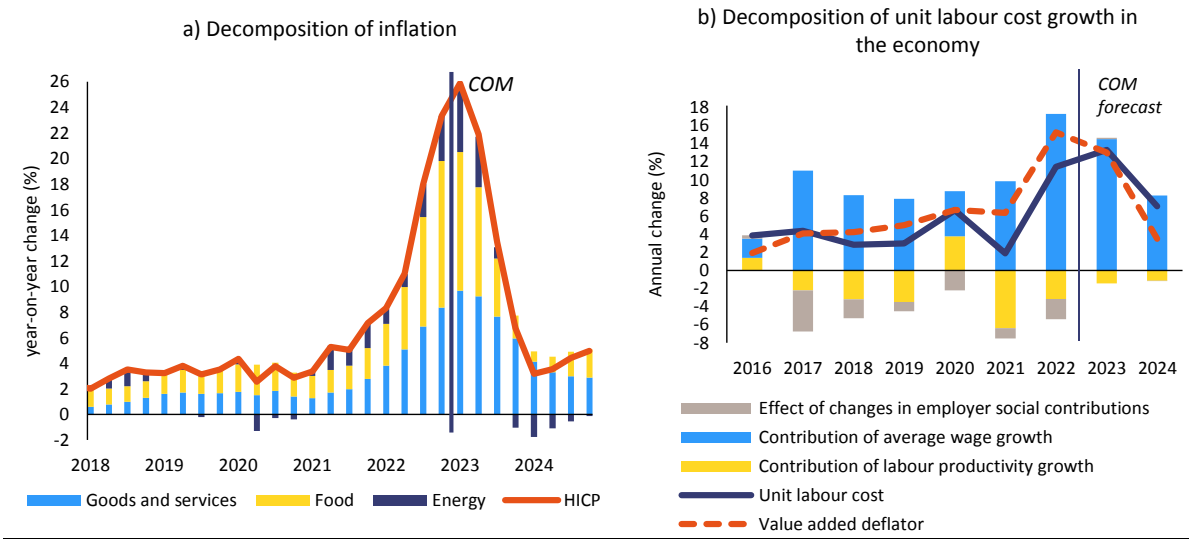


Source: European Commission services

Hungary currently has the highest inflation rate in the EU, due to broad-based inflationary pressures. On 5 April 2023 the Commission published a horizontal thematic note on inflation differentials in Europe and their implications for competitiveness, which also covers Hungary. This analysis builds on the findings of that note. Inflation exceeded the EU average already before the pandemic, and it rose above the target band (3% ± 1 percentage point) of the central bank by mid 2021. It increased persistently in the second half of 2021 and in 2022, appearing to peak at 26.2% in January 2023. The factors behind high inflation include higher energy costs, rising agricultural prices due to severe droughts in 2022, expansionary policies up to early 2022 that contributed to strong wage and consumption growth in recent years, and tax hikes in 2022, coupled by currency depreciation (Graph 2.3 a). ([11]) Inflation is forecast to recede in the coming quarters, owing to lower commodity prices, the appreciation of the forint since autumn 2022, and weakening demand. Real wages have been falling since Q4 2022, and private consumption is projected to decline in 2023. The expected disinflation path assumes tight monetary and fiscal policies and restrained minimum wage growth in 2024. Upside risks to the inflation outlook are high wage growth in a tight labour market, and a de-anchoring of price expectations, which could increase the persistence of inflation.

([11]) Tax hikes included the increase of sector-specific taxes in retail, insurance and telecom, higher taxes on unhealthy foodstuff and on financial transactions, the introduction of a new tax on airport departures and the valorisation of excise duties, for a combined effect of 0.4% of GDP in 2022. A full pass-through of these taxes on consumers could have theoretically added 0.7 percentage points to inflation in 2022 and further 0.3 percentage points in 2023. Inflation trends are analysed in detail by Cohn Bech, E., K. Foda and A. Roitman (2023): Drivers of Inflation, Hungary. IMF Selected Issues Paper SIP/2023/004.

Graph 2.3: **Price and cost developments, Hungary**



*indicates COM forecast
Source: Eurostat, ECB and European Commission services

The strong economic expansion and policy measures have boosted wage growth. Wages and salaries per employee grew by an annual average of 10.3% in 2020-2022, in line with the tightness of the labour market, high inflation, public sector salary increases and minimum wage hikes. Public sector wages grew by a cumulative 43% since 2019, compared to 32% growth in the private sector. Wage increases within the public sector focused on certain groups (such as the military, law enforcement and health care) and mainly aimed to make up for real wage losses in the 2010s. The minimum wage rose by some 56% between January 2019 and January 2022, while the minimum wage for skilled workers rose by 52%, and in a period of tight labour markets and robust demand growth, it contributed to high nominal wage growth. ([12]) As of January 2023, the minimum wage rose by further 16%, based on forward-looking inflation expectations for 2023. The impact of wage increases on companies' profitability was partly offset by permanent employer social contribution cuts and rising prices (see box and Graph 2.3 b). Labour costs grew faster than labour productivity, and unit labour cost rose by an annual average 6.6% in 2020-2022, while the value-added deflator increased by an annual average 9.3% in the same period.

Hungary's export competitiveness is sensitive to price and cost developments. Hungarian companies are strongly integrated into global value chains, and its export structure appears sophisticated based on the share of high-tech products or knowledge intensity (e.g., as measured by the Economic Complexity Index). However, Hungary mainly contributes to the creation of these products by assembly activities that require limited knowledge, generate little domestic value added and are therefore sensitive to production costs. This functional specialisation pattern remains typical of recent greenfield FDI flows ([13]), partly because economic development policies have supported cost competitiveness over the last decade, while progress in non-price competitiveness was weak (see Graph 2.4 a). Employer social contributions have been cut significantly since 2016, the corporate income tax rate was reduced to 9% in 2017, and state aid to enterprises

([12]) The minimum wage for skilled workers appliers for employees in occupations that require at least secondary education level. For earlier experience on the inflationary effect of minimum wage hikes in Hungary, see Harasztosi P. and A. Lindner (2019): Who Pays for the Minimum Wage? American Economic Review 109: 2693-2727.

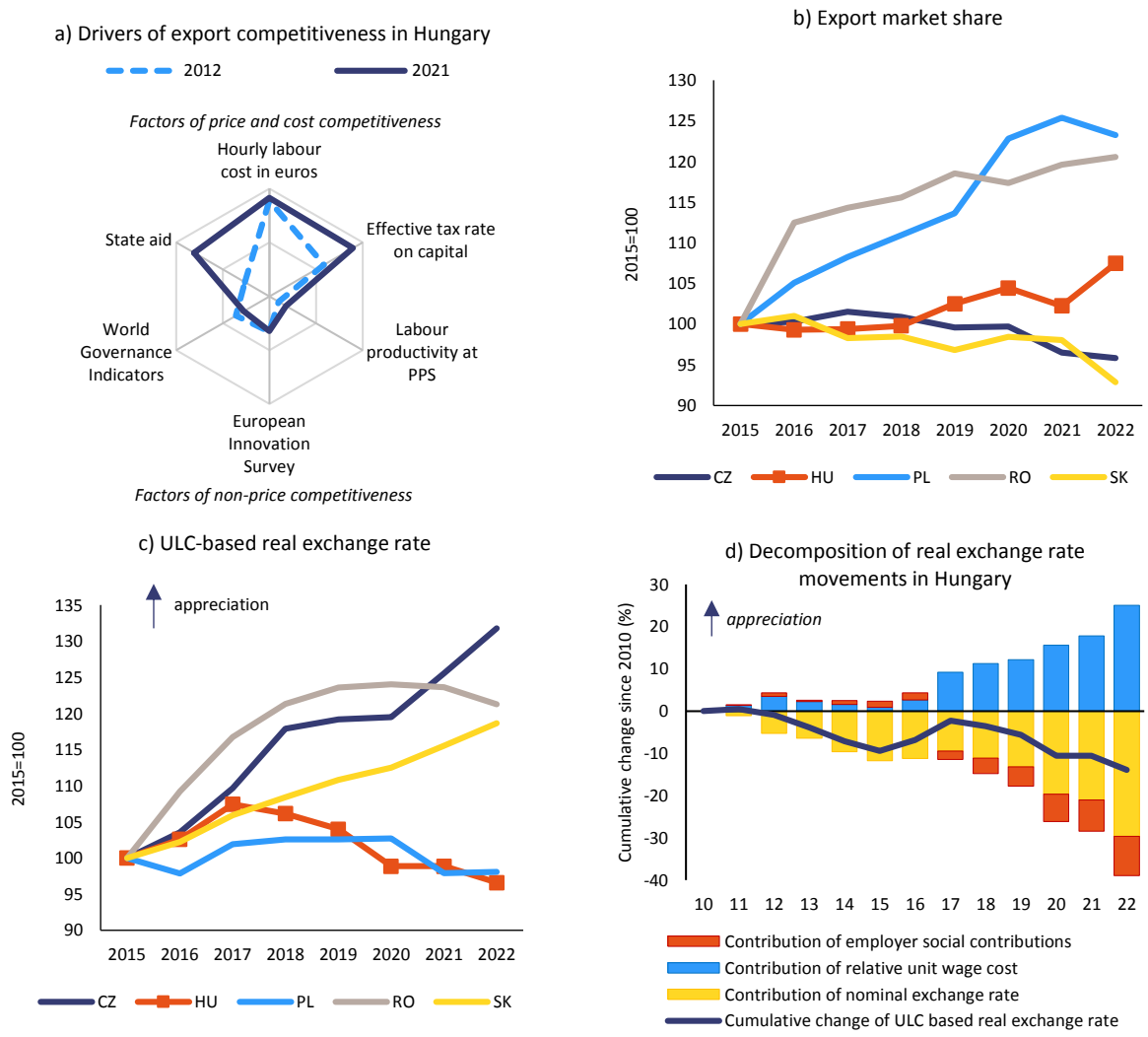
([13]) Grieveson, R. et al. (2021), Avoiding a trap and embracing the megatrends: Proposals for a new growth model in EU-CEE, wiiw Research Report, No. 458, The Vienna Institute for International Economic Studies (wiiw), Vienna.

has been among the highest in the EU, at 2.1% of GDP in 2015-2019 (compared to the EU average of 1%) according to the 2022 State Aid Scoreboard. At the same time, the productivity gap vis-à-vis the EU has not decreased significantly despite widespread subsidised financing schemes that aimed to stimulate investment (see Chapter 3 for further details). Hungary has remained in the lowest group of "emerging innovators" in the European Innovation Scoreboard, while the Worldwide Governance Indicators showed a gradual decline in the dimensions of voice and accountability, regulatory quality, and control of corruption in the decade up to 2021.

Cost competitiveness has recently been supported by nominal exchange rate depreciation and tax cuts. The real effective exchange rate based on unit labour cost depreciated by some 10% since 2017, in contrast to most of Hungary's regional peers. These competitiveness gains were largely driven by an 18% depreciation of the nominal effective exchange rate since 2016 (see Graph 2.4 c and 2.4 d). In the same period, the export market share measured at constant prices rose moderately (see Graph 2.4 b), and it stagnated at current prices. Shift-share analysis shows that Hungary's export specialisation patterns were not a major drag on export market shares, except in 2021, when semiconductor and material shortages disrupted the automotive and electronic industries that constitute an important share of Hungary's exports. Easing supply chain constraints could have helped the recovery of the export market share in 2022.

Recent FDI inflows in cost-sensitive and energy-intensive sectors can boost the export market share in the near term but create challenges for Hungary's growth model in the longer run. Recent greenfield investments have been concentrated in battery production, amounting to EUR 7.1 bn (4.8% of GDP) between 2018-2022. By 2021 Hungary became the third largest manufacturer of batteries for electric vehicles globally, with an annual production capacity of 28 GWh. Another project worth EUR 7.3 bn is expected to be completed by 2025, adding further 100 GWh production capacity. These investments can provide the local automotive industry with critical components. However, the substantial investment grants supporting these projects use significant fiscal resources to create an industrial structure that is import, labour and energy intensive. Although battery manufacturing has a high growth potential, it is characterised by falling prices that can put a pressure on domestic value generation and the terms of trade. The labour demand of recent FDI projects has been increasingly satisfied by inward migration due to domestic skills shortages. Meanwhile, Hungary has a comparative disadvantage in energy-intensive industries due to the scarcity of domestic energy resources. These factors can limit the long-term benefits of battery investments on the current account balance.

