INTERNATIONAL MONETARY FUND

IMF Country Report No. 22/251

REPUBLIC OF LITHUANIA

2022 ARTICLE IV CONSULTATION—PRESS RELEASE; AND STAFF REPORT

July 2022

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 2022 Article IV Consultation with the Republic of Lithuania, 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 a lapse-of-time basis, following discussions that ended on June 7, 2022, with the officials of the Republic of Lithuania on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 11, 2022.
- An **Informational Annex** prepared by the IMF staff.

The document listed below have been or will be separately released.

Selected Issues

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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PRESS RELEASE

PR22/276

IMF Executive Board Concludes 2022 Article IV Consultation with the Republic of Lithuania

FOR IMMEDIATE RELEASE

Washington, DC – **June 28, 2022:** On July 22, 2022, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with the Republic of Lithuania.

With resilient macroeconomic fundamentals, a decisive policy response, and a high immunization rate, the Lithuanian economy avoided a recession in 2020 and rebounded vigorously in 2021, outperforming the rest of the eurozone. Domestic demand was the main driver of growth—supported by low unemployment, double-digit wage growth, and a recovery of investment—which contributed to accelerating inflation by year-end. The external position remained strong, reflecting past competitiveness gains.

The recent spike in global energy and food prices and persistent supply bottlenecks have compounded inflationary pressures, disproportionately hurting the poor. As a result, inflation increased from the recent trough of -0.1 percent at the end of 2020 to 20.5 percent in June 2022, the second highest in the euro area. Inflation excluding energy and food components has increased alongside strong wage growth, suggesting that the surge in inflation has become broad based. Furthermore, the tight labor market and compressed profit margins could lead to further pressures from wages to price inflation.

Russia's invasion of Ukraine has impacted activity and inflation with growth projected around 2 percent in 2022—about half the pre-war forecast. Projections are subject to significant uncertainty and abundant downside risks could further hinder growth. Inflation will remain elevated throughout 2022 and early 2023 because of high energy and commodity prices, tight labor market conditions, and persistent supply-side disruptions. This could lead to a wage-price spiral that could become entrenched, endangering macroeconomic stability. Risks to the outlook are skewed to the downside and include a further escalation of the war in Ukraine, lack of momentum in structural reforms, and tightening financial conditions. On the other hand, the economy could prove to be more resilient than projected, supported by the strong financial position of the private sector.

Executive Board Assessment[2]

The authorities' response to the energy crisis aims to limit economic disruptions, provide targeted support to the vulnerable, and allow for market price signals. With a more targeted response than that adopted in other countries, the pass-through of higher energy prices to consumers has been significant, particularly for companies. While the support provided for the first half of 2022 was not in line with best practices, the more recent decision

[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] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

to allow a significant pass-through of energy prices and reflect this subsidy transparently in the budget is welcome. Pre-existing targeted programs to subsidize heating for vulnerable households have also been enhanced and the VAT rate on district heating for households was temporarily reduced to zero at a modest fiscal cost. Going forward, the subsidy to energy tariffs should gradually be phased out even if high energy prices proved persistent, with the bulk of the support being provided in a targeted manner to the more vulnerable.

Higher revenues from inflation allow the budget to accommodate pressures for higher social and defense spending in the short-term, but difficult tradeoffs await down the road. Permanent spending commitments add to pre-existing pressures. With discretionary spending low and lack of consensus on significant tax reform in the current environment, further increases in spending will result in a moderate deficit over the medium-term instead of the authorities' goal of a balanced budget. This would still keep a strong fiscal position with public debt on a declining path. To avoid turning short-term challenges into structural problems, efforts should focus on improving the quality of spending while broadening environmental and housing-related taxes. To this end, the government's proposal for revamping real estate taxation is a step in the right direction.

Given the risk of persistently high inflation, fiscal policy will need to be decisively countercyclical going forward. Although fiscal policy should ideally take a counter-cyclical stance in Lithuania given the lack of monetary policy, the moderately procyclical stance in 2022 is an appropriate response to the new environment with heightened uncertainty and downside risks, especially considering that half of the fiscal stimulus is on additional military spending on mostly imported equipment with little impact on domestic demand. Public debt is still projected to decline this year. A tightening of fiscal policy next year in line with the national fiscal rule will help minimize the risks of persistently high inflation. Furthermore, the increase in public sector wages and the minimum wage over the next few years should be consistent with expected inflation and productivity gains to provide a strong signal to the private sector and prevent a vicious wage-price spiral.

The banking system has ample capital and liquidity buffers to withstand a weakening economic environment or even greater shocks. The expected emergence of a large financial institution with a non-resident base business model will require prompt action by national and supranational authorities to ensure effective supervision under the existing European arrangements.

Further efforts are needed to mitigate money laundering risks in the financial sector, particularly from the dynamic and growing fintech sector. While the Bank of Lithuania (BoL) has made important strides in monitoring and supervision, the fast-growing non-resident activity in the fintech sector presents regulatory and supervisory challenges, with cross-border risks to the integrity of the AML/CFT framework. In this context, the focus should be shifted from growth of this sector to its consolidation, with a view toward mitigating risks. This should include more effective controls for access to the BoL's payment system (CENTROlink). For virtual asset service providers, the Ministry of Interior and the Financial Intelligence Unit should develop risk-based supervision, stronger supervisory powers, and market entry controls. The AML/CFT supervisory capacity of the BoL will also need to be substantially strengthened, a process which will take time and require significant new resources and greater coordination with other jurisdictions.

The external position was moderately stronger than implied by fundamentals. The current account surplus decreased to pre-pandemic levels. National savings remained buoyant reflecting temporary factors rather than a long-term misalignment.

Structural reforms are necessary to ensure continued income convergence. The authorities need to address structural impediments by accelerating reforms in education and healthcare, and by closing gaps in the transportation infrastructure, and reducing information asymmetries that limit access to financing for small and medium enterprises. Ample fiscal space and European funds imply that upfront reform costs can be met without jeopardizing the fiscal position.

A comprehensive carbon tax will be necessary to achieve the authorities' emission reduction objectives for 2030. Achieving the reduction in emissions and energy imports will require (i) reducing fossil fuels, (ii) investing in low-emission transportation, and (iii) raising energy efficiency. The introduction of an economy-wide carbon tax—set to gradually increase to EUR50 per metric ton of CO_2 emissions by 2030—would help achieve these goals.

The next Article IV Consultation is expected to be completed on the standard 12-month cycle.

Lithuania: Selected Economic Indicators, 2017–27

Life expectancy at birth (2020): 80 years (women), 70.1 years (men)
Quota (current, % of total): SDR 441.6 million, 0.09 percent
Main products and exports: refined fuel, machinery and equipment; chemicals, textiles, foodstuffs, plastics, wood products.
Key export markets: Russia, Latvia, Poland, Germany, U.S.

Per capita GDP (2021): € 19,760
Literacy Rate (2015): 99.8%
At-risk-of-poverty (after transfers), share of population (2020): 20.9%

