INTERNATIONAL MONETARY FUND

IMF Country Report No. 18/252

HUNGARY

August 2018

2018 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2018 Article IV consultation with Hungary, the following documents have been released and are included in this package:

- A **Press Release.**
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on lapse of time basis following discussions that ended on June 26, 2018, with the officials of Hungary on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 17, 2018.
- An **Informational Annex** prepared by the IMF staff.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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August 3, 2018

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Washington, D.C. 20431 USA

IMF Executive Board Concludes Article IV Consultation with Hungary

On August 1, 2018 the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Hungary, and considered and endorsed the staff appraisal without a meeting.[2]

Hungary has achieved several years of strong growth. This expansion has been largely supported by accelerated absorption of EU funds and strong disposable income. External debt declined substantially over the past few years and so did public debt, albeit at a much slower pace. The increase in domestic demand has been reflected in a moderation in the external current account surplus from its 2016 record level, and the exchange rate has recently depreciated. Headline inflation has started to pick up, mainly due to higher energy prices, while core inflation has been running sideways over the past six months, despite emerging capacity constraints. Unemployment remains on a decreasing trend and labor shortages are intensifying despite the improvement in participation rates.

The 2017 general government fiscal deficit narrowed to 2 percent of GDP, compared to the budgeted 2.4 percent. This outcome was mostly driven by strong GDP growth and reduced interest payments. The structural primary balance, on the other hand, deteriorated by about 1.2 percent of potential GDP. Staff projects the 2018 overall fiscal deficit at about 2.4 percent of GDP, in line with the budget's target. In view of the strong cyclical position, the structural primary balance is expected to deteriorate by close to one percent of potential GDP.

The Magyar Nemzeti Bank (MNB) further relaxed its monetary stance during 2017 and in early 2018, mostly with the help of unconventional tools. Imported inflation has been low and large wage increases have thus far been mitigated by lowering social security

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

[2] The Executive Board takes decisions under its lapse of time procedure when it is agreed by the Board that a proposal can be considered without convening formal discussions.

contributions. The MNB intends to let the Market-Based Lending Scheme expire by end-2018, as originally scheduled.

GDP growth is expected to be around 4 percent in 2018, similar to last year. In 2019, growth will start to decelerate, as the absorption of EU funds tapers off and capacity constraints tighten further, while inflation is projected to slightly exceed the MNB’s 3 percent inflation target. Improving productivity through structural reforms is key to achieving convergence and higher living standards.

Executive Board Assessment

Hungary has achieved several years of strong growth and substantially reduced its external debt. Growth is expected to be around 4 percent in 2018, similar to last year. This strong expansion has been supported by private consumption and EU funds-related investments. However, although fiscal outcomes have overperformed the budget targets in recent years, the public debt ratio has come down only to a limited extent. With economic expansion well entrenched, now is the time to do more to reduce fiscal vulnerabilities and create space for policy to be able to react again when new shocks hit. Rebalancing the policy mix and advancing structural reforms would also help moderate the reduction of the external current account surplus that is being driven by the strong domestic demand.

In view of the increased risks, it would be desirable to expedite the reversal in the pro-cyclical fiscal stance and the reduction in public debt. A set of growth-friendly fiscal measures to achieve smaller deficits starting in the second half of 2018 and over the medium term would be advisable. Such a rebalancing of the policy mix would also alleviate the burden on monetary policy. Specifically, phasing out the remaining sectoral taxes, broadening the tax base, and further enhancing tax administration would reduce distortions while boosting revenue collection. Furthermore, transforming the existing property taxes into a modern real estate tax would help local governments raise additional revenue to finance spending on healthcare, education, and infrastructure, while protecting the vulnerable. On the expenditure side, reforming public administration would help reduce the wage bill while facilitating a competitive public salaries scale and an improvement of the provision and quality of public services. There is also room to further reduce spending on goods and services. In addition, eliminating generalized subsidies, while protecting the poor by targeted measures, would enhance efficiency and save resources.

Once inflation sustainably approaches the upper half of the tolerance band (3±1 percent), the monetary policy stimulus would need to be gradually scaled back. During 2017 and in early 2018, the MNB further relaxed its monetary stance, mostly with the help of unconventional tools. Imported inflation has been low and large wage increases have thus far been mitigated by lowering social security contributions. However, the output gap has closed and labor shortages are intensifying and thus the risks related to premature tightening have declined.

Rising inflationary pressure and falling current account surpluses point to accelerating domestic demand. All in all, this calls for some removal of the monetary accommodation, starting with unconventional measures. In this connection, the recent MNB communication, which emphasizes the commitment to its inflation target and keeps the options open to take any action to achieve it, is welcome. Staff also welcome the commitment to let the Market-Based Lending Scheme expire as scheduled by end-2018.

Hungary's external position is broadly in line with medium-term fundamentals and desirable policies. However, non-price indicators point to the need to improve productivity and competitiveness. Hungary's IIP has improved in the recent years and its international reserves are adequate according to the Fund's metric.

Improving productivity through structural reforms is key to achieving convergence and higher living standards. In this regard, we welcome the establishment of the Competitiveness Council and the implementation of some of its recommendations to improve the business environment. It is also important to make further progress in addressing the challenges in the areas of obtaining construction permits and electricity connection, ease of paying taxes, and perceived corruption. In addition, levelling the playing field for all investors, including SMEs and FDI, by reducing red tape and simplifying the regulatory environment would help broaden the growth and export base. Furthermore, there is an urgent need to improve education and vocational training to address skills mismatches, and to continue to reduce the number of participants in the public works schemes to release them to the primary labor market. Increasing the availability of child-care facilities would also improve labor market participation, especially among women.

Hungary: Selected Economic Indicators, 2013–19

	2013	2014	2015	2016	2017	2018	2019
					Prelim.	Proj.	
Real economy							
Real GDP (percentage change)	2.1	4.2	3.4	2.2	4.0	4.0	3.3
Total domestic demand (contribution to growth)	2.1	5.1	1.1	1.5	5.4	3.3	3.2
Private consumption	0.3	1.5	2.0	2.3	2.5	2.4	2.0
Government consumption	0.6	1.0	0.0	0.1	0.0	0.4	0.2
Gross fixed investment	1.9	2.6	0.4	-2.3	3.2	2.6	1.2
Foreign balance (contribution to growth)	0.0	-0.8	2.2	0.7	-1.4	0.7	0.1
CPI inflation (average)	1.7	-0.2	-0.1	0.4	2.4	2.8	3.3
CPI inflation (end year)	0.4	-0.9	0.9	1.8	2.1	3.1	3.1
Unemployment rate (average, ages 15-64)	10.2	7.8	6.8	5.1	4.2	...	...
Gross fixed capital formation (percent of GDP)	20.9	22.2	21.9	19.2	21.5	23.1	23.3
Gross national saving (percent of GDP, from BOP)	24.7	23.7	25.4	25.3	24.7	25.4	25.2
General government 1/							
Overall balance	-2.6	-2.6	-1.9	-1.7	-2.0	-2.4	-2.0
Primary balance	1.6	1.2	1.5	1.5	0.8	0.1	0.2
Primary structural balance (percent of potential GDP)	3.6	2.0	2.2	1.8	0.6	-0.3	-0.5
Public debt	77.1	76.6	76.7	76.0	73.6	71.3	69.1
Money and credit (end-of-period)							
Broad money	5.5	5.1	6.3	7.0	7.8	7.0	6.2
Lending to the private sector, flow-based 2/	-3.3	-0.9	-11.0	2.0	6.4	7.2	6.5
Interest rates 3/							
T-bill (90-day, average)	4.1	2.1	1.1	0.7	0.0	0.2	...
Government bond yield (5-year, average)	5.2	3.9	2.7	2.1	1.7	2.0	...
Balance of payments							
Current account	3.8	1.5	3.5	6.0	3.1	2.3	1.9
Reserves (billions of Euros)	33.8	34.6	30.3	24.4	23.4	26.9	30.1
Gross external debt 4/	117.8	114.7	107.7	97.2	84.6	76.2	70.7
Gross official reserves (percent of short-term debt at remaining maturity)	119.4	160.6	139.5	131.1	139.9	165.3	174.0
Exchange rate 5/							
Exchange regime	Floating						
Exchange rate, HUF per euro, period average	297	309	310	311	309	329	...
Nominal effective rate (2000=100, average)	110.3	114.2	116.5	116.7	115.5	117.9	...
Real effective rate, CPI basis (2000=100, average)	74.3	77.7	79.5	79.6	78.2	78.7	...
Quota at the Fund	SDR 1,940 million						
Memorandum Items:							
Nominal GDP (billions of Forints)	30,247	32,592	34,324	35,420	38,183	40,823	43,435
Per capita GDP (EUR)	10,277	10,691	11,238	11,568	12,600	13,449	14,286

Sources: Hungarian authorities; IMF, International Financial Statistics; Bloomberg; and Fund staff estimates and projections.
1/ Consists of the central government budget, social security funds, extrabudgetary funds, and local governments.
2/ 2015 reflects the effects of the Settlement Act on credit stock.
3/ Data for 2018 is at end-June.
4/ Excluding Special Purpose Entities. Including inter-company loans and nonresident holdings of forint-denominated assets.
5/ The exchange rates for 2018 are end of period figures; end-June for the nominal rate and end-May for the effective and real effective rates.

INTERNATIONAL MONETARY FUND

HUNGARY

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

July 17, 2018

KEY ISSUES

Context. Growth rebounded in 2017 and the first half of 2018 on the back of buoyant domestic demand due to the accelerated absorption of EU funds and strong disposable income. External debt declined substantially over the past few years and so did public debt, albeit much less. The policy stance remained highly procyclical, with a significant deterioration in the structural primary fiscal balance since 2015. At the same time, structural reforms are lagging and the external current account surplus has been moderating rapidly from its 2016 high peak. There has been some downward pressure on the forint (HUF) in the second quarter of 2018. The budget for 2019 is broadly cyclically neutral. The central bank (MNB) adjusted its communication, stressing its commitment to the inflation target and keeping all options open to achieve it.

Policy recommendations. The policy mix should be rebalanced in a sequenced fashion, especially in view of the closed output gap and increased risks. Structural reforms need to be accelerated to increase productivity and potential output.

- **Fiscal policy.** The cyclical upswing provides an opportunity to implement a growth-friendly consolidation starting in the second half of 2018 to expedite public debt reduction, build fiscal space that can be used in future downturns, and ease the burden on monetary policy.

- **Monetary policy and financial sector.** Once inflation sustainably approaches the upper half of the tolerance band (3±1 percent), the monetary policy stimulus would need to be gradually scaled back. The authorities should continue to monitor the housing market, review the macroprudential tools as needed, and phase out fiscal incentives that are stimulating housing demand.

- **Structural reforms.** Improving the business environment and productivity are essential to ease the severe supply shortages and boost convergence in living standards. Priorities include reducing red tape, enhancing policy predictability, and improving vocational training.

Approved By
Jörg Decressin (EUR) and Martin Sommer (SPR)

Discussions took place in Budapest during June 14–26, 2018. The staff team comprised Messrs. Sakr (Head), Dybczak, and Lybek, Mses. Hassine and Mircheva (EUR). Mr. Varga attended most meetings and Ms. Erbenova attended the concluding meetings (OED). Mses. Batog, Samuel, and Staley (EUR) assisted in the preparation of the staff report. The staff team met with State Secretaries of the Ministry of Finance Ms. Hornung and Mr. Banai, State Secretary in the Prime Minister's Office Mr. Aszodi, Central Bank of Hungary (MNB) Deputy Governor Mr. Nagy, other senior officials, and representatives from the private sector and think tanks. A workshop was held during the mission jointly with the MNB and the Ministry of Finance on analytical topics that informed the consultation discussions.

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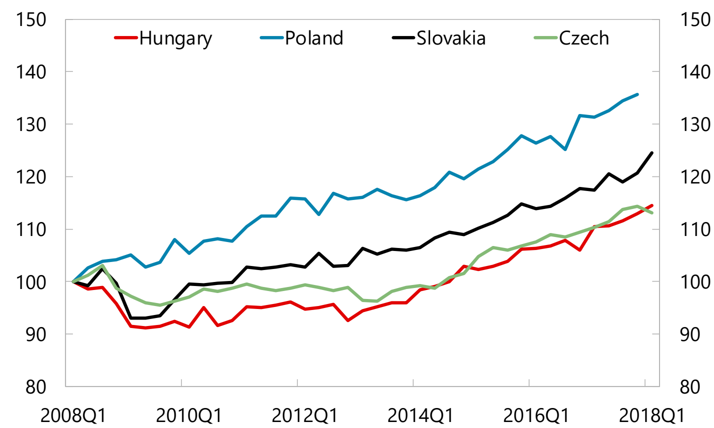
CONTEXT

1. **The ruling party, Fidesz, secured a two-thirds majority in parliament in the 2018 general elections.** The government's economic agenda continues to focus on securing buoyant growth, while reducing vulnerabilities, especially external debt. The fiscal policy stance has thus far been procyclical. However, both the 2019 budget proposal and MNB recent communication point to an intention to rebalance the macroeconomic policy mix. Structural reforms are lagging, although some were implemented in the second half of 2017 and the authorities are signaling their plan to make more progress in the period ahead.

BACKGROUND AND RECENT DEVELOPMENTS

2. **Growth rebounded to 4 percent in 2017 and 4.4 percent (preliminary) in the first quarter of 2018.** This was largely driven by strong domestic demand. Public investment was boosted by the accelerated absorption of EU funds, and private consumption strengthened further on the back of wage and employment growth as well as tax reductions. The recovery has been slower than for regional peers. But the output gap appears closed.

GDP per Capita: Hungary and Peers
(Index, 2008Q1=100)



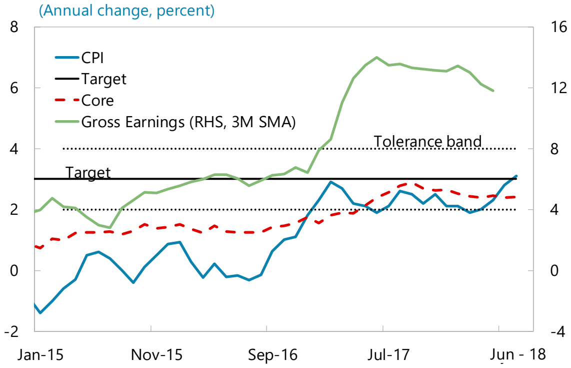
Source: Haver Analytics; and IMF staff calculations.

3. **After remaining below expectations, inflation started to pick up in May 2018.** Average inflation rose to 2.4 percent in 2017 before falling back to 2 percent in the first quarter of 2018. However, it picked up to 3.1 percent in June 2018, driven mainly by higher energy prices. Core inflation has been running broadly sideways over the past 6 months, close to 2½ percent, despite signs of emerging capacity constraints. Unemployment remains on a decreasing trend, falling to 3.7 percent in May, and labor shortages are intensifying. Even though labor force participation has increased, particularly for old workers, the demand for both skilled and unskilled workers exceeds supply across all sectors, especially in construction. Average gross earnings growth remains in double digits, registering over 12 percent in 2018 Q1. Real estate prices increased at nearly 14 percent in 2017, and the Budapest stock market (blue chip) index rose by 8.3 percent in the twelve months period ending in May 2018.[1]

[1] This increase in the stock market index continued a moderation of the earlier rapid increase, as it had increased by about 20 percent in the previous 12 months period.

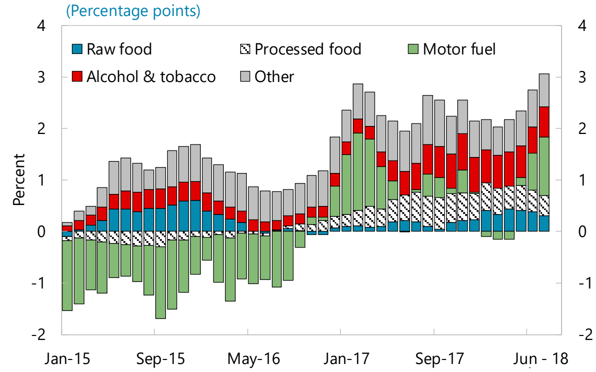
Hungary: Selected Inflation and Labor Market Indicators

Selected Inflation Indicators
(Annual change, percent)



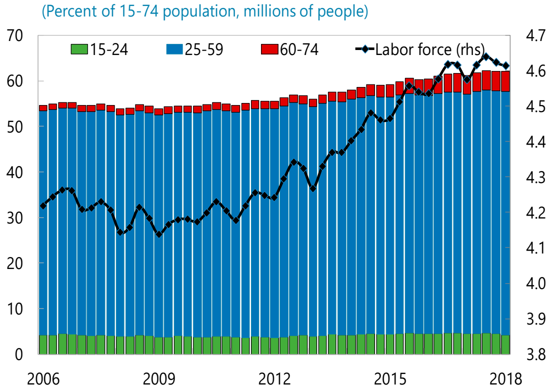
Source: Hungarian Central Statistical Office and Magyar Nemzeti Bank (MNB).

Contributions to Inflation
(Percentage points)



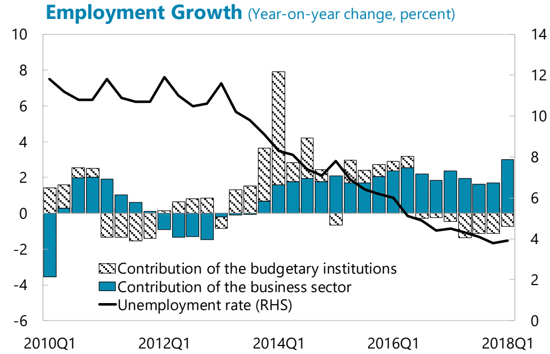
Source: Hungarian Central Statistical Office (HCSO); and IMF staff calculations.

Labor Force
(Percent of 15-74 population, millions of people)



Sources: Hungarian Central Statistics Office.

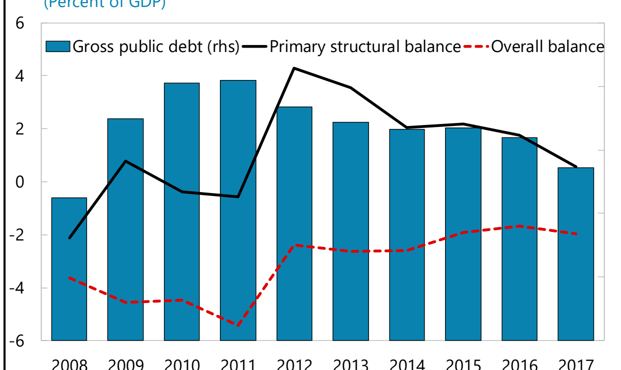
Unemployment Rate and the Sectoral Contribution to Employment Growth (Year-on-year change, percent)



Sources: Haver Analytics; and IMF staff calculations.

4. **The general government fiscal deficit overperformed the 2017 budget target, but the structural primary balance continued to deteriorate**. The overall deficit narrowed to 2 percent of GDP, compared to the budgeted 2.4 percent. Revenue was larger than budgeted, despite the reduction of tax rates and social security contributions during the year. Expenditure was lower, largely due to savings in spending on goods and services. The fiscal overperformance, along with strong GDP growth, helped reduce public debt by 2.4 percentage points, to 73.6 percent of GDP.[2] However, since this overall deficit reduction was

Hungary: Fiscal Stance of the General Government
(Percent of GDP)



Sources: Hungarian authorities; and IMF staff estimates.

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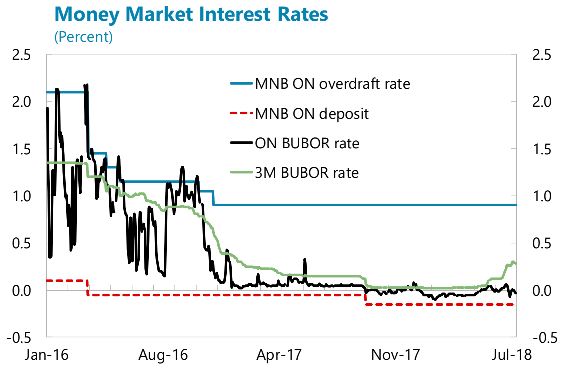
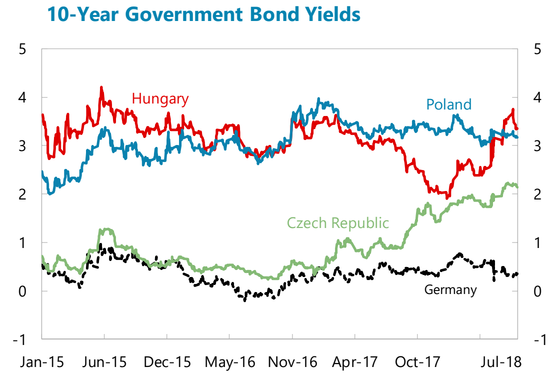
[2] This reduction in public debt was achieved despite the inclusion of Exim Bank, per EUROSTAT recommendation. Without this addition public debt would have been 71.7 percent of GDP.

mostly driven by strong GDP growth and reduced interest payments the structural primary balance deteriorated by about 1.2 percent of potential GDP.

5. The MNB further relaxed its monetary stance in 2017 and early 2018, mostly with the help of unconventional tools. The policy rate and overnight overdraft rate remained unchanged at 0.9 percent in 2017, but the cap on the 3-month deposit facility was gradually decreased and the overnight deposit rate was reduced from -5 bps to -15 bps in September 2017. Moreover, both the amounts and maturity of liquidity-providing FX swaps were increased. In late 2017, the MNB announced the introduction of unconditional interest rate swaps and a mortgage bond purchase program (effective in 2018) to reduce the yield curve's relative slope and to support the mortgage bond market. The relative slope of the Hungarian yield curve declined at the time of the announcement, but the long-term yields have since increased again, reflecting developments in market sentiment.[3] At end-2017, all 16 banks participating in the Market-Based Lending Scheme (MBLS) had observed their commitments.[4]



Sources: Magyar Nemzeti Bank; Haver Analytics, and IMF staff calculations.