Graph 2.4: **Indicators of external competitiveness**

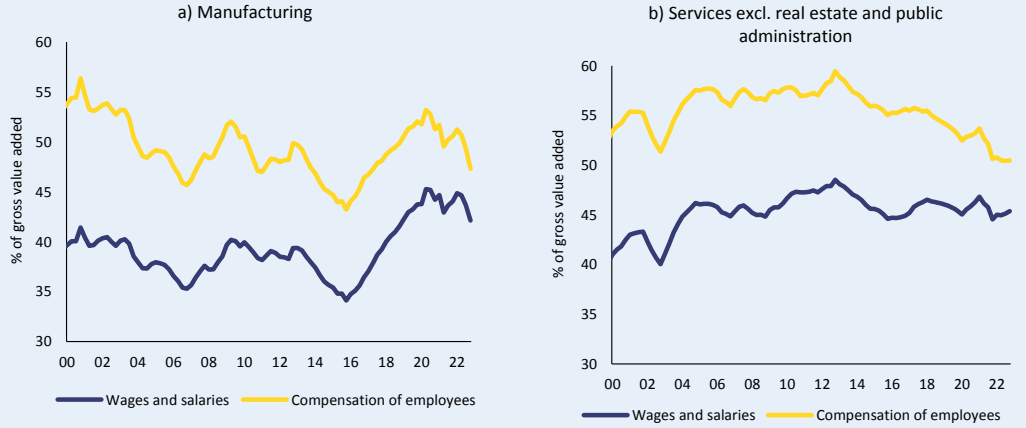


On panel a), a score of 0 (corresponding to the centre of the graph) represents the least favourable value among EU members, while 1 (corresponding to the outermost point of each axis) corresponds to the most favourable value. State aid is measured as a percentage of GDP; 2021 data refer to 2019 to avoid bias from pandemic-related schemes. The European Innovation Survey variable is the composite index. The World Governance Indicators variable is the average of the six individual indicators.
Source: Eurostat, World Governance Indicators database, Commission services calculations.

Box: The evolution of the labour and profit shares in Hungary since 2016

The share of labour income in value added (i.e., the labour share) fell in Hungary by 5 percentage points (pps) between 2016 and 2022, and conversely the profit share rose. This box lays out some possible explanations for these developments. ([14])

Graph 2.5: **Labour cost shares in manufacturing and services, Hungary**



Source: Eurostat and European Commission services

The recent evolution of labour shares seems to be also linked to the significant decrease of labour taxes. In December 2016 a tripartite agreement was signed to significantly cut employer social contributions over six years. Between 2016 and 2022 the social contribution tax rate fell from 27% in 2016 to 13% in 2022, and the 1.5% training levy was also abolished in 2022. In a competitive labour market such as the Hungarian, with low worker unionisation and fragmented, enterprise-level wage bargaining, these tax cuts could have been expected to boost net wages and labour supply, but to leave the long-term level of the labour share unaffected. Instead, while wages and salaries remained stable as a share of gross value added between 2016 and 2022 in the total economy, the labour share (i.e., the compensation of employees, including employer social contributions, as a share of gross value added) fell from 50.5% in 2016 to 45.2% in 2022. At first sight, this suggests that the tax cuts have not been fully passed on to workers in the form of higher net salaries and employment.

There were important sectoral differences in the evolution of the labour share: it rose by 1.6 pps in manufacturing but fell by 5.9 pps in market services (i.e., services excluding real estate and the public sector). ([15]) This could partly reflect differences in labour market tightness as average wages and salaries grew 10.3 pps more in manufacturing than in market services. It could also be due to the stronger unionisation of labour in manufacturing. At the same time, the effective employer social contribution rate also fell more in manufacturing, suggesting either that manufacturing could progressively benefit from more

([14]) Long-run trends in Hungary and the EU were recently analysed by Kónya, I., J. Krekó and G. Oblath (2020): Labor shares in the old and new EU member states – Sectoral effects and the role of relative prices. Economic Modelling 90: 254-272.

([15]) For all services, the decrease amounted to 6.9 pps. The expansion of self-employment accounted for a minor part of this change: the labour share decreased by 5.3 pps between 2016 and 2022 in services excluding real estate and public services, when the mixed income of the self-employed is reclassified as labour compensation (assuming that its average level is equal to the compensation per employee in each economic branch).

social contribution deductions ([16]), or that tax compliance was initially higher in manufacturing.

Several factors increased the profit share in recent years. The profit share in the total economy rose by 5.3 pps between 2016 and 2022, mirroring the fall of the labour share. In addition to the incomplete pass-through of labour tax cuts to wages in services, other factors could have also played a role:

- **Years of high investment boosted the capital stock, leading to higher amortisation.** The consumption of fixed capital increased by 1.2 pps of gross value added between 2016 and 2021. This was especially pronounced in manufacturing, where the ratio rose by 4.6 pps, and net operating surplus accounted for a decreasing share of value added. However, this effect was marginal for market services.

- **In 2022, commodity price increases significantly boosted the profit share in a few industries, while most economic branches saw falling profitability.** The widening spread between oil product prices and crude oil import costs created windfall revenues in oil refining, which is estimated to have increased the aggregate profit share by some 0.6-0.7 pps. ([17]) Higher commodity prices also boosted nominal revenues in agriculture, mining and utilities: unit profit increases in these sectors increased the aggregate profit share by 2.2 pps. In most other economic branches, the profit share fell in 2022.

- **Financial considerations could have encouraged companies to build up profit buffers.** Corporate debt has risen from 48.8% of GDP in 2019 to 59.2% by the end of 2022, partly because currency depreciation revalued foreign currency loans in the sector. Profit buffers could have also financed liquidity hoarding during the pandemic, and a build-up of inventories during more recent supply chain disruptions.

- **Barriers to product market competition might have increased the pricing power of the service sector. ([18])** However, the profit share in services decreased in 2022, which suggests that pricing power is also dependent on aggregate demand and past increases in profit shares are not necessarily permanent.

Overall, the analysis suggests pressures on exporters' price and cost competitiveness, as the slight increase in the profit share of manufacturing was driven by capital deepening, and the net profit share (excluding amortisation) decreased since 2016. It also suggests that market power could have contributed to price increases in services, and weak competition can also hinder disinflation if companies aim to preserve profit margins instead of competing on prices for customers.

([16]) Such deductions are available for selected groups, such as young and elderly workers, young mothers, and unskilled workers.

([17]) Hungary maintained access to Russian oil imports even after sanctions were introduced on the Russian economy in 2022. The spread between Brent and Ural crude oil blends (the latter being a proxy to Hungary's Russian oil import costs) widened from some 2 USD/barrel before Russia's invasion of Ukraine to 25 USD/barrel in 2022. This improved the refinery margin of Hungary's only oil refinery significantly. Based on the financial data of the Hungarian oil company MOL, better refinery margins thanks to the continuous access to Russian oil imports boosted the nominal gross value added of manufacturing by 6.5-7.0%. This is estimated to have improved the 2022 profit share by 3.3-3.7 pps in manufacturing, and by 0.6-0.7 pps in the total economy. A special windfall tax reallocated much of this income to the budget, but due to the statistical classification of this tax, it does not affect gross operating surplus in the national accounts.

([18]) See e.g., OECD (2021): OECD Economic Surveys: Hungary 2021. OECD Publishing, Paris.

In the medium term there could be pressure for the wage share to rise due to the shortage of skilled workers and demographic headwinds. Challenges with the long-term sustainability of public finances due to ageing and other factors might also require Hungary to increase more tax revenues. Both are factors that could potentially undermine Hungary's competitiveness if not matched by productivity enhancing reforms.

House prices have grown briskly in Hungary in the last decade. On 5 April 2023 the Commission published a horizontal thematic note on housing, which also covers Hungary. Since the price recovery started in 2013, house prices have tripled, outpacing income growth, with a further acceleration since 2020. Housing affordability has become more pressing with the price-to-income ratio having already exceeded its pre-global financial crisis peak. In 2022, house prices were estimated to be overvalued by more than 20% by in-house valuation models of the Commission (Graph 2.6 b). The rise of incomes, low interest rates, increasing construction costs but also government policies supporting demand have contributed to rising house prices.

Recent trends in house prices are partly explained by untargeted fiscal support schemes. ([19]) A limited grant scheme for families with young children was substantially extended in 2016 through easing limits on geographical coverage, the value and size of the dwelling. A VAT refund for new housing and a preferential loan tier were also added to the grant scheme. Further extensions increased the available amount (in 2018) and offered additional support to transactions in small settlements. The central bank also operated a temporary loan scheme in 2021-2022 for the purchase or construction of energy-efficient housing. Finally, a temporary prenatal loan scheme for young households was introduced in 2019 for three years, and a significant part of those loans was used for home purchases. ([20]) This scheme has recently been extended until the end of 2024. In 2022 subsidised schemes accounted for 37% of all household loan disbursements, compared to less than 4% in 2018. From 2021, homes purchased through these subsidy schemes have also been exempted from the 4% capital transfer duty. Overall, the budgetary cost of housing subsidies amounts to some 0.6% of GDP (see Table 3.1 for further details on these measures).

Housing supply has been hindered by frequent regulatory changes and rising construction costs. Building activity has remained low by historical standards since 2013 and has been unable to meet the housing demand (Graph 2.6 c). This is partly due to frequent regulatory changes that created uncertainty and may have discouraged some real estate developers from starting new projects. ([21]) Furthermore, years of high public investment contributed to labour and material shortages, driving up construction costs for dwellings.

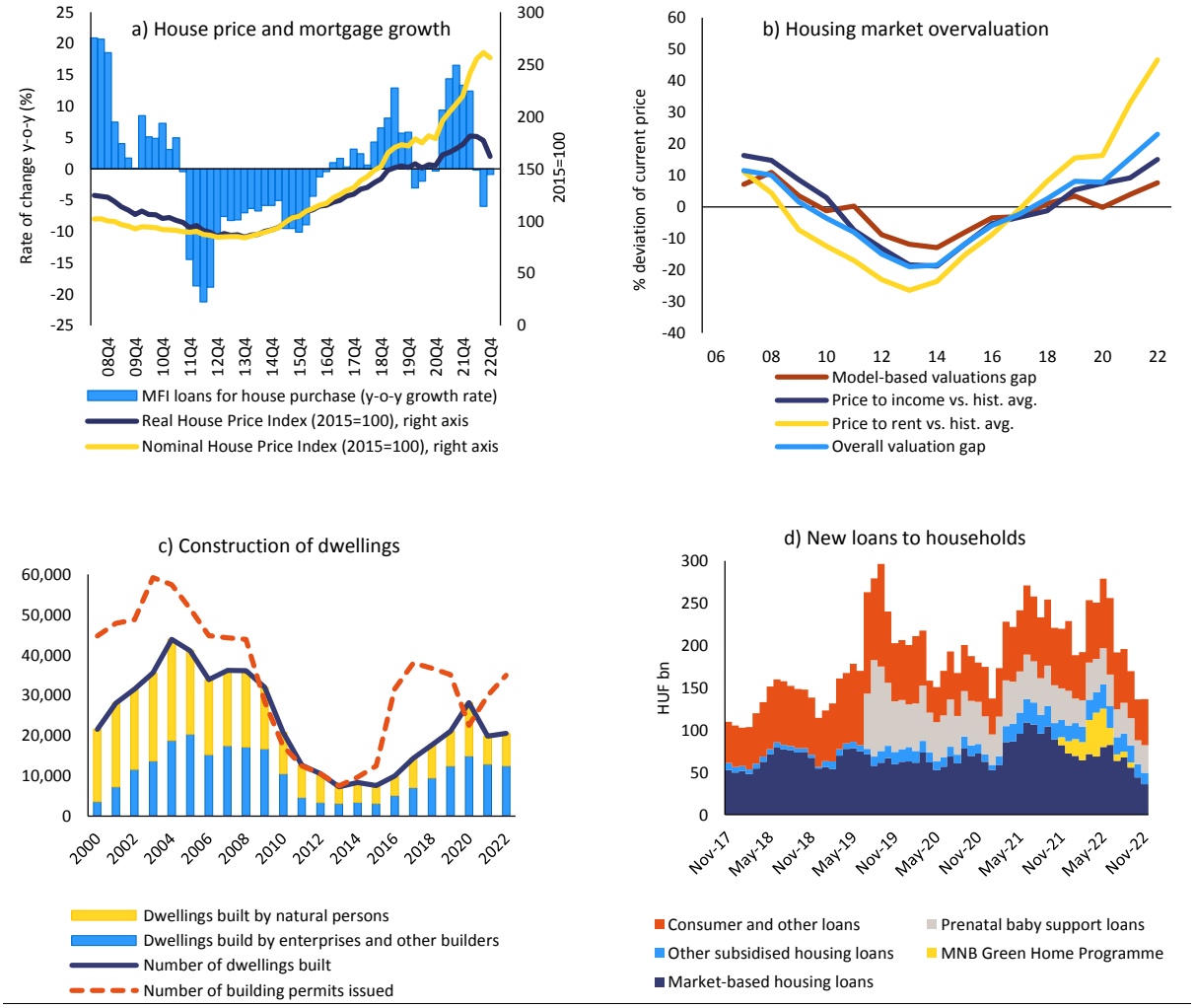
([19]) Suggestive evidence for the role of government support schemes is provided by MNB (2022): Financial Stability Report, November 2022. Magyar Nemzeti Bank. See also Plöchl K. and Obádovics Cs. (2021): A CSOK-támogatást igénylők vizsgálata az előzetes gyermekvállalás és az ingatlanszerzés mértéke szempontjából egy hitelintézet adatai alapján. Hitelintézeti Szemle, 20: 80-109 (in Hungarian).