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Projections					
Output											
Real GDP growth (annual percentage change)	4.3	4.0	4.6	-0.1	5.0	1.8	2.3	3.0	2.8	2.6	2.3
Domestic demand (contribution to growth)	2.7	3.3	1.4	-3.9	5.7	3.8	4.3	3.8	3.5	3.2	2.9
Domestic demand growth (year-on-year, in percent)	2.6	3.4	1.6	-4.0	5.9	4.1	4.5	4.0	3.6	3.2	3.0
Private consumption growth (year-on-year, in percent)	3.6	3.6	3.1	-2.1	7.4	3.3	4.3	3.7	3.4	3.0	2.8
Domestic fixed investment growth (year-on-year, in percent)	8.9	10.0	6.6	-1.8	7.0	3.6	6.6	5.9	5.4	4.9	4.5
Inventories (contribution to growth)	-1.3	-1.1	-1.7	-2.0	-0.5	0.7	0.0	0.0	0.0	0.0	0.0
Net external demand (contribution to growth)	1.6	0.7	3.2	3.8	-0.7	-2.0	-2.0	-0.9	-0.8	-0.6	-0.6
Export growth (year-on-year, in percent)	13.5	6.8	9.9	0.4	15.9	-2.2	3.0	4.4	3.6	3.5	3.0
Import growth (year-on-year, in percent)	11.1	6.0	6.1	-4.4	18.7	0.0	5.5	5.6	4.6	4.2	3.7
Nominal GDP (in billions of euro)	42.3	45.5	48.9	49.5	55.4	64.6	72.4	77.5	82.1	86.5	90.8
Output gap (percent of potential GDP)	0.3	0.7	1.6	0.0	1.6	0.6	0.2	0.1	0.0	0.0	0.0
Employment											
Employment (annual percentage change)	-0.5	1.5	0.3	-1.5	0.8	0.5	0.1	0.3	0.0	-0.2	-0.4
Unemployment rate (year average, in percent of labor force)	7.1	6.1	6.3	8.5	7.1	7.3	7.0	6.5	6.2	6.0	6.0
Average monthly gross earnings (annual percentage change) 1/	8.2	9.9	8.8	10.1	10.5	17.2	14.5	5.8	5.6	5.6	5.5
Average monthly gross earnings, real (annual percentage change)	4.3	7.2	6.4	9.0	5.6	-0.6	6.0	2.9	3.2	3.2	3.2
Labor productivity (annual percentage change)	4.8	2.5	4.3	1.4	4.2	1.3	2.2	2.6	2.8	2.8	2.8
Prices											
HICP, period average (annual percentage change)	3.7	2.5	2.2	1.1	4.6	17.9	8.5	3.0	2.4	2.4	2.3
HICP core, period average (annual percentage change)	2.6	1.9	2.3	2.6	3.4	9.3	5.8	3.6	2.6	2.4	2.4
HICP, end of period (year-on-year percentage change)	3.8	1.8	2.7	-0.1	10.7	17.2	4.6	2.4	2.5	2.3	2.3
GDP deflator (year-on-year percentage change)	4.2	3.5	2.7	1.5	6.5	14.5	9.6	3.9	3.1	2.8	2.5
General Government Finances											
Revenue (percent of GDP)	33.6	34.5	35.2	35.7	37.7	38.3	37.2	36.7	36.4	36.2	36.2
Of which EU grants	0.6	0.7	0.9	0.6	0.7	1.5	0.8	0.7	0.7	0.6	0.6
Expenditure (percent of GDP)	33.2	34.0	34.8	42.9	38.7	40.2	38.5	37.9	37.6	37.4	37.2
Of which: Non-interest	32.1	33.1	33.9	42.3	38.3	40.0	38.3	37.7	37.3	37.0	36.9
Interest	1.1	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.3	0.4	0.4
Fiscal balance (percent of GDP)	0.4	0.5	0.5	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.0
Fiscal balance excl. one-offs (percent of GDP)	0.4	0.5	0.4	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.1
Structural fiscal balance (percent of potential GDP) 2/	0.5	0.5	0.3	-6.6	-1.2	-2.0	-1.2	-1.1	-1.0	-1.0	-0.9
General government gross debt (percent of GDP)	39.3	33.7	35.9	46.6	44.7	42.1	38.3	36.5	35.2	34.1	33.1
Of which: Foreign currency-denominated	11.1	9.5	10.1	6.5	3.1	1.5	0.7	0.3	0.2	0.1	0.0
Balance of Payments (in percent of GDP, unless otherwise specified)											
Current account balance	0.6	0.3	3.5	7.3	1.4	-1.5	-1.5	-1.0	-0.5	-0.2	0.1
Current account balance (billions of euros)	0.3	0.1	1.7	3.6	0.8	-0.9	-1.1	-0.8	-0.4	-0.2	0.1
Saving-Investment Balance (in percent of GDP)											
Gross national saving	19.8	20.6	21.0	20.8	20.0	17.6	17.4	18.5	19.5	20.2	20.8
Gross national investment	19.2	20.4	17.6	13.5	18.6	19.1	18.8	19.6	20.0	20.5	20.7
Foreign net savings	-0.6	-0.3	-3.5	-7.3	-1.4	1.5	1.5	1.0	0.5	0.2	-0.1

Sources: Lithuanian authorities; World Bank; Eurostat; and IMF staff estimates and projections.

Note: Data are presented on ESA2010, and BPM6 manuals basis.
1/ 2019 adjusted for tax reforms.

2/ Calculation takes into account standard cyclical adjustments as well as absorption gap.

INTERNATIONAL MONETARY FUND

REPUBLIC OF LITHUANIA

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION

July 11, 2022

KEY ISSUES

Context. The strong post-pandemic economic recovery was leading to an overheating economy and demand-side inflationary pressures. The war in Ukraine, including its impact on commodity prices, has, however, negatively impacted economic activity and further intensified inflationary pressures. With higher inflation for longer, policies should aim at preserving stability over the near-term while supporting the economy adapt to a higher interest rate environment over the medium-term. Although the current sociopolitical situation is less conducive to structural reforms, these remain key to ensuring sustained productivity growth that will support high wage growth and faster income convergence with Western Europe.

Key Policy Recommendations:

- **Mitigate supply-side macroeconomic disruptions and support the vulnerable.** Smooth out excessive volatility of energy prices and support vulnerable groups without introducing economic disruptions. Ensure policies remain countercyclical while minimizing the risk of fueling widespread inflationary pressures. Addressing expenditure pressures going forward will require increasing revenues or a relaxation of fiscal targets. Preserve the policy framework that has served Lithuania so well.

- **Short-term deviations of wages from productivity can be accommodated.** Given large past competitiveness gains, temporary deviations of real wages from productivity can be absorbed while the flexible labor market should self-correct them if they become entrenched. The implementation of structural reforms to support productivity and income growth remains a priority.

- **A maturing fintech sector requires a shift from growth to consolidation.** Supervision and regulation will need to be stepped up commensurately with the qualitative and quantitative growth of the sector by strengthening AML/CFT supervision of non-resident cross-border payments.

- **Address climate change challenges while ensuring energy security and affordability.** Efforts should focus on mitigation and adaptation while ensuring energy prices are not excessively volatile and are affordable.

Approved by
Philip Gerson (EUR) and Johannes Wiegand (SPR)

Discussions were held in Vilnius during May 26–June 7, 2022. The team comprised Messrs. Borja Gracia (head), Serhan Cevik, Enrique Flores, Anton Mangov (all EUR), and Jan Strasky (RES). Mr. Maksym Markevych (LEG) joined the mission from May 26 to June 1. Mr. Simonas Spurga (OED) participated in most of the meetings. Mses. Sadhna Naik, Rafaela Jarin, and Ritzy Dumo (all EUR) supported the mission from headquarters.

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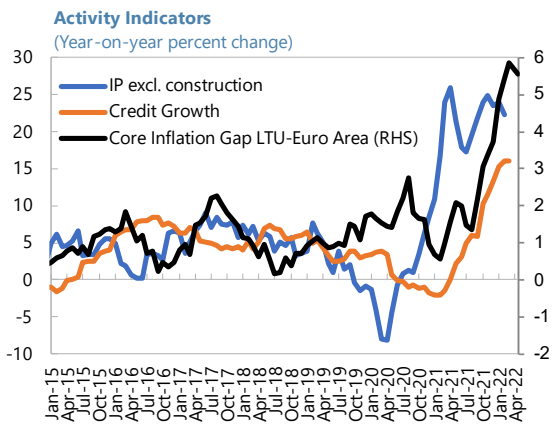
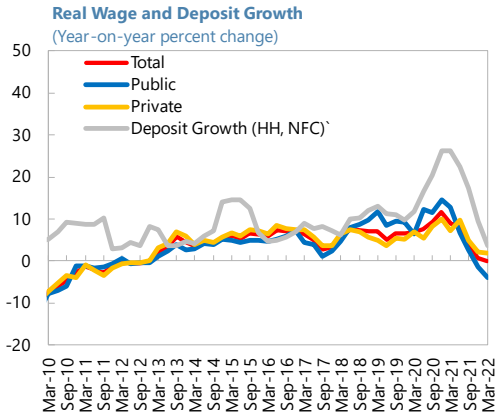
CONTEXT: AN OVERHEATING ECONOMY NOW FACING FURTHER INFLATIONARY AND SUPPLY-SIDE SHOCKS

1. The robust post-pandemic economic recovery resulted in demand-driven inflationary pressures later compounded by high energy prices and the war in Ukraine. With resilient macroeconomic fundamentals, a decisive policy response, and high immunization, the economy avoided a recession in 2020 and rebounded vigorously in 2021, outperforming the rest of the euro area. All remaining COVID-19 restrictions were removed on May 1, 2022 (Figure 1). High real wage growth supported by a tight labor market, loose monetary conditions, and strong private sector balance sheets were fueling an overheating economy. In this context, high energy prices and supply-side disruptions in energy and commodity markets resulting from Russia's invasion of Ukraine have and will continue to negatively affect economic activity and add to inflationary pressures (Box 1 and Figure 2). Thus, inflation is expected to remain high in the short-term and be more persistent over the medium-term than previously anticipated, creating new challenges for policymakers given the lack of autonomous monetary policy.

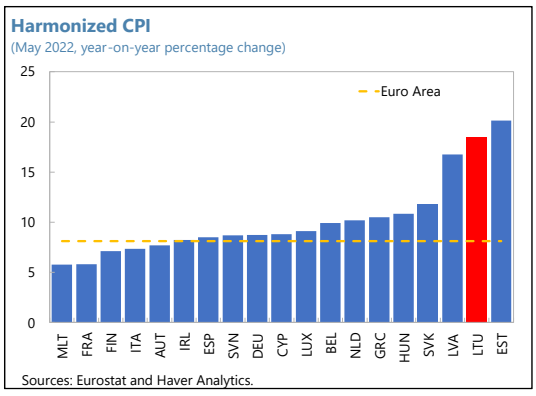
High Frequency and Labor Market Indicators





Sources: Haver; Lithuania Statistical Office; Bank of Lithuania; and IMF staff calculations.