Sources: Haver Analytics; and IMF staff calculations.

6. The MNB has been encouraging fixed rate and longer-term lending, and introduced additional macroprudential tools. Most household loans carry variable rates or fixed-rates up to one year. Therefore, the MNB has taken several measures to encourage longer-term interest rate fixation of lending and increase borrowers' awareness of the interest rate risk. As a result, more than 80 percent of *new* lending is now at fixed rates.[5] In April 2017, the mortgage funding adequacy ratio

[3] From end-March to end-June, the 3-month money market rate increased (by almost ¼ percentage point) and the exchange rate depreciated (by about 5 percent during the same period).

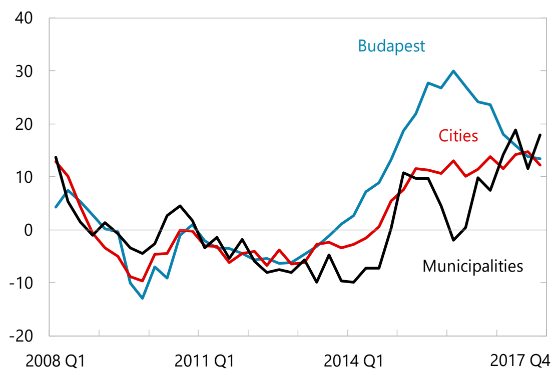
[4] The MBLS was introduced in late 2016 to replace the expiring Funding for Growth Scheme. Banks committed to lend to small- and medium-sized enterprises qualify to place a share of their commitment as deposits with the MNB at a preferential yield and buy interest rate swaps from the MNB. The MBLS is expected to expire at end-2018.

[5] Already in 2016, the calculation of the payment-to-income (PTI) ratio was changed to not discourage fixed-rate borrowing.

(MFAR) was introduced to encourage banks to issue longer mortgage bonds.[6] Moreover, in December 2017, the Budapest Stock Exchange introduced three mortgage bond indices also to promote transparent pricing, and in early 2018, the MNB launched its new mortgage bond purchase program. Although housing prices are booming, household debt in percent of GDP is low compared to EU peers and is denominated in local currency (Annex III). A new interbank funding ratio (IFR), which was introduced preemptively on July 1, 2018, aims to discourage excessive reliance on wholesale funding.

Nominal House Prices

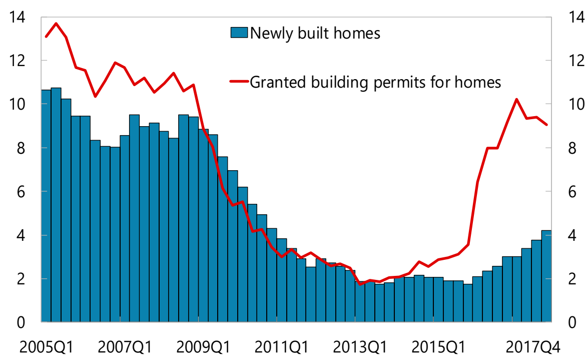
(Annual changes, percent)



Sources: Magyar Nemzeti Bank (MNB); and IMF staff calculations.

Home Constructions and New Building Permits

(Thousands, seasonally adjusted)

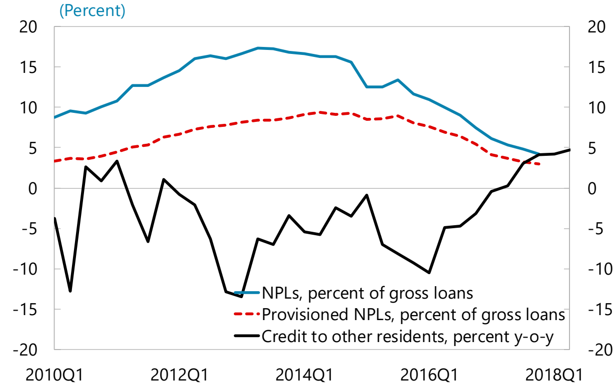


Source: Reproduced from MNB's *Housing Report, May 2018.*

7. The banking system remains, on average, profitable, liquid, and well-capitalized. Profitability was high in 2017 helped by revoked provisions, and only a few small banks reported losses.[7] The non-performing loans (NPL) ratio further declined from 7.4 to 4.2 percent during 2017, mainly due to sizable NPL sales, increased lending, and better debt service by borrowers. This trend is reported to have continued during Q1 2018. After a long "credit-less" recovery period, bank lending to non-financial companies—particularly to SMEs—is growing by around 11 percent. Credit to households—mainly mortgages—is also growing, albeit at a slower pace. Lending surveys suggest that both demand and

Credit Growth and Non-Performing Loans

(Percent)



Sources: Magyar Nemzeti Bank (MNB); IMF's *Financial Soundness Indicators Database*; and IMF staff calculations.

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[6] Effective October 1, 2018, the PTI ratio will be reduced for loans with, respectively, variable rates or fixation below 5 years, and for loans with fixation of interest rates between 5 and 10 years. The PTI ratio for loans with fixed rates of at least 10 years or for the whole term will remain unchanged. The MFAR ratio will be increased from 15 to 20 percent. In addition, amendments to the MFAR regulation, will discourage cross-financing and facilitate stable funding.

[7] Despite a reduction of number of branches and consolidation of the credit cooperatives in recent years, Hungarian banks have relatively high operating and staff costs compared to peers (Annex II).

banks' willingness to lend have improved. Deposits increased rapidly, hence further reducing the loan-to-deposit ratio. Preliminary 2017 data report the average Tier I capital ratio at 14.4 percent and CAR at 16.4 percent.

8. The current account surplus remains substantial but was halved to 3.1 percent of GDP in 2017 due to imports and foreign investors' profit. Exports remained buoyant and largely driven by participation in the German supply chain. The capital and financial accounts inflows strengthened mostly on the back of increased EU-funds utilization. Furthermore, excluding one-off exceptional transactions, preliminary data indicate that FDI gross inflows were 4.6 percent of GDP, compared to 2.8 percent a year earlier.[8]

9. Hungary's external position is broadly in line with fundamentals and desirable policies. (Box 1: External Sustainability and Competitiveness). External debt continued to decline sustainably (by nearly 13 percentage points, to about 84 percent of GDP) on the back of active debt management. Specifically, non-resident debt holders were replaced with domestic holders and maturing debt was converted into longer-maturity and cheaper borrowing. Reserves declined slightly in 2017, but short-term debt also declined, and thus the adequacy of reserves improved somewhat against the IMF's metric. The net IIP improved by close to 6 percentage points, to net liabilities of about 62 percent of GDP in 2017[9]. The exchange rate has been on a moderate depreciating trend over the past years. However, non-price competitiveness continues to be hindered by the tight labor market and lagging structural reforms.

OUTLOOK AND RISKS

10. Growth is expected to remain strong in 2018 and start to decelerate in 2019 as the absorption of EU funds tapers off and capacity constraints tighten further. With intensifying capacity constraints and EU funds utilization gradually tapering off, staff projects growth in 2018 to plateau at the 4 percent observed the previous year, and to decelerate gradually over the medium term. At the same time, although imported core inflation remains subdued, the inflationary impact of the tight labor market is expected to become more pronounced. In view of this as well as the increased energy prices and weaker HUF, staff projects inflation to slightly overshoot the 3 percent target in the near term. The fiscal balance is projected to gradually improve starting with the 2019 budget, while the current account surplus is expected to continue to moderate, due to continued strong imports and foreign investors' earnings.

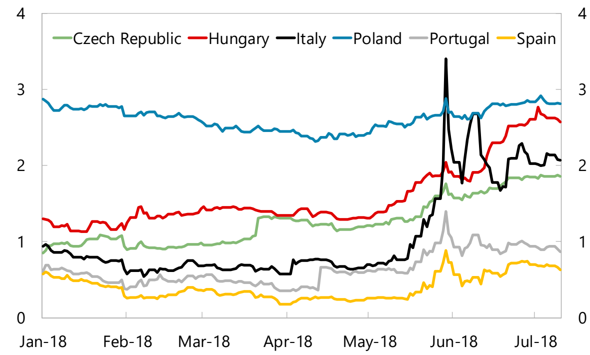
11. Risks to the outlook are tilted to the downside. Risks have increased with softening conjunctural indicators in Europe, recent developments in emerging markets, and growing trade tensions. A normalization of monetary policy in the U.S. and euro area and tighter global financing conditions could lead to increased financing costs. Negative economic developments in the EU

[8] These one-off transactions reportedly reflect multinationals' internal restructuring, which impacted both inflows and outflows recorded for FDI equity, mostly in 2016.

[9] This large improvement was mostly due to the substantial external current account surpluses and to the active public debt management mentioned above.

could have spillovers to Hungary, including through lower exports or through subsidiaries of foreign-owned banks. Hungary's interest rate spreads have recently increased in line with those of regional peers. EU funds could be adversely impacted by new proposals on their allocation. Domestically, maintaining a procyclical fiscal policy, along with continued rapid growth in wages would increase upward pressures on CPI inflation and asset prices, raising the need for potentially significant monetary tightening at a later stage. Second-round effects of recent oil price increases and the HUF depreciation could also lead to upward pressures on inflation.[10] Furthermore, continuation of the strong growth in domestic demand could contribute to a faster deterioration in the external current account. On the upside, possible presence of a higher-than-estimated slack and/or a faster growth in Hungary's trading partners would lead to a faster and more sustained growth compared to the baseline scenario.

5-Year Government Bond Spreads vis-à-vis Germany



Sources: Bloomberg Finance L.P.

12. The authorities' growth projections are higher than staff's, but they broadly agreed with the assessment of risks. The authorities expect 2018 growth to be in the range of 4.3–4.4 percent. For 2019, the MNB projects growth at 3.5 percent, while the projection of the Ministry of Finance is at 4.1 percent on the back of the strong consumption and investment trends. The authorities broadly agree with staff regarding risks to the outlook and pointed to an additional upside risk. They believe that growth could be even stronger as labor shortages incentivize firms to innovate and upgrade their capital, and because the favorable domestic demand trend may continue for a longer period of time on the back of wage increases and tax cuts.

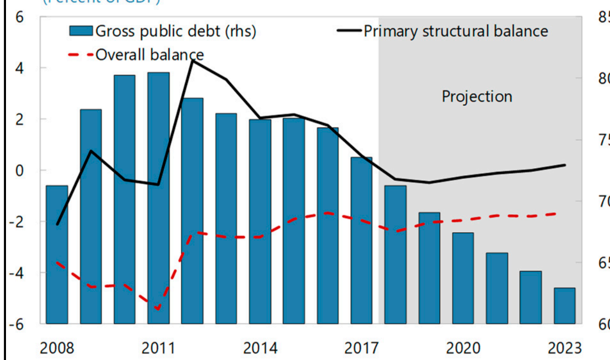
POLICY AGENDA

13. Current economic conditions call for a well-sequenced re-balancing of the policy mix. It would be desirable to take advantage of the favorable cyclical position and implement a growth-friendly fiscal consolidation. This has become even more important in light of growing risks and need for more fiscal space that can be used in future downturns. Fiscal consolidation would also help ensure a deceleration of the decline in the current account surplus and thereby support a faster reduction in the still-elevated external debt. Furthermore, it would be important to gradually scale back the monetary policy stimulus once inflation sustainably approaches the upper half of the target band by unwinding unconventional tools first and by raising the interest rate as needed. If fiscal policy became less pro-cyclical, it would facilitate a more gradual monetary tightening than otherwise and support the current account and thus the decline in external debt. Moreover, it is critical to accelerate structural reforms in order to improve the weak productivity.

[10] The authorities believe that the impact of such shocks are one-off and temporary.

A. Fiscal Policy

Hungary: Fiscal Stance of the General Government
(Percent of GDP)



Sources: Hungarian authorities; and IMF staff estimates.

14. The 2018 overall fiscal deficit is projected at about 2.4 percent of GDP, which is almost half a percentage point more than the 2017 deficit, despite a booming economy. Despite the tax cuts implemented in 2017 and 2018, staff expects tax revenue as a share of GDP to remain unchanged due to the rapid growth in labor earnings and private consumption. However, total revenue is expected to improve by about 1 percentage point, mostly on account of strong EU funds. On the expenditure side, spending is projected to increase by 1.4 percent of GDP, mostly due to the large increase in capital spending. In view of the strong cyclical position and decreased interest expenses, the deterioration in the structural primary balance is expected to be close to one percent of potential GDP.

15. The 2019 budget is an important step in the right direction, as it would largely eliminate the pro-cyclical fiscal stance by targeting an overall deficit of 1.8 percent of GDP. Staff's GDP growth projection for 2019 is lower than the authorities', it projects the overall fiscal deficit at 2 percent of GDP for that year. The reduction in the deficit will be achieved through lower spending on goods and services, social transfers, and interest payments. These savings will more than compensate for the planned increase in capital expenditure and reduction in the social security contribution rate paid by employers.[11]

16. The fiscal position is projected to continue to improve, albeit modestly, over the medium term due to buoyant growth and lower co-financing of EU-related projects. While tax revenue is projected to remain constant as a share of GDP, total revenue will gradually decline as staff assumes further reductions in the social security contribution rates, in line with the announced plans to continue to reduce the tax wedge. More importantly, the disbursement of EU-related funds is expected to slow down from 2020 onwards. However, staff projects a larger decline in expenditure predominantly due to a steady moderation in EU funds-related expenditure starting in 2020 and declining social transfers to households, thanks to favorable economic conditions. Although yields on government bonds and T-bills are expected to increase in line with tightening global financial conditions, interest payments are projected to gradually decline, reflecting improving primary surpluses and a reduction in public debt. In addition, increases in public wages will likely be more than compensated by lower social security contributions, leading to a decrease in the total public wage bill, as a ratio to GDP. Consequently, the structural primary balance would improve gradually, and the fiscal stance policy would thus turn slightly counter-cyclical. Public debt would decline

[11] The rate is expected to be reduced from 19.5 to 17.5 percent effective on July 1st, 2019.

steadily over the medium term to about 63 percent of GDP, compared to 73.6 percent at end-2017.[12]

17. In view of the increased risks, it would be desirable to achieve a faster reversal of the procyclical fiscal stance and lower structural deficit in the medium term. Staff, therefore, recommends a set of growth-friendly fiscal measures to achieve smaller deficits starting in the second half of 2018 and over the medium term. Creating fiscal buffers has become even more pressing in light of the growing risks and the need to build fiscal space that can be used during future downturns. In addition, timely fiscal consolidation would help ensure a deceleration of the declining current account surplus, and thereby support a faster reduction in the still-elevated external debt. Such a rebalancing of the policy mix would also alleviate the burden on monetary policy.

18. Hungary's position in the economic cycle provides a good opportunity to implement a growth-friendly consolidation. Staff-recommended measures would result in additional saving, compared to the baseline, that average about 0.4 percent of GDP annually between 2018 and 2023. This would secure the authorities' medium-term target of 1.5 percent of GDP structural surplus by 2019 and would reduce public debt to below 60 percent of GDP by 2023. To achieve this path, staff encourages the authorities to consider the following reforms, and especially recommends the measures tabulated below.[13]

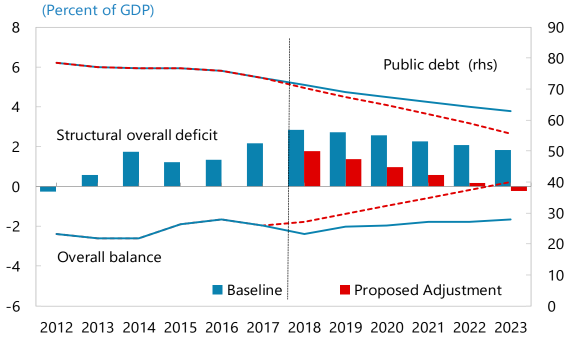
- **Revenue**: Further enhancement of tax administration accompanied by broadening of the tax base by reducing exemptions and preferential regimes would reduce distortions and boost revenue collection. In addition, it would be important to phase out the remaining sectoral taxes and consider modernizing the real estate tax to help local governments raise revenue to finance spending on healthcare, education, and infrastructure, while protecting the vulnerable. Furthermore, in view of the deterioration in the structural fiscal position, additional tax rate cuts should be avoided, and if such cuts are implemented, offsetting revenue measures should be adopted.

- **Expenditure**: It would be desirable to reform the public administration to contain the public wage bill, while facilitating a competitive public salaries scale as well as improving the provision and quality of public services. Spending on goods and services, which continues to be elevated compared to peers, could be rationalized. Generalized subsidies, which are both inefficient and regressive, should be eliminated while ensuring adequate and better-targeted protection of the vulnerable groups.

[12] The projected (almost 10 percentage points) decline in public debt reflects mainly the favorable developments in interest rate-growth differential, while the primary balance will contribute to this reduction only mildly. The gross financing needs-to-GDP ratio is forecast to remain broadly stable at about 20 percent of GDP (Annex IV).

[13] The recommendations are broadly similar to those in the 2017 Article IV Consultation. Box 1 of that report includes an illustrative framework, which highlights that the medium-term growth dividend from the staff-recommended package of fiscal, monetary, and structural policies would exceed the small adverse short-term implications for growth.

Fiscal Stance of the General Government
(Percent of GDP)



Sources: Hungarian authorities; and IMF staff estimates.

Fiscal Impact of Staff-Recommended Measures, 2018-2023
(In percent of GDP, average per year)

Total	0.40
Revenue	-0.10
Phasing out of sector-specific taxes	-0.30
Streamlining VAT rates	0.10
Elimination of excise exemptions for fuel	0.10
Expenditure	0.50
Reduction in the wage bill	0.30
Rationalization of spending on goods and services	0.10
Rationalization of transport and fuel subsidies	0.10

Sources: Hungarian authorities; and IMF staff estimates.

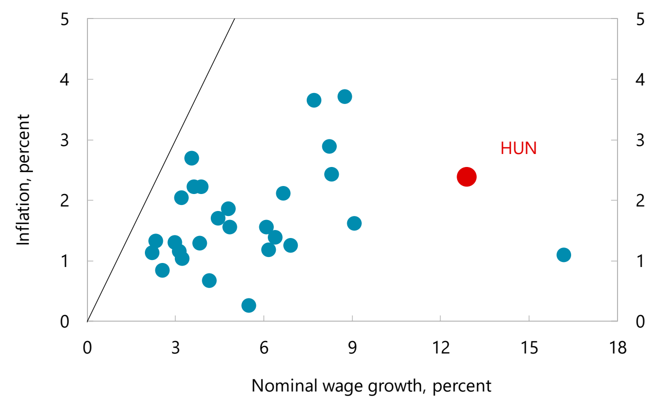
19. While the authorities are of the view that fiscal buffers need to be rebuilt, they plan to examine further opportunities to reduce taxes, increase wages, and support growth. They broadly concur with staff that increased external risks call for reduced fiscal deficits to build buffers and policy space. However, they also believe that sticking to the budget targets of 2.4 and 1.8 percent of GDP in 2018 and 2019, respectively, should be sufficient to achieve such goals while protecting growth. As such, they plan to further reduce the tax burden on labor and support private income whenever the economic situation allows. Concerning the medium-term outlook, the authorities referred to a number of parametric reforms introduced in the pension system over recent years. The main objectives of the measures are to raise the retirement age in line with rising life expectancy and modify the indexation of pension benefits. The authorities pointed out that the reforms have already reduced pension and other age-related spending and are expected to continue to do so in the future. The authorities believe that the moderate increase in age-related expenditures combined with fiscal discipline will bring public debt under the 60 percent of GDP in the medium term.

20. The authorities are of the view that they will meet their budget targets in 2018 and 2019, in view of the substantial reserves budgeted on the expenditure side. At the same time, they believe that they should use these reserves within their overall budget envelop to counter a deterioration in economic conditions as needed. Furthermore, they view most of the sectoral taxes to target consumption and constitute an important source of revenue. With regard to the real estate tax, the authorities were concerned about the impact on the disposable income of families and pointed out that municipalities already collect similar, albeit smaller, property taxes.

B. Monetary Policy

21. Staff recommends a gradual normalization of the monetary stance once inflation sustainably approaches the upper segment of the MNB tolerance band. Thus far higher wages have not spilled-over into consumer prices, thanks to the lowering of payroll taxes[14] and the relatively low wage share in the cost of production. These forces may have run their course with the closed output gap, intensifying labor shortages, and other capacity constraints. Trade openness has helped transmit the high domestic demand into a falling current account surplus, rather than into inflationary pressures. However, non-tradable prices are on the rise, and the exchange rate developments may lead to an increase in imported inflation. As inflation until recently was well-below the target, the MNB has addressed other issues, including supporting credit to SMEs and households, and reducing the relative slope of the yield curve. These initiatives are secondary to price stability and as inflation sustainably approaches the upper half of the target band, a tightening will be needed. It is therefore encouraging that the MNB has changed its communication to emphasize its commitment to the inflation target. While the exact timing and pace of normalization should be data and forecast dependent, timely action would reduce the need for a greater tightening later.

Nominal Wage Growth and Inflation in EU Countries
(Year-on-year percentage change, 2017)



Sources: Haver Analytics; and IMF staff calculations.

22. The normalization should start by unwinding some of the unconventional tools. Consideration could, for instance, be given to gradually reducing the ample FX liquidity swaps. Some of the unconventional tools were intended to mitigate market failures, but may have become more distortive with credit growth normalizing. Staff thus welcomes the intention to let the Market-Based Lending Scheme expire by end-2018, as originally scheduled. The unconditional interest rate swaps seem no longer effective in significantly affecting the yield curve, but do reduce the interest rate risk of Hungarian banks. The mortgage bond purchase program supports the development of the longer mortgage bond market as well as effectively subsidize mortgage lending. However, in order to further develop this market, it will be important that rates do not hamper the incentive for potential institutional investors to participate.