([20]) Under this scheme, newlywed couples can borrow up to HUF 10 million at a subsidised interest rate. If they have at least 2 additional children following the disbursement of the loan, the loan is partially forgiven, i.e., it partly transforms into a capital grant from the budget (with 3 children the loan is fully forgiven). It is estimated that 60% of these loans were utilised for housing, and that 63-73% of all loans were additional (i.e., the remainder were replacing market-based loans); see Fellner Z., Marosi A. and Szabó B. (2021): A babaváró kölcsön hitelpiaci és reálgazdasági hatásai. Közgazdasági Szemle, 68: 150-177 (in Hungarian).

([21]) Five changes to the value added tax (VAT) rate on new housing occurred since 2016 as a temporary VAT reduction to stimulate construction was repeatedly extended, most recently to projects that receive a building permit in 2023-2024. A permanent VAT rate reduction was also introduced in 2020 for certain brownfield residential projects. Further volatility in building permits was created by repeated delays in the introduction of tighter energy efficiency standards for new buildings, from an initially expected 1 January 2022 to 1 July 2024.

The outlook is for an easing of housing market overvaluation, but the risk of a substantial nominal price drop seems limited in the current high inflation environment. At the time of writing, the first signs of a housing market turning point have already appeared. In Q4 2022 the number of housing market transactions dropped by 9.8% year-on-year, while the value of new mortgages fell by 53.9% after the interest rates on new market-based mortgages rose by some 6 percentage points over previous levels and the central bank's green mortgage programme ended. In Q4 2022 house prices decreased by 2% quarter-on-quarter, while annual growth slowed to 16.5% from its peak of 24.9% in Q2 2022. The borrowing capacity of most households is set to remain limited due to a nexus of high house price levels, very high mortgage rates and a deterioration of real incomes. High inflation can support the correction of housing overvaluation without a large decline in nominal house prices. As most borrowers are not excessively indebted, forced home sales are not expected to exert significant downward pressure on prices either. Public investment is set to decrease, which might alleviate material and labour shortages for residential construction, and limit construction cost increases. Ongoing projects are expected to sustain dwelling construction in 2023, but higher financing costs and weaker demand are set to reduce building activity in 2024.

Graph 2.6: **Housing market developments (house price and valuation + construction)**



Source: Eurostat, ECB, Hungarian Central Statistical office and European Commission services

Household indebtedness is low. Household debt remains among the lowest in the EU at 19% of GDP in 2022. The introduction of loan-to-value and payment-to-income limits in 2015 ensured that lending was concentrated among less risky borrowers in the recent credit cycle.

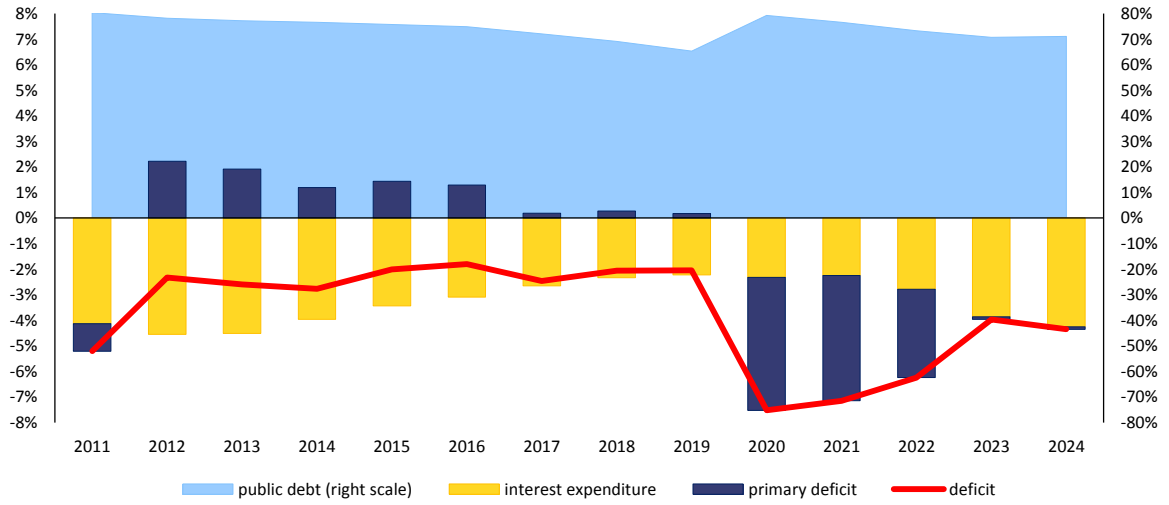
The number of mortgage originations remained lower than before 2008, and net mortgage flows averaged 1.2% of households' disposable income between 2015-2022, compared to 2.8% between 2004-2008. Although interest rates have risen sharply in 2022, their pass-through to mortgage rates is mitigated by the high share of mortgages that have long interest fixation periods. Moreover, a regulatory cap was introduced on variable mortgage rates in January 2022, and it was later extended to mortgages with an interest period up to 5 years. This measure is in force until 30 June 2023. Decreasing real incomes may put pressure on households' abilities to meet their mortgage payments once the regulatory cap on mortgage rates is lifted.

The banking sector is liquid and well capitalised, but recent policy interventions have weighed on profitability. The banking sector has abundant liquidity and its deposits at the central bank amount to 35.7% of total assets. The tier 1 capital ratio of the banking sector stood at 16.3% in Q3 2022, close to the EU average. The NPL ratio stood at 3.3% in Q3 2022, and potential losses on these were provisioned adequately. Foreign currency lending has practically disappeared for households, but still exists for corporates, and it is predominant in commercial real estate, where borrowers do not necessarily have a natural hedge through export revenue. The banking sector remained profitable in 2022 but return on equity fell to 10.5%. Bank profitability depends strongly on government policies. On the one hand, banks earn steady revenues from subsidised lending schemes and by placing their excess liquidity at the central bank at a high interest rate. On the other hand, banks must pay a sector-specific tax that was increased in 2022, and they also bear the burden of the regulatory cap on variable mortgage rates. Furthermore, banks hold a substantial amount of government bonds (16.7% of GDP or 14.8% of bank assets). These bonds are mostly held to maturity; thus, their declining market value has not affected banks' profits in 2022. Still, their low yields have weighed on banks' profitability.

The government debt-to-GDP ratio decreased in recent years thanks to nominal GDP growth, but the budget deficit remains elevated. The public debt to GDP ratio was on a declining trend until 2019 but jumped by 14 percentage points to 79.3% in 2020, due to the economic contraction and the deployment of government support measures in response to the COVID-19 crisis (Graph 2.7). It then eased to 73.3% of GDP by 2022, largely driven by nominal GDP growth, while the primary budget balance improved in 2021 and 2022. The pace of the debt reduction is expected to slow down in the coming years due to lower nominal growth and persistently high headline deficits, with the debt ratio projected at 71.1% in 2024. Although the government began to rein in expenditure, primarily investment, in 2022, deficit reduction in the medium term is complicated by the legacy of permanent expansionary measures introduced since 2020, the slower growth of tax bases, higher interest expenditure and the fading of demographic tailwinds from the gradual increase in the retirement age between 2012 and 2022. According to the Commission's assessment, Hungary faces high fiscal sustainability risks over the medium term and medium ones over the long term. ([22])

([22]) Public debt projections are subject to uncertainty around the baseline assumptions. Consequently, different alternative (deterministic and stochastic) scenarios are systematically performed in the Commission's DSA to complement the traditional baseline, including assumptions of more stringent macroeconomic and financial conditions which may lead to additional debt sustainability risks in the medium term. See the DSA in the Commission Country Report 2023 for the latest risk classification and Debt Sustainability Report 2022 (April 2023) for methodological details.

Graph 2.7: **Deficit and public debt developments (% of GDP), Hungary**



Source: Eurostat, Commission services calculations

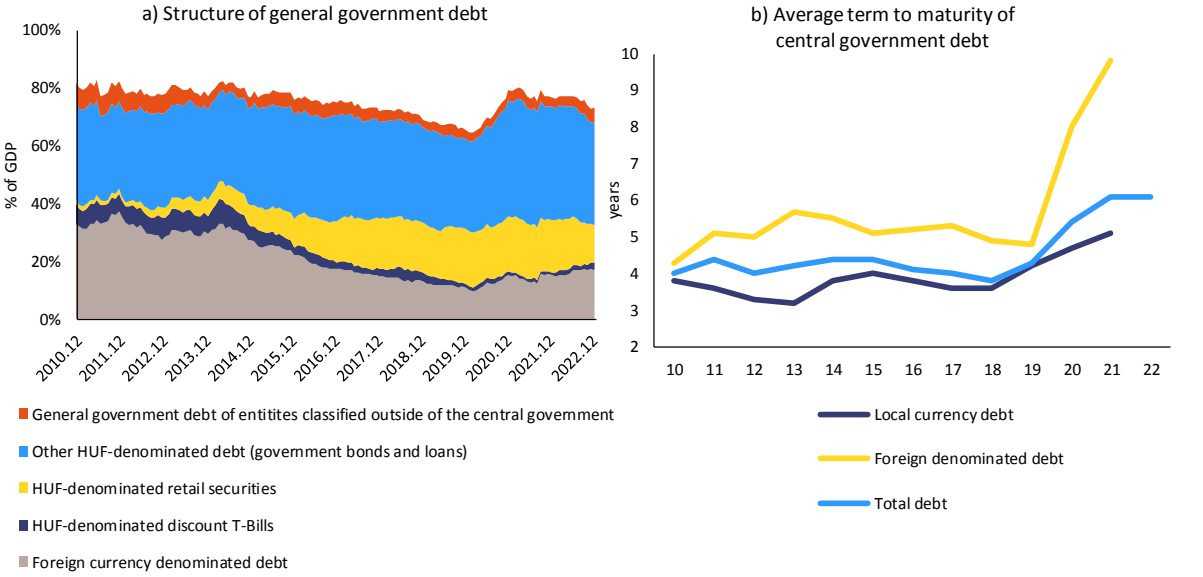
Over the last decade Hungary's debt structure improved significantly, but tighter financing conditions in 2022 led to higher foreign debt issuance. The share of foreign-currency-denominated and external debt fell substantially since the early 2010s and the average term to maturity increased to some 6 years by the beginning of 2023 (albeit still below the EU average of 7.9). Domestic banks and households have played an increasing role in debt financing over the years. Fixed-rate retail bonds had become the second most important financing source by 2022, but demand for these instruments decreased substantially amid soaring inflation. The debt management agency adapted by higher issuances of inflation-linked and foreign-denominated bonds. The share of foreign currency debt rose from 20.6% at the end of 2021 to 25.7% in March 2023, and the debt management strategy for 2023 increased the ceiling for this ratio from 25% to 30%. At the same time, buybacks by the debt management agency reduced annual foreign currency redemptions to just 0.6% of GDP annually over 2024-2026. The modest role of local institutional investors, such as insurance corporations and pension funds, limits the scope for further increasing the duration of domestically held government debt, as retail investors and banks have a preference for shorter debt maturities, typically up to 5 years. ([23])

The Hungarian government faces a rising interest burden. The 10-year yield rose by 314 bps since the beginning of 2022 to 7.7% by 28 April 2023, while the spreads to German 10-year bonds widened by 64 bps. Deteriorating macroeconomic fundamentals and the uncertainty regarding Hungary's access to EU funds left Hungary exposed to shifts in market sentiment. The resulting volatility increased exchange rate risk and compounded the rise in risk spreads. In January 2023, S&P lowered Hungary's credit rating by one grade to BBB-, while Fitch revised the outlook of its BBB rating from stable to negative. Moody's did not revise its BBB rating in March 2023. Given the relatively low average term to maturity of the central government debt, the rising share of inflation-linked bonds, continued high

([23]) The assets of insurance corporations and pension funds amounted to just 10.1% of GDP in 2021, the second lowest value in the EU. Private pension funds practically disappeared following the de facto renationalisation of the second pension pillar in 2010. Life insurance funds also remain limited in international comparison. The role of building saving funds also diminished in 2018 when state subsidies after savings were abolished.

government deficits and somewhat high gross financing needs ([24]), interest expenditure is expected to soar, from 2.2% of GDP in 2019 to 4.3% in 2024.