2. Strong macroeconomic fundamentals, large policy buffers, and a flexible labor market are key factors in explaining the resilience of Lithuania's economy. Notwithstanding the higher volatility associated with being a small open economy, Lithuania can count on euro area membership, macroeconomic flexibility, and prudent policies as sources of stability. Thus, the economy seems well-placed to address a deteriorating environment. The emerging risk of high inflation creating a reinforcing cycle with wages that could become entrenched, with its asymmetric social impact, could stall structural



Sources: Eurostat and Haver Analytics.

reforms, erode competitiveness, and scar the country's long-term growth prospects. In this context, the government is committed to continuing to implement prudent policies and avoid policy actions in response to short-term challenges that introduce distortions or weaken the strong policy framework. While the focus has been placed on responding to unprecedented shocks—COVID first and now the impact of the war—long-standing structural challenges regarding productivity, income convergence, and demographics persist and need to be addressed, too.

RECENT DEVELOPMENTS: INFLATION EXACERBATED BY THE WAR AND SUPPLY-SIDE DISRUPTIONS

3. Prior to Russia's invasion of Ukraine, the Lithuanian economy was on a strong recovery path and showing signs of overheating. Domestic demand was the main driver of growth, supported by double-digit wage growth—the highest in the euro area over the past two years—and a recovery of investment (Figure 3). Unemployment was returning to pre-pandemic levels, with rising job vacancies and robust wage growth pointing to strong, tightening labor market conditions, with employment reaching pre-pandemic levels by mid-2021 (Figure 4). The strength of aggregate employment, however, masks considerable heterogeneity across economic sectors, as employment in activities more affected by the pandemic tended to experience a slower recovery (Box 2). The booming residential real estate market, increasing credit growth, and core inflation rising more than twice as fast as the eurozone average confirmed the trend of an overheating economy. The external position weakened, driven by a significant but declining trade surplus.

4. Demand-driven inflation precedes the recent spike in energy and commodity prices and the impact of the war, which have further fueled inflationary pressures. Inflation increased from -0.1 percent at the end of 2020 to 6.4 percent by September 2021, before energy prices surged, and reached 20.5 percent in June 2022—the second highest rate in the euro area. This is driven by global supply bottlenecks, higher energy and commodity prices, and above-trend growth in employment and disposable income. At the same time, the ECB's monetary policy stance was looser than warranted for Lithuania alone given its more advanced cyclical position. The authorities have taken steps to limit the increase in administered energy prices (Annex V). Core inflation, excluding energy and food components, has also increased alongside strong wage growth, suggesting that the surge in consumer prices is increasingly more broad-based. Furthermore, the fast-rising cost of living and continuing labor shortages will maintain upward pressure on wages and inflation. Higher consumer prices have put a greater strain on low-income households that face a

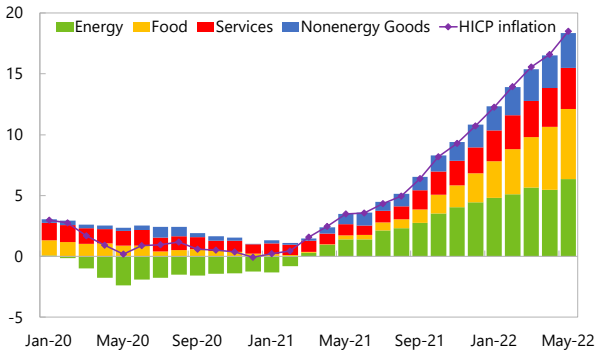
higher inflation rate as they allocate 60 percent more of their consumption on food and energy than do higher-income ones.

Box 1. Inflation May Prove Persistent, Eroding Real Incomes, and Increasing Inequality[1]

Inflation dynamics in Lithuania reflect both external and domestic factors. The decomposition of inflation into energy and food prices, associated mainly with external factors, as well as services and non-energy industrial goods, driven by domestic factors, shows that inflation, particularly in services, has been strong throughout the pandemic (Annex IV). In mid-2021, energy and food prices started to pick up too. Elevated inflation is likely to persist even when external price pressures subside due to an increase in inflation persistence in the aftermath of the pandemic (Cevik, 2022a).

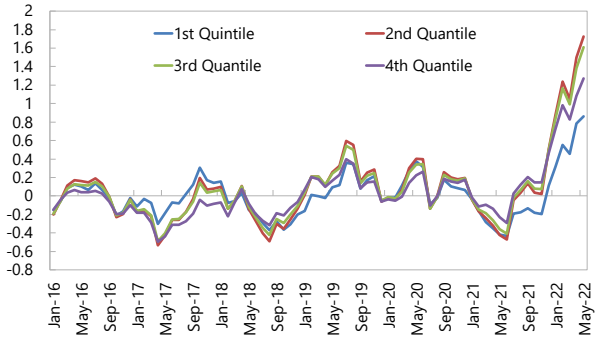
Inflation inequality seems to be increasing in Lithuania. The adverse effect of the recent increase in inflation is more pronounced for households in low-income quantiles who spend the highest share of their incomes on energy and food. Income-quintile specific inflation rates calculated using household budget survey data confirm that inflation is higher—and increasingly so with the level of inflation—for lower income quintiles than for the top income quintile, disproportionately reducing their purchasing power.

Lithuania: Inflation Decomposition
(Percentage points)



Sources: Eurostat, Haver Analytics and IMF Staff Calculations.

Inflation Gap Relative to 5th Quintile
(Percentage points)



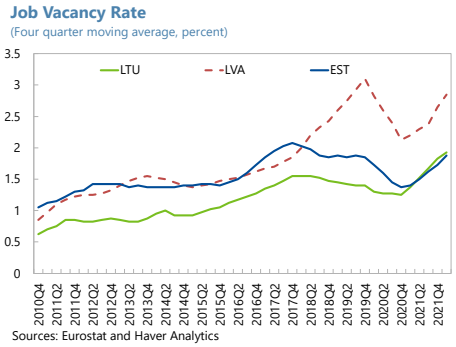
Sources: Eurostat and IMF Staff Calculations.

[1] Data on consumption expenditure by income quintile come from Household Budget Survey 2015.

5. The financial system remains profitable, well-capitalized, and liquid. Capital adequacy ratios neared 23 percent at end-2021, well above the required minimum, and profitability remains below pre-pandemic levels but above those of euro area peers (Figure 5). The banking sector remains highly liquid, and loan-to-deposit ratios are at historic lows. Asset quality has further improved, with non-performing loan (NPLs) ratios among the lowest in the EU. Credit growth to households remains solid and credit to nonfinancial corporations is recovering strongly—after taking a dip in 2020 as firms had ample liquidity given strong government aid. The composition of the loan portfolio shifted further toward mortgages in 2021, against the backdrop of a marked increase in residential real estate prices. Electronic money institutions (EMI) and payment institutions (PI) continued their rapid expansion, with their income soaring by 250 percent from 2020—as payment transactions increased by 280 percent. With the fintech sector becoming increasingly mature, the authorities have shifted their efforts towards strengthening the AML/CFT framework.

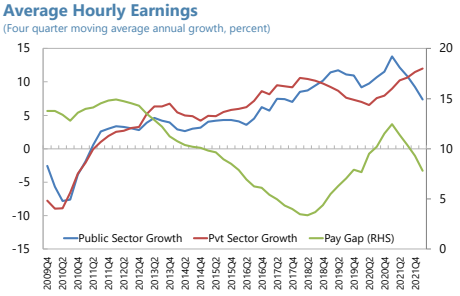
Box 2. Labor Shortages are Stoking Wage Growth in Most Sectors

The rebound in the labor market has reignited pre-pandemic labor shortages. Employment growth post-pandemic has been particularly strong in communications, transportation, and manufacturing, intensifying labor shortages and putting significant pressure on wages. Job vacancies increased markedly in 2021, in line with other Baltic countries. While employment growth has been strong, total hours worked remain below pre-pandemic levels. Persistently high but declining structural unemployment reflects skills mismatches and a lack of skilled labor in high value-added sectors, while the number of long-term unemployed remains twice as high as pre-pandemic.



Sources: Eurostat and Haver Analytics

Labor costs have grown strongly in most sectors amid tight labor market conditions, which are expected to remain. By end-2021, labor costs per hour worked in manufacturing, construction, and services were more than 15 percent higher than a year earlier. Labor cost increases were broad-based, ranging from 7 percent in transportation to 43 percent in hospitality. High public sector wage growth since 2017 and moderate private sector wages in 2020 have increased the gap between public and private sector remuneration—currently around 10 percent. Lithuania has one of the highest shares of low-income earners in the EU—more than 22 percent—second only to Latvia. Large increases in the minimum wage have sought to address this issue but, with a single national high minimum wage relative to average wages of around 45–50 percent, the minimum wage disproportionately affects employment of low-skilled, young workers in rural areas where it is likely to incentivize informality (see Annex III, IMF Country Report No. 18/185).



Sources: Statistics Lithuania and IMF Staff Calculations
Note: The pay gap denotes the percentage difference in gross hourly earnings between the public and private sector

6. The fiscal position continued to improve prior to the unprecedented shock triggered by Russia's invasion of Ukraine. Thanks to the strong recovery and prudent policies in general, the fiscal position improved markedly in 2021—by 6.3 percentage points—to an overall deficit of 1 percent of GDP (Figure 6). Given the transitory and targeted nature of most pandemic support measures, this improvement required no fiscal effort, bringing government debt down to 44.7 percent of GDP. In 2022, however, the war in Ukraine is undermining fiscal performance due to lower growth and higher spending on military, refugees, energy subsidies, additional pension increases, and transfers to the state-owned railway company affected by sanctions to Belarus. In April 2022, the government announced a fiscal package of about 3.5 percent of GDP, half of which is repurposing of existing budget allocations and use of EU funds.