23. While reaffirming its commitment to its inflation target, the MNB considers the recent pick-up in inflation to be still temporary and primarily driven by energy prices. It pointed out that inflation expectations remain anchored and will prevent secondary effects. Moreover, it believes that low interest rates will facilitate new productivity enhancing investments that will both alleviate capacity constraints and boost productivity. Against this background, the MNB maintains its position

[14] In November 2016, a 6-year agreement was reached that mitigated increases in the minimum wages by lowering payroll taxes and a reduction of the corporate income tax rate. If real wages increase by more than 6 percent, the social security contributions will be reduced by another 2 percentage points in 2019.

that it will tighten monetary policy once inflation reaches the 3 percent target in a sustainable manner in the medium term.

C. Financial Sector

24. Credit growth is expected to remain strong, while NPLs will likely decrease further. The new MNB guidelines for independent real estate evaluators are welcome, given the booming real estate market and the significant revocation of provisions. Staff also welcomes the continued strengthening of off-site reporting, and emphasized the importance of on-site inspections as well. Staff noted the continuing progress in consolidating credit cooperatives, which can contribute to enhancing efficiency and help meet the authorities' objective of reducing the relatively high intermediation costs (Annex II). Staff highlighted that consolidation should remain market-based.

25. Both the authorities and staff do not currently consider that there is a significant general over-valuation of house prices in Hungary (Annex III). Housing prices began to increase in the Budapest area in 2014 and have since been spreading to other cities. However, their growth has recently decelerated in Budapest (although it remained in double digits), and the increased activity seem to reflect postponed purchases following the global financial crisis, investment purchases due to low interest rates, fiscal incentives for young families to buy a house, and the temporarily lowered VAT rate for sales of certain types of new dwellings. The latter is set to expire by end-2019, thus frontloading some construction. Despite initiatives to curb interest rate risk of households, a substantial part of the outstanding debt still carries variable rates. The envisaged tightening of the PTI and MFAR ratios can help contain financial stability risks. However, their effectiveness in containing the housing boom is limited given that the boom is mostly not credit-driven.[15]

26. The authorities concur with staff that although real estate prices are not currently overvalued, close monitoring remains warranted. They also stressed that while macroprudential tools can help contain financial sector risks, the housing boom should be seen in a broader context, including the low level of household debt compared to peer countries. The MNB reiterated its commitment to continuously enhance its supervisory practices and guidelines in line with EU requirements.

D. Structural Policies

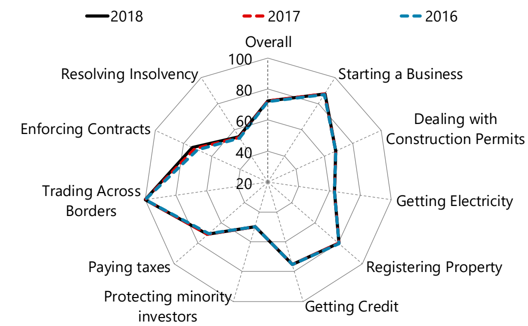
27. In view of the closed output gap, effort to support growth should focus on structural reforms that would enhance productivity and reduce supply constraints. Various assessments of the business environment, including by the authorities' Competitiveness Council and the MNB's Competitiveness Report highlight several areas for improvement to enhance the business environment. The main reported challenges are in the areas of obtaining construction permits and electricity, protecting minority investors, paying taxes, and the high frequency of issuing regulations.

[15] Market participants report that only about 45 percent of transactions rely on borrowing.

For example, companies in Hungary need to obtain 17 permits for the construction of a commercial building, compared to the EU's average of 12. Electricity connection time is extremely long as well, 257 days, compared to the EU average of 90 days. Frequent changes in regulations and perceived corruption[16] have also been reported as impediments to doing business. Although perception–based indicators should be interpreted with caution, they can impact investors' sentiment. Against this background, improvements in the above-mentioned areas are needed.

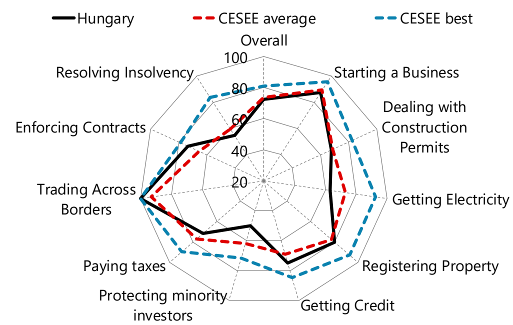
Hungary: Selected Business Environment Indicators

Hungary: Doing Business Indicators
(Score from 0-100 as worst to best performer)



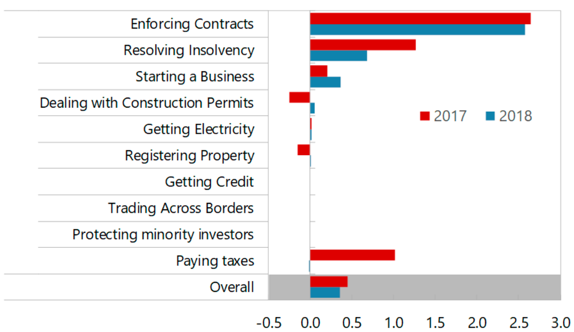
Source: World Bank, *Doing Business*.

Hungary: Doing Business Indicators
(Score from 0-100 as worst to best performer)



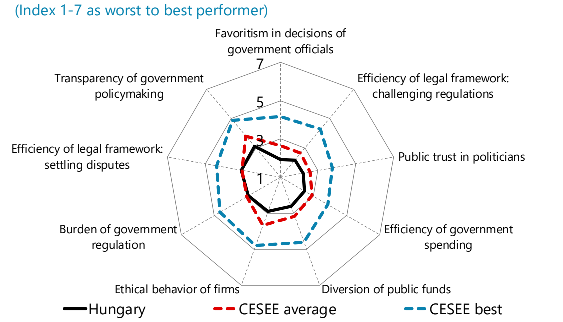
Source: World Bank, *Doing Business*.

Hungary: Improvements in Doing Business
(Annual percent change, score from 0 -100 as worst to best performer)



Source: World Bank, *Doing Business*.

Selected Sub-Components of Pillar 1. Institutions 1/, 2018
(Index 1-7 as worst to best performer)

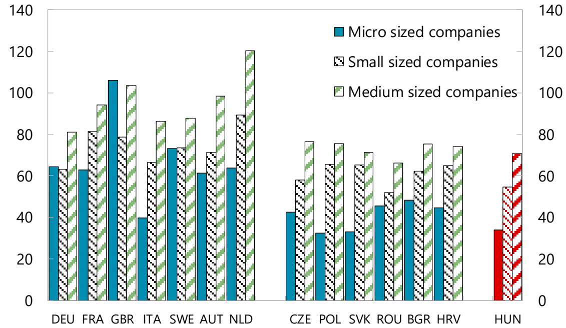


Sources: World Economic Forum, *Global Competitiveness Index*; and IMF staff calculations.
1/ Selection displays Hungary's 9 lowest-performance indicators out of the total 12.

28. Levelling the playing field for all investors, would benefit both businesses and consumers. The authorities' strategy has been successful in attracting large investors, especially in the automotive industry. To broaden the growth base, it would be useful to level the playing field and enhance the environment for SMEs. The productivity of Hungarian SMEs compared to that of large companies, is lower than in peers countries. Staff, therefore, welcomes the ongoing work with the OECD on improving the competitiveness of SMEs. In particular, simplifying regulations would particularly benefit SMEs and would also attract more FDI and help diversify its activity and exports.

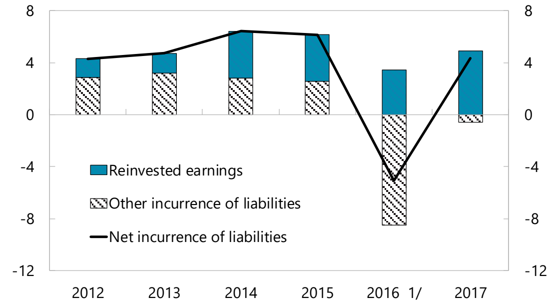
[16] See for example European Commission report "Special Eurobarometer 470", EC (October 2018).

Labor Productivity of the SME Sector
(Percent, large companies = 100, thousand euro/capita)



Sources: Eurostat, SBS, MNB; and IMF staff calculations

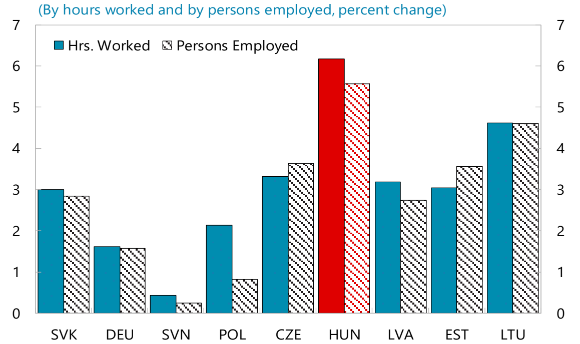
Hungary: Share of Reinvested Earnings in FDI Flows, 2012-17
(Percent of GDP)



1/ The 2016 figures include one-off exception transactions that reflect intra-entity restructuring.
Source: MNB; and IMF staff calculations.

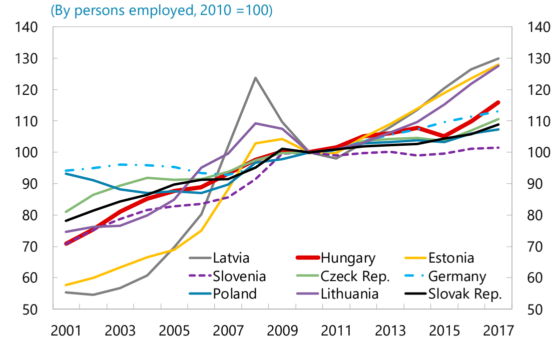
29. Reducing the unit labor costs (ULC) and addressing the severe shortages in the labor market can buttress the potential of the economy. The average ULC in Hungary is higher than in peers participating in the German value chain. For example, ULC in 2017, measured by hours worked, increased by 6.17 percent in Hungary, compared to 3.3 percent in the Czech Republic, 2.1 percent in Poland, 2.9 percent in the Slovak Republic, and 0.4 percent in Slovenia. The high ULC reflects the rapid wage growth, which has outpaced productivity, although the latter picked up in 2017 (to 3 percent compared to -1 percent in 2016) as a result of greater use of capital, general efficiency gains, and innovation. Against this background, advancing structural reforms aimed at further boosting innovation and productivity is needed as well as improving education and vocational training to address skills mismatches. Reducing the number of participants in the public works schemes to about 160,000 persons has been helpful in this respect, which can be strengthened by further efforts to release workers to the primary labor market. Increasing the availability of child-care facilities to further improve labor market participation among women should be a priority as well.

Unit Labor Costs, 2017
(By hours worked and by persons employed, percent change)

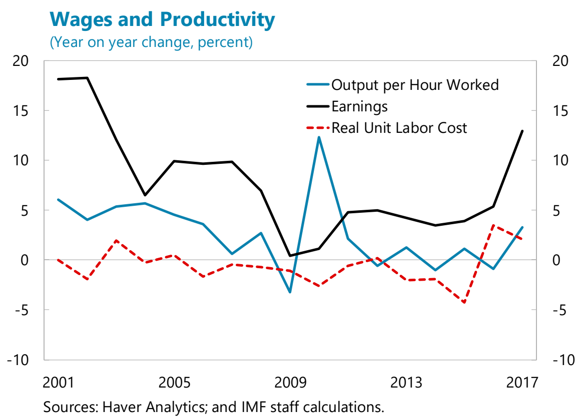


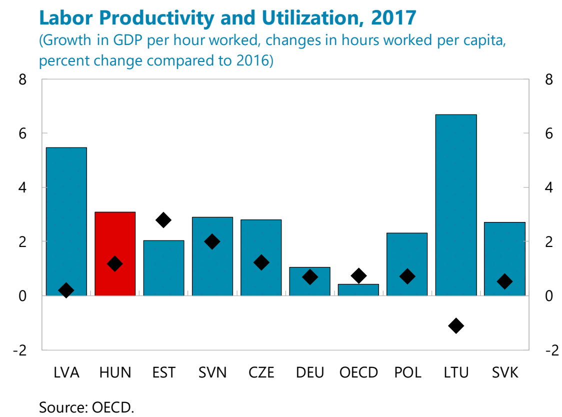
Source: OECD.

Unit Labor Costs
(By persons employed, 2010 =100)



Source: OECD.





30. The authorities broadly concured with staff on the need to adopt structural reforms in order to boost competitiveness and growth. They highlighted their effort to identify priorities, and pointed out that the recommendations made by the Competitiveness Council have already resulted in reducing the number of steps and lowering the cost of starting a business, obtaining building permits and electricity connection, and paying taxes. The authorities hope that this would improve Hungary's Doing Business Indicators. In addition, they have established a Ministry for Innovation and Technology to help boost productivity.

STAFF APPRAISAL

31. Hungary has achieved several years of strong growth and substantially reduced its external debt. Growth is expected to be around 4 percent in 2018, similar to last year. This strong expansion has been supported by private consumption and EU funds-related investments. However, although fiscal outcomes have overperformed the budget targets in recent years, the public debt ratio has come down only to a limited extent. With economic expansion well entrenched, now is the time to do more to reduce fiscal vulnerabilities and create space for policy to be able to react again when new shocks hit. Rebalancing the policy mix and advancing structural reforms would also help moderate the reduction of the external current account surplus that is being driven by the strong domestic demand.

32. In view of the increased risks, it would be desirable to expedite the reversal in the pro-cyclical fiscal stance and the reduction in public debt. A set of growth-friendly fiscal measures to achieve smaller deficits starting in the second half of 2018 and over the medium term would be advisable. Such a rebalancing of the policy mix would also alleviate the burden on monetary policy. Specifically, phasing out the remaining sectoral taxes, broadening the tax base, and further enhancing tax administration would reduce distortions while boosting revenue collection. Furthermore, transforming the existing property taxes into a modern real estate tax would help local governments raise additional revenue to finance spending on healthcare, education, and infrastructure, while protecting the vulnerable. On the expenditure side, reforming public administration would help reduce the wage bill while facilitating a competitive public salaries scale and an improvement of the provision and quality of public services. There is also room to further reduce spending on goods and services. In addition, eliminating generalized subsidies, while protecting the poor by targeted measures, would enhance efficiency and save resources.

33. Once inflation sustainably approaches the upper half of the tolerance band (3±1 percent), the monetary policy stimulus would need to be gradually scaled back. During 2017 and in early 2018, the MNB further relaxed its monetary stance, mostly with the help of unconventional tools. Imported inflation has been low and large wage increases have thus far been mitigated by lowering social security contributions. However, the output gap has closed and labor shortages are intensifying and thus the risks related to premature tightening have declined. Rising inflationary pressure and falling current account surpluses point to accelerating domestic demand. All in all, this calls for some removal of the monetary accommodation, starting with unconventional measures. In this connection, the recent MNB communication, which emphasizes the commitment to its inflation target and keeps the options open to take any action to achieve it, is welcome. Staff also welcome the commitment to let the Market-Based Lending Scheme expire as scheduled by end-2018.

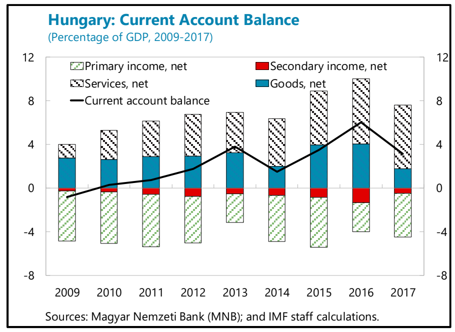
34. Hungary's external position is broadly in line with medium-term fundamentals and desirable policies. However, non-price indicators point to the need to improve productivity and competitiveness. Hungary's IIP has improved in the recent years and its international reserves are adequate according to the Fund's metric.

35. Improving productivity through structural reforms is key to achieving convergence and higher living standards. In this regard, we welcome the establishment of the Competitiveness Council and the implementation of some of its recommendations to improve the business environment. It is also important to make further progress in addressing the challenges in the areas of obtaining construction permits and electricity connection, ease of paying taxes, and perceived corruption. In addition, levelling the playing field for all investors, including SMEs and FDI, by reducing red tape and simplifying the regulatory environment would help broaden the growth and export base. Furthermore, there is an urgent need to improve education and vocational training to address skills mismatches, and to continue to reduce the number of participants in the public works schemes to release them to the primary labor market. Increasing the availability of child-care facilities would also improve labor market participation, especially among women.

36. It is recommended to hold the next Article IV consultation on the standard 12-month cycle.

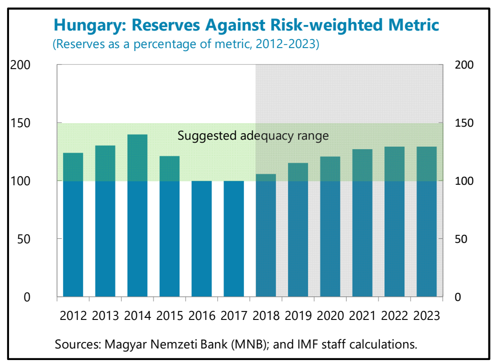
Box 1. External Sustainability and Competitiveness

Hungary's current account surplus narrowed substantially in 2017 but remained in surplus. Strong domestic demand (both consumption and investment) contributed to a rapid growth of imports, which outpaced that of exports. This reflected both the acceleration of EU funds' utilization and the strong growth in disposable income. As a result, the current account surplus declined to 3.1 percent of GDP, from 6 percent of GDP in 2016.[1] Notwithstanding the pickup in imports, merchandize trade remained in surplus. Net exports of services also continued to be strong, largely due to buoyant tourism receipts. The deficit on the primary income increased substantially, mainly due to higher profit earned by foreign investors. Over the medium term, the current account surplus is projected to gradually decline further, as imports growth continues to outpace that of exports due to strong domestic demand.



Hungary's international investment position (IIP) continued to improve but external debt remains high. The net IIP improved to about -62 percent of GDP in 2017, compared to about -68 percent of GDP in 2016. It is expected to further improve over the medium term. This is largely driven by a continued reduction in external debt and increase in Hungarian companies' assets abroad. Gross financing needs have been on a downward trend since 2011. They declined more rapidly in recent years, reaching 9.6 percent of GDP in 2017 (compared to 25.3 percent in 2014), and are projected to decline further to 6.1 percent of GDP by 2023. Gross external debt declined from 97.2 percent of GDP in 2016 to 84.6 percent in 2017 as a result of low interest rates, increased reliance on domestic financing, and buoyant GDP growth. It is expected to continue to decline over the medium term under the baseline scenario, towards 50 percent of GDP in 2023.

International reserves remain broadly adequate according to the Fund's metric. Although they declined by about € 1 billion in 2017, their coverage of short-term debt increased and continued to provide a comfortable cushion relative to the benchmark of 100 percent of short-term debt. Furthermore, the decline in reserves decelerated markedly compared to their decline in recent years, which reflected the reduction in the government's net external borrowing, the banks' redemption of MNB swaps contracts related to the household FX loan conversion scheme. Both programs contributed to reducing external exposures although they put downward pressure on reserves. With the progress already achieved in reducing external public borrowing, and with the FX conversion scheme concluded, reserves are expected to increase over the medium term and remain in the recommended ranges.



Hungary's external position appears to be broadly in line with medium-term fundamentals and desirable policies.[2] The EBA models yield mixed results for Hungary:

- The two *Real Effective Exchange Rate (REER) approaches* suggest an overvaluation of the exchange rate of about 9 to 20 percent. However, they produce a large residual (up to about 27 percent) that is not explained by the policy variables. Furthermore, these results appear inconsistent with Hungary's buoyant current account surpluses.

[1]The 2017 balance of payments data are still preliminary, given routine revisions scheduled in mid-July.

[2]The estimated EBA norm is lower than in previous years due to refinements to the Fund's EBA model and data updates.

Box 1. External Sustainability and Competitiveness (concluded)

- The *External Sustainability (ES)* approach suggests that the exchange rate may be undervalued by 7 percent. However, this is based on stabilizing Hungary's net borrower position (NFA/GDP) at its recent level, which would be consistent with a medium-term current account deficit of 2.5 percent of GDP.
- The *CA approach* estimates Hungary's current account norm at -1.6 percent of GDP, which implies an exchange rate undervaluation of about 11 percent. The current account gap estimated by the model is therefore 4.5 percent of GDP 2017, out of which only 2.2 percentage points are attributed to identified policies, while the model is unable to explain the residual of 2.3 percentage points.[3] The bulk of the explained current account gap is attributed by the model to weak private sector credit.

Staff believes that the CA norm estimated by the model is too low given the still-elevated vulnerabilities, including the high external debt. In addition, most of the explained current account gap is due to the financial sector deleveraging, which is tapering off. Adjusting for Hungary's need to sustain current account surpluses over the medium term to help reduce its still high external debt from 84 percent of GDP in 2017 to about 50 percent by the end of the medium term, staff estimates an adjusted current account norm in the range of 2 percent of GDP. This is consistent with the BOP baseline scenario (under current policies). These country-specific factors lead staff to conclude that Hungary's external position is broadly in line with medium-term fundamentals, consistent with the assessment in the 2017 Article IV.[4]

External Balance Assessment Results

	CA Regression	REER-level regression	REER-index regression	External Sustainability
CA Norm (percent of GDP)	-1.6			
CA-stabilizing NFA at 2016 level				-2.6
CA gap (percent of GDP)	4.5			5.7
Exchange-rate gap (percent)		20.0	9.6	-13.5

Source: 2017 External Balance Assessment (data and models June 2018)

Non-price indicators continue to suggest that Hungary's competitiveness continue to face broader challenges. Unit labor cost has been rising due to increasing wages. Furthermore, Hungary's ranking on the Doing Business Indicator worsened recently, and although its position in the Global Competitiveness Index improved, it remained in the 60th place in 2017/2018. The key areas identified for improvement by these indicators include the legal and regulatory framework, and unpredictability of policy making.