Graph 2.8: **Structure of the general government debt and average term to maturity, Hungary**



Source: Hungarian debt management agency and European Commission services

Assessment of MIP relevant policies

The weakly coordinated policy response to rising vulnerabilities is delaying the adjustment of the economy. Expansionary economic and fiscal policies contributed to the deterioration of the external balance, rising inflation and house prices since the mid 2010s. Monetary policy started to tighten in 2021 but fiscal expansion continued until early 2022. The government also resorted to price and interest rate controls that hindered real adjustment of the economy to a changing world economic structure, rising interest rates and higher energy prices. Interest rate caps weakened the transmission mechanism of monetary policy, by limiting the response of aggregate demand to changes in central bank's interest rates. Chapter 3 discusses in more detail the reasons for procyclical policies, and the inconsistencies of the policy response to recent challenges.

Monetary policy tightened unevenly to arrest inflation. The central bank (MNB) started to hike interest rates in June 2021, but its asset purchase and subsidised loan programmes continued until early 2022. On two instances MNB had to reverse course after announcing a slowdown or a halt of interest rate hikes (in September 2021 and September 2022, respectively). In October 2022 the currency depreciated significantly, to which MNB responded by introducing a new overnight deposit tender with an interest rate of 18%, 500 bps above the main policy rate. Conversely, subsidised loans by the MNB and national development banks and credit guarantees by the government rose substantially after the

([24]) The gross financing needs remain high at 15.5% of GDP in 2023. They are projected to remain well above 10% of GDP over the medium term.

COVID-19 pandemic; the latest of those schemes was launched in February 2023 and was mostly disbursed to finance working capital (see Chapter 3).

Expansionary and pro-cyclical policies since the mid-2010s left the budget with limited room for manoeuvre. While the government debt ratio had been on a steady declining trend before the pandemic on the back of buoyant economic growth, the pace of consolidation in structural terms remained slow. The increase in public debt since 2020 was only partly driven by the net effect of temporary measures in response to the COVID-19, Russia's war of aggression against Ukraine and the subsequent energy crisis. A large part of the fiscal expansion since 2021 was rather due to permanent measures. Procyclical fiscal policy was further enabled by weaknesses in the medium-term fiscal framework, and large government discretion in budgetary execution. That was accompanied by a tendency in budgetary planning to underestimate revenues, with the better-than-expected revenues being matched by additional spending up to exactly meet the official deficit target (see Chapter 3 for further details). The high public debt level, high gross financing needs and a growing share of foreign debt have made Hungary vulnerable to shifts in market sentiment and, with rising interest rates, have substantially and rapidly increased the debt servicing costs. The large government deficits have also accounted for the bulk of the external borrowing needs of the economy.

Price and interest rate caps provided temporary relief for consumers but created distortions in the economy and weakened the monetary policy transmission mechanism (see Chapter 3 and Table 3.1 for details). In 2021-2022 the government capped motor fuel and basic food items, and initially kept residential utility prices unchanged. Furthermore, interest rate caps were introduced, such as a cap on flexible mortgage rates (originally for 6 months in January 2022 but extended repeatedly). These measures aimed to shield households from the impact of rising commodity prices and interest rates and their cost was mostly borne by companies and the budget. Due to their untargeted nature, these costs have been substantial, and they also hinder policy efforts to curb inflation and to reduce energy import dependence. ([25]) The negative side effects of these measures included the following:

- Net fuel prices have exceeded the average price of neighbouring countries since the phase-out of the motor fuel price cap, suggesting that wholesale and retail traders try to recoup the losses they incurred while the price cap was in force.

- In the case of the food price cap, retail companies appear to have offset their losses by raising the prices on non-affected products. ([26]) However, the downward pressure on producer prices seems to have burdened the domestic food industry, whose production declined since February 2022.

([25]) In 2022, Hungarian household gas consumption decreased by 8% in 2022 compared to the 2019-2021 average, which was the lowest reduction in the EU (source: https://www.bruegel.org/dataset/european-natural-gas-demand-tracker). A recent study found that energy savings by Hungarian households in 2022 were partly driven by mild weather and not higher prices. This study also found insignificant correlation between household income and energy consumption, indicating that the two-tier energy pricing system, which provides a low regulated price up to the average consumption level, is not targeted towards the poor. See: Tóth G., V. Jáger, Zs. Kovalszky. P. Bóday, D. Ádám and Á. Kincses (2023): A magyarországi háztartások energiafogyasztásának jellemzői az orosz–ukrán háború árnyékában, Statisztikai Szemle 101: 118-144 (in Hungarian).

([26]) Evidence for dairy products was collected by the Hungarian competition authority. See: GVH (2023): Jelentés (tervezet) a tej és tejtermékek magyarországi piacán lefolytatott gyorsított ágazati vizsgálatról. Gazdasági Versenyhivatal. https://bit.ly/44Gt4lC (in Hungarian, accessed on 8 May 2023).

- Low household energy prices were partly cross subsidised by high prices for large industrial consumers, consequently the production of energy-intensive manufacturing branches (e.g., chemicals, metals) dropped more than the EU average in 2022.

- Interest rate caps also weakened the transmission mechanism of monetary policy, by limiting the response of aggregate demand to changes in central bank's interest rates (see Chapter 3 for further analysis).

Generous and untargeted housing support policies remain in place. The Family home creation subsidy, which offers grants, subsidised loans, and VAT refunds for housing purposes with limited targeting, has remained available in 2023, although the government signalled its intention to revise the scheme later this year. The temporary prenatal loan scheme, which was partly used for housing purposes and was due to expire on 31 December 2022, has been extended until the end of 2024 (see Table 3.1 in Chapter 3 for further details on these schemes).

Recent policy interventions may affect negatively banks' profitability and capacity to lend. The ESRB in February 2022 assessed that the prevailing macroprudential policy was only partially appropriate and sufficient and issued a warning. The authorities responded by activating a 0.5% countercyclical risk buffer as of 1 July 2023, which can help to address the risks of the economic downturn on banks' capital position. However, banks' profitability remains under pressure by policy measures. Although the debt repayment moratorium introduced during the pandemic was terminated for the last remaining participants as of 1 January 2023, regulatory caps on lending rates on flexible mortgage rates since January 2022 have compressed their interest margin, and the bank levy rose substantially in 2022. The return on equity in the banking sector fell below the risk-free interest rate in 2022, which could hinder banks' ability to attract capital and to lend. As of 1 April 2023, the central bank introduced a non-interest-bearing tier to commercial bank reserves, which reduces commercial banks' interest income further.

The timely and effective implementation of Hungary's Recovery and Resilience Plan is expected to help reduce macroeconomic vulnerabilities. Reforms to improve the quality and long-term sustainability of fiscal policy include the introduction of regular spending reviews, a pension reform, and the phase-out of distortive sectoral taxes. Implementing these reforms could help in achieving the necessary policy stance and coordination to restore price stability and support the adjustment of the economy to a new macroeconomic environment. Reforms and investments in education and skills can improve productivity and export competitiveness, while the promotion of energy efficiency and renewable energy can reduce Hungary's energy import dependence and improve the current account balance in the longer term.

Conclusion

Hungary is facing vulnerabilities relating to its external and government financing needs, compounded by the impact of high inflation. A key issue is whether price stability can be achieved, or inflation will prove sticky for an extended period. The baseline forecast assumes tight and well-coordinated anti-inflationary policies and well-anchored inflation expectations, but a looser and inconsistent policy stance could risk de-anchoring expectations and raise inflation persistence which would eventually result in a higher nominal interest rate path, keeping government financing costs elevated. The deteriorating trend of the already significant current account deficit was exacerbated by the rising energy bill in 2022, and short-term external debt has risen. Expected improvements in the current

account over 2023 and 2024 are contingent on the assumed moderation of energy import prices, and on the expected reduction of the budget deficit. Beyond 2024 addressing the high energy intensity of the economy would be important for current account dynamics. The public debt ratio decreased in recent years thanks to marked nominal GDP growth, but the budget deficit remains elevated, and accounts for a large share of the external borrowing needs of the economy. The government is facing an increasing interest burden while the debt maturity is still relatively low. House prices have grown briskly in Hungary in the last decade. However, the outlook is for an easing of housing market overvaluation, and the risk of a substantial nominal price drop seems limited in the current high inflation environment. Unaddressed vulnerabilities diminish Hungary's resilience to possible further shocks.

Policy inconsistencies have exacerbated those vulnerabilities whereas a consistent policy mix, underpinned by a strong institutional policy framework, is instrumental to safeguard external sustainability and anchor expectations. Monetary and fiscal policy tightened, but the composition of the fiscal response remained conducive to inflation and hindered efforts to reduce energy import dependence. It included, inter alia, untargeted measures to protect households' purchasing power, financed by indirect taxes burdening companies and the financial sector, price and interest rate caps, and untargeted and fiscally costly housing subsidy schemes. All these policies have also had a material impact on external and fiscal sustainability. Export promotion policies remain focused on attracting cost-sensitive and resource-intensive assembly activities, in which Hungary is losing its comparative advantage due to skills shortages and higher energy prices. Overcoming the identified vulnerabilities requires considerable efforts. Timely and full implementation of structural reforms included in Hungary's Recovery and Resilience Plan is expected to help reducing macroeconomic vulnerabilities and support growth and adjustment in the medium term. These include spending reviews and a pension reform to improve fiscal sustainability, and reforms and investments to reduce fossil fuel dependence. In addition to these, an appropriate policy mix through the effective coordination and clear demarcation of policies and the smooth transmission of monetary policy would help to ensure a consistent and effective policy response to high inflation and strengthen external sustainability. Fiscal sustainability risks need to be reduced by permanent measures that curb expenditure and do not weigh on long-term growth. A stronger medium-term budgetary framework and less discretion during the execution of annual budgets could help to reduce the procyclical bias of fiscal policy. An enhanced role by the fiscal council could improve transparency and fiscal discipline. The phasing out of price and interest rate caps would disencumber monetary policy, while stronger price signals in regulated energy prices could reduce energy import dependence.

Based on the findings in this in-depth review, the Communication "European Semester – 2023 Spring Package" sets out the Commission's assessment as to the existence of imbalances or excessive imbalances in Hungary, in line with Regulation 1176/2011. ([27])

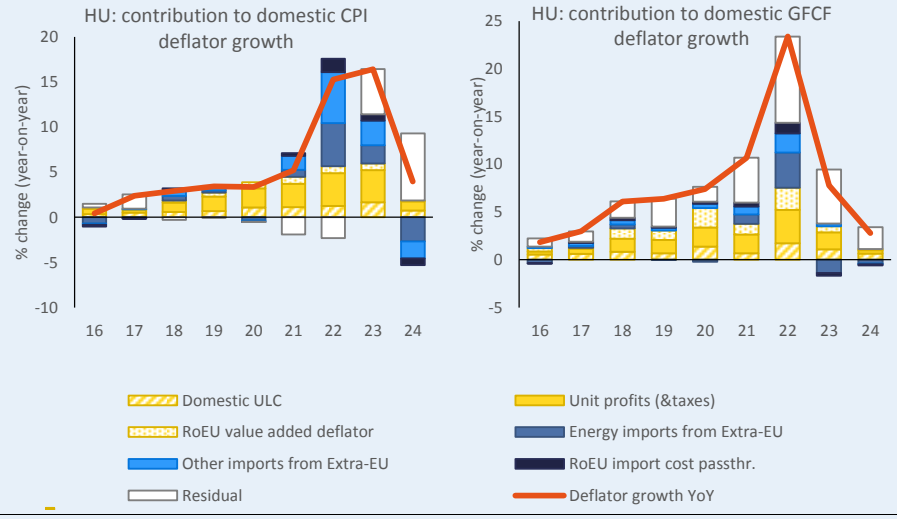
([27]) European Commission (2023), European Semester Spring Package 2023, COM(2023) 600 final.

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

This box sheds light on the sources of inflation in Hungary and its spill-overs with EU partners. The period since 2021 has been characterized by pandemic aftershocks and global supply chain disruptions compounding global inflationary pressures and a surge in commodity prices triggered by Russia's war of aggression against Ukraine. As a result, inflation in Hungary surged to unprecedented levels. In response, wages and profits also picked up across the EU, which further added to price pressures in Hungary. With input-output data, domestic inflation can be decomposed into the contributions from key cost factors. Taking into account some data limitations, the framework can be used to attribute consumer and investment price changes to i) extra-EU import price changes, which include both directly imported inflation and inflation passed through from EU partners import costs ii) domestic unit labour cost changes iii) domestic unit profit changes, including indirect taxation changes and iv) rest-of-EU value added price changes. ([28])

Data suggests that the imported inflation shock from 2022 adds to the domestic factors that continue to drive inflation. In 2022, as shown in Graph 2.9, energy prices contributed markedly to consumer and investment inflation. Moreover, import prices on other goods and services from outside the EU were a significant factor in the acceleration of consumer inflation. However, domestic value added is the most persistent component underpinning inflation until consumer and investment inflation. Among domestic value-added components, unit labour cost increases contribute persistently, but is outweighed by price increases attributed to unit profits. Value-added inflation from other EU countries also affected the investment deflator, though to a lesser degree. Unlike investment inflation, consumer inflation is expected to increase further this year on the back of base effects. The delayed impact of energy prices is set to keep consumer inflation elevated and to lower investment inflation. Inflation spill-overs from other EU countries are projected to remain limited.