Package of Fiscal Measures, 2022

	In million EUR	Percent of GDP
Energy subsidies		
Households	570	0.9
Firms	120	0.2
Increase in minimum untaxable income threshold	103	0.2
Temporary VAT reduction on central heating	23	0.0
Increase in old-age pensions	68	0.1
Additional benefits and heating aid	106	0.2
Social assistance for refugees	384	0.6
Support to affected sectors	9	0.0
Support to the railway company	155	0.2
Solar power grant to households	35	0.1
Additional military spending	298	0.5
Additional infrastructure and security spending	3	0.0
Additional other spending	235	0.4
Total	**2,110**	**3.3**

Sources: Ministry of Finance; staff estimates.

Note: The difference amounting to about 0.2 percent of GDP between the estimates of staff and authorities is due to the difference in nominal GDP projections in 2022.

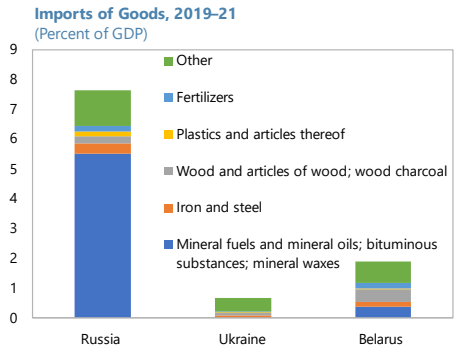
7. Lithuania's external position was moderately stronger than fundamentals in 2021. The current account surplus decreased to pre-pandemic levels. National savings remained buoyant reflecting temporary factors rather than a long-term misalignment (see Annex II). Exports of goods and freight services proved resilient to the introduction of the EU mobility package, while exports of financial and IT services were boosted by the growth of fintech in the wake of Brexit. The 2021 SDR allocation of 423.3 million (around EUR512 million) has been kept as part of international reserves.

Box 3. Impact of Russia's Invasion of Ukraine

Under the baseline assumption of no further escalation, the impact on the economy will be modest through direct trade linkages and sanctions[1] but, like other countries, will be magnified by a worsened global outlook, rising commodity prices, and confidence effects.

Trade linkages with Russia, Ukraine, and Belarus are considerable, but a large fraction represents re-exports. Lithuania's exports to these countries are about a sixth of total exports in 2021, which will be significantly affected adding to lower external demand. Importers are already facing higher import prices and supply disruptions, particularly in some industries such as metals, chemicals, and furniture. At the same time, about 90 percent of exports of goods to Russia and Belarus and 30 percent of exports to Ukraine are re-exports. Finally, after the 2014 sanctions, Lithuanian companies proved flexible in reorienting to new markets and substituting alternative inputs.

The conflict will also affect Lithuania's trading partners within the EU. The hit to activity in trading partners will result in weaker demand from the EU, which accounts for the lion's share of merchandise exports of Lithuanian origin (about 60 percent). This effect will be partly offset by slowing import growth given the high import content of exports.



The heightened uncertainty could dampen activity further. A loss of investor confidence and higher inflation could erode household disposable income and corporate profitability and thereby weigh on private investment and consumption. The war is expected to dent real GDP growth by about 2 percentage points in 2022 relative to the pre-conflict baseline. Half of that impact would come from the disruption of trade with Russia, Ukraine, and Belarus.

[1] Lithuania has imposed sanctions on Russia, including the central bank and selected banks. The List of EU sanctions adopted following Russia's invasion of Ukraine is available on the EU website. Analysis of the global spillovers of sanctions can be found in April 2022 World Economic Outlook.

8. While the outbreak of the war in Ukraine will have far-reaching consequences, economic links to Russia have been declining and Lithuania stands on a resilient footing. Lithuania has historical ties with Russia, but trade and financial linkages have become significantly

less important over time with Lithuania's integration into the European Union (EU) and the euro area (Figure 7). The share of exports to Russia, Ukraine, and Belarus was 16 percent as of end-2021, down from 30 percent in 2014 before the introduction of sanctions and countersanctions due to Russia's annexation of Crimea, but re-exports account for a significant share of this, particularly in the case of Russia (Box 3). Therefore, Lithuania enters this crisis with ample buffers, robust private balance sheets, a profitable financial sector, and a strong external position that point to a resilient economy. So far, the increase in long-term bond spreads relative to Germany has been modest (about 20 basis points), while equity markets have remained broadly stable. There were some modest deposit withdrawals in the early days of the war, but the level of deposits remains at an historic high and significantly above a year earlier.

Pre War vs. Pre GFC vs. Pre Covid

	2007	2019	2021
Current Account (percent GDP)	-13.1	5.2	1.4
Savings-Investment balances:			
Non-financial corporates	-9.0	5.7	
Households	-4.2	-1.6	
General government	-0.8	0.5	
Financial corporates	0.9	0.7	
Output gap (percent potential GDP)	13.4	0.8	0.9
Nominal wage growth[1]	19.3	8.8	10.5
Inflation[2]	11.2	2.2	4.6
Budget balance (percent GDP)	-0.8	0.5	-1.0
Structural balance (percent potential GDP)	-6.4	0.6	-1.0
Effective interest rate on public debt[3]	7.0	2.8	1.0

Sources: Eurostat, Haver, IMF staff calculations
1/ 2019 excludes tax and pension reform adjustment
2/ 2008 and 2019
3/ 2009 and 2019

OUTLOOK AND RISKS

9. The outlook assumes a significant but manageable impact from the war (Box 3). The baseline projections are shaped by the assumptions of no further escalation of the war and a gradual decline in commodity prices in 2023 and beyond towards pre-war levels.

- **Real GDP growth in Lithuania is projected to slow markedly in 2022, but with little permanent effect on potential output.** Economic growth is projected to be half the pre-war forecast due to lower contribution from net exports, reflecting the country's trade linkages with Russia, Ukraine, and Belarus, as well as significantly lower demand from EU trading partners in 2022.[1] Strong balance sheets, Recovery and Resilience Facility (RRF) funds, and a tight labor market are expected to limit the impact of the conflict on domestic demand, despite high inflation eroding real disposable incomes. As a result, the output gap is estimated to be positive but small in 2022 and close going forward.

- **Inflation will remain elevated for longer.** High global energy and food prices and supply-side disruptions will keep inflation high throughout 2022 and early 2023. Core inflation is also expected to remain elevated on the back of tight labor market conditions. While inflation is expected to decelerate in 2023 and beyond, helped by declining commodity prices, there is considerable uncertainty regarding its future path and degree of persistence, with risks skewed to the upside.

[1] In line with the April 2022 WEO, we assume a slowdown in global growth in 2022 reflecting the assumption that (i) the war is confined to Ukraine and Russia, (ii) the energy sector remains largely exempt from sanctions, and (iii) the economic impact of the pandemic abates during 2022.

Main Macroeconomic Variables Under Baseline						
	2022	2023	2024	2025	2026	2027
Real GDP growth	1.8	2.3	3.0	2.8	2.6	2.3
Output gap	0.6	0.2	0.1	0.0	0.0	0.0
Inflation	17.9	8.5	3.0	2.4	2.4	2.3
Pre-war real GDP growth projection	*3.9*	*3.1*	*2.6*	*2.4*	*2.3*	*2.3*

10. Abundant downside risks could hinder growth and lead to high and persistent inflation. Global inflation could prove long-lasting, with higher interest rates and more volatile financial markets. While Lithuania has ample buffers to respond to shocks, risks to the outlook are clearly tilted to the downside. There are also other risks associated with a further escalation of the war, refugees, the lingering conflict with China, lack of momentum in structural reforms, and tightening financial conditions, especially at the peak of the real estate market. In response to these shocks and among other policies, automatic stabilizers should be allowed to respond and targeted support to the vulnerable might be needed (Annex VI). On the upside, the economy could prove more resilient than projected and precautionary savings weaker than expected due to the strength of private sector balance sheets and strong fundamentals.

Authorities' Views

11. The authorities broadly agree with staff's assessment of the outlook and risks but highlight the significant uncertainty facing the world economy. They emphasize the resilience of the Lithuanian economy during the pandemic but acknowledge that the war in Ukraine will have significant social and economic ramifications. The authorities expect inflation to moderate in the second half of the year but see persistently high inflation as a significant risk going forward. They indicate that while risks to the outlook are skewed to the downside, Lithuania has ample policy and macroeconomic buffers to absorb shocks.