Greater export diversification and steady inflows of FDI would help support medium-term growth and reduce external vulnerabilities. While exports continue to increase relative to GDP, their share within the EU is still catching up with regional peers. FDI continues to be a strong support to exports and can be increased and attracted to more sectors beyond the automotive industry. In addition, as highlighted in the MNB's Competitiveness Report, there is a need to improve the ability of business to get electricity and obtain building permits, and to encourage innovation and address labor shortages, including through improved education and vocational training.

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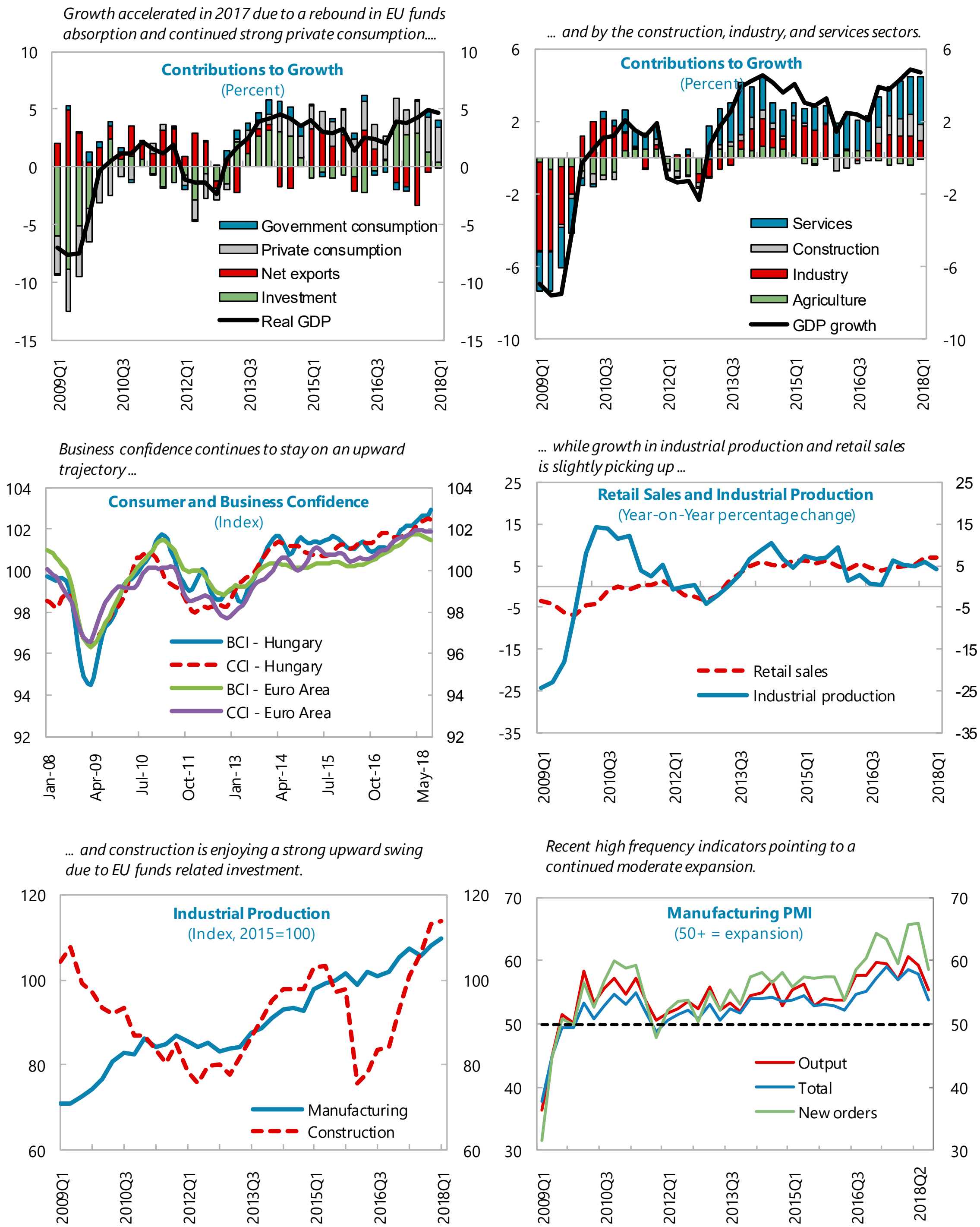
[3]Furthermore, Hungary's current account balance has been partly driven by sizable negative net primary income and the EU funds cycle, which can subject to pronounced fluctuations. Additionally, the CA regression has had difficulty fully explaining current account swings in some countries that have gone through boom/bust episodes in credit and asset markets.

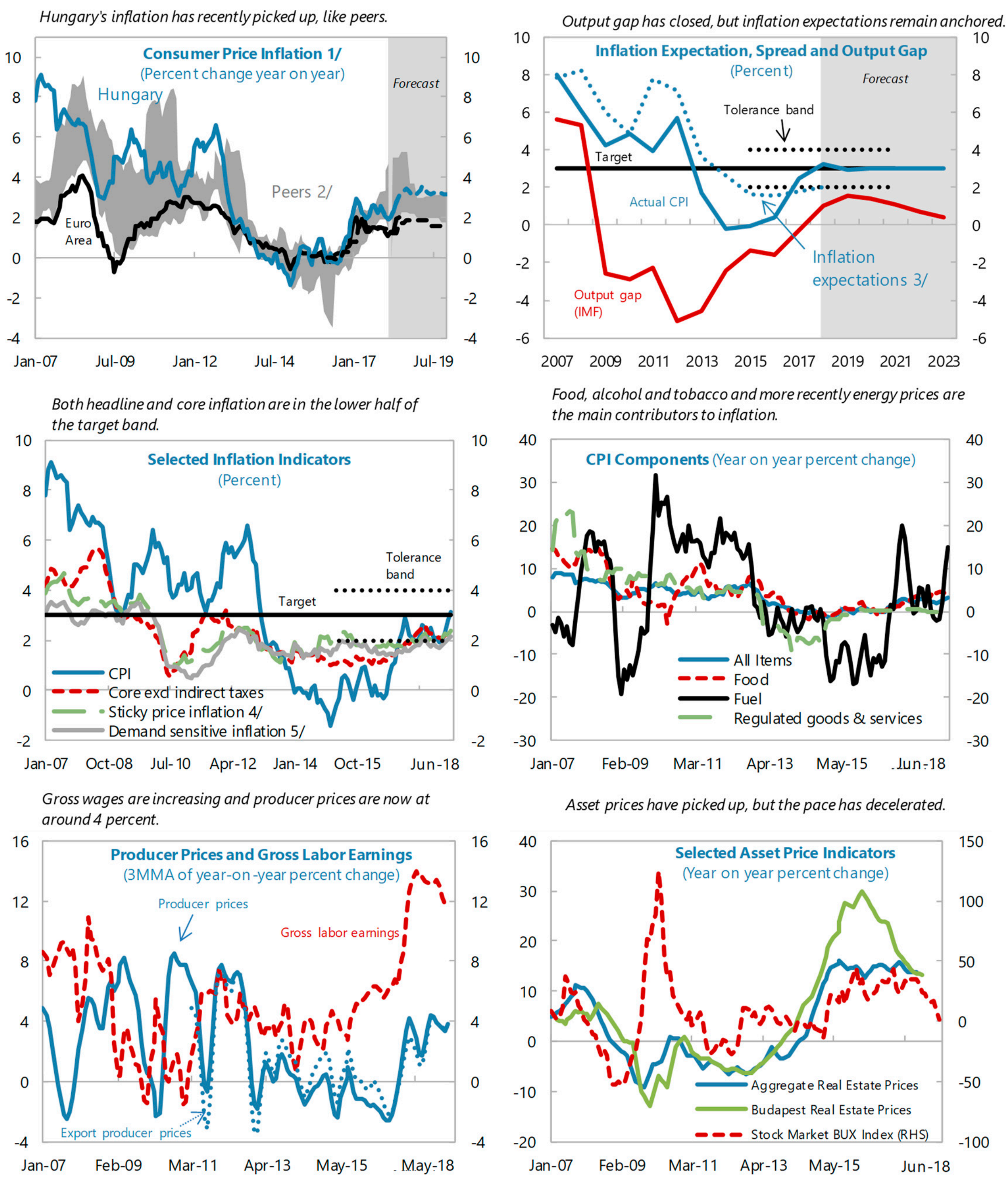
[4]Although the empirical estimates are based on a revised methodology, the results of the models and staff assessment are consistent with those in the 2017 Article IV staff report, both the estimated current account gap and the share of the unexplained residual are now relatively smaller.

Figure 1. Real Sector



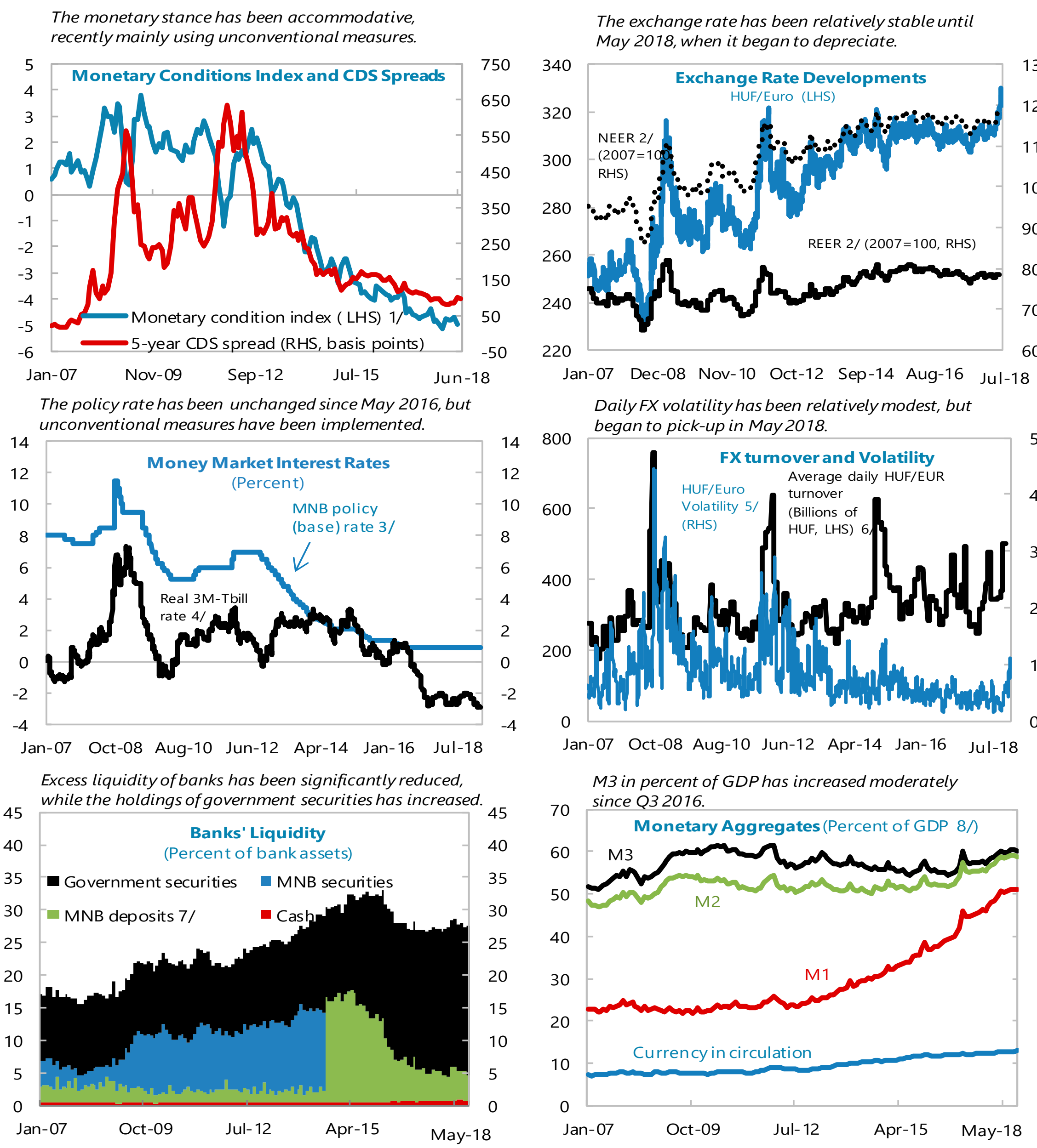
Sources: Eurostat; Haver Analytics; Hungarian Statistical Office; OECD; and IMF staff calculations.

Figure 2. Hungary: Inflation Developments and Projections, 2007–23



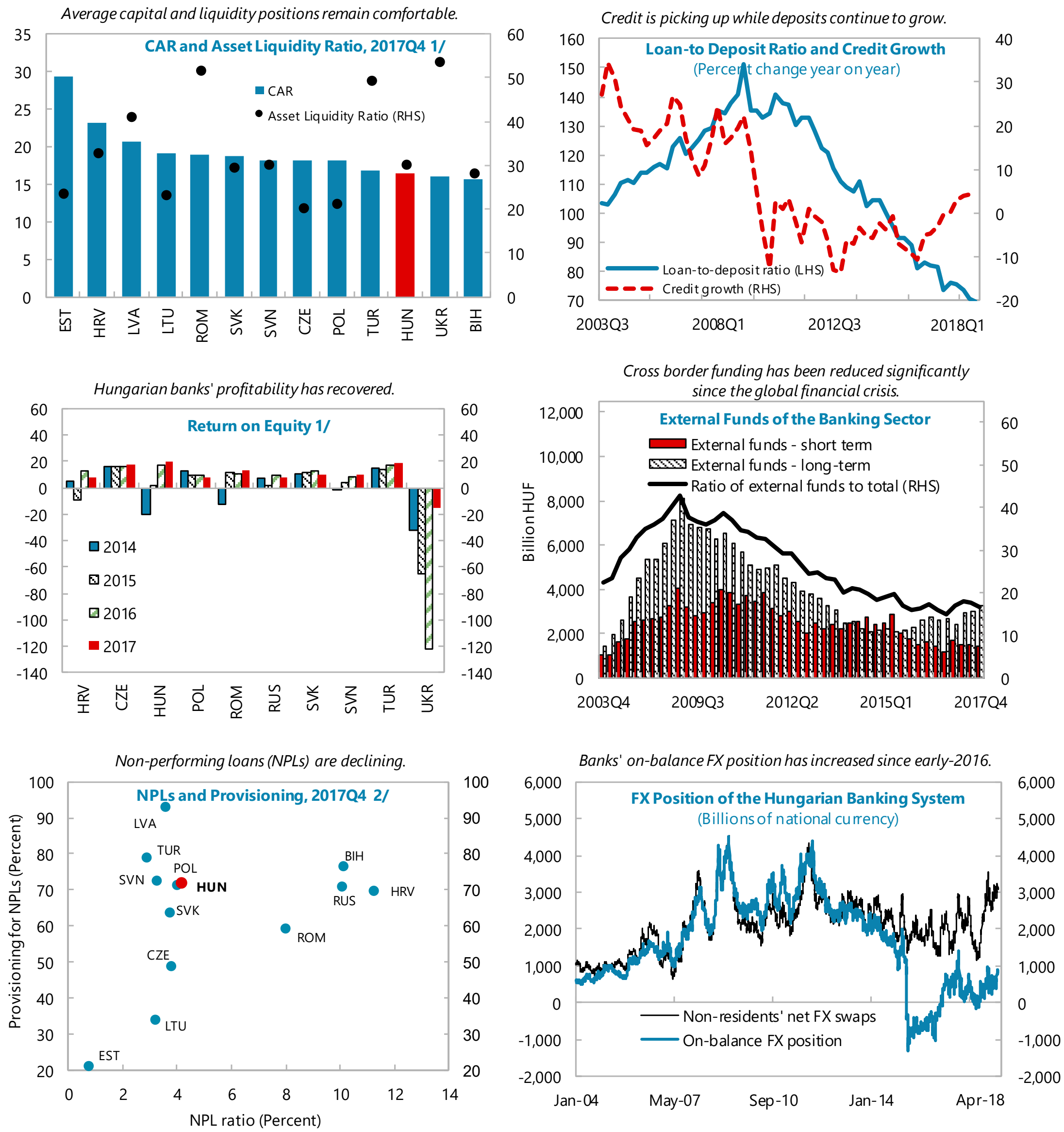
Sources: Magyar Nemzeti Bank (MNB); Hungarian Central Statistical Office (HCSO); Consensus forecast; Haver; and IMF staff calculations.
1/ Dotted lines reflect WEO forecasts, and full line MNB's most recent forecast.
2/ Peers include Czech Republic, Slovakia, Poland and Romania. Shaded area represents area between max and min of peers.
3/ MNB calculations based on EC data at end of period.
4/ Prices that are slow to change.
5/ Excludes processed food prices.

Figure 3. Hungary: Monetary and Exchange Rate Developments, 2007–18



Sources: Magyar Nemzeti Bank (MNB); Hungarian Central Statistical Office (HCSO); Bloomberg; and IMF staff calculations.
1/ Monetary stance compared to the period average. For instance, the percentage deviation of the real effective exchange rate (REER, deflated by CPI) compared to period average. Weight on real interest rate (BUBOR rate deflated by core inflation) is 0.75.
2/ As reported by the MNB. An increase means a depreciation.
3/ In August 2014, the base rate was changed from 2-week MNB bills to 2-week MNB deposits (non-tradable). Since September 23, 2015, the base rate refers to the 3-month MNB deposit rate.
4/ Real-interest rate refers to the 3-month T-bill rate deflated by the previous 12-month change in the CPI.
5/ Volatility measured as standard deviation in percent of average spot HUF/EUR over recent 22 observations.
6/ Average daily turnover in the spot, forward and swap HUF/EUR markets. Excludes options and transactions on exchanges.
7/ Since September 23, 2015, the amount of 2-week MNB deposits have been gradually reduced. Instead, 3-month MNB deposits were introduced and used to set the policy rate. The auctioned amounts were capped effective Q4 2016.
8/ Nominal GDP is the cumulative GDP over recent four quarters.

Figure 4. Banking Sector Indicators



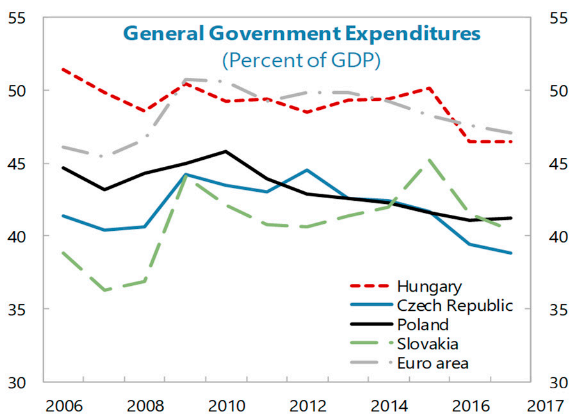
Sources: Magyar Nemzeti Bank (MNB); IMF *Financial Soundness Indicators Database;* IMF, *World Economic Outlook;* and IMF staff calculations.

1/ Latest quarter available for each year.

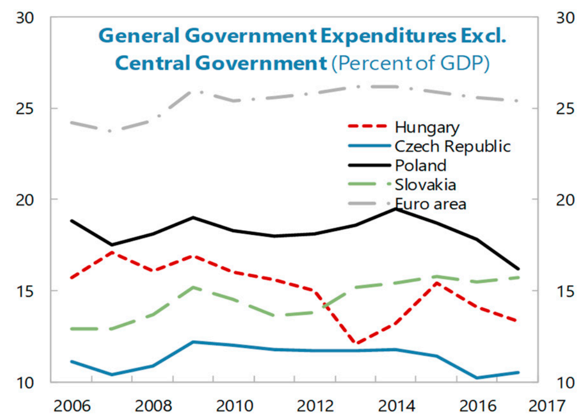
2/ Latest available data for Romania are from 2017 Q3.

Figure 5. Role of the State in the Economy, 2006–17

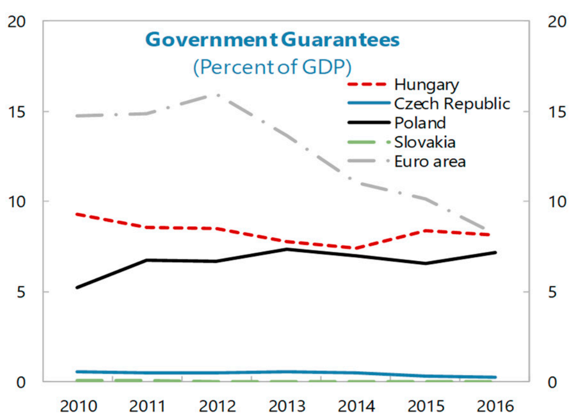
Government expenditures are higher than peers.



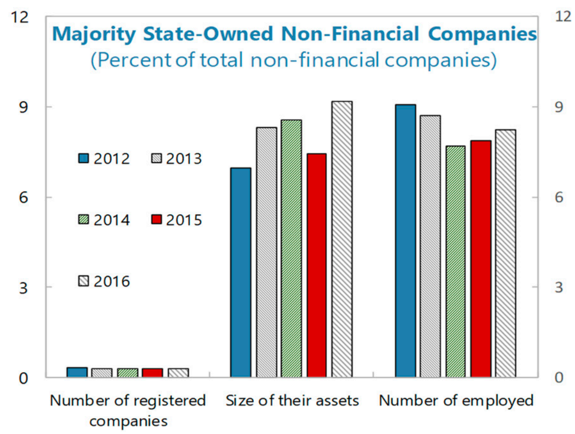
This mainly reflects central government expenditures.



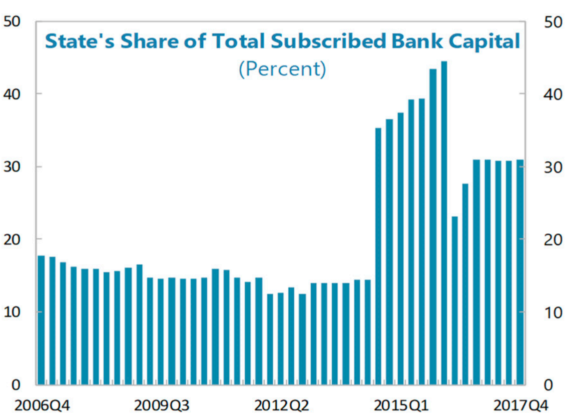
Government guarantees have been increasing.