Graph 2.9: **Components of gross fixed capital formation deflator growth and consumer price inflation**



Source: European Commission services

([28]) The graphs below are based on national accounts data and the Commission's Spring 2023 forecast, combined with Eurostat input-output data. HICP is taken as the measure of the price of private consumption, including non-residents. Changes in import prices and value-added deflators are assumed to affect demand prices with a delay of 7 months. For further methodological details, see explanations in the 2023 in-depth review for Czechia, p. 16.

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

all variables y-o-y % change, unless otherwise stated	2003-07	2008-12	2013-18	2019	2020	2021	2022	forecast 2023	forecast 2024
Real GDP	3.5	-0.8	3.6	4.9	-4.5	7.2	4.6	0.5	2.8
Potential growth (1)	3.4	0.4	2.3	4.5	3.5	3.7	3.4	2.5	2.5
Contribution to GDP growth:									
Domestic demand	2.8	-2.0	4.0	6.8	-2.6	4.4	3.6	-1.2	2.0
Inventories	0.0	-0.4	-0.4	0.1	0.0	1.8	0.3	0.4	0.0
Net exports	0.6	1.6	-0.1	-2.0	-2.0	1.0	0.7	1.3	0.8
Contribution to potential GDP growth (1):									
Total Labour (hours)	-0.6	-0.2	1.0	0.8	0.5	0.5	0.5	0.0	0.0
Capital accumulation	1.4	0.6	0.9	1.9	1.4	1.5	1.4	1.1	1.1
Total factor productivity	2.6	0.1	0.4	1.7	1.6	1.7	1.5	1.4	1.4
Output gap (2)	2.6	-3.0	0.6	3.9	-4.1	-0.8	0.3	-1.6	-1.2
Unemployment rate	6.6	9.9	6.1	3.3	4.1	4.1	3.6	4.2	4.0
Harmonised index of consumer prices (HICP)	5.4	4.9	1.2	3.4	3.4	5.2	15.3	16.4	4.0
GDP deflator	4.4	3.3	4.2	4.8	6.4	6.4	15.3	13.0	3.5
External position									
Current account balance (% of GDP), balance of payments	-7.8	-1.1	2.3	-0.8	-1.1	-3.9	-8.2	-3.5	-2.7
Trade balance (% of GDP), balance of payments	-1.7	4.5	6.8	2.3	1.9	0.3	-4.1	.	.
Primary income balance (% of GDP)	-5.9	-4.9	-3.6	-2.5	-2.5	-3.1	-3.2	.	.
Secondary income balance (% of GDP)	-0.2	-0.7	-0.9	-0.6	-0.5	-1.1	-0.9	.	.
Current account explained by fundamentals (CA norm, % of GDP) (3)	-0.8	-0.5	-0.3	-0.2	-0.1	-0.1	0.0	0.2	0.3
Required current account to stabilise NIIP above -35% of GDP over 20Y (% of GDP) (4)	-1.3	-3.7	-5.7	-5.4	-5.6	-5.2	-4.6	-4.3	-4.2
Capital account balance (% of GDP)	0.4	1.9	2.5	1.8	2.0	2.5	2.0	.	.
Net international investment position (% of GDP)	-88.8	-102.9	-65.6	-49.7	-52.1	-52.4	-49.3	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (5)	-28.8	-48.3	-17.9	-2.6	-2.4	-1.3	-5.3	.	.
Net FDI flows (% of GDP)	-1.9	-1.7	-1.9	-0.2	-1.9	-2.0	-2.2	.	.
Competitiveness									
Unit labour costs (ULC, whole economy)	4.8	2.6	3.0	3.1	6.7	2.6	11.9	14.0	5.8
Nominal compensation per employee	8.4	2.5	3.1	7.0	3.0	8.8	15.0	14.6	8.3
Labour productivity (real, hours worked)	4.6	0.4	1.0	4.2	0.3	4.1	2.1	1.8	2.7
Real effective exchange rate (ULC)	2.7	-2.3	-1.6	-1.4	-5.3	0.2	-1.3	11.1	2.9
Real effective exchange rate (HICP)	3.0	-0.4	-1.4	-0.6	-4.2	0.4	-3.9	.	.
Export performance vs. advanced countries (% change over 5 years)	46.1	10.3	-4.3	3.2	8.0	3.2	.	.	.
Private sector debt									
Private sector debt, consolidated (% of GDP)	79.2	110.5	81.0	67.3	76.8	80.4	77.6	.	.
Household debt, consolidated (% of GDP)	23.3	36.5	21.9	18.5	20.8	21.0	18.5	.	.
Household debt, fundamental benchmark (% of GDP) (6)	8.5	11.8	19.0	23.7	27.2	29.1	30.6	.	.
Household debt, prudential threshold (% of GDP) (6)	40.2	43.7	38.7	37.4	38.5	37.9	37.8	.	.
Non-financial corporate debt, consolidated (% of GDP)	55.9	74.0	59.1	48.8	56.0	59.4	59.1	.	.
Corporate debt, fundamental benchmark (% of GDP) (6)	33.4	29.0	33.8	37.1	41.1	43.1	44.2	.	.
Corporate debt, prudential threshold (% of GDP) (6)	60.9	65.2	55.6	52.4	55.1	54.5	54.3	.	.
Private credit flow, consolidated (% of GDP)	13.3	0.8	-0.3	4.2	8.1	12.6	8.9e	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-2.7	1.5	1.8	-2.0	3.0	-0.7	-3.0	0.0	-0.8
Households, net lending (+) or net borrowing (-) (% of GDP)	1.2	2.9	4.9	5.0	5.4	6.5	3.0	3.2	4.9
Net savings rate of households (% of net disposable income)	5.4	5.3	7.9	10.4	10.9	13.1	.	.	.

(e) estimate based on ECB quarterly data

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

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

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

(4) This benchmark is defined as the average current account required to halve the gap between the NIIP and the indicative MIP benchmark of -35% of GDP over the next ten years, or to stabilise the NIIP at the current level if it is already above the indicative MIP benchmark. Calculations make use of Commission's T+10 projections.

(5) NENDI is a subset of the NIIP that abstracts from its pure equity-related components, i.e. foreign direct investment (FDI) equity and equity shares, and from intracompany cross-border FDI debt, and represents the NIIP excluding instruments that cannot be subject to default.

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

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

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

all variables y-o-y % change, unless otherwise stated	2003-07	2008-12	2013-18	2019	2020	2021	2022	forecast 2023	forecast 2024
Housing market									
House price index, nominal	.	-2.5	8.9	17.0	4.9	16.5	21.9	.	.
House price index, deflated	.	-6.7	6.9	11.8	1.5	10.0	4.1	.	.
Overvaluation gap (%) (7)	11.5	-3.0	-9.2	8.1	7.8	15.4	23.1	.	.
Price-to-income overvaluation gap (%) (8)	16.3	1.1	-9.8	5.4	7.4	9.2	15.0	.	.
Residential investment (% of GDP)	4.5	3.1	2.3	3.2	4.1	3.9	4.6	.	.
Government debt									
General government balance (% of GDP)	-7.2	-4.1	-2.3	-2.0	-7.5	-7.1	-6.2	-4.0	-4.4
General government gross debt (% of GDP)	61.5	77.7	74.3	65.3	79.3	76.6	73.3	70.7	71.1
Banking sector									
Return on equity (%)	.	10.9	5.3	15.9	8.3	13.4	.	.	.
Common Equity Tier 1 ratio	.	14.1	14.9	14.9	15.2	17.7	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (9)	.	9.8	10.6	.	.	2.4	.	.	.
Gross non-performing loans (% of gross loans) (9)	.	.	12.1	4.2	3.6	3.2	3.3	.	.
Cost of borrowing for corporations (%)	.	.	1.5	.	2.1	5.1	15.6	.	.
Cost of borrowing for households for house purchase (%)	.	.	4.5	4.1	4.0	4.4	10.9	.	.

(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 2023-04-28, where available; European Commission for forecast figures (Spring forecast 2023)

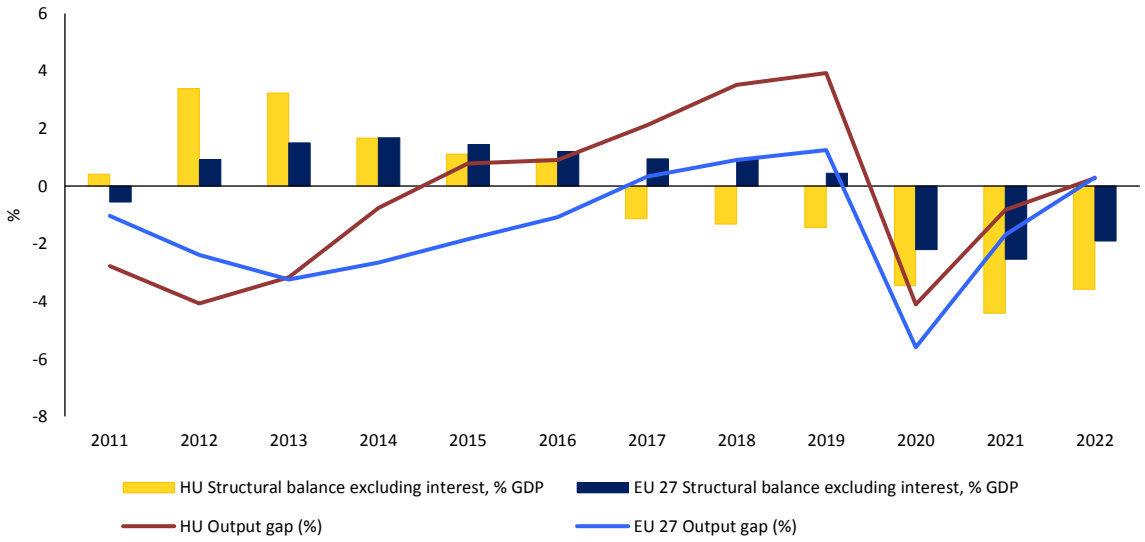
3. THEMATIC CHAPTER: PRO-CYCLICAL POLICY MIX

Pro-cyclical and weakly coordinated economic policies have contributed to many of Hungary's current macroeconomic challenges. After years of deleveraging in the wake of the 2008 financial crisis, the second half of the 2010s was characterised by a favourable external environment and a natural recovery of the housing market and bank lending. Inspired by both economic and political considerations, fiscal and monetary policies remained deliberately expansionary in this period, although the favourable economic environment masked the potential risks of these policies. In 2020, economic policies could respond countercyclically to the recession caused by the COVID-19 pandemic and supported the swift recovery of the Hungarian economy. However, policy stimulus continued well into 2022. This contributed to a deteriorating external balance and high inflation since 2021. Against the backdrop of higher commodity prices, tighter financing conditions and a global and domestic economic slowdown, the fiscal and monetary room to manoeuvre narrowed in 2022. The policy response was delayed and included several stopgap measures, to the detriment of policy coordination, consistency and predictability. Newly introduced measures to protect households and firms from higher prices and interest rates were undermining efforts to contain aggregate demand and impacted on the effectiveness of monetary policy. This chapter assesses why Hungarian fiscal and monetary policy has tended to amplify economic cycles (with the important exception of 2020) and assesses how the institutional framework could ensure that these policies become a stabilising force against future fluctuations of the business cycle.

Fiscal policy

The expansionary and procyclical fiscal policy since 2017 appears to have thwarted a more ambitious debt consolidation. The general government debt-to-GDP ratio had been on a declining trend in the pre-pandemic period, and after an increase in 2020, it has continued to decrease supported by high nominal GDP growth. However, the pace of debt reduction remained slow. The structural primary balance over 2015-2022 was highly expansionary at -1.7% of GDP on average, 1.5 percentage points lower than the EU average. High deficits in structural terms have also coincided with positive or neutral output gaps, most notably in 2017-2019 and in 2022 (see Graph 3.1).