POLICY DISCUSSIONS: DEALING WITH INFLATION WITHOUT JEOPARDIZING LONG-TERM STABILITY

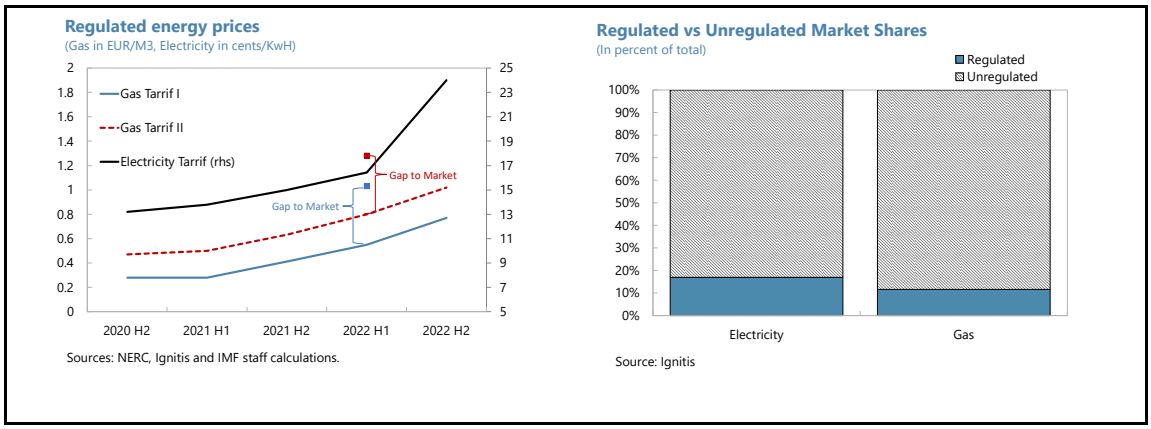
Policy discussions focused on the impact of the war, including high energy prices, and the policy response. They also focused on how the economy could achieve a soft landing from the overheating experience last year and the current supply-side shocks avoiding a vicious inflation-wage spiral that would trigger imbalances. Thus, the main challenge in the short-term is how to respond to high and persistent inflation without an independent monetary policy. Over the medium-term, the economic challenges focused on how to adapt to a higher inflation-and-higher interest rate environment.

A. Fighting Inflation with Limited Policy Instruments and Loose Monetary Conditions

12. High and persistent inflation is the biggest challenge faced by the Lithuanian economy in the short-term. After years of high real wage growth and low inflation, demand-driven inflationary pressures started to build last year. These were compounded at the end of the year by external factors related to high energy and commodity prices that were expected to be transitory. However, supply-side inflationary pressures have intensified after the war with further supply-side disruptions, which could result in second-round effects and become entrenched. While the ECB is entering into a tightening cycle, its monetary policy stance is expected to remain looser than warranted for Lithuania alone. Thus, higher and more volatile inflation is expected to stay for longer and will pose significant challenges.

13. The response to high energy prices needs to provide the proper price signals, while minimizing their disruptive economic impact and supporting vulnerable groups. Energy price fluctuations should be allowed to pass through to domestic consumers while targeted support should be provided to vulnerable groups. However, in the face of extraordinarily large energy price increases, a full pass-through might dent households' disposable income and companies' profitability to such an extent that it would create large and undesirable macroeconomic disruptions—some companies have temporarily ceased production when energy prices have exceeded a certain level. Thus, policy actions aimed at preventing this excessive volatility in energy prices could play a role in the current juncture provided they have clear sunset clauses and do not eliminate the price signal.

14. The authorities' multi-pronged approach aimed at limiting economic disruption, provided targeted support, and allowed for market price signals. Most of the gas and electricity market is deregulated, implying a significant pass-through of electricity and natural gas prices. Gasoline and diesel are unregulated and have not been subsidized, allowing full pass-through of prices. However, most households are in the regulated segment of the market. Regulated prices also increased significantly, albeit the authorities took some measures to limit the increase that have



been extended to all households since July until the end of the year (Annex V). They also enhanced pre-existing targeted programs to subsidize heating for vulnerable households, and temporarily reduced the value-added tax (VAT) rate on district heating for all households to zero at a moderate expected cost of EUR23 million.

15. Fiscal policy will be moderately pro-cyclical this year in response to the new environment, with new spending leading to a deterioration of the underlying fiscal position. The 2022 budget was prepared when inflationary pressures and an overheating economy with a tight labor market were expected to generate a revenue windfall and reduce spending pressures. While revenues are still expected to remain buoyant, the windfall will be smaller because of the negative impact of the war on activity. At the same time, it will increase expenditures and create some permanent spending commitments, such as additional defense expenditures of around 0.5 percent of GDP. As a result, the budget deficit is projected to widen by 1 percent of GDP. Beyond temporary factors, the underlying fiscal stance is estimated to be moderately pro-cyclical this year. In 2023 and beyond, however, the fiscal position should be tightened in a counter-cyclical manner, in line with the national fiscal rule without activating the escape clause, for a more effective management of aggregate demand. Furthermore, in the current high inflation environment, the increase in public sector wages and the minimum wage over the next few years will provide a strong signal to the private sector and could, if set cautiously, help prevent a vicious wage-price spiral. Deficits over the medium-term are expected to moderate, consistent with the national fiscal rule—which is tighter than the EU framework—while the increase in the debt burden is manageable given low and declining government debt ratios benefiting from high nominal GDP growth. At the same time, Lithuania will continue to benefit from cohesion funds (11 percent of GDP over the 2021–27 programming period) and RRF funds (3 percent of GDP), which should help address infrastructure needs and preserve ample fiscal space against future shocks at a time of heightened uncertainty.

16. With an uncertain outlook, the impact of the war accentuates Lithuania's pre-existing long-standing structural fiscal challenges given ample social demands. Budgetary pressures over the medium-term will come from aging-related spending, particularly on pensions—the most important tool available for redistribution—with one of the highest old-age dependency ratios in the EU, and that is expected to double by 2060. In particular, recent pension adjustments have exceeded, once again, what the existing formula prescribes. While the formula aims to ensure financial sustainability, it would result in significantly lower replacement ratios, jeopardizing the social sustainability of the system. Thus, further increases in social spending, which remains at a level below the EU average, are likely and will require better social programs. Spending pressures over the medium-term, including from higher interest rates, combined with already low discretionary spending, mean that further increases in spending will require either increasing revenues or a relaxation of the fiscal rule. Nevertheless, tax reform plans have been postponed. Thus, a comprehensive fiscal strategy that incorporates plans to deal with these pressures should focus on (i) improving the quality of spending, (ii) broadening the tax base in growth-friendly ways by

eliminating distortionary tax expenditures (which amounted to EUR2.4 billion in 2021), and (iii) strengthening the composition and collection of environmental and housing-related taxes.[2]

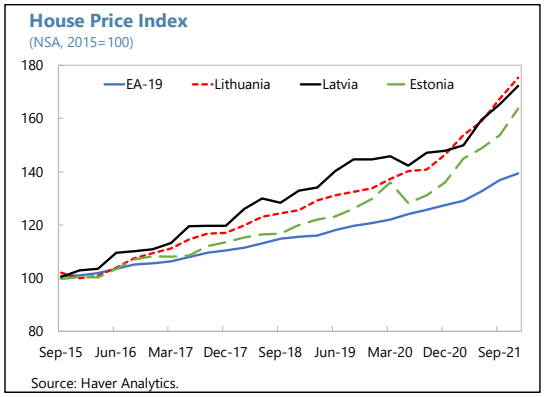
17. Given ample buffers, the financial system is well-placed to withstand a deteriorating economic environment. Given excess capital and liquidity ratios and healthy profitability, the financial system can adjust to the weaker macroeconomic environment. In fact, Bank of Lithuania (BoL) stress tests suggest that the system would be able to absorb losses under a severe downside scenario assuming a cumulative decline in output and real estate price of 7.5 and 17.5 percent respectively over two years. As the ECB gradually tightens monetary policy in the medium-term, banks' profitability will likely improve as interest margins are expected to increase while the portfolio quality is expected to remain resilient given the strong balance sheet of households and corporates.

18. To address potential risks to the financial sector from rising residential real estate prices, the BoL has implemented a series of macroprudential measures. These include tighter down payment requirements for second and subsequent housing loans and a new sectoral systemic risk buffer for banks with the largest mortgage portfolios. The distribution of loan-to-value ratios on new loans has shifted down since the measure was implemented. The BoL estimates that these measures could reduce new mortgages by 10 percent and slow house price growth by as much as 3 percent. However, the effectiveness of capital-based measures might be limited given excess capital and the profitability of the banking system. Addressing some of the underlying structural bottlenecks in housing supply will help contain real estate prices that, over the last year, appear to have deviated from fundaments in the Vilnius area. This would require a comprehensive approach to regional development and changes in land-use policies to increase allocation to residential housing.

Macroprudential Actions

Measures	Effective Date
Increased down payments for second and subsequent mortgages	February 1
New sectoral buffer to institutions with mortgage portfolios > EUR50 million	July 1

19. Given higher uncertainty, the emphasis should remain on mitigating potential financial stability risks. While the banking sector remains among the most concentrated in the EU, the degree of concentration across loan segments—and most notably consumer loans—has declined after the third largest bank completed its restructuring. At the same time, interest rates on loans have declined without affecting credit standards. Low interest rates and strong household income are factors driving the boom in the residential real estate market. However, rapidly rising house prices, record sales, buyer intent indicators, and an increase in secondary mortgages may be signs of overheating. Nearly half of real estate



[2] See Annex VI, Structural Elements of a Medium-Term Fiscal Strategy, IMF Country Report No. 21/192.

transactions do not involve a mortgage, suggesting that an increase in interest rates may have a limited effect on house prices. The expected rapid growth of an online fintech bank focused on non-resident activity and ambitious expansion plans across the EU will require sustained supervisory efforts by national and supranational authorities.