SOEs are large, but their share of employment has been declining somewhat.



State's share in the banking system is still large.



The substantial sectoral taxes are being reduced.

Breakdown of Selected Sectoral Taxes, 2013-17

(Percent of GDP)

	2013	2014	2015	2016	2017
Financial transaction tax (FTT)	0.9	0.9	0.6	0.6	0.6
Bank levy	0.5	0.5	0.4	0.2	0.2
Income tax on energy suppliers	0.2	0.1	0.1	0.1	0.1
Tax on wires and pipelines	0.2	0.2	0.2	0.2	0.1
Telecom tax	0.2	0.2	0.2	0.2	0.1
Tax on insurance companies	0.1	0.1	0.1	0.1	0.1
Total	1.9	1.9	1.6	1.3	1.3

Sources: Eurostat; national authorities; and IMF staff calculations.

Table 1. Hungary: Selected Economic Indicators, 2013–19

	2013	2014	2015	2016	2017	2018	2019
					Prelim.	Proj.	
Real economy							
Real GDP (percentage change)	2.1	4.2	3.4	2.2	4.0	4.0	3.3
Total domestic demand (contribution to growth)	2.1	5.1	1.1	1.5	5.4	3.3	3.2
Private consumption	0.3	1.5	2.0	2.3	2.5	2.4	2.0
Government consumption	0.6	1.0	0.0	0.1	0.0	0.4	0.2
Gross fixed investment	1.9	2.6	0.4	-2.3	3.2	2.6	1.2
Foreign balance (contribution to growth)	0.0	-0.8	2.2	0.7	-1.4	0.7	0.1
CPI inflation (average)	1.7	-0.2	-0.1	0.4	2.4	2.8	3.3
CPI inflation (end year)	0.4	-0.9	0.9	1.8	2.1	3.1	3.1
Unemployment rate (average, ages 15-64)	10.2	7.8	6.8	5.1	4.2	...	...
Gross fixed capital formation (percent of GDP)	20.9	22.2	21.9	19.2	21.5	23.1	23.3
Gross national saving (percent of GDP, from BOP)	24.7	23.7	25.4	25.3	24.7	25.4	25.2
General government 1/							
Overall balance	-2.6	-2.6	-1.9	-1.7	-2.0	-2.4	-2.0
Primary balance	1.6	1.2	1.5	1.5	0.8	0.1	0.2
Primary structural balance (percent of potential GDP)	3.6	2.0	2.2	1.8	0.6	-0.3	-0.5
Public debt	77.1	76.6	76.7	76.0	73.6	71.3	69.1
Money and credit (end-of-period)							
Broad money	5.5	5.1	6.3	7.0	7.8	7.0	6.2
Lending to the private sector, flow-based 2/	-3.3	-0.9	-11.0	2.0	6.4	7.2	6.5
Interest rates 3/							
T-bill (90-day, average)	4.1	2.1	1.1	0.7	0.0	0.2	...
Government bond yield (5-year, average)	5.2	3.9	2.7	2.1	1.7	2.0	...
Balance of payments							
Current account	3.8	1.5	3.5	6.0	3.1	2.3	1.9
Reserves (billions of Euros)	33.8	34.6	30.3	24.4	23.4	26.9	30.1
Gross external debt 4/	117.8	114.7	107.7	97.2	84.6	76.2	70.7
Gross official reserves (percent of short-term debt at remaining maturity)	119.4	160.6	139.5	131.1	139.9	165.3	174.0
Exchange rate 5/							
Exchange regime	Floating						
Exchange rate, HUF per euro, period average	297	309	310	311	309	329	...
Nominal effective rate (2000=100, average)	110.3	114.2	116.5	116.7	115.5	117.9	...
Real effective rate, CPI basis (2000=100, average)	74.3	77.7	79.5	79.6	78.2	78.7	...
Quota at the Fund	SDR 1,940 million						
Memorandum Items:							
Nominal GDP (billions of Forints)	30,247	32,592	34,324	35,420	38,183	40,823	43,435
Per capita GDP (EUR)	10,277	10,691	11,238	11,568	12,600	13,449	14,286

Sources: Hungarian authorities; IMF, International Financial Statistics; Bloomberg; and Fund staff estimates and projections.
1/ Consists of the central government budget, social security funds, extrabudgetary funds, and local governments.
2/ 2015 reflects the effects of the Settlement Act on credit stock.
3/ Data for 2018 is at end-June.
4/ Excluding Special Purpose Entities. Including inter-company loans and nonresident holdings of forint-denominated assets.
5/ The exchange rates for 2018 are end of period figures; end-June for the nominal rate and end-May for the effective and real effective rates.

Table 2. Hungary: Medium-Term Scenario, 2013–23

	2013	2014	2015	2016 Est.	2017 Proj.	2018	2019	2020	2021	2022	2023
	Percentage change, unless otherwise indicated										
Real GDP growth	2.1	4.2	3.4	2.2	4.0	4.0	3.3	2.6	2.4	2.2	2.2
Nominal GDP (billions of Forints)	30,247	32,592	34,324	35,420	38,183	40,823	43,435	45,901	48,413	50,962	53,646
Inflation (CPI; year average basis)	1.7	-0.2	-0.1	0.4	2.4	2.8	3.3	3.0	3.0	3.0	3.0
Inflation (CPI; end-year basis)	0.4	-0.9	0.9	1.8	2.1	3.1	3.1	3.0	3.0	3.0	3.0
	Percentage Change										
Domestic demand	2.2	5.5	1.2	1.6	6.0	2.1	3.5	3.2	3.5	3.4	2.7
Consumption	1.3	3.4	2.9	3.3	3.4	3.9	3.1	2.8	2.7	2.0	1.8
Gross fixed capital formation	9.8	12.3	1.9	-10.6	16.8	12.2	5.0	3.2	2.5	2.0	2.0
Exports of GNFS	4.2	9.1	8.5	3.4	7.1	7.8	7.1	6.4	5.8	5.6	5.5
Imports of GNFS	4.5	11.0	6.4	2.9	9.7	7.7	7.6	7.2	7.0	6.7	6.1
Lending to the private sector, flow-based (current prices, eop) 1/	-3.3	-0.9	-11.0	2.0	6.4	7.2	6.5	6.0	5.7	5.5	5.5
	In percent of GDP										
External current account balance	3.8	1.5	3.5	6.0	3.1	2.3	1.9	1.6	1.3	1.1	0.9
Gross national saving	24.7	23.7	25.4	25.3	24.7	25.4	25.2	25.0	24.7	24.4	24.0
Gross domestic investment	20.9	22.2	21.9	19.2	21.5	23.1	23.3	23.4	23.4	23.3	23.1
Gross external debt 2/	117.8	114.7	107.7	97.2	84.6	76.2	70.7	64.9	60.0	55.8	51.3
Gross official reserves (percent of short-term debt at remaining maturity)	119	161	140	131	140	165	174	182	201	226	229
General government	In percent of GDP										
Revenue, total	46.7	46.8	48.2	44.9	44.5	45.5	45.2	44.6	43.5	43.1	42.8
Expenditure, total	49.3	49.4	50.1	46.5	46.5	47.9	47.3	46.6	45.3	44.9	44.4
General government overall balance	-2.6	-2.6	-1.9	-1.7	-2.0	-2.4	-2.0	-1.9	-1.8	-1.8	-1.7
Structural general government balance (percent of potential GDP)	-0.5	-1.7	-1.2	-1.3	-2.2	-2.8	-2.7	-2.6	-2.3	-2.1	-1.8
Structural primary balance (percent of potential GDP)	3.6	2.0	2.2	1.8	0.6	-0.3	-0.5	-0.3	-0.1	0.0	0.2
General government debt	77.1	76.6	76.7	76.0	73.6	71.3	69.1	67.4	65.8	64.3	62.9
Memorandum items:	Percentage change, unless otherwise indicated										
Output gap (percent of potential GDP)	-4.6	-2.4	-1.3	-1.6	-0.3	1.0	1.5	1.4	1.1	0.7	0.4
Potential GDP growth	1.6	1.9	2.2	2.4	2.6	2.7	2.8	2.7	2.7	2.6	2.5

Sources: Hungarian authorities; and Fund staff estimates and projections.
1/ 2015 reflects the effects of the Settlement Act on credit stock.
2/ Excluding Special Purpose Entities. Including inter-company loans, and nonresident holdings of forint-denominated assets.

Table 3a. Hungary: Consolidated General Government, 2013–23

(In Billions of Forints)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
						Proj.					
Revenue	14,119	15,245	16,545	15,893	17,008	18,580	19,643	20,475	21,061	21,958	22,944
Tax revenue	7,554	8,186	8,810	9,077	9,740	10,416	11,081	11,709	12,347	12,998	13,684
Taxes on goods and services	5,556	5,972	6,410	6,434	6,892	7,368	7,840	8,285	8,738	9,198	9,683
VAT	2,694	3,011	3,307	3,297	3,625	3,876	4,124	4,358	4,596	4,838	5,093
Excises and other 1/ 2/	2,863	2,961	3,103	3,136	3,267	3,492	3,716	3,927	4,142	4,360	4,589
Taxes on income, profits and capital gains	1,991	2,204	2,388	2,630	2,833	3,032	3,224	3,406	3,590	3,780	3,981
Personal income tax	1,501	1,598	1,698	1,721	1,951	2,088	2,220	2,346	2,471	2,602	2,741
Corporate taxes	322	458	540	757	712	761	810	856	903	950	1,000
Other	167	149	150	153	170	182	194	205	216	228	239
Capital gains taxes	7	10	11	14	15	16	17	18	19	20	21
Social contributions	3,907	4,204	4,489	4,820	4,898	5,190	5,472	5,701	5,928	6,246	6,562
Current non-tax revenue	1,271	1,303	1,348	1,345	1,398	1,495	1,591	1,681	1,773	1,867	1,965
Current grants	607	601	547	450	594	683	472	402	400	404	408
Capital revenues and grants	779	951	1,351	201	377	796	1,027	983	613	443	325
Expenditure	14,912	16,092	17,199	16,482	17,755	19,558	20,525	21,370	21,920	22,867	23,837
Compensation of employees 3/	3,030	3,341	3,598	3,862	4,133	4,418	4,674	4,886	5,099	5,366	5,604
Goods and services	2,201	2,449	2,494	2,463	2,729	2,956	3,085	3,197	3,398	3,472	3,674
Interest	1,368	1,310	1,218	1,142	1,067	1,037	989	1,068	1,052	1,077	1,110
Subsidies	389	422	427	479	500	534	568	555	585	616	595
Current transfers to households	5,126	5,142	5,169	5,252	5,407	5,663	5,946	6,164	6,378	6,688	6,960
Social security	3,936	4,007	4,131	4,257	4,423	4,647	4,901	5,088	5,269	5,496	5,732
Other	1,190	1,135	1,038	994	984	1,015	1,045	1,076	1,108	1,192	1,228
Other current transfers	976	1,016	1,017	1,270	1,342	1,435	1,526	1,613	1,701	1,791	1,885
Capital expenditures	1,331	1,764	2,268	993	1,562	2,443	2,723	2,796	2,517	2,603	2,672
Capital transfers	468	626	984	995	989	1,045	983	1,059	1,157	1,219	1,301
General government balance	-793	-847	-654	-589	-746	-978	-882	-894	-859	-909	-893
Primary balance	496	391	520	523	307	44	91	157	175	150	197
Memorandum items:											
Gross public debt	23,335	24,975	26,337	26,912	28,095	29,094	29,995	30,958	31,841	32,762	33,770
GDP	30,247	32,592	34,324	35,420	38,183	40,823	43,435	45,901	48,413	50,962	53,646

Sources: Hungarian authorities and Fund staff estimates and projections.

1/ Includes sectoral levies. Also, starting 2013 includes revenues from the financial transaction levy.
2/ Includes the levy on financial institutions.

3/ Includes social security contributions.

Table 3b. Hungary: Consolidated General Government, 2013–23

(In percent of GDP, unless otherwise indicated)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Proj.			
Revenue	46.7	46.8	48.2	44.9	44.5	45.5	45.2	44.6	43.5	43.1	42.8
Tax revenue	25.0	25.1	25.7	25.6	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Taxes on goods and services	18.4	18.3	18.7	18.2	18.0	18.0	18.0	18.0	18.0	18.0	18.0
VAT	8.9	9.2	9.6	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Excises and other 1/ 2/	9.5	9.1	9.0	8.9	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Taxes on income, profits and capital gains	6.6	6.8	7.0	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Personal income tax	5.0	4.9	4.9	4.9	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Corporate taxes	1.1	1.4	1.6	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Other	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Social contributions	12.9	12.9	13.1	13.6	12.8	12.7	12.6	12.4	12.2	12.3	12.2
Current non-tax revenue	4.2	4.0	3.9	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Current grants	2.0	1.8	1.6	1.3	1.6	1.7	1.1	0.9	0.8	0.8	0.8
Capital revenues and grants	2.6	2.9	3.9	0.6	1.0	2.0	2.4	2.1	1.3	0.9	0.6
Expenditure	49.3	49.4	50.1	46.5	46.5	47.9	47.3	46.6	45.3	44.9	44.4
Compensation of employees 3/	10.0	10.3	10.5	10.9	10.8	10.8	10.8	10.6	10.5	10.5	10.4
Goods and services	7.3	7.5	7.3	7.0	7.1	7.2	7.1	7.0	7.0	6.8	6.8
Interest	4.5	4.0	3.5	3.2	2.8	2.5	2.3	2.3	2.2	2.1	2.1
Subsidies	1.3	1.3	1.2	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1
Current transfers to households	16.9	15.8	15.1	14.8	14.2	13.9	13.7	13.4	13.2	13.1	13.0
Social security	13.0	12.3	12.0	12.0	11.6	11.4	11.3	11.1	10.9	10.8	10.7
Other	3.9	3.5	3.0	2.8	2.6	2.5	2.4	2.3	2.3	2.3	2.3
Other current transfers	3.2	3.1	3.0	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Capital expenditures	4.4	5.4	6.6	2.8	4.1	6.0	6.3	6.1	5.2	5.1	5.0
Capital transfers	1.5	1.9	2.9	2.8	2.6	2.6	2.3	2.3	2.4	2.4	2.4
General government balance	-2.6	-2.6	-1.9	-1.7	-2.0	-2.4	-2.0	-1.9	-1.8	-1.8	-1.7
Primary balance	1.6	1.2	1.5	1.5	0.8	0.1	0.2	0.3	0.4	0.3	0.4
Memorandum items:											
Structural primary balance (percent of potential	3.6	2.0	2.2	1.8	0.6	-0.3	-0.5	-0.3	-0.1	0.0	0.2
Gross Public debt (Maastricht definition)	77	77	77	76	74	71	69	67	66	64	63
GDP (billions of Forints)	30,247	32,592	34,324	35,420	38,183	40,823	43,435	45,901	48,413	50,962	53,646

Sources: Hungarian authorities and Fund staff estimates and projections.

1/ Includes sectoral levies. Also, starting 2013 includes revenues from the financial transaction levy.

2/ Includes the levy on financial institutions.

3/ Includes social security contributions.

Table 4. Hungary: Central Bank Survey, 2013–19

(In Billions of Forints, unless otherwise indicated)

	2013	2014	2015	2016	2017	2018	2019
						Proj.	*Proj.*
Net foreign assets	9,360	10,501	9,294	7,376	7,112	7,628	8,665
Foreign Assets	10,262	11,186	9,846	8,213	7,841	8,358	9,394
Foreign Liabilities	902	685	552	837	730	730	730
Net domestic assets	-5,564	-5,984	-4,512	-1,943	-812	-734	-1,363
Net claims on government	-614	-849	-620	-1,101	-655	-705	-751
Assets	138	139	39	39	39	39	39
Liabilities (Govt Deposits at MNB)	752	988	660	1,140	694	744	790
HUF	242	525	404	786	385	…	…
FX	510	463	256	354	309	…	…
Net claims on banks 1/	-3,779	-4,247	-2,982	-156	384	513	-67
Assets	821	1,037	1,401	1,546	1,240	1,299	1,233
Liabilities	4,600	5,284	4,383	1,702	856	787	1,300
Deposits & CDs excl. current & overnight deposits	319	5,281	4,383	1,702	856	787	1,300
Securities Issued by MNB 2/	4,281	3	0	0	0	0	0
Net claims on the economy 3/	-598	6	13	11	11	8	5
Other items, net	-574	-894	-923	-696	-552	-550	-550
Base money (M0)	3,796	4,517	4,781	5,433	6,300	6,894	7,302
Currency in Circulation	3,251	3,785	4,357	4,655	5,177	5,665	6,000
Banks' Reserves	545	732	424	778	1,123	1,229	1,302
Current Account Balances	435	499	363	180	212	232	245
Overnight Deposits	110	233	61	598	912	998	1,057
Memorandum items:							
International Reserves (billions of Euros)	33.8	34.6	30.3	24.4	23.4	26.9	30.1
Base Money (yoy percent change)	11.2	19.0	5.9	13.6	16.0	9.4	5.9
NFA (contribution to change)	9.8	30.1	-26.7	-40.1	-4.9	8.2	15.0
NDA (contribution to change)	1.4	-11.1	32.6	53.7	20.8	1.2	-9.1
Government Deposits at Central Bank (percent of GDP)	2.5	3.0	1.9	3.2	1.8	1.8	1.8
HUF	0.8	1.6	1.2	2.2	1.0	…	…
FX	1.7	1.4	0.7	1.0	0.8	…	…
Reserve Requirement Ratio (percent of select liabilities)	2% to 5%		2.0	1.0	1.0	1.0	1.0

Sources: Hungarian National Bank (MNB) and Fund staff estimates and projections.

1/ Excluding swaps. Evaluation effects of swaps with other credit institutions are captured in other items net.

2/ Data are from MNB's monetary statistics Table 2.a.1 on bank assets.

3/ Does not include holdings of shares and equity stakes issued by other residents, which are captured in other items net. The Pallas Athene Foundations are independent and not part of the MNB's balance sheet.

Table 5. Hungary: Monetary Survey, 2013–19
(In Billions of Forints, unless otherwise indicated)

	2013	2014	2015	2016	2017	2018 Proj.	2019 Proj.
Net foreign assets	6,175	7,505	7,762	8,443	8,051	8,703	9,537
Central Bank	9,360	10,501	9,294	7,376	7,112	7,628	8,665
Commercial Banks	-3,185	-2,996	-1,531	1,068	939	1,075	872
Net domestic assets	11,597	11,181	12,100	12,818	14,874	15,833	16,523
Domestic credit	18,257	18,821	19,166	19,467	21,376	22,760	24,090
Net claims on government	4,163	4,284	6,006	6,332	7,895	8,312	8,707
From Central Bank	-614	-849	-620	-1,101	-655	-705	-751
From Commercial Banks	4,777	5,132	6,626	7,433	8,550	9,016	9,457
Gross Credit to the economy	14,094	14,537	13,160	13,134	13,481	14,448	15,384
From Commercial Banks	14,692	14,531	13,147	13,124	13,471	14,440	15,379
Other items, net	-6,659	-7,640	-7,066	-6,649	-6,502	-6,927	-7,568
Broad money (M3)	17,772	18,686	19,862	21,261	22,925	24,536	26,059
M2	15,845	17,264	18,557	20,386	22,402	23,976	25,465
M1	8,896	10,738	13,226	16,293	19,352	20,712	21,998
Currency in circulation	3,001	3,548	4,109	4,368	4,878	5,221	5,545
Overnight Deposits	5,895	7,190	9,117	11,925	14,474	15,491	16,452
Deposits with Maturities up to 2 years	6,949	6,526	5,331	4,094	3,050	3,264	3,467
Repos	30	53	43	31	0	0	0
Money Market Fund Shares/Units	1,399	1,228	1,151	781	488	522	554
Debt Securities	499	140	111	63	35	37	40
Memorandum items:							
	(Percentage change by contribution, y-o-y)						
Broad Money	5.5	5.1	6.3	7.0	7.8	7.0	6.2
NFA	6.6	7.5	1.4	3.4	-1.8	2.8	3.4
NDA	-1.0	-2.3	4.9	3.6	9.7	4.2	2.8
	(Percentage change, y-o-y)						
Credit to Private Sector 1/ 2/	-3.3	-0.9	-11.0	2.0	6.4	7.2	6.5
HUF	5.6	6.2	42.3	3.4	4.3	...	...
FX	-10.4	-7.4	-61.5	-2.3	14.1	...	...
Bank Deposits	2.5	6.3	5.2	9.9	8.4	7.0	6.3
Bank Holdings of Government Paper (percent of GDP)	13.7	14.9	18.9	21.3	22.1	21.9	21.6

Sources: Hungarian National Bank (MNB) and Fund staff estimates and projections.
1/ Only credit to households and firms.
2/ Based on transaction data, i.e., adjusted for exchange rate changes.