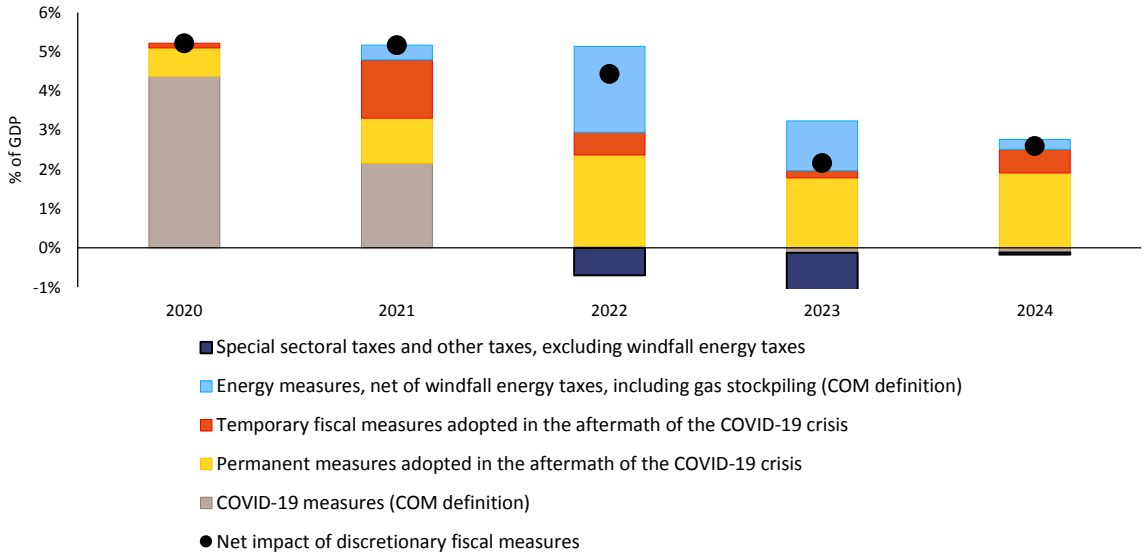
Graph 3.1: **Structural primary balance and output gap, Hungary**



Source: European Commissions services

Since 2020 the increase in public debt was only partly driven by the response to the pandemic, and Russia's war of aggression against Ukraine and the subsequent energy crisis. Measures to address the consequences of the pandemic exceeded 4% of GDP in 2020 but were largely phased out in 2021 (see Graph 3.2). The total budgetary cost of measures to mitigate the impact of high energy prices – net of revenue resulting from the new taxes on windfall profits of energy companies – is estimated at almost 2% of GDP in 2022 and is expected to drop to below 1% in 2023. Most of the fiscal expansion between 2021 and 2023 can be explained by other discretionary measures adopted or brought forward during the recovery period and before the 2022 parliamentary elections, including a refund of income tax to families, reintroduction of the 13th monthly pension, a one-off bonus for law enforcement officers or further cuts to corporate and labour taxes (see Table 3.1 for details). Of those, the non-temporary measures are projected to have a deficit-increasing impact of 3% of GDP in the medium term.

Graph 3.2: **Discretionary fiscal measures adopted since 2020 (% of GDP, cumulative)**



Source: European Commission services

Table 3.1: **Selected policy (Part 1)**

Policy measure	Duration	Description
Measures in response to rising energy crisis and inflation		
Caps on household utility prices	2014 -	Prices of household gas and electricity are fixed at around 24 and 75 euros per MWh respectively. In August 2022, the price was increased closer to the market rates for consumption above the national average. District heating prices are also fixed, but they were not increased in August 2022. In order to protect the level of household utility prices, the government provided subsidies to the residential energy and district heating providers. The fiscal impact of subsidies to utility companies to cover their losses is estimated 1.0%, 2.0% of GDP in 2022 and 2023
Cap on motor fuels price	November 2021 - December 2022	The retail price of petrol and diesel was capped at HUF 480 per liter (EUR 1.3 at the 15 November 2021 exchange rate). Coverage was initially universal, then limited to the private vehicles of residents in July 2022. The government provided subsidies to independent petrol stations that suffered disproportionately from the cap. The amount of this support was about 0.03% of GDP in 2022.
Factory Rescue Programme and support schemes for energy-intensive SMEs	2022-2023	The government introduced a programme for large companies affected by the energy crisis to invest in energy efficiency and energy self-sufficiency and a support scheme for energy-intensive small and medium-sized businesses aimed at supporting operating costs and investments in energy efficiency. The fiscal impact of the schemes is estimated at 0.3% of GDP.
Food price cap	February 2022 - June 2023	Prices of granulated sugar, wheat flour, sunflower oil, pork leg, chicken breast, and 2.8% cow's milk capped at their 15 October 2021 levels. The duration of the cap has been extended several times, and the list was expanded in November 2022 to include potatoes and eggs capped at end-September retail price.
Special sectoral taxes	2022-2023	Sector-specific taxes were levied or raised for banking, insurance, pharmaceuticals, telecommunication, retail, energy and airlines. Some of those were introduced on temporary basis. The impact of those taxes is estimated at 0.7% of GDP in 2022, 1.0% in 2023.
Windfall energy taxes	2022-2023	Hungary has put in place national measures to apply the Council Regulation (EU) 2022/1854 on solidarity contribution, namely the tax related to the spread between Brent and Urals oil and a tax applied to the income of energy suppliers. . A new extraordinary tax on the Ural-Brent spread tax's taxpayers was introduced for the year 2023, The tax base is the net sales revenue, and the tax rate is 2.8%. The mining fee on the amount of extracted gas and oil was raised temporarily. The impact of those measures is estimated at 0.3% of GDP in 2022 and 0.8X% in 2023.
Measures supporting debtors		
Moratorium	19 March 2020 - 31 December 2022	A moratorium on the instalment payments of all pre-existing bank loans was introduced during the COVID-19 pandemic, initially for the period of 19 March 2020 and 31 December 2020, with a possible opt-out by debtors. This comprehensive moratorium was extended until 31 October 2021. Between 1 November 2021 and 31 December 2022 the moratorium remained available for selected groups (pensioners, families with small children, employees in the public works scheme; and businesses whose revenues fell by at least 25%).
Mortgage interest rate cap	January 2022 - June 2023	Mortgage rates were capped initially for six months at the 27 October 2021 levels for mortgages with short to medium-term interest fixation periods. The duration of the cap was extended until 30 June 2023. Foregone interest income burdens banks by 0.2% of GDP between January 2022 and June 2023.
SME interest rate cap	November 2022 - June 2023	Interest rates on HUF-denominated business loans to SMEs is capped at the reference rate as of 28 June 2022. The estimated cost to banks is about 0.1% of GDP.
Student loan interest rate cap	January 2023 -	The interest rate on the interest-bearing student loan variant would have increased to 10% for some 100 thousand borrowers. Due to the measure this interest rate will remain at 4.99% as of January 2023. Other student loans remain interest free.
Large deposit interest rate cap	November 2022 - June 2023	Interest rates on bank deposits exceeding HUF 20 mn (ca. EUR 52,500) are capped at the average 3-month T-bill yield. The government's objective is to divert those funds toward government securities. The duration of the measure was extended from March 2023 to June 2023.

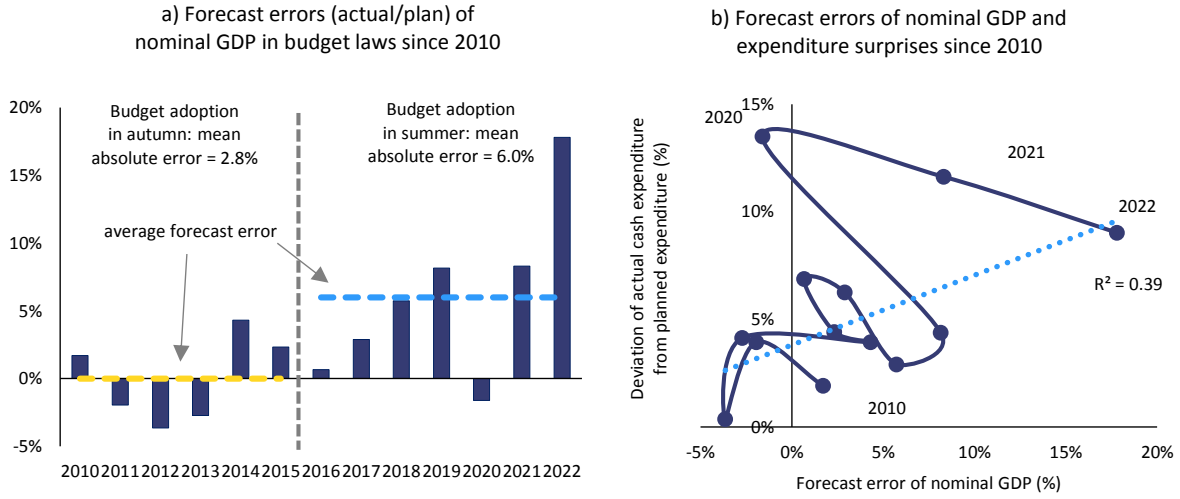
Source: European Commission services

Table 3.2: **Selected policy (Part 2)**

Policy measure	Duration	Description
Permanent measures adopted in the aftermath of the COVID-19 crisis		
Cuts in employers' social contributions	2017 -	In 2017, the authorities introduced a multiannual programme of cuts in employers' social contributions. The rates were lowered from 27% in 2017 to 13% in 2022. The fiscal impact of the most recent cut by 2.5 pp. in 2022 is estimated at 0.7% of GDP.
13th monthly pension	2020-	The 13th monthly pension, which was abolished in 2009, was gradually reintroduced between 2020-2022. The fiscal impact was 0.5% of GDP in 2022.
PIT exemption under 25 years	2022 -	Employees under the age of 25 were exempted from personal income tax. The fiscal impact of the measures is estimated at 0.2% of GDP. From January 2023 the measure was extended to young mothers until the age of 30.
Temporary measures adopted in the aftermath of the COVID-19 crisis		
Refund of 2021 personal income tax payments to families with children	2022	The personal income tax payments of families with children, amounting to 1.2% of GDP, were refunded in February 2022. The measure affected the ESA deficit of 2021 and the cash deficit of 2022.
One-off bonus for law enforcement and military personnel	2022	Based on the agreement reached in the respective union negotiations, the additional benefits for law enforcement and military employees originally due every three years were brought forward to 2022. The fiscal impact is estimated at 0.4% of GDP.
Reduction of the local business tax to 1%	2021-2022	The local business tax was halved in 2021 and 2022 from 2% to 1% for small and medium-sized enterprises and sole proprietorships. The fiscal impact of the measure was estimated at 0.2% in 2021 and 2022.
Housing support measures		
Family home creation subsidy (CSOK)		A pre-existing, targeted grant scheme for families with multiple children was expanded in 2015 by including one-child families for built or purchased dwellings. Besides couples can receive a value-added tax refund up to 5 million HUF on costs of building a home, in case of the construction of an apartment with a useful floor area of up to 150 sqm or a separate house with a useful floor area of up to 300 sqm. The scheme was substantially extended in 2016 through easing limits on geographical coverage, the value and size of the dwelling. A preferential loan tier was also added to the grant scheme. Further extensions increased the available amount (in 2018) and offered additional support to transactions in small settlements. The fiscal impact in 2022 is estimated at 0.3% of GDP.
Prenatal baby loan	2019-2024	The primary target group of this loan product is young married couples who commit to having additional children. Under the scheme, married resident women aged 21-41, together with husbands, are eligible for a maximum HUF 10 million general-purpose loan with a maximum tenor of 240 months. The loan has a subsidised interest rate, but bears no interest in case additional children are born. The loan is partly or fully forgiven when the second and third additional child is born, respectively. The scheme was due to expire at the end of 2022, but it was extended until the end of 2024. The fiscal impact in 2022 is estimated at 0.2% of GDP. The fiscal impact in 2023 is estimated at 0.2% of GDP.
Preferential VAT on housing	2016-2028	A preferential 5% VAT rate (reduced from the standard rate of 27%) on certain newly constructed residential properties was introduced for 2016-2019, but special provisions kept it applicable for certain projects afterwards. It was reintroduced on 1 January 2021, and according to the current legislation it is applicable to housing projects that receive a building permit before the end of 2024, and are completed before the end of 2028. Apartments in residential buildings with a total net floor space up to 150 m^2, and family houses up to 300 m^2 are eligible. The fiscal impact in 2022 is estimated at 0.2% of GDP.
Home improvement subsidy	2021-2022	A grant for home renovation refunded up to 50% of home improvement costs (but not exceeding HUF 3 million) to families raising or expecting children. The fiscal impact in 2022 is estimated at 0.6% of GDP.