20. While the fintech sector has continued to expand, efforts should focus on consolidating the gains and strengthening regulation and supervision. Thanks to a supportive business environment and regulatory framework, Lithuania has since 2016 attracted an ever-growing number of fintech companies, with 35 new market participants in 2021, becoming the largest fintech hub in the EU in terms of licensed companies.[3] Core business activities include payment services, financial software, lending, digital banking, and blockchain. In addition, Lithuania has become a hub for virtual asset service providers (VASP), with most of the 407 registered VASPs entering in the last year. In 2021, specialized banks increased their market share fourfold, to 2.3 percent of total assets. The number of employees working in the sector has also grown steadily, reaching 5,900 at the end of last year—about 30 percent of employment in the financial and insurance sector. Against this background, the BoL has taken steps to enhance the governance and compliance culture of licensed fintech operators, including by developing a risk-based approach to AML/CFT supervision and consistent outreach and guidance to supervised entities. The focus of Lithuanian fintech hub on cross-border payments, most conducted by non-resident with transactions' origination and destination outside Lithuania, reshaped the financial sector and risk profile of the country, requiring commensurate resources and capacity for effective supervision, regulation, and law enforcement across different government agencies.

21. The AML/CFT framework requires further strengthening to respond to the increasing money laundering and terrorism financing (ML/TF) risks from non-resident activity.[4] Following the 2018 MONEYVAL assessment, which rated Lithuania's AML/CFT system as insufficiently effective in ten out of eleven areas, the authorities have strengthened the AML/CFT legislative framework, developed a risk-based approach to AML/CFT supervision, and increased the BoL and the financial intelligence unit staffing and other resources. However, the substantial increase in the volume of cross-border payments, including with higher risk jurisdictions, driven in part by the BoL's enabling EMI and PI to use its payment system for EEA payments directly, has increased the ML/TF threat (Figure 8). The AML/CFT supervisory coverage of the financial sector should be broadened and the BoL's resources and capacity increased, while AML/CFT controls to access the BoL payment system (CENTROlink) by non-bank payment services providers should continue to be strengthened. The light registration regime for VASPs has attracted a substantial number of new entrants, requiring the development of robust AML/CFT risk-based supervision of VASPs combined with stronger supervisory powers and market entry controls.

[3] The Fintech Landscape in Lithuania Report 2021–2022.

[4] See Selected Issues Paper on "Reinforcing Money Laundering Risk Mitigation in Lithuania"

Authorities' Views

22. The authorities emphasized the need to address the challenges posed by the high energy and commodity prices by protecting the most vulnerable while safeguarding stability. After a significant improvement in the fiscal position last year, the authorities have taken advantage of this fiscal space and responded to the shock caused by Russia's invasion of Ukraine by providing substantial support to households and firms and raising military spending. They highlighted their commitment to prudent fiscal policy and plan to implement countercyclical policies going forward provided energy and food prices moderate as expected. The authorities broadly agreed that the tax system needs adjustments, particularly in the area of real estate (where they have initiated a reform proposal broadening immovable property taxation) and environmental taxation.

23. The authorities will continue their proactive supervisory approach to banks and, after the initial success in establishing a dynamic fintech sector, will focus on further enhancing its maturity and risk management. With growing signs of overvaluation in the residential real estate market, they see incipient signs of risk to financial stability that could require further tightening borrower-based measures or increasing the countercyclical capital buffer. The authorities understand that with a growing fintech sector, the emphasis should be placed on its maturity in order to mitigate associated risks. They agree on the need to further increase supervisory resources and strengthen AML/CFT controls, including for VASPs, and controls to access the payment system. In this regard, they emphasize that parliament has recently amended the AML/CFT law enhancing the regulatory framework applicable to virtual asset service providers.

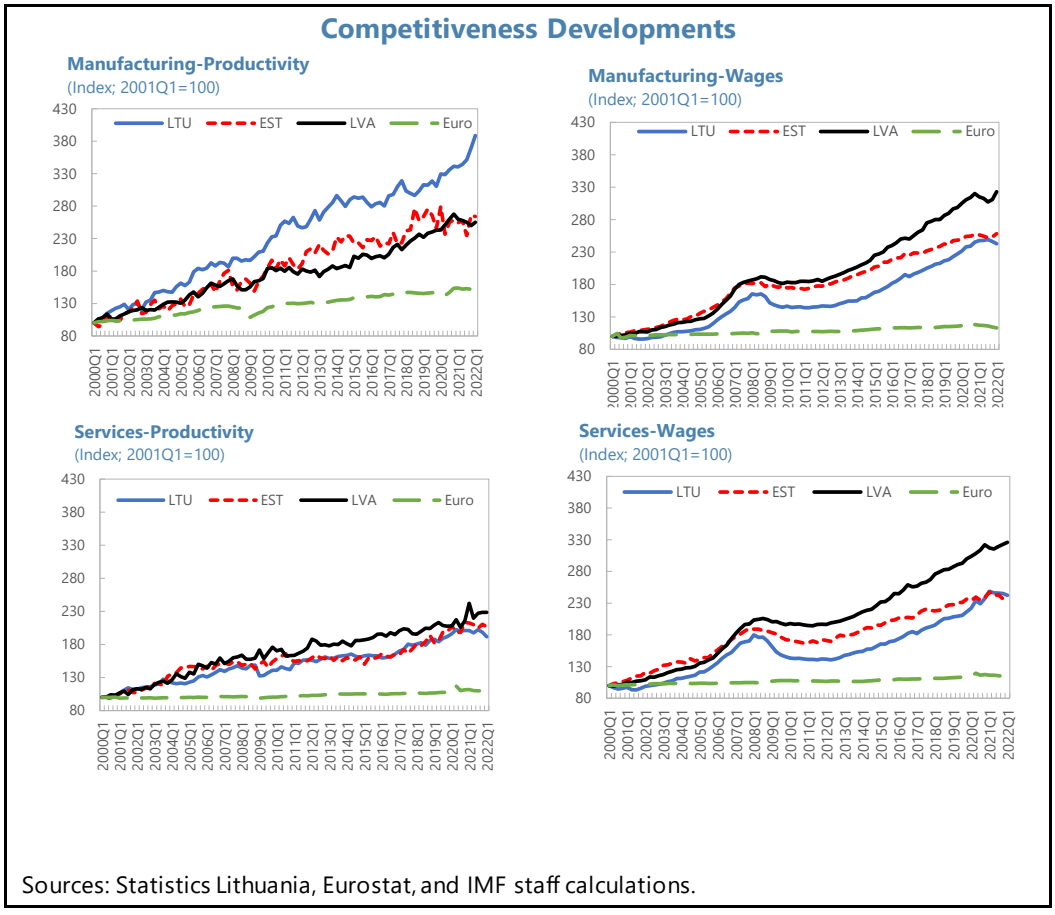
B. Introducing Key Reforms to Ensure Sustainable and Inclusive Growth

24. Lithuania has strong institutions, good governance, and a robust policy framework, the most important pillars for sustainable growth. Building on these strengths, structural reforms are necessary to ensure continued income convergence (Annex VI IMF Country Report 21/192).

25. The structural flexibility of the economy helps absorb shocks, reducing the burden on fiscal policy in the context of a currency union. Already high labor-market flexibility has increased following the reform of the labor code in 2017 that deregulated temporary contracts and working-time arrangements. The reform provided more flexibility to employers regarding hiring and dismissal of both permanent and temporary workers, at the potential cost of increasing labor market duality. The effects of increased flexibility were partly compensated by increasing the benefits and duration of the unemployment insurance. At the same time, the minimum wage, unchanged in the years following the global financial crisis, has increased significantly in the last decade at an average annual rate of 12 percent, the second fastest in the EU. While productivity gains have supported wage growth, Lithuania is facing labor shortages due to population aging and low net immigration. Along with previous efforts to increase the inflow of skilled workers from abroad, refugees from Ukraine could help alleviate some labor market shortages in specific sectors such as hospitality.

26. A competitive export sector is able to withstand temporary deviations between wages and productivity while the flexible labor market should correct long-term deviations. The driver of Lithuania's convergence since the global financial crisis has been high productivity in the tradeable sector that has preserved competitiveness and supported wage growth. Even recent high real wage growth in the tradeable sector has been, on average, in line with productivity. With wages equalizing across sectors, productivity growth has been broadly in line with wage growth even for non-tradeables, making Lithuania competitive and helping to increase its export share faster than peers (Figure 9). Thus, even if nominal wages remain elevated or increase further in the next few years when inflation starts moderating—accelerating income convergence—potential temporary deviations between real wages and productivity growth should not have a lasting negative impact. Furthermore, since wage setting largely happens at the firm level, wages are sensitive to unemployment resulting in a self-correction mechanism if these deviations become entrenched.