Table 6. Hungary: Balance of Payments, 2013–23
(In Millions of Euros, unless otherwise indicated)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
					Prel.	Proj.					
Current Account	**3,892**	**1,588**	**3,880**	**6,866**	**3,888**	**2,956**	**2,917**	**2,740**	**2,209**	**2,022**	**1,740**
Goods and service, net	7,091	6,732	9,863	11,389	9,410	8,596	9,378	9,849	9,179	8,113	7,921
Exports	87,235	92,554	99,984	102,222	111,093	122,419	133,118	143,044	153,407	162,652	171,638
Imports	-80,144	-85,822	-90,121	-90,833	-101,683	-113,823	-123,740	-133,195	-144,227	-154,539	-163,717
Primary Income, net	-2,685	-4,458	-5,034	-2,998	-4,951	-4,387	-5,320	-6,235	-6,050	-5,246	-5,412
Secondary Income/Current transfers, net	-514	-687	-949	-1,526	-571	-1,253	-1,141	-873	-920	-845	-769
Capital Account	**3,625**	**3,932**	**5,126**	**-46**	**1,173**	**2,587**	**2,470**	**2,195**	**1,976**	**1,950**	**1,747**
Financial Account 1/	**148**	**1,633**	**11,641**	**8,511**	**2,470**	**2,540**	**1,903**	**2,856**	**2,293**	**2,434**	**2,674**
Direct investment, net	-1,138	-2,948	-1,321	-2,439	-1,735	-2,169	-1,947	-1,208	-1,064	-811	-743
Net acquisition of assets	3,848	4,186	5,679	-8,694	4,305	4,470	4,666	4,330	4,240	4,171	4,094
Net incurrence of liabilities	4,986	7,134	7,000	-6,255	6,040	6,639	6,613	5,538	5,304	4,982	4,837
Portfolio investment, net 2/	-3,692	3,419	4,971	4,876	2,258	3,103	2,362	2,757	2,112	2,021	2,239
Other investment	4,978	1,162	7,991	6,075	1,947	1,606	1,488	1,307	1,245	1,224	1,178
Net errors and omissions	**-1,106**	**-1,147**	**-2,278**	**-2,908**	**-2,563**	**0**	**0**	**0**	**0**	**0**	**0**
Overall Balance	**6,263**	**2,740**	**-4,913**	**-4,599**	**28**	**3,003**	**3,484**	**2,080**	**1,892**	**1,537**	**813**
Financing	**-6,263**	**-2,740**	**4,913**	**4,600**	**-28**	**-3,003**	**-3,484**	**-2,080**	**-1,892**	**-1,537**	**-813**
Gross Reserves ("-": increase)	-1,210	-740	4,913	6,100	-28	-3,003	-3,484	-2,080	-1,892	-1,537	-813
IMF (net)	-5,053	0	0	0	0	0	0	0	0	0	0
Other Official Financing (EU) (net)	0	-2,000	0	-1,500	0	0	0	0	0	0	0
Memorandum Items:											
Current account (percent of GDP)	3.8	1.5	3.5	6.0	3.1	2.3	2.1	1.9	1.4	1.3	1.0
Exports volume (percentage change)	4.2	9.1	8.5	3.4	6.7	7.8	7.1	6.4	5.8	5.6	5.5
Imports volume (percentage change)	4.5	11.0	6.4	2.9	8.0	7.8	7.6	7.2	7.0	6.7	6.1
Gross external debt (percent of GDP) 3/	117.8	114.7	107.7	97.2	84.6	76.2	70.7	64.9	60.0	55.8	51.3
Gross official reserves	33,782	34,578	30,322	24,384	23,368	26,371	29,855	31,935	33,827	35,364	36,177
In percent of short-term debt at remaining maturity 4/	119	161	140	131.1	139.9	157.2	158.6	166.2	207.0	196.6	189.4
In months of next year's imports of goods and services	4.7	4.6	4.0	2.9	2.5	2.6	2.7	2.7	2.6	2.6	2.7

Sources: Hungarian authorities and Fund staff estimates and projections.
1/ A negative sign for financial accounts items indicates a net inflow from non-resident investors.
2/ Includes financial derivatives.
3/ Excludes Special Purpose Entities.
4/ Excludes Special Purpose Entities and direct investment (inter-company) debt liabilities.

Table 7. Hungary: Financial Soundness Indicators for the Banking Sector, 2013–17
(In percent, unless otherwise indicated, end of period)

	2013	2014	2015	2016	2017
Capital					
Regulatory capital to risk-weighted assets	17.4	16.9	16.9	18.0	16.4
Regulatory Tier 1 capital to risk-weighted assets	14.6	13.7	13.9	15.9	14.4
Asset Quality 1/					
NPLs net of provisions to capital	51.4	33.8	17.4	9.4	5.6
NPLs to gross loans 2/	16.8	15.6	11.7	7.4	4.2
Distribution of Loans (Percent of Total)					
Firms	37.7	38.4	38.0	35.9	37.9
Households and Non-Profits	39.7	40.5	40.3	37.9	37.0
Non-Residents	7.2	6.7	6.9	9.7	7.7
Other	15.4	14.4	14.8	16.5	17.4
FX loans	52.4	51.4	23.5	22.0	23.4
Profitability					
ROA	0.2	-2.2	0.2	1.6	1.9
ROE	2.3	-20.6	1.9	16.7	19.7
Net interest income to gross income	46.6	53.6	49.5	46.9	46.0
Noninterest expenses to gross income	80.6	73.7	88.1	71.9	72.8
Liquidity					
Liquid assets to total assets	32.8	38.0	41.9	36.0	30.6
Liquid assets to short term liabilities	57.5	63.6	68.8	59.7	47.2
Sensitivity to Market risk					
Net open FX position to Regulatory capital	15.5	21.9	17.1	16.4	-1.4

Sources: Magyar Nemzeti Bank (MNB); and IMF's *Financial Soundness Indicators Database*.

1/ The decline in NPLs in 2015 was partially due to the settlement of unilateral interest hikes and exchange rate margins deemed unfair by the Supreme Court. The oldest unpaid interest, fees and penalties were paid first.

2/ Preliminary data show that the NPL ratio declined further from 4.2 percent at end-2017 to 3.6 percent at end-March 2018.

Hungary: Risk Assessment Matrix (RAM)[1/]

	Source of Risks	Relative Likelihood	Impact if Realized	Policy response
Global	*Tighter global financial conditions (short to medium-term).*	**High** An abrupt change in global risk appetite (e.g., due to higher-than-expected inflation in the U.S.) could lead to sudden, sharp increases in interest rates and associated tightening of financial conditions. Higher debt service and refinancing risks could stress leveraged firms, households, and vulnerable sovereigns, including through capital account pressures in some cases.	**High/Medium** A significant increase in interest rates or in capital outflows would raise borrowing costs and put pressure on reserves. Financing availability would decline and its cost rise.	Monetary policy would have to be tightened. Public debt strategy might have to be revisited if stresses surface in the bond market.
	Retreat from cross-border integration (short to medium-term).	**Medium** Fraying consensus about the benefits of globalization leads to protectionism and economic isolationism, resulting in reduced global and regional policy and regulatory collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth.	**Medium** This could slow down, or even reverse, policy coordination and collaboration, and weigh on economic activity through trade and confidence channels.	If near-term growth slows sharply, automatic stabilizers should be allowed to operate, and monetary policy should remain accommodative.
	Structurally weak growth in key advanced and emerging economies (medium-term).	**High/Medium** Low productivity growth (U.S., euro area and Japan), high debt, and failure to fully address crisis legacies by undertaking structural reforms amidst persistently low inflation undermine medium-term growth.	**Medium** Weaker external demand would hurt exports and tourism, and would weigh on economic growth.	Advance structural reforms to accelerate the transition towards a higher, sustainable growth path. Adopt a growth-friendly fiscal consolidation plan during the current upturn to create space that can be used if needed in future downturn.
Domestic	*A faster than expected wage growth or weaker investment activity (short/medium term.)*	**Medium** A faster wage growth would trigger a stronger domestic demand, leading to inflationary pressures. Weaker investment activity would have a negative impact on growth.	**Medium** A faster wage growth could accelerate inflation above the forecast in the baseline scenario. Weaker-than-expected investment activity, due to smaller-then-expected disbursement of EU finds, would dampen growth prospects.	Trigger the need for monetary tightening sooner than anticipated. Accelerate the implementation of structural reforms to raise productivity and to encourage investment.
	Continued pro-cyclical policy mix (short/medium-term).	**Medium** The expansionary fiscal policy and accommodative monetary policy environment, would overheat the economy and worsen debt sustainability.	**Medium** Worsening debt sustainability would increase financing costs and raise vulnerabilities. The overheating could fuel an asset price bubble. House prices and the indebtedness of households would rise.	As a first step, adopt a growth-friendly fiscal adjustment strategy. As a second step, start unwinding the unconventional monetary tools and tighten macroprudential ratios. Thirdly, rise the policy interest rate.

[1/]The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term (ST)" and "medium term (MT)" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

Annex I. Response to Past Fund Policy Advice

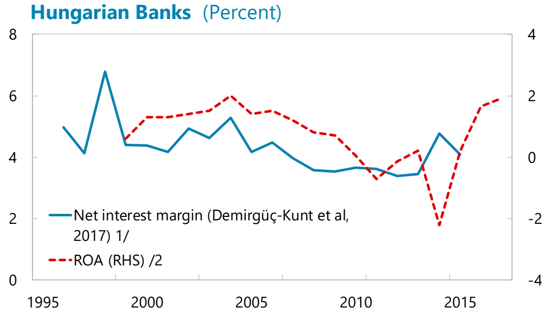
The authorities have actively engaged in a policy dialogue with the Fund and implemented a number of its recommendations, but some policies deviated from previous IMF advice.

Key recommendations	Implemented policies
Take advantage of the strong economic conditions and implement a growth-friendly fiscal consolidation to achieve a faster decline in public debt and deficit.	In 2017 the general government balance overperformed the budget target and the public debt ratio declined moderately. It is expected to do so in 2018 as well. However, GDP growth and lower interest payments have contributed substantially to this outcome, and the underlying structural balance would deteriorate rather than improve as recommended by staff. The proposed 2019 budget would virtually neutralize the fiscal stimulus. Savings on the expenditure side have been achieved mainly on account of the introduction of tighter eligibility rules for social transfers to households, such as postponement of the retirement age and elimination of the early retirement pensions. These measures are expected to slow down growth of age-related spending over the projection horizon.
Keep the monetary policy stance under review, in light of inflationary pressures and pro-cyclicality of fiscal policy.	Inflation remained below expectations and the MNB continued to ease monetary policy in 2017 and adjust its unconventional monetary policy instruments, but its recent communication has emphasized its commitment to its inflation target and kept all options open to achieve it.
Remain prudent and guard from financial sector risks, including those that can raise from the real estate market.	The MNB has pre-emptively tightened its macroprudential tools and is monitoring the real estate market. On the other hand, fiscal incentives continue to stimulate demand.
Improve labor market policies.	The number of participants in the PWS has been reduced and the number of child-care facilities has been increased.
Improve competitiveness indicators and remove impediments to doing business.	The government established a Competitiveness Council, led by the Minister of Finance to recommend reforms, and the MNB has issued a Competitiveness Report to identify priorities. The government is also working with the OECD on a plan to improve the productivity of SMEs.

Annex II. Determinants of Financial Intermediation Costs of Banks

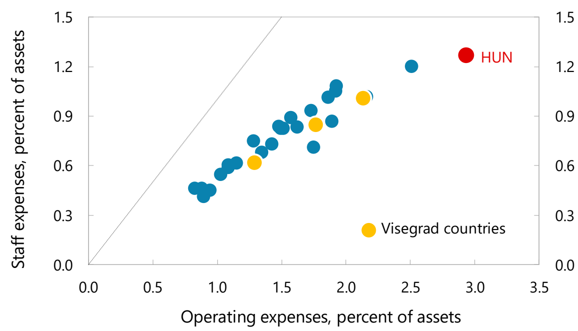
1. Financial intermediation costs of banks vary across countries due to several factors. Competition among banks should help reduce excessive profits, but it can only reduce financial intermediation costs to levels merited by expenses, risks and uncertainty of doing business. The recovery has boosted the profitability of Hungarian banks, mainly due to revocation of provisions and reinvigorated credit growth. The operating and staff expenses, however, remain relatively high compared to peers. The authorities' analysis has been looking at staffing costs and FinTech issues. Other factors, at play include excess capacity following the global financial crisis, level of competition, a complex business environment, special bank taxes, etc. Based on forthcoming empirical cross-country study,[1] this appendix suggests that improved perception of governance practices could also facilitate lower net interest margins. Governance is here defined as legislation, formal and informal rules governing behaviors of society, organizations, institutions, firms, individuals, as well as networks and markets with a view to achieve the official objective(s) of these entities. Following the advice from the *Hungarian Competitiveness Council* and the MNB's *Competitiveness Report*, the authorities have already begun to implement selected measures to improve the ease of doing business. An added side-effect of some of these measures could over time be a lowering of financial intermediation costs.

Selected Indicators for Intermediation Costs of Hungarian Banks (Percent)



Source: Financial Soundness Indicators and Demirgüç-Kunt et al (2017).
1/ Accounting value of bank's net interest revenue as a share of its interest-bearing (total earning) assets, according to the BankScope database and calculated by Demirgüç-Kunt et al (2017).
2/ Return on assets before extraordinary income and taxes, as reported by FSI.

Operating and Staff Expenses of EU Banks, 2017
(Percent of assets)



Source: European Central Bank.

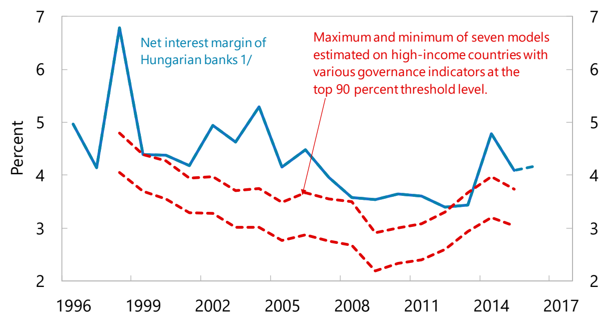
2. Credit institutions are presumed to maximize the expected net present value for their owners, while giving due consideration to risks and uncertainties. The reduced form of the so-called "dealership" bank model (Ho and Saunders, 1981) suggests that the net interest margin can be explained by banking sector factors, the business cycle, and other country specific features, including governance quality. Banking characteristics include competition, operating cost, transaction size or financial deepening, risk aversion, and credit risk. The signs of all the coefficients

[1] Study by Mariusz Jarmuzek and Tonny Lybek, using data for 103 countries during the 1995–2015 period.

were as expected, except the proxy for competition/concentration, where we used the share of the three largest banks' assets. The latter was negative, which could suggest returns to scale.[2] Table 1 shows the panel estimations for the whole sample. Business cycle indicators include inflation and real GDP growth. Like in other studies, the coefficients are not significant due to counteracting effects. For instance, real growth may affect both the price, quantity and risk of lending. The governance indicators capture various aspects of perceived governance, some of which may indeed be correlated with various bank characteristics.[3] They include proxies for the rule of law, quality of regulation, insolvency framework, contract enforcement, government effectiveness, control of corruption, and ethical behavior of private firms. Tentative results suggest that countries with better governance indicators tend to have lower net interest margins.[4]

3. **A simulation was performed to illustrate the potential impact on the net interest margin of improving the governance quality.** When gauging the impact of improved perceived governance indicators if they had been at the top 10 percent threshold and comparing to the average *fitted* estimate of the net interest margin, potential savings were estimated at about 38 bp per year during the analyzed period.[5] A conservative estimate—only accounting the savings on lending to the private non-financial sector—suggested savings of about 0.13 percent of GDP per year. This implies that the same level of financial intermediation could have been achieved with less resources, provided perceived governance had been at the top 10 percent tier. These results are only illustrative and need to be interpreted with caution because banking characteristics are not independent of governance indicators and because correlation does not necessarily imply causality. However, better perceived governance practices should a priori tend to reduce costs, risks and uncertainty.

Impact of Selected Governance Indicators on Hungarian Banks' Net Interest Margin



Source: Demirgüç-Kunt et al (2017), MNB; and IMF staff estimates.
1/ Net interest margin as calculated by Demirgüç-Kunt et al (2017). Dotted part of the line is estimated based on MNB's most recent Golden Book.

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[2] We also controlled for capital market developments and openness of the economy, which both tended to reduce the net interest margin, likely suggesting stronger competition.

[3] As discussed in IMF (2017 and 2018), it is challenging to measure differences in the perceived governance quality across countries. Regardless of their accuracy, perceptions do influence behaviors. Most of these measures are often highly correlated and several governance proxies were considered and yielded similar results.

[4] Robustness tests were conducted using interest spreads, other governance indicators, instrument variables, lagged dependent variables, account for cross-sectional dependence, as well as a probit model to address possible non-linearity.

[5] An average of the seven models shown in Table 1 was used as reference. The regressions, however, were solely based on high income countries, i.e., Hungary's peers. The dotted lines in the chart shows the estimated fit of the maximum and minimum of the seven models, if the respective governance proxy had been at the top 10 percent threshold.

Annex Table 1. Selected Regressions and Data Sources

Net interest margin:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Sources Demirgüç-Kunt et al (2017)
Competition / concentration	-0.0065 (0.0045)	-0.0080 * (0.0046)	-0.0021 (0.0061)	-0.0026 (0.0061)	-0.0067 (0.0044)	-0.0071 (0.0046)	-0.0100 * (0.0061)	Demirgüç-Kunt et al (2017)
Operating costs	0.2298 *** (0.0883)	0.2341 *** (0.0909)	0.2349 *** (0.0750)	0.2379 *** (0.0781)	0.2302 *** (0.0883)	0.2333 *** (0.0900)	0.1984 ** (0.0643)	Demirgüç-Kunt et al (2017)
Transaction size/ financial deepening	-1.06000 *** (0.2216)	-1.2768 *** (0.2367)	-1.3172 *** (0.2561)	-1.4358 *** (0.2539)	-1.0751 *** (0.2324)	-1.2014 *** (0.2317)	-1.6047 *** (0.2263)	Demirgüç-Kunt et al (2017)
Risk-aversion (CAR)	0.0385 *** (0.0100)	0.0335 *** (0.0168)	0.0379 *** (0.0133)	0.0396 ** (0.0140)	0.0359 ** (0.0100)	0.0388 ** (0.0103)	0.0350 ** (0.0157)	Financial Soundness Indicator Database and GFSR, IMF
Credit risk (Provisions)	0.0028 *** (0.0006)	0.0028 *** (0.0005)	0.0033 *** (0.0007)	0.0032 *** (0.0007)	0.0031 *** (0.0005)	0.0030 *** (0.0005)	0.0032 *** (0.0005)	Financial Soundness Indicator Database and GFSR, IMF
Inflation (CPI)	-0.3198 (1.0037)	-0.2793 (1.1333)	0.1606 (1.1000)	0.2229 (1.0807)	-0.4525 (1.0268)	-0.3566 (0.9956)	-0.0088 (1.6579)	International Financial Statistics, IMF
Real GDP growth	0.3197 (1.3286)	0.7713 (1.3755)	-0.3301 (2.4053)	-0.2894 (2.3925)	0.5040 (1.3691)	0.4033 (1.3304)	1.4138 (1.3809)	International Financial Statistics, IMF
Rule of law	-0.7133 *** (0.1522)							Worldwide Governance Indicators
Regulatory quality		-0.3782 *** (0.1455)						Worldwide Governance Indicators
Insolvency framework			-0.0160 *** (0.0040)					Doing Business, World Bank
Contract enforcement				-0.0165 * (0.0090)				Doing Business, World Bank
Government effectiveness					-0.6984 *** (0.1518)			Worldwide Governance Indicators
Control for perceived corruption						-0.5069 *** (0.1159)		Worldwide Governance Indicators
Ethics of private firms							-0.2362 * (0.1243)	Global Competiveness Report
Number of observations	1102	1102	835	835	1102	1102	748	
R squared - overall	0.73	0.71	0.73	0.71	0.72	0.72	0.73	

Sources: IMF staff estimates.

Note 1: The random effects general least squares (GLS) estimator was used. Figures in parentheses indicate standard errors. An *, **, and *** mean significance at, respectively, 10, 5 and 1 percent levels. The panel covers 103 countries during the 1995 to 2015 period, but is unbalanced across country and time

Note 2: The primary purpose of the regressions are to clarify the significance of various governance indicators. For a discussion of these and alternative specifications, explanation of signs of the coefficients compared to other studies, robustness tests, and data details, please see Jarmuzek and Lybek (forthcoming).

References

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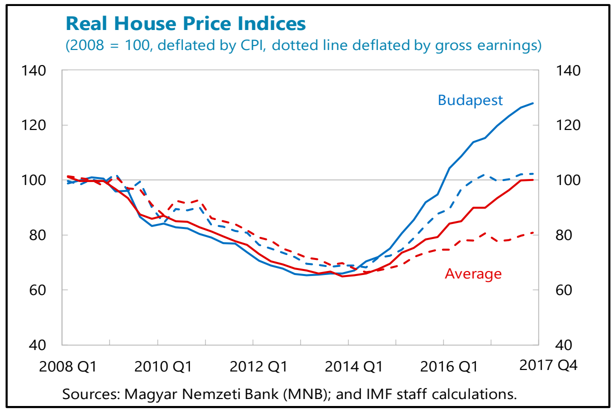
Annex III. Housing Prices, Credit and Macroprudential Policies



1. **Hungarian housing prices have increased rapidly since 2014, but from a low level.** House prices began to increase in the Budapest area, but have spread to other cities and more recently to municipalities. According to the MNB's and European Systemic Risk Board's (data for the latter are as of Q3 2017) estimates, average prices are not yet excessively overpriced compared to fundamentals.[1] The number of transactions has begun to stabilize, possibly due to labor shortages and increasing construction costs, which, according to market observers, frequently delay the completion of new dwellings by 6–12 months.

2. **The housing boom has been driven by many factors other than credit.** Delayed purchases following the global financial crisis as well as fiscal initiatives have contributed to the boom. For instance, (i) young families committed to have three or more children can receive a grant and a subsidized loan to purchase a home;[2] and (ii) the VAT rate on sales of certain new dwellings has been temporarily reduced from 27 to 5 percent during the 2016–2019 period. Moreover, low interest rates have made real estate investments more attractive. The MNB's mortgage bond purchase program may have further supported the market. Finally, the MNB-certified consumer-friendly housing loans introduced in 2017, has helped level the playing field, lowered borrowing costs, and encouraged fixed-rate lending. The stock of loans for house purchases increased by 6.8 percent (y-o-y) in May 2018. Nevertheless, according to market observers, only about 45 percent of transactions involve borrowings. Moreover, household debt in Hungary remains low compared to peers. It is also almost completely denominated in local currency, but a substantial share remains variable-rate loans.