Source: European Commission services

Graph 3.3: **GDP forecast errors and expenditure surprises compared to annual budget plans**



(1) 2020 data were excluded from the regression in the right panel, as the outturn for 2020 was exceptional due to the activation of the general escape clause and a genuinely countercyclical fiscal stance.
Source: European Commission services based on annual budget laws

The tendency for procyclical policies is also linked to the design of the debt rule, weaknesses in budget planning and execution, and low policy transparency and accountability. Specifically, the shift to a very early adoption of annual budgets in early summer ([29]), when available economic data series are limited, has reduced the quality of the macroeconomic and budgetary forecasts. The average forecast error for nominal GDP in the budgetary year has increased from 2.8% to 5.9% since the change to early budget preparation (Graph 3.3 a). Nominal GDP forecasts were also consistently lower than the actual outturns since 2016, leading to revenue and commensurate expenditure surprises almost every year. ([30]) The level of this extra spending was calibrated to exactly meet the official deficit target and comply with the very loose debt rule which only requires the government to ensure a fall in the debt-to-GDP ratio. The rules embedded in the budget laws have allowed the government to deviate from the predetermined spending ceilings set therein and reallocate unspent appropriations, as long as the additional spending did not jeopardise the official deficit targets. Additional measures with significant fiscal implications are frequently enacted by government decree, without publicly available impact assessment, meaningful social dialogue and adequate parliamentary oversight. ([31]) Finally, the annual budgets have frequently included large general and special-purpose budgetary reserves, which could only be spent if this did not endanger the fulfilment of the deficit target. In

([29]) Since 2016, the draft annual budgets have been submitted by the government to the Parliament in spring and adopted in early summer, making Hungary the only OECD country to publish the budgetary projections some 6 months ahead of the fiscal year concerned. See OECD (2019), Budgeting and Public Expenditures in OECD Countries 2019, OECD Publishing, Paris, https://doi.org/10.1787/9789264307957-en.

([30]) In the good economic times of 2017-2019 and 2021-2022, positive GDP surprises were accompanied by commensurate spending surprises, with a 1 percentage point nominal GDP growth surprise typically coinciding with additional spending of 0.4% of GDP (see Graph 3.3 b). A significant part of those spending surprises could be observed in spikes of central government spending each December since 2016.

([31]) During the outbreak of COVID-19 pandemic, the authorities have announced a "state of danger" and have extended it in 2022 due to the Russia's war of aggression against Ukraine. Under the state of danger, the government may issue decrees by which it can suspend the application of certain laws, deviate from legal provisions, and take other extraordinary measures, which can be adopted by the parliament as laws ex post. The state of danger does not allow the government to deviate from the constitutional provisions contained in the Fundamental Law.

practice, this also meant that higher spending was authorised precisely in those years when favourable revenue developments would have resulted in lower-than-expected deficit. The design of the pension premium, that is payable only when GDP growth is strong, and the practice to adjust the salaries of most public sector employees in an ad hoc way in good economic times, have further contributed to the procyclicality of fiscal policy. ([32])

The national fiscal rules in place have not provided a strong enough foundation for a prudent fiscal policy. At present, there are three fiscal rules in force in Hungary, two based on EU treaties and one national. Those rules induce procyclical policies and have differing levels of enforcement:

1. The general government deficit ceiling of 3% of GDP, consistent with the deficit reference value set out in the EU Treaties, has been an important policy anchor in Hungary. However, in the second half of the 2010s, Hungary pursued procyclical fiscal policies while its government deficit remained below 3% of GDP.

2. A rule requiring that the fiscal balance determined during budgetary planning be in line with achieving the medium-term budgetary objective expressed in structural terms (MTO) plays only an auxiliary role in the budgetary process, as it suffers from lack of an effective enforcement mechanism in case of non-compliance. The MTO-based rule has been weakened by the biases in the budgetary forecasts. These forecasts have underestimated the output gaps and thus overestimated ex ante structural balance relative to the European Commission's estimates based on the commonly agreed methodology with Member States.

3. The national debt reduction rule enshrined in the Fundamental Law ([33]) sets the effective constraint on fiscal policy at national level, as compliance with this rule is necessary for the adoption and discharge of the annual budget. The debt rule, however, has procyclical features as it induces a moderately restrictive fiscal stance when growth and inflation are low, and allows for an expansionary stance in an environment of higher growth and inflation.

The national fiscal framework lacks a genuine medium-term orientation and accountability, with the role of the Fiscal Council remaining limited. According to Commission's fiscal governance database, Hungary medium-term budgetary framework ranks among the lowest in the EU (Graph 3.4 b). The Act on public finances requires the annual publication of 3-year budget plans by 31 December, and possible deviations from these plans by the annual budgets must be publicly explained. However, this requirement has been lifted in 2020-2022 by special rules during the "state of danger emergency" regime. Furthermore, there are no constraints on possible deviations from medium-term plans, and well-defined corrective actions are also lacking in case of such deviations. ([34]) The

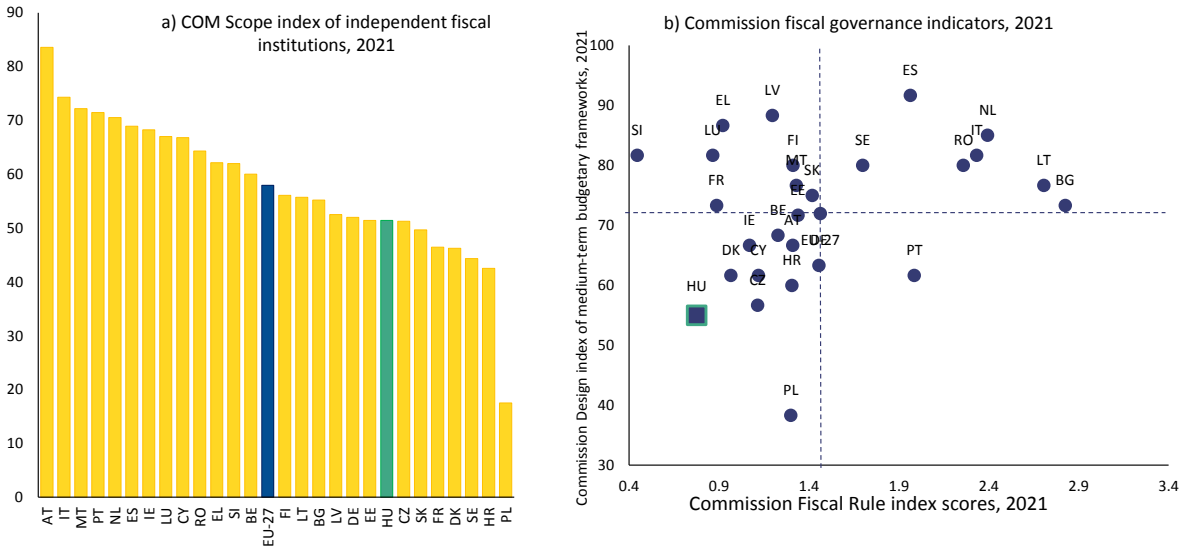
([32]) The pension premium is conditional payment that depends on GDP growth and inflation. It has been introduced from 2010, in exchange for the cancellation of the 13th monthly pension. Since 2021 the 13th monthly pension has been reinstated, but the pension premium remains in force as well.

([33]) According to the debt rule, if the general government debt exceeds 50% of GDP, the Parliament may only adopt an act on the central budget that leads to a reduction in the debt of at least 0.1% of GDP in normal economic times. An escape clause is provided during a special legal order and when the real GDP is projected to fall. The definition of the general government debt for the purposes of the rule differs from the Maastricht debt calculated in line with EU requirements. Specifically, the Stability Act stipulates that: (i) debt in foreign currency must be calculated at a constant exchange rate determined in the adopted annual budget law to abstract from the exchange rate fluctuations, (ii) the excess of government debt may be disregarded if it arises due time-inconsistencies in recording of the EU funds expenditure and revenues and due to liquidity shortfall related to delayed EU fund cash inflows.

([34]) See the Fiscal governance database of the European Commission: https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-databases/fiscal-governance-database_en

Hungarian Fiscal Council has a right to veto budget laws in case of non-compliance with the national debt rule. However, its role in the fiscal policy discussions is constrained by the low operational capacities and limited mandate. According to the Commission's scope index of independent fiscal institutions, Hungary's Fiscal Council has a narrower scope of activity than the EU average (Graph 3.4 a). The Council does not prepare independent macroeconomic forecasts and can merely endorse the government's forecast or issue a non-binding negative opinion. The Council does not prepare regular quantitative policy costings nor long-term sustainability analyses and is not involved in promoting fiscal transparency.

Graph 3.4: **Fiscal governance indicators**



Source: Fiscal Governance Databases of the European Commission

Monetary policy

The Hungarian central bank (MNB) operates an inflation targeting regime. Its primary objective is price stability (target of 3% for inflation ±1pp tolerance band), but its mandate also foresees a role in ensuring a sustainable contribution of the financial system to economic growth and supporting the economic policy of the government as long as these activities do not endanger its primary objective. Since 2021 the statutory mandate of MNB also includes promoting environmental sustainability.

Monetary and financial policies have been accommodative since the mid 2010s and the central bank balance sheet expanded significantly due to quasi-fiscal activities. ([35]) In the low inflation environment of the mid-2010s MNB aimed to support economic growth through low interest rates and targeted lending schemes. In 2013 it launched and then repeatedly extended a lending scheme for small and medium-sized enterprises and engaged in mortgage-backed security purchases (from 2018) and corporate

([35]) Central banks may carry out operations that have similar roles as fiscal policy tools (e.g., subsidised lending). These have direct or indirect fiscal implications (e.g., through contingent liabilities for the budget through potential central bank losses) even if they are not recorded in the government accounts. See e.g., Mackenzie, G. A. and P. Stella (1996): Quasi-Fiscal Operations of Public Financial Institutions. International Monetary Fund, Washington D.C.

bond purchases (from 2019). These programmes complemented similar schemes by the national development banks, and subsidised products amounted to 54% of new corporate loans in 2017-2019. MNB also operated facilities to improve commercial banks' access to long term funding, to promote lending. The policy response to the COVID-19 pandemic included further expansion of such activities by MNB and development banks, as well as government bond purchases by MNB amounting to some 5% of GDP. Between the end of 2019 and 2021 the size of the central bank balance sheet nearly doubled from 26% to 47.8% of GDP. The share of subsidised loans among the outstanding loans of non-financial corporations rose from 13% in 2019 to 32% by the end of 2022. After the 2008 financial crisis several central banks launched similar programmes to fend off deflationary pressures, but MNB continued and even extended some of its programmes in a period when inflation was already in the 3% ±1pp tolerance band, and accelerating, surpassing MNB forecasts (Graph 3.5). Many of these policies were framed within the theory of a "high-pressure economy", whereby policy stimulus can encourage the build-up of productive capacities, which boost productivity growth and thus limit the build-up of inflationary pressure. ([36]) In practice however, the easy financing conditions mainly supported investment in construction. The share of buildings and structures in total investment rose from 45.2% in 2017 to 56.5% in 2022. As a result of this shift towards less productivity-enhancing asset types, capital productivity decreased, the external balance deteriorated and prices increased.

Monetary tightening since mid-2021 was accompanied by a further complication of the policy toolkit and occasionally confusing guidance. In June 2021 the central bank began to tighten monetary conditions to address inflationary pressure. The base rate increased from 0.6% to 13% by September 2022, and other tools (such as higher reserve requirements for banks) were employed to reduce excess liquidity and ensure the transmission of higher interest rates to financial markets. The pace of tightening was uneven and the central bank twice had to reverse course after trying to slow down rate hikes. In September 2022 MNB signalled the end of its rate hike cycle. As the currency depreciated significantly in the subsequent weeks, MNB introduced a new overnight deposit with an 18% interest rate to stabilise the currency. While this instrument was aimed to be temporary, it still remains in place, and serves as a key tool to absorb excess liquidity in the financial sector. Meanwhile, MNB has kept referring to the base rate as the interest rate that is consistent with the medium-term inflation outlook (and left it unchanged at 13%). However, the base rate has no influence on monetary conditions beyond its signalling role, as it only serves to determine the remuneration of commercial banks' required reserves. ([37]) The complex toolkit makes it more difficult for market participants to assess the monetary policy stance. ([38]) Eventually Hungary ended up with the highest monetary policy rate and also the highest inflation rate in the EU by early 2023.

A number of policy measures further hindered the transmission of higher monetary policy rates to the economy. Higher interest rates reduce demand and increase savings, both of which work towards containing inflation. This transmission channel of monetary

([36]) The origins of this concept can be traced back to the 1960s, with an early account of the effects of high employment on potential output by Okun, A. (1962): Potential GNP: Its Measurement and Significance, Cowles Foundation Paper 190 (https://bit.ly/3TZErQB). It has returned to recent policy discussions through a 2016 speech of Fed Chair Janet Yellen. See: Yellen, J. (2016): Macroeconomic Research After the Crisis, Speech at "The Elusive 'Great' Recovery: Causes and Implications for Future Business Cycle Dynamics" 60th annual economic conference sponsored by the Federal Reserve Bank of Boston, Boston, MA (https://bit.ly/3M5QSIN) The Hungarian central bank discussed this theory at length in MNB (2016): Growth report, Magyar Nemzeti Bank.