27. Lithuania has an opportunity to address structural impediments to growth, thanks to financial support from the EU. The top priorities remain education and healthcare reforms (IMF Country Report No. 21/192, Annex VI). Closing the gaps in transport infrastructure, human capital, and access to financing for SMEs are also priority areas for structural reforms efforts.

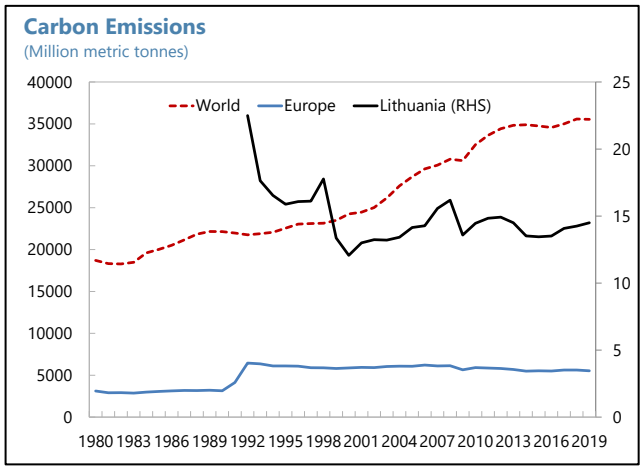


Sources: Statistics Lithuania, Eurostat, and IMF staff calculations.

C. Greening Growth while Ensuring Energy Security

28. The Baltics are increasingly vulnerable to climate change, while geopolitical tensions have brought energy security to the fore. While the projected increase in temperature over the next century could initially provide a boost to economic activity in colder regions of the northern hemisphere such as Lithuania, greater volatility associated with higher temperatures will bring significant downside risks. At the same time, Russia's invasion of Ukraine—unsettling global energy markets—has highlighted the risks associated with energy dependency and price volatility.

29. Changing the energy matrix and further improving energy efficiency could bring a significant reduction in carbon (CO_2) emissions and strengthen energy security. Moving away from fossil fuels is necessary to mitigate climate change. Unfortunately, the current pace of international CO_2 emission reductions is still not consistent with the goals of the Paris agreement. In the case of Lithuania, the reduction in CO_2 emissions has been slower than the EU average, largely because of the continuing increase in emissions in agriculture, transportation, services, and buildings.[5] Increasing the share of renewables and other non-hydrocarbon energy and further improving energy efficiency could contribute to a significant reduction in emissions and imported sources of energy.[6] To balance the need for energy security while advancing in the goal to reduce emissions, Lithuania has already taken steps to increase the share of renewables and has eliminated all energy-related imports from Russia. The introduction of a national economy-wide carbon tax—set to gradually increase to EUR50 per metric ton of CO_2 emissions by 2030—will be needed to reach Lithuania's emission target by 2030. At the same time, however, since long-term climate risks cannot be eliminated, decisive action to strengthen physical, financial, institutional, and social resilience will also be needed.



Authorities' Views

30. The authorities agree on the importance of structural reforms to achieve faster convergence and accelerate the green transition. Noting the critical role of competitiveness in sustainable high wage growth and income convergence, they highlight the pursuit of a broad spectrum of structural reforms—from education and healthcare to innovation policy. Notwithstanding the challenging environment at the moment, they remain committed to continue implementing the government's ambitious reform agenda. Green transition to renewables is a top

[5] Lithuania has committed to cut its emissions by 80 percent—by increasing the share of renewables to 45 percent and improving energy efficiency—and sequester 20 percent in order to achieve carbon neutrality by 2050.

[6] See Selected Issues Paper on "Climate Change and Energy Security: A Dilemma or an Opportunity?"

priority not only for meeting climate change mitigation pledges, but also to further reduce dependence on imported sources of energy.

STAFF APPRAISAL

31. The authorities' response to the energy crisis aims to limit economic disruptions, provide targeted support to the vulnerable, and allow for market price signals. With a more targeted response than that adopted in other countries, the pass-through of higher energy prices to consumers has been significant, particularly for companies. While the support provided for the first half of 2022 was not in line with best practices, the more recent decision to allow a significant pass-through of energy prices and reflect this subsidy transparently in the budget is welcome. Pre-existing targeted programs to subsidize heating for vulnerable households have also been enhanced and the VAT rate on district heating for households was temporarily reduced to zero at a modest fiscal cost. Going forward, the subsidy to energy tariffs should gradually be phased out even if high energy prices proved persistent, with the bulk of the support being provided in a targeted manner to the more vulnerable.

32. Higher revenues from inflation allow the budget to accommodate pressures for higher social and defense spending in the short-term, but difficult tradeoffs await down the road. Permanent spending commitments add to pre-existing pressures. With discretionary spending low and lack of consensus on significant tax reform in the current environment, further increases in spending will result in a moderate deficit over the medium-term instead of the authorities' goal of a balanced budget. This would still keep a strong fiscal position with public debt on a declining path. To avoid turning short-term challenges into structural problems, efforts should focus on improving the quality of spending while broadening environmental and housing-related taxes. To this end, the government's proposal for revamping real estate taxation is a step in the right direction.

33. Given the risk of persistently high inflation, fiscal policy will need to be decisively countercyclical going forward. Although fiscal policy should ideally take a counter-cyclical stance in Lithuania given the lack of monetary policy, the moderately procyclical stance in 2022 is an appropriate response to the new environment with heightened uncertainty and downside risks, especially considering that half of the fiscal stimulus is on additional military spending on mostly imported equipment with little impact on domestic demand. Public debt is still projected to decline this year. A tightening of fiscal policy next year in line with the national fiscal rule will help minimize the risks of persistently high inflation. Furthermore, the increase in public sector wages and the minimum wage over the next few years should be consistent with expected inflation and productivity gains to provide a strong signal to the private sector and prevent a vicious wage-price spiral.

34. The banking system has ample capital and liquidity buffers to withstand a weakening economic environment or even greater shocks. The expected emergence of a large financial institution with a non-resident base business model will require prompt action by national and supranational authorities to ensure effective supervision under the existing European arrangements.

35. Further efforts are needed to mitigate money laundering risks in the financial sector, particularly from the dynamic and growing fintech sector. While the BoL has made important strides in monitoring and supervision, the fast-growing non-resident activity in the fintech sector presents regulatory and supervisory challenges, with cross-border risks to the integrity of the AML/CFT framework. In this context, the focus should be shifted from growth of this sector to its consolidation, with a view toward mitigating risks. This should include more effective controls for access to the BoL's payment system (CENTROlink). For virtual asset service providers, the Ministry of Interior and the Financial Intelligence Unit should develop risk-based supervision, stronger supervisory powers, and market entry controls. The AML/CFT supervisory capacity of the BoL will also need to be substantially strengthened, a process which will take time and require significant new resources and greater coordination with other jurisdictions.

36. The external position was moderately stronger than implied by fundamentals. The current account surplus decreased to pre-pandemic levels. National savings remained buoyant reflecting temporary factors rather than a long-term misalignment.

37. Structural reforms are necessary to ensure continued income convergence. The authorities need to address structural impediments by accelerating reforms in education and healthcare, and by closing gaps in the transportation infrastructure, and reducing information asymmetries that limit access to financing for small and medium enterprises. Ample fiscal space and European funds imply that upfront reform costs can be met without jeopardizing the fiscal position.

38. A comprehensive carbon tax will be necessary to achieve the authorities' emission reduction objectives for 2030. Achieving the reduction in emissions and energy imports will require (i) reducing fossil fuels, (ii) investing in low-emission transportation, and (iii) raising energy efficiency. The introduction of an economy-wide carbon tax—set to gradually increase to EUR50 per metric ton of CO_2 emissions by 2030—would help achieve these goals.

39. The next Article IV Consultation is expected to be completed on the standard 12-month cycle.

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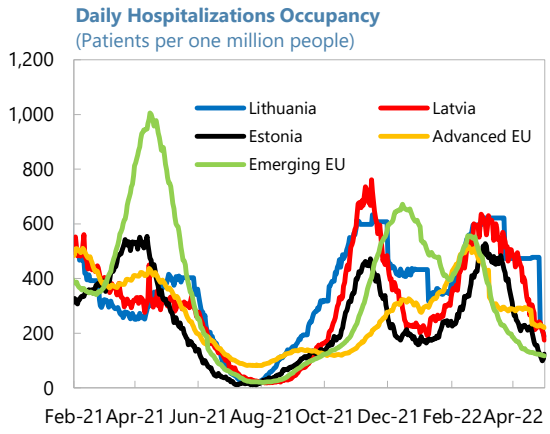
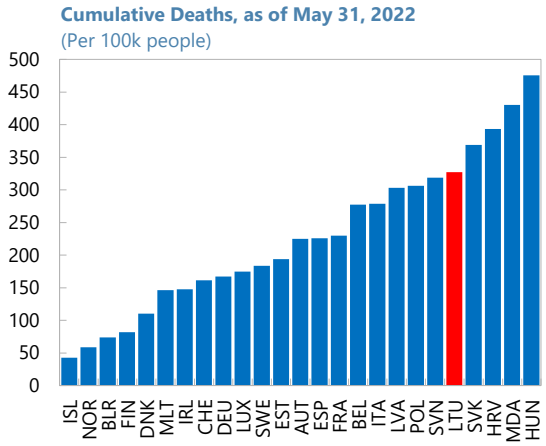
Figure 1. Lithuania: COVID Developments

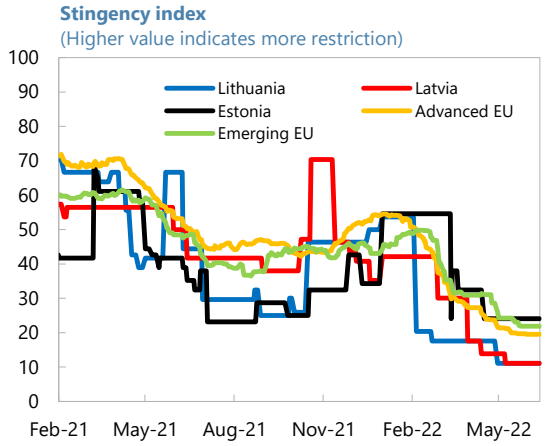
Recent developments have been in line with countries in the region.