3. **The MNB has preventatively tightened macroprudential policies, but the booming housing market needs to be closely monitored.** The various macroprudential measures seem to be working, as only about 20 percent of *new* lending have variable-rates or a fixed rate up to one year. Already in 2016, the calculation of the payment-to-income (PTI) ratio was changed to not discourage fixed-rate borrowing. In April 2017, the mortgage funding adequacy ratio (MFAR) was

[1] Although real prices have increased rapidly over the past few years, the average for the country is at its 2008 level (about 30 percent higher in Budapest). Deflating nominal prices by gross earnings indicates that houses in the country are on average more affordable than in 2008 (and at the same level of affordability in Budapest). For details, see the MNB's *Housing Market Report* and *Financial Stability Report*, issued twice a year.

[2] Benefits gradually increase up to the fourth child.

introduced to encourage banks to issue longer mortgage bonds. These ratios will be further refined to discourage interest rate risk for households in October 2018,[3] while there are no plans thus far to change the loan-to-value ratios. However, given the fact that the boom thus far has mostly been driven by strong disposable income and fiscal incentives rather than credit and low interest rates, there is also a need to review these fiscal incentives as well as supply constraints that appear to be contributing to the boom.

[3] The PTI ratio will be reduced for loans with, respectively, variable rates or fixation below 5 years, and for loans with fixation of interest rates between 5 and 10 years. The PTI ratio for loans with fixed rates of at least 10 years or for the whole term will remain unchanged. The MFAR ratio will be increased from 15 to 20 percent. Other amendments to the MFAR regulation will discourage cross-financing and encourage stable funding.

Annex IV. Debt Sustainability Analysis[1]

A. Public Debt Sustainability Analysis

1. The baseline scenario assumes no material fiscal adjustment after the significant projected easing in 2017. It is underpinned by the following assumptions:

- *Real GDP growth* is projected to reach above 3 percent through 2018–19, mainly as a result of an assumed acceleration of EU funds absorption. It is then projected to decrease to levels above 2 percent over the medium term as public investment associated with deceleration of EU funds slows down. This is broadly consistent with the medium-term growth potential.

- *GDP deflator* is projected to grow by 3 percent over the medium term, just at the central bank's inflation target.

- *The primary fiscal position* is projected to remain broadly balanced. It would slightly improve to reach 0.4 percent in 2023. The projections reflect announced reductions in the social security rate for employers, lower EU funds (starting in 2020), higher spending on compensation of employees, and lower public investment and interest payments.

2. The baseline projections are underpinned by realistic assumptions. Forecasts of the primary balance and inflation tended to be overly conservative, with smaller projection errors compared to the benchmark countries, as reflected in the interquartile range. Growth forecasts were slightly conservative, although projection errors have recently turned positive, suggesting some upside bias.

3. The projected decline in public debt reflects the small fiscal adjustment and the very favorable interest rate-growth differential. The public debt-to-GDP ratio is forecast to decline by almost 10 percentage points to reach 63 percent of GDP by 2023. Under the baseline scenario, the primary balance will contribute only mildly to the debt dynamics. In contrast, the contribution of the interest rate-growth differential is projected to be large, reflecting growth being substantially above the effective interest rate on public debt. Despite the favorable profile of projected growth, interest payments and primary balance, the gross financing needs-to-GDP ratio is forecast to remain broadly stable at about 20 percent of GDP in the medium term because of the projected increase in interest rates in line with the normalization of global monetary conditions. In addition, as the average maturity of public debt is above four years, the size of current gross financing needs is to a large extent driven by the repayment of the existing debt. Therefore, the positive impact of lower deficits on the gross financing needs would be visible only after 2023.

4. The debt and financing needs projections are particularly sensitive to combined macro-fiscal, growth, and contingent liabilities shocks:

[1] Prepared by Kamil Dybczak and Michelle Hassine (both EUR).

- *Macro-fiscal shock*. If shocks to growth, interest rate, and primary balance occur simultaneously, the debt-to-GDP ratio would reach at 80 percent at the end of the projection horizon. Financing needs would in this case reach about 30 percent of GDP.

- *Growth shock*. Slower growth remains the principal risk to debt sustainability. Assuming a decline in growth by one standard deviation for 2016 and 2017, the debt-to-GDP ratio is forecast to reach around 75 percent, and financing needs around 25 percent of GDP by the end of the projection period.

- *Contingent liabilities shock*. In the absence of concrete estimates of contingent liabilities, a standardized shock of 10 percent of financial sector assets is used to represent a hypothetical realization of contingent liabilities. In such a scenario, the debt-to-GDP ratio would reach almost 80 percent at the end of the projection horizon and financing needs would exceed 25 percent of GDP.

5. The fan charts show significant uncertainty around the baseline. The width of the symmetric fan chart, estimated at around 20 percent of GDP, illustrates the degree of uncertainty for equal-probability upside and downside shocks. Assuming less favorable economic conditions than under the baseline scenario—upside shocks to growth and primary balance are constrained to zero—public debt dynamics would deteriorate resulting in an upward-sloping path.

6. Hungary's debt profile has improved but still indicate some risks. The external financing needs are below the upper risk-assessment benchmark and the risk is to a certain extent mitigated by the fact that a sizeable share of foreign liabilities accounts for intra-company loans. Public debt in foreign currency and public debt held by non-residents have declined considerably in recent years. However, they are still above the lower risk assessment benchmark, which suggests some risks in case of pressures on the exchange rate and foreign exchange reserves. On the other hand, spreads and short-term debt are below the lower-risk assessment benchmarks.

7. Risks to debt sustainability can, however, be weighed against a number of mitigating factors.

- *Investor base*. Debt is now held predominantly by domestic financial institutions, with the non-resident component decreasing and estimated at around 20 percent of total debt. This factor—coupled with ample liquidity in the system and relatively low demand for private sector credit—has incentivized banks to purchase sovereign debt.

- *Buffers*. There is a cash cushion in the form of deposits accumulated by the public sector, which are around 5 percent of GDP. This implies a lower public debt-to-GDP ratio on a net basis and some liquidity cushion that could help cover financing needs for a few months.

B. External Debt Sustainability Analysis

8. Hungary's external debt has declined in recent years but remains high. Gross external debt remains on a downward trend, reaching 84.6 percent of GDP at end-2017, a contraction by

12.6 percentage points of GDP year-on-year. The improvement reflects a stepping up domestic funding replacing non-resident holders of debt, and an active public debt management with a rebalancing towards longer maturities (and lower interest rates), amid buoyant GDP growth. The share of inter-company loans involved in FDI has also declined, suggesting that Hungarian subsidiaries have regained profitability, warranting a lower level of engagement by foreign investors.

9. External debt remains sustainable under a range of shocks. In staff's analysis, Hungary's external debt is mainly vulnerable to a real currency depreciation by 30 percent, which would augment external debt by about 25 percent of GDP. In contrast, sensitivity to either a permanent current account (growth) shock of ½ standard deviation towards historical variation or to non-interest current account shock would remain manageable, with external debt growing by just 6–10 percentage points of GDP by the end of the projection horizon. Compared to a year earlier, all shocks would yield more benign results, due to lower external debt level, stronger GDP growth, and differences in debt composition.

10. The authorities highlight that external vulnerabilities have declined significantly, in the context of strong growth in EU transfers and the inflow of large inflow of foreign direct investment. They note that the gross external debt halved since 2010, mainly on account of lower public debt, and to a smaller extent to lower debt level by the corporate sector. The authorities highlight that net external debt continues to shrink, given high net FDI inflows over 2012–17 (cumulatively reaching 10.9 percent of GDP). They see risks as remaining benign in the medium and long term and deem that current policies—including recent tax cuts on corporations and monetary stimulus—continue to comfort Hungary's top place among regional peers in continuing to attract FDI. The authorities downplayed implications of overall external financing needs.

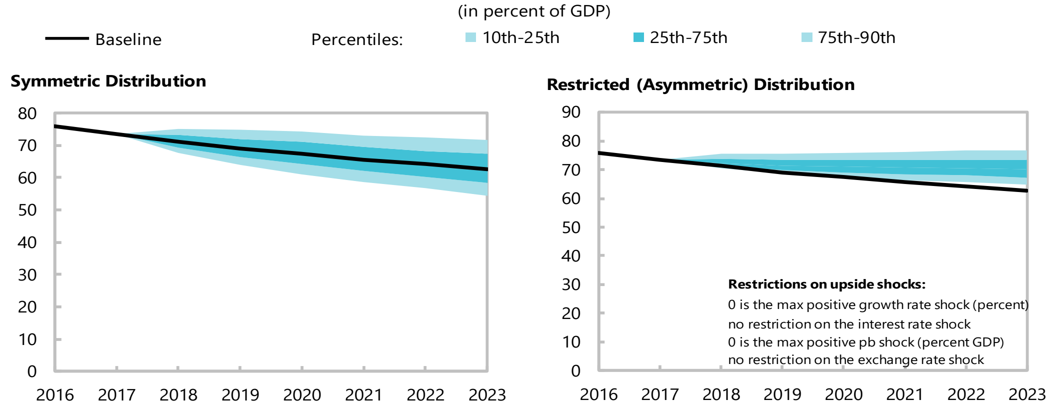
Figure 1. Hungary Public DSA Risk Assessment

Heat Map

Debt level [1/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs [2/]	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile [3/]	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

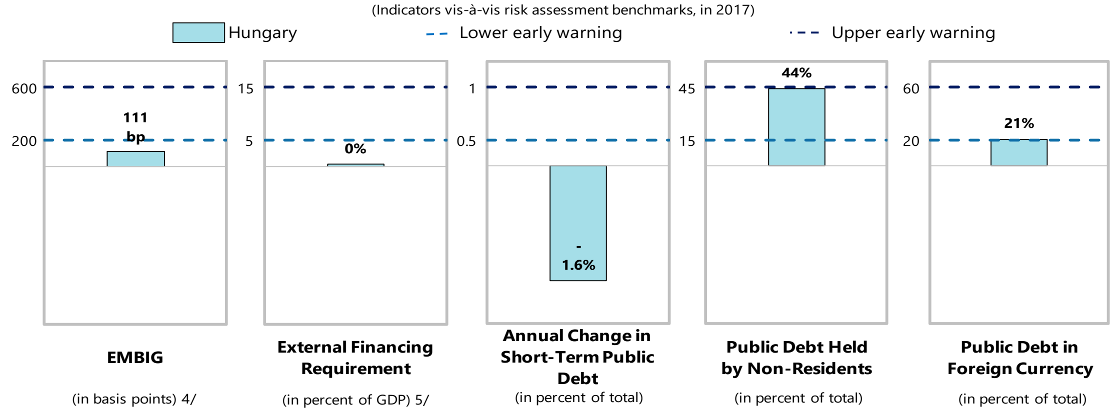
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2017)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

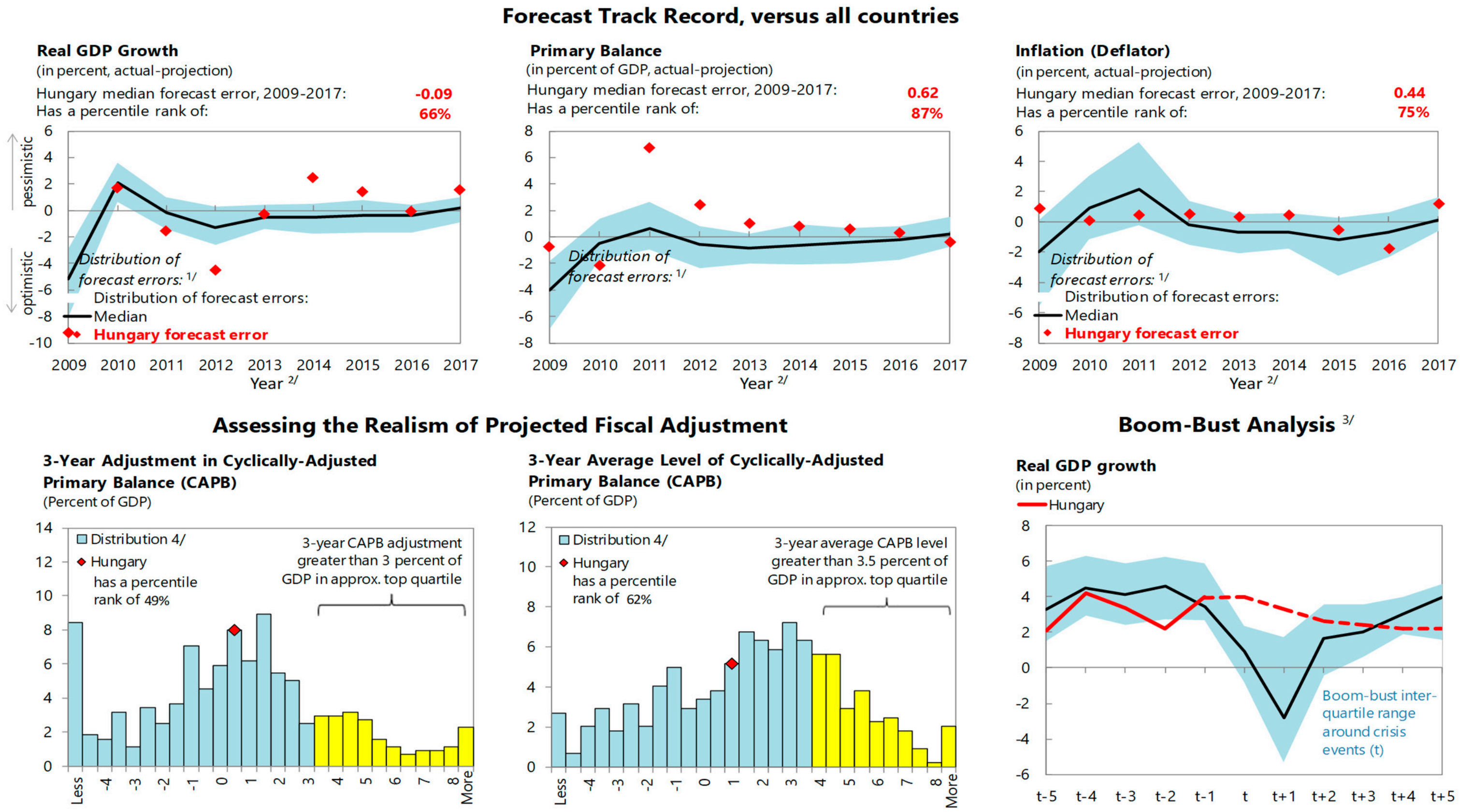
3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ EMBIG, an average over the last 3 months, 14-Feb-18 through 15-May-18.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Figure 2. Hungary Public DSA - Realism of Baseline Assumptions



Source : IMF Staff.

1/ Plotted distribution includes all countries, percentile rank refers to all countries.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Hungary has had a cumulative increase in private sector credit of 80 percent of GDP, 2014-2017. For Hungary, t corresponds to 2018; for the distribution, t corresponds to the first year of the crisis.

4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 3. Hungary Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

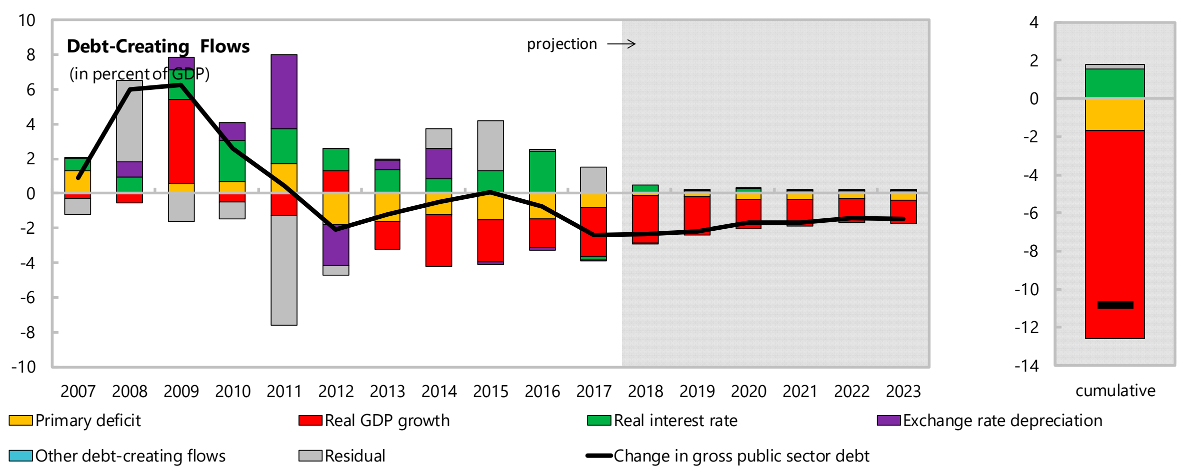
(In percent of GDP, unless otherwise indicated)

Debt, Economic and Market Indicators 1/

	Actual			Projections						As of May 15, 2018		
	2007-2015 2/	2016	2017	2018	2019	2020	2021	2022	2023	Sovereign Spreads		
Nominal gross public debt	75.9	76.0	73.6	71.2	69.0	67.3	65.7	64.2	62.8	EMBIG (bp) 3/		115
Public gross financing needs	21.2	16.4	8.4	17.2	15.8	15.2	20.4	21.2	20.9	5Y CDS (bp)		90
Real GDP growth (in percent)	0.6	2.2	4.0	4.0	3.3	2.6	2.4	2.2	2.2	Ratings	Foreign	Local
Inflation (GDP deflator, in percent)	3.4	1.0	3.7	2.8	3.0	3.0	3.0	3.0	3.0	Moody's	Baa3	Baa3
Nominal GDP growth (in percent)	4.0	3.2	7.8	6.9	6.4	5.7	5.5	5.3	5.3	S&Ps	BBB-	BBB-
Effective interest rate (in percent) 4/	5.8	4.3	4.0	3.7	3.4	3.5	3.4	3.4	3.4	Fitch	BBB-	BBB-

Contribution to Changes in Public Debt

	Actual			Projections							
	2007-2015	2016	2017	2018	2019	2020	2021	2022	2023	cumulative	debt-stabilizing
Change in gross public sector debt	1.4	-0.7	-2.4	-2.4	-2.2	-1.7	-1.7	-1.4	-1.5	-10.8	primary
Identified debt-creating flows	1.6	-0.8	-3.9	-2.4	-2.2	-1.7	-1.7	-1.5	-1.5	-11.0	balance 9/
Primary deficit	-0.2	-1.5	-0.8	-0.1	-0.2	-0.3	-0.4	-0.3	-0.4	-1.7	-1.2
Primary (noninterest) revenue and grants	45.4	44.8	44.5	45.5	45.2	44.6	43.5	43.1	42.7	264.5	
Primary (noninterest) expenditure	45.2	43.3	43.7	45.4	45.0	44.2	43.1	42.8	42.4	262.8	
Automatic debt dynamics 5/	1.8	0.6	-3.1	-2.2	-2.0	-1.4	-1.3	-1.2	-1.2	-9.3	
Interest rate/growth differential 6/	1.0	0.8	-3.0	-2.2	-2.0	-1.4	-1.3	-1.2	-1.2	-9.3	
Of which: real interest rate	1.4	2.4	-0.2	0.5	0.2	0.3	0.2	0.2	0.2	1.6	
Of which: real GDP growth	-0.4	-1.6	-2.8	-2.8	-2.2	-1.7	-1.5	-1.4	-1.3	-10.9	
Exchange rate depreciation 7/	0.8	-0.2	0.0	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroarea loans)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes 8/	-0.2	0.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ EMBIG.