([37]) Excess reserves of commercial banks are remunerated with an interest rate of 18%, according to MNB Decree 11/2023. See: https://njt.hu/jogszabaly/2023-11-20-2C

([38]) The complexity of the monetary toolkit is discussed in detail by Lybek, T. (2023): Hungarian Monetary Policy Operations Before, During, and After the Pandemic, IMF Selected Issues Paper SIP/2023/005.

policy has been hindered by caps on variable mortgage rates from January 2022 (affecting one quarter of all outstanding mortgages), on SME loans from November 2022 (affecting some 17% of corporate loans) and on bank deposit rates from November 2022. A large, subsidised loan scheme was also launched in February 2023 to help companies finance their higher energy bill, offering fixed interest rates that are significantly below the current monetary policy rate. ([39]) In March 2023, a government decree also banned domestic non-bank financial institutions from purchasing the central bank's discount bill, which it issues to absorb excess liquidity and ensure that money market rates evolve in line with monetary policy decisions. The European Central Bank found that this ban and the cap on bank deposit rates impede the MNB from independently choosing the necessary means and instruments to conduct an efficient monetary policy, and therefore it views that they infringe on central bank independence. ([40])

Central bank losses will burden the budget in the coming years. The central bank's assets have long maturities and low yields, as they are mostly made up of foreign currency reserves, subsidised loans and Hungarian government bonds that were issued in a period of very low yields. On the contrary, anti-inflationary policy requires it to offer high yields on its liabilities. MNB incurred losses in 2022 and further losses are expected in the coming years. ([41]) The Hungarian central bank law specifies how MNB must be recapitalised by the budget for past losses, and the medium-term outlook of the 2023 budget law estimated these expenditures at an average 0.5% of GDP annually between 2024-2026. ([42]) Since the adoption of the 2023 budget, interest rates rose sharply, further increasing the expected losses of MNB. However, the recapitalisation rules were also relaxed in December 2022, dispersing the recapitalisation needs over time. ([43]) Thus, the quasi-fiscal operations by the central bank such as subsidised loan schemes, have eventually turned into a real fiscal burden. The central bank has introduced a non-interest bearing tier to the required reserves of commercial banks in March 2023, which limits the losses of MNB to some extent. However, shifting the burden to commercial banks impacts on their profitability and lending.

([39]) The Gábor Baross Reindustrialisation Credit Programme was launched on 1 February 2023 with an initial envelope of HUF 700 bn (equivalent to some 10% of new corporate lending in 2022). Three-quarters of the requested amount up to 6 March were working capital loans, with an interest rate of maximum 6% for forint loans and 3.5% for euro loans. The envelope was increased to HUF 1000 bn in March 2023.

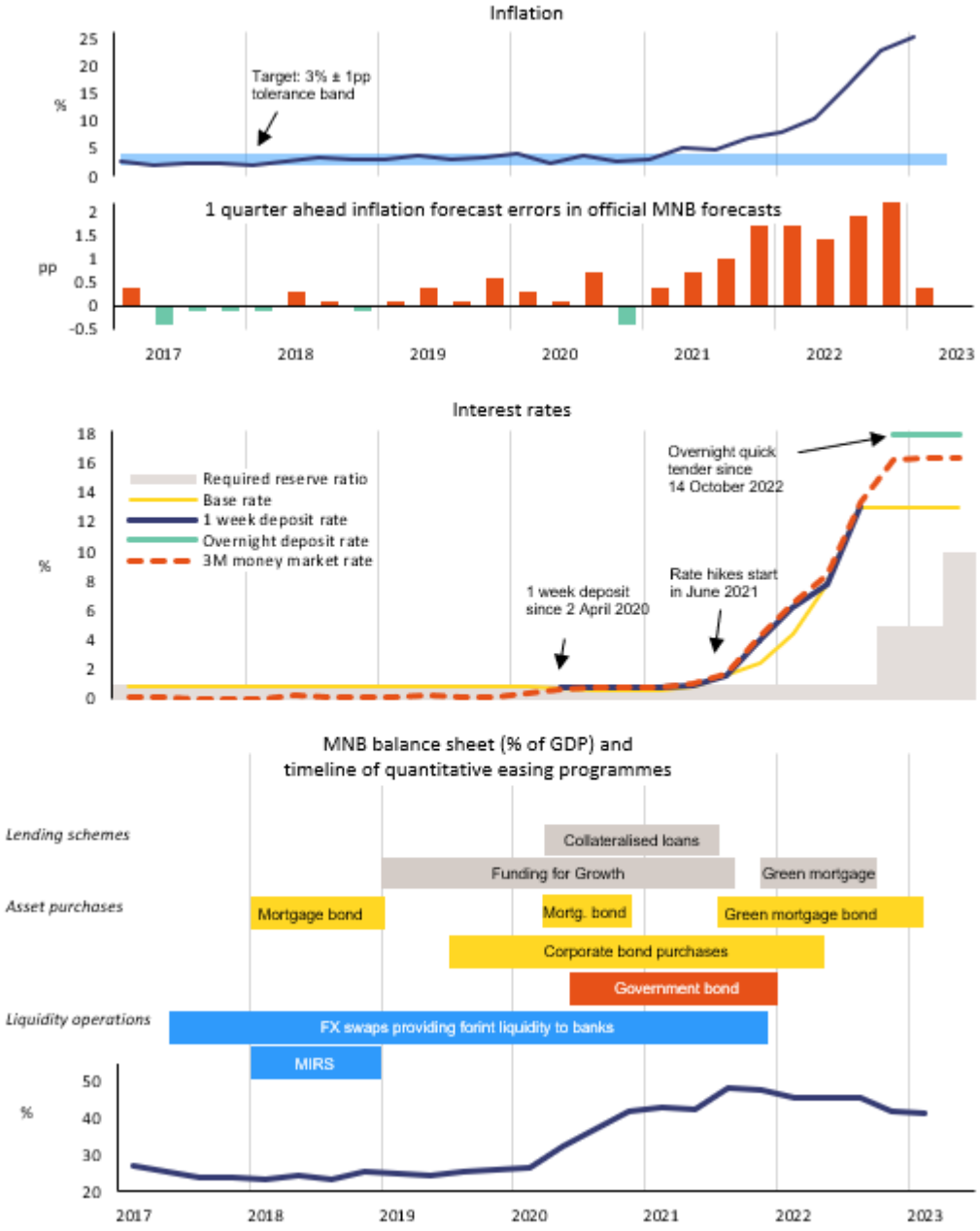
([40]) Opinion of the European Central Bank of 26 April 2023 on the restriction of the negotiability of discount bills issued by the Magyar Nemzeti Bank and the extension of an interest rate cap. CON/2023/10. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023AB0010&qid=1682527131068

([41]) Net interest losses can be partly offset by revenues on foreign currency operations and the revaluation gains on foreign reserves. However, in recent years the debt management agency repurchased significant amounts of short-term foreign currency government debt, which limits the scope for the former. Meanwhile, anti-inflationary policies might preclude significant currency depreciation that is necessary for revaluation gains.

([42]) Source: https://bit.ly/3G5WEq7. The same table for the amended 2023 budget (https://bit.ly/3UowSJN, page 162-164) does not specify separately this item.

([43]) According to the amended rules, the budget must reimburse one-fifth of the negative equity of MNB each year. In March 2023, the equity of MNB (including reserves) stood at HUF -1244 bn (-1.9% of 2022 GDP).

Graph 3.5: **Inflation and monetary policy developments between 2017-2023**



(1) MIRS = monetary policy interest rate swap
Source: European Commission services based on Hungarian Central Statistical Office and MNB

Table 3.3: **Selected housing market indicators, Hungary**

			2003-07	2008-12	2013-18	2019	2020	2021	2022	22Q1	22Q2	22Q3	22Q4
House price developments	Unit	Source											
Real house price, yoy growth	%	(a)		-6.7	7.1	11.8	1.5	10.0	4.1	11.0	9.2	4.7	-6.6
Nominal house price, yoy growth	%	(a)		-2.5	9.1	17.0	4.9	16.5	21.9	23.2	24.9	23.4	16.5
Price to income in level [1]	years	(b)	8.8	7.6	6.8	7.9	8.1	8.2	8.7	8.8	8.2	9.6	8.1
Rent price developments		Source											
Nominal rent price index	2015=100	(a)	67.0	89.6	103.9	124.6	129.9	132.4	146.3	155.3	155.9	157.5	158.3
Nominal rent price, yoy growth	%	(a)	6.7	5.0	2.9	9.4	4.3	1.9	10.5	34.4	35.4	37.2	38.8
Valuation gaps													
Price to income gap [2]	%	(c)	16.3	1.1	-9.8	5.4	7.4	9.2	15.0	16.6	17.4	16.4	9.0
Price to rent gap [2]	%	(c)	11.2	-11.1	-11.2	15.5	16.3	33.0	46.6	45.5	47.8	48.4	44.5
Model valuation gap [3]	%	(c)	7.1	0.9	-6.4	3.5	-0.2	4.0	7.6	10.4	10.4	8.7	0.2
Average house price gap [4]	*%*	(c)	11.5	-3.0	-9.2	8.1	7.8	15.4	23.1	24.1	25.2	24.5	17.9
Housing credit													
Bank mortgages (% GDP)	%	(d)	10.1	14.0	8.8	7.5	8.0	8.1	7.2				
Bank mortgages, yoy growth	%	(d)	21.5	0.2	-2.3	5.8	-0.3	13.3	-0.9				
Housing supply						0.0	0.0	0.0	0.0				
Residential construction - dwellings (% GDP)	%	(e)	4.5	3.1	2.3	3.2	4.1	3.9	4.6				
Residential construction - dwellings, yoy growth	%	(e)	9.3	-11.8	9.8	7.0	21.5	-4.3	12.3				
Non-residential construction (% GDP)	%	(e)	7.5	7.2	7.6	10.5	9.7	10.0	11.4				
Value added in the construction sector, yoy growth	%	(e)	21.1	-5.4	7.1	13.0	-8.6	11.9	3.1				
Building permits index	2015=100	(a)	401.9	180.2	184.7	291.1	180.3	245.2	294.2	267.0	326.9	277.6	305.5
Building permits, yoy growth	%	(a)	-0.6	-24.2	34.7	-3.7	-38.1	36.0	20.0	14.7	17.8	23.5	24.3
Number of transactions, yoy change	%	(f)		-13.2	12.1								
Other housing market indicators													
Share of owner-occupiers, with mortgage or loan	%	(a)	11.5	20.9	17.4	15.3	15.5	15.1					

(') 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 3.4: **Selected household debt indicators, Hungary**

	Source	2003-07	2008-12	2013-20	2021	2022	2023f	22Q1	22Q2	22Q3	22Q4
Stocks											
Debt, consolidated (% of GDP)	*(a,d)*	23	36	21	21	19	17	20	20	19	19
Debt, consolidated (% of potential GDP)	*(a,b,d)*										
Prudential threshold (% of GDP)	*(c)*	41	43	39	38	38	42				
Fundamental benchmark (% of GDP)	*(c)*	8	12	21	29	31	32				
Debt (% of gross disposable income)	*(a,b,d)*	39	63	37	36	32	29	35	34	33	32
Interest paid (% of gross disposable income) [2]	*(a,b)*	2.2	3.1	0.8	0.5			0.7	1.4	2.0	3.1
Debt (% of gross financial assets)	*(a,d)*	24.7	32.7	16.8	14.6			14.3	14.5	14.5	14.3
Share of variable rate loans for house purchase (%)	*(d)*	39.5	67.9	30.6	0.8	0.6					
Domestic loans in forex (% of adjusted dom. loans)	*(d)*		63.5	13.8	0.3	0.4					
Adjusted domestic loans (% of gross disposable income)	*(d)*		48.3	29.4	28.2	25.5					
Loans for house purchase (% of gross disposable income)	*(d)*	17.1	24.1	14.9	13.9	12.7					
Flows											
Credit flows (% of gross disposable income) [2]	*(a)*	8.8	-0.9	0.1	4.7	1.1	0.8	1.2	3.7	1.9	1.5
Loans for house purchase (% gross disposable income)	*(a,b)*	3.0	-1.3	0.0	1.9	1.0					
Benchmark for flows (% of GDP)	*(c)*	1.6	2.7	2.7	2.9	2.6	2.3				
Savings rate (% gross disposable income)	*(b)*	10.3	10.6	13.3	17.5	13.0	12.9				
Investment rate (% gross disposable income)	*(b)*	9.5	7.1	6.7	8.5	10.1	9.2				
p.m. Bank HH NPLs (% of HH loans) [1]	*(d)*			*14.2*	*6.0*						

(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.