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

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

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

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

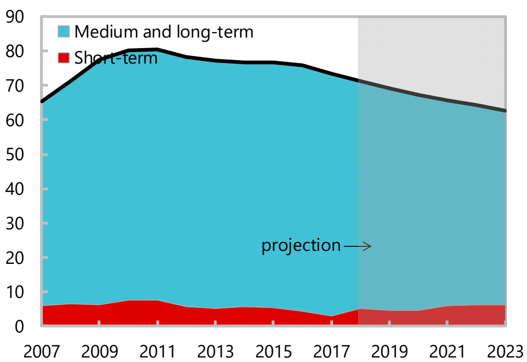
8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

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

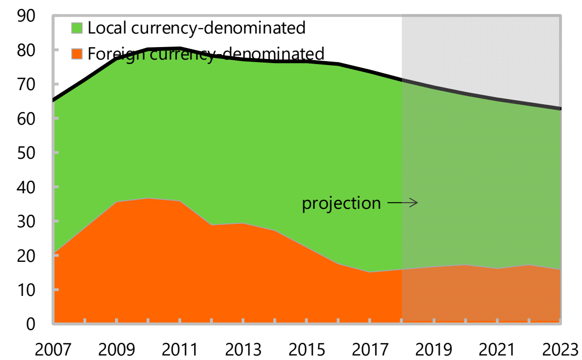
Figure 4. Hungary Public DSA – Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



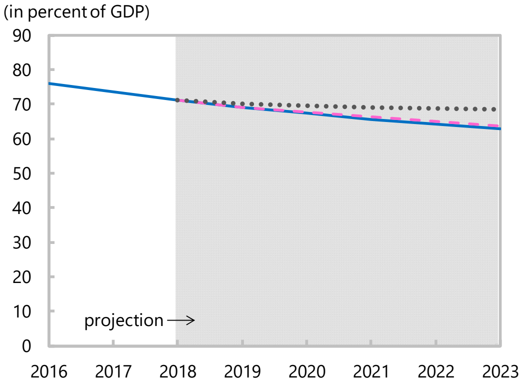
By Currency
(in percent of GDP)



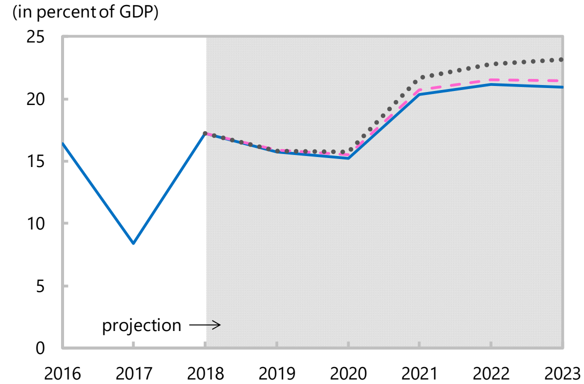
Alternative Scenarios

Baseline
Historical
Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

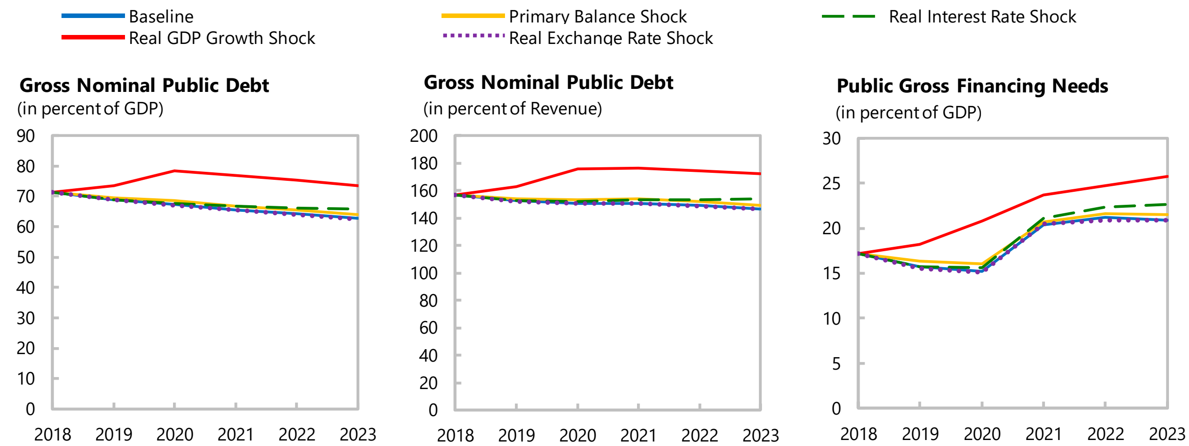
Baseline Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	4.0	3.3	2.6	2.4	2.2	2.2
Inflation	2.8	3.0	3.0	3.0	3.0	3.0
Primary Balance	0.1	0.2	0.3	0.4	0.3	0.4
Effective interest rate	3.7	3.4	3.5	3.4	3.4	3.4
Constant Primary Balance Scenario						
Real GDP growth	4.0	3.3	2.6	2.4	2.2	2.2
Inflation	2.8	3.0	3.0	3.0	3.0	3.0
Primary Balance	0.1	0.1	0.1	0.1	0.1	0.1
Effective interest rate	3.7	3.4	3.5	3.4	3.4	3.4

Historical Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	4.0	1.1	1.1	1.1	1.1	1.1
Inflation	2.8	3.0	3.0	3.0	3.0	3.0
Primary Balance	0.1	0.5	0.5	0.5	0.5	0.5
Effective interest rate	3.7	3.4	3.9	4.0	4.4	4.5

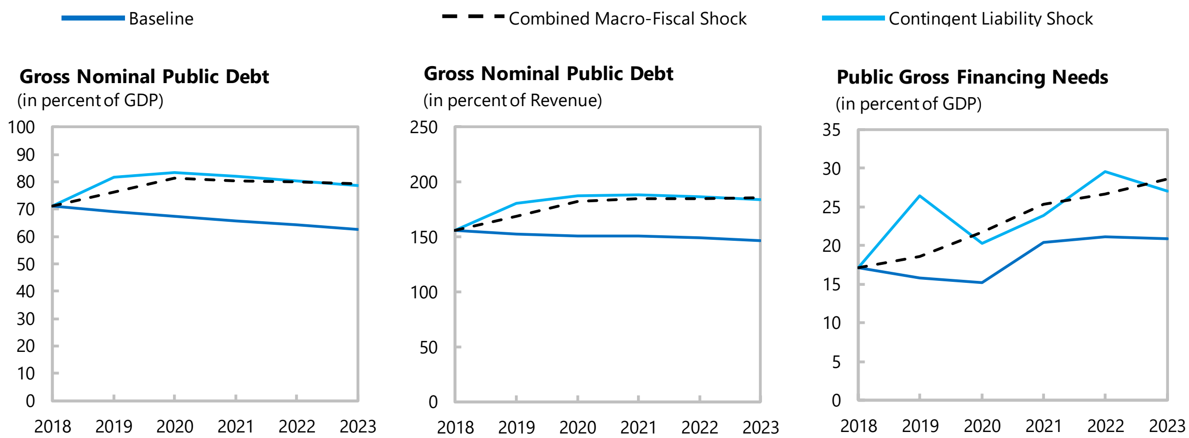
Source: IMF staff.

Figure 5. Hungary Public DSA – Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions
(in percent)

Primary Balance Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	4.0	3.3	2.6	2.4	2.2	2.2
Inflation	2.8	3.0	3.0	3.0	3.0	3.0
Primary balance	0.1	-0.4	-0.3	0.4	0.3	0.4
Effective interest rate	3.7	3.4	3.6	3.4	3.4	3.4
Real Interest Rate Shock						
Real GDP growth	4.0	3.3	2.6	2.4	2.2	2.2
Inflation	2.8	3.0	3.0	3.0	3.0	3.0
Primary balance	0.1	0.2	0.3	0.4	0.3	0.4
Effective interest rate	3.7	3.4	4.1	4.4	4.9	5.1
Combined Shock						
Real GDP growth	4.0	0.1	-0.6	2.4	2.2	2.2
Inflation	2.8	2.2	2.2	3.0	3.0	3.0
Primary balance	0.1	-1.6	-3.3	0.4	0.3	0.4
Effective interest rate	3.7	3.5	4.1	4.4	4.9	5.1

Real GDP Growth Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	4.0	0.1	-0.6	2.4	2.2	2.2
Inflation	2.8	2.2	2.2	3.0	3.0	3.0
Primary balance	0.1	-1.6	-3.3	0.4	0.3	0.4
Effective interest rate	3.7	3.4	3.6	3.6	3.6	3.5
Real Exchange Rate Shock						
Real GDP growth	4.0	3.3	2.6	2.4	2.2	2.2
Inflation	2.8	6.9	3.0	3.0	3.0	3.0
Primary balance	0.1	0.2	0.3	0.4	0.3	0.4
Effective interest rate	3.7	3.5	3.5	3.4	3.4	3.4
Contingent Liability Shock						
Real GDP growth	4.0	0.1	-0.6	2.4	2.2	2.2
Inflation	2.8	2.2	2.2	3.0	3.0	3.0
Primary balance	0.1	-9.6	0.3	0.4	0.3	0.4
Effective interest rate	3.7	3.6	4.1	3.9	3.6	3.4

Source: IMF staff.

Table 1. Hungary: External Debt Sustainability Framework, 2013–2023

(In percent of GDP, unless otherwise indicated)

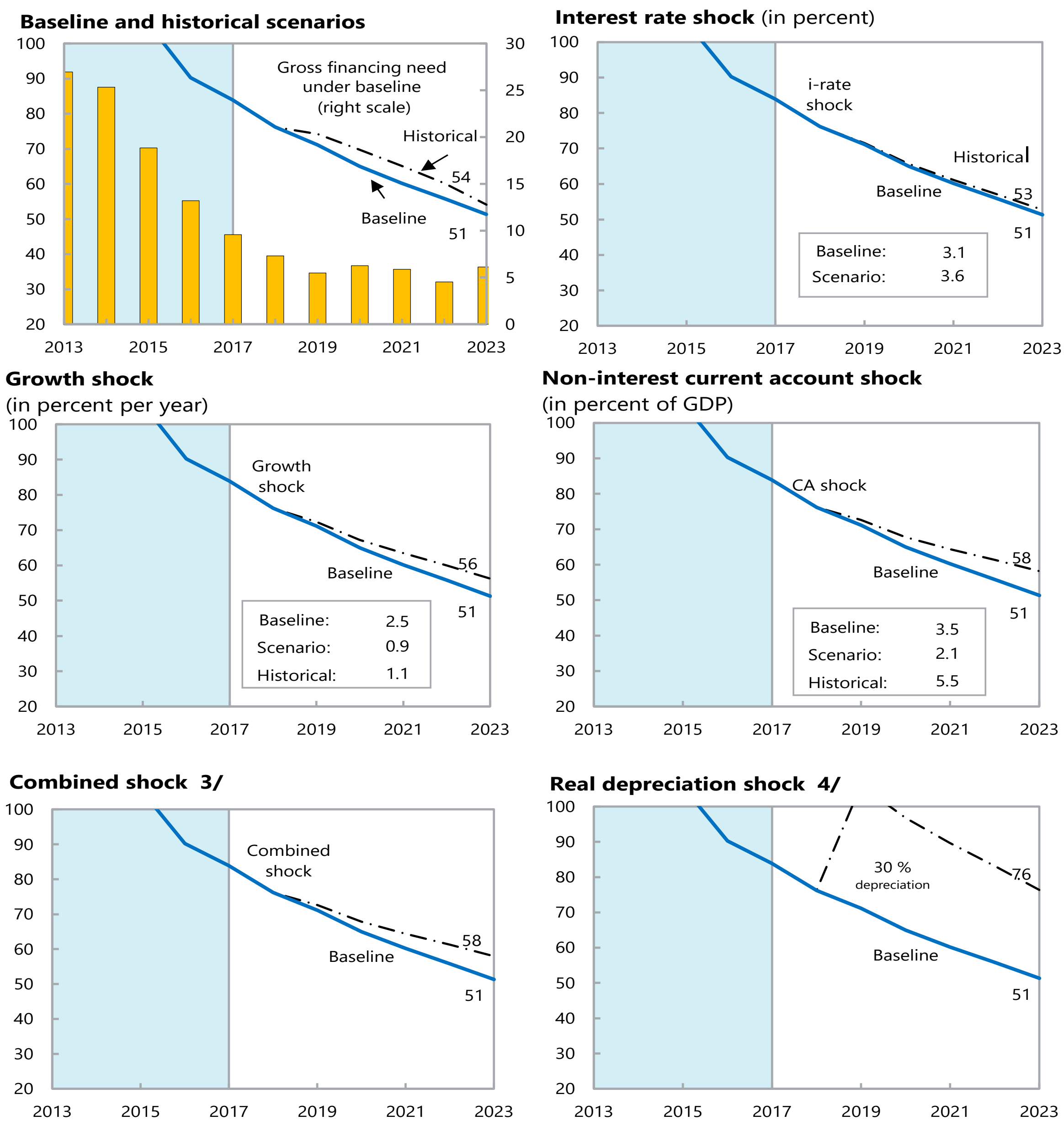
	Actual							Projections						
	2013	2014	2015	2016	2017			2018	2019	2020	2021	2022	2023	Debt-stabilizing non-interest current account 6/
Baseline: External debt	121.6	106.6	105.7	90.3	83.9			**76.2**	**71.2**	**65.0**	**60.2**	**55.8**	**51.3**	**-1.4**
Change in external debt	-9.6	-15.0	-0.9	-15.4	-6.4			-7.7	-5.0	-6.2	-4.8	-4.4	-4.5	
Identified external debt-creating flows (4+8+9)	-12.2	-8.3	9.7	-13.1	-15.3			-7.0	-5.8	-4.3	-3.5	-2.9	-2.6	
Current account deficit, excluding interest payments	-8.2	-5.3	-6.7	-8.4	-5.1			-5.0	-4.5	-4.0	-3.3	-3.1	-2.6	
Deficit in balance of goods and services	-7.0	-6.4	-8.9	-9.8	-7.2			-6.6	-6.7	-6.7	-6.0	-5.0	-4.7	
Exports	85.7	87.7	90.3	87.6	85.1			94.0	95.7	97.8	100.0	101.2	102.0	
Imports	78.7	81.4	81.4	77.8	77.9			87.4	89.0	91.1	94.0	96.2	97.3	
Net non-debt creating capital inflows (negative)	-1.1	-2.5	-1.8	-2.0	-1.2			-1.5	-1.3	-0.7	-0.6	-0.4	-0.4	
Automatic debt dynamics 1/	-2.9	-0.5	18.2	-2.7	-9.0			-0.4	0.1	0.3	0.4	0.6	0.4	
Contribution from nominal interest rate	4.4	3.7	3.2	2.5	2.1			2.8	2.4	2.1	1.9	1.8	1.6	
Contribution from real GDP growth	-2.6	-5.0	-4.1	-2.2	-3.2			-3.2	-2.4	-1.7	-1.5	-1.3	-1.2	
Contribution from price and exchange rate changes 2/	-4.7	0.7	19.1	-2.9	-8.0			...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/	2.7	-6.7	-10.6	-2.3	9.0			-0.7	0.7	-1.9	-1.3	-1.4	-2.0	
External debt-to-exports ratio (in percent)	141.9	121.4	117.0	103.0	98.5			81.0	74.3	66.4	60.2	55.2	50.3	
Gross external financing need (in billions of US dollars) 4/	36.5	35.5	23.1	17.0	14.1			11.4	9.1	11.1	10.9	8.9	12.6	
in percent of GDP	27.0	25.3	18.8	13.2	9.6	10-Year	10-Year	7.3	5.5	6.3	5.9	4.5	6.1	
Scenario with key variables at their historical averages 5/								**76.2**	**74.2**	**69.7**	**65.1**	**60.2**	**54.1**	**-0.2**
Key Macroeconomic Assumptions Underlying Baseline						Historical Average	Standard Deviation							
Real GDP growth (in percent)	2.1	4.2	3.4	2.2	4.0	1.1	3.2	4.0	3.3	2.6	2.4	2.2	2.2	
GDP deflator in US dollars (change in percent)	3.7	-0.5	-15.2	2.9	9.7	-0.1	8.9	1.9	3.0	3.6	2.9	3.2	2.8	
Nominal external interest rate (in percent)	3.5	3.2	2.6	2.5	2.7	3.5	0.9	3.5	3.4	3.1	3.0	3.2	3.0	
Growth of exports (US dollar terms, in percent)	4.8	6.2	-9.8	2.0	10.9	2.4	12.7	17.1	8.3	8.6	7.7	6.7	5.8	
Growth of imports (US dollar terms, in percent)	4.4	7.1	-12.3	0.5	14.2	1.8	14.2	18.9	8.3	8.8	8.8	7.9	6.2	
Current account balance, excluding interest payments	8.2	5.3	6.7	8.4	5.1	5.5	2.9	5.0	4.5	4.0	3.3	3.1	2.6	
Net non-debt creating capital inflows	1.1	2.5	1.8	2.0	1.2	1.6	0.7	1.5	1.3	0.7	0.6	0.4	0.4	

1/ Derived as [r - g - r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate.
e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.
2/ The contribution from price and exchange rate changes is defined as [-r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock. r increases with an appreciating domestic currency (e > 0) and rising inflation (based on GDP deflator).

3/ For projection, line includes the impact of price and exchange rate changes.
4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.
5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.
6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Figure 1. Country: External Debt Sustainability: Bound Tests 1/ 2/

(External debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
4/ One-time real depreciation of 30 percent occurs in 2019.

INTERNATIONAL MONETARY FUND

HUNGARY

July 17, 2018

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

European Department
In Consultation with Other Departments

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FUND RELATIONS

(As of June 30, 2018)

Membership Status: Joined on May 6, 1982; Article VIII.

General Resources Account:

	SDR Million	Percent Quota
Quota	1940.00	100.00
Fund holdings of currency (Holdings Rate)	1640.76	84.58
Reserve tranche position	299.24	15.42

SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	991.05	100.00
Holdings	5.66	0.58

Outstanding Purchases and Loans: None

Latest Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-By	Nov 6, 2008	Oct 5, 2010	10,537.50	7,637.00
Stand-By	Mar 15, 1996	Feb 14, 1998	264.18	0.00
Stand-By	Sep 15, 1993	Dec 14, 1994	340.00	56.70

Projected Payments to Fund:

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

	Forthcoming				
	2018	**2019**	**2020**	**2021**	**2022**
Principal					
Charges/Interest	4.80	9.67	9.68	9.67	9.67
Total	4.80	9.67	9.68	9.67	9.67

Current Status of Safeguards Assessment:

The safeguards assessment of the Magyar Nemzeti Bank (MNB) was finalized on January 28, 2009. The assessment found that the central bank had a relatively strong safeguards framework in place. The MNB's control environment was well established, and the audit and financial reporting practices adhered to international standards. The assessment recommended measures to improve the process of program data reporting to the Fund and to strengthen audit oversight, especially over the central bank's basic tasks. In recent years the central bank law was subject to numerous changes. Going forward, it is critical to avoid undue changes to the MNB's legal framework and to ensure that the law continues to support MNB's operational and legal independence.

Exchange Rate Arrangements:

Hungary's de jure exchange rate arrangement is free floating, and the de facto exchange rate arrangement is classified as floating, effective November 1, 2008. Hungary has accepted the obligations of Article VIII and maintains an exchange rate system free of restrictions on the making of payments and transfers on current international transactions except for those maintained solely for the preservation of national or international security and that have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51).

Article IV Consultation:

Hungary is on a 12-month consultation cycle. The last Article IV Board discussion took place on May 12, 2017. The associated Executive Board assessment is available at http://www.imf.org/en/News/Articles/2017/05/12/pr17162-imf-executive-board-concludes-article-iv-consultation-with-hungary and the staff report at http://www.imf.org/en/Publications/CR/Issues/2017/05/12/Hungary-2017-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44908

Technical Assistance:

The table below summarizes the technical assistance missions provided by the Fund to Hungary.

HUNGARY: TECHNICAL ASSISTANCE FROM THE FUND, FY2010–2016

Department	Purpose	Date
MCM	Banking Supervision	June 2009
LEG	Bank Resolution Framework	September 2009
FAD	Expenditure Policy	October 2009
MCM	Monetary Policy	February 2010
FAD	Expenditure Policy	June 2010
MCM	Financial Stability	July 2010
FAD	Tax Policy	September 2010
MCM	Financial Stability	November 2010
MCM	Monetary and Foreign Exchange Policy	June 2011
FAD	Fiscal Federalism	October 2011
MCM	Monetary and Foreign Exchange Policy	November 2011
LEG	VAT Fraud and Anti-Money Laundering Activities	January 2013
LEG	Bank Resolution and Crisis Management	November 2013

Department	Purpose	Date
MCM	Operational Aspects of Establishing an Asset Management Company	January 2015 and June 2015
FAD	Workshop on Revenue Forecasting and Micro-simulation Analysis	January 2016
FAD	PIT and CIT Micro-Simulation	January 2018
FAD	VAT Gap Analysis	February 2018

Resident Representative:

The resident representative office closed on December 31, 2013.

STATISTICAL ISSUES

Assessment of Data Adequacy for Surveillance

- **General**: Data provision is adequate for surveillance.

- **Government Finance Statistics**: The statistical authorities compile and disseminate comprehensive general government annual and quarterly accrual based data according to the ESA 2010 methodology. The data include non-financial accounts, financial accounts, and financial balance sheet. These data are bridged into the GFSM 2014 framework and provided to the Fund through Eurostat for the IFS and GFS yearbooks. However, data provided to the Fund for surveillance needs to be improved further. The monthly cash-basis accounts of the central government prepared by the Ministry of Finance reflect the GFS presentation and provide information on financing. Data on revenue and expenditure arrears as well as that on local government revenues and expenditures, and financial statements of state-owned enterprises has been readily provided by the authorities upon request, but provision of this data on an automatic basis would facilitate the monitoring of obligations on an accrual basis and allow for closer regular monitoring of the general government.

Data Standards and Quality

- Subscriber to the Fund's Special Data Dissemination Standard (SDDS) since May, 1996.

- Hungary published its original ROSC Data Module in 2001 and updates are available on the IMF internet web site. The latest update is Hungary: Report on the Observance of Standards and Codes—Data Module, 2004 Update (July 2004).

Hungary: Table of Common Indicators Required for Surveillance as of July 11, 2018

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of publication[7]	Memo Items: Data Quality – Methodological soundness[8]	Memo Items: Data Quality Accuracy and reliability[9]
Exchange Rates	6/30/2018	7/2/2018	D and M	D and M	D and M		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	June 2018	7/5/2018 (Preliminary)	M	M	M		
Reserve/Base Money	May 2018	7/3/2018	M	M	M	O,O,LO,LO	O,O,O,O,LO
Broad Money	May 2018	7/3/2018	M	M	M		
Central Bank Balance Sheet	May 2018	7/3/2018	M	M	M		
Consolidated Balance Sheet of the Banking System	May 2018	7/3/2018	M	M	M		
Interest Rates[2]	May 2018	6/30/2018	M	M	M		
Consumer Price Index	June 2018	7/10/2018	M	M	M	O,O,O,O	O,O,O,O,NO
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	June 2018	7/2/2018	M	M	M	O,LNO,LO,O	LO,O,O,O,NO
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	June 2018	7/2/2018	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	December 2017	4/2/2018	Q	Q	Q		
External Current Account Balance	Q1 2018	7/3/2018	Q	Q	Q	O,LO,LO,LO	O,O,O,O,NO
Exports and Imports of Goods and Services	Q1 2018	7/3/2018	Q	Q	Q		
GDP/GNP	Q1 2018	6/5/2018	Q	Q	Q	O,O,O,LO	O,LO,O,O,NO
Gross External Debt	Q1 2018	7/3/2018	Q	Q	Q		
International investment Position [6]	Q1 2018	7/3/2018	Q	Q	Q		

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds. Daily data are readily available.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).
[8] Reflects the assessment provided in the data ROSC and Substantive Update published in May 2001 and July 2004, respectively, and based on the findings of the respective missions that took place during January 2001 and January 2004 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning (respectively) concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), or not observed (NO).
[9] Same as footnote 8, except referring to international standards concerning (respectively) source data, statistical techniques, assessment and validation of source data, assessment and validation of intermediate data and statistical outputs, and revision studies.