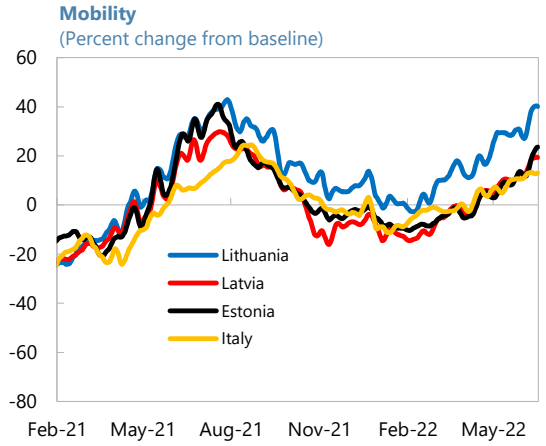
Although the overall cumulative death from COVID is high.



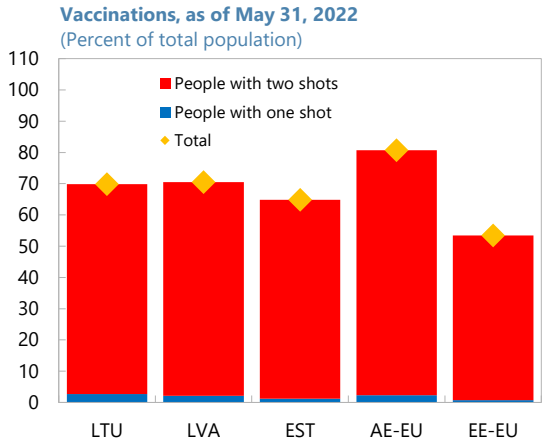
With relatively lower mobility restrictions than other countries…



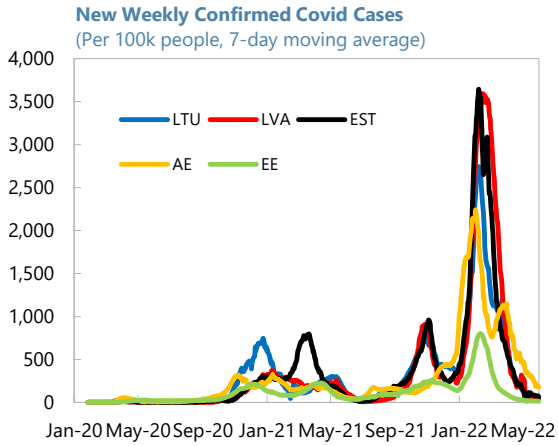
… the impact on mobility was lower.



The vaccination campaign has been effective…



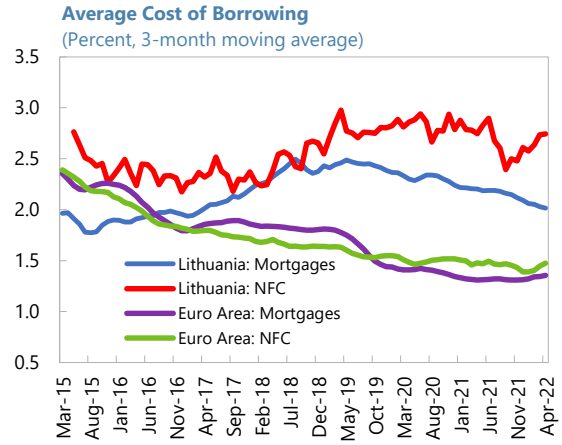
… as COVID follows seasonal patterns



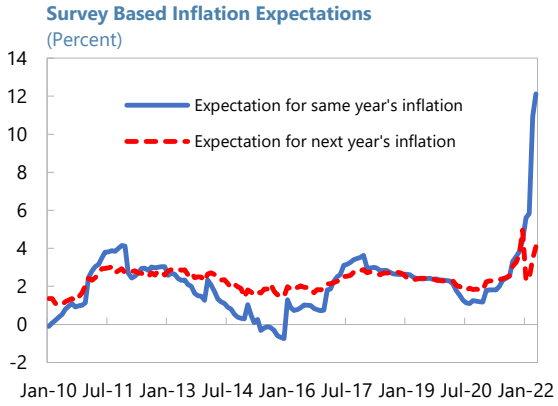
Sources: Bloomberg Finance L.P.; ECDC; Our World in Data, Worldometers; Google; IMF, WEO; and IMF staff calculations.

Figure 2. Lithuania: Inflation Developments

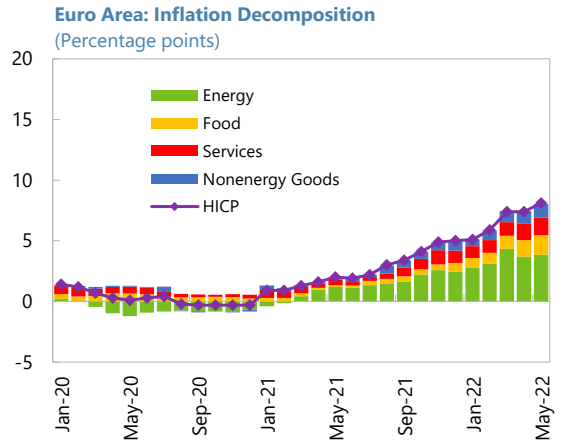
The ECB monetary policy stance is too loose for Lithuania.



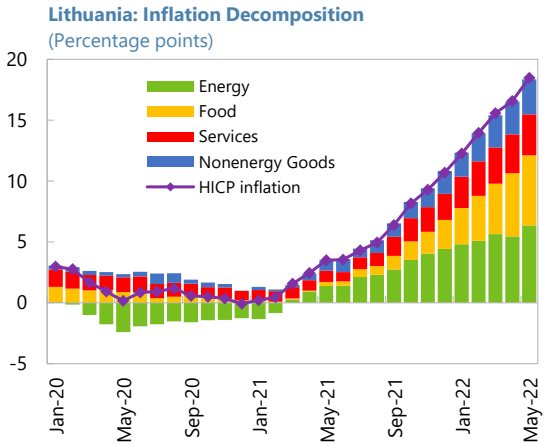
Inflation expectations have picked up.



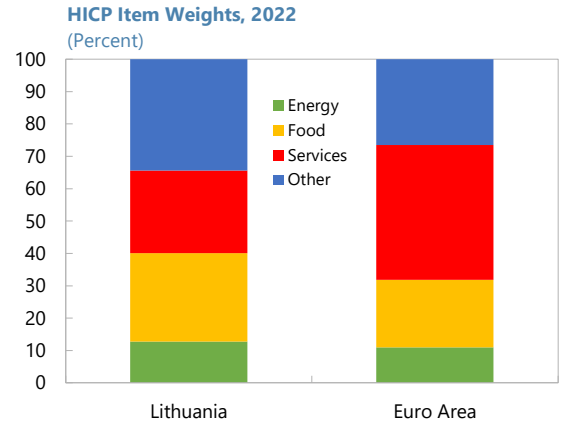
Eurozone inflation mainly reflects higher energy prices…



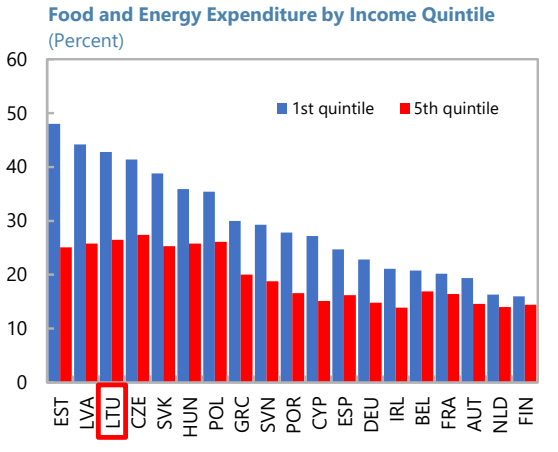
… but it is broad-based in Lithuania



Spending on energy and food is higher than in the euro area…



… reinforcing the impact on low-income households who spend more on energy and food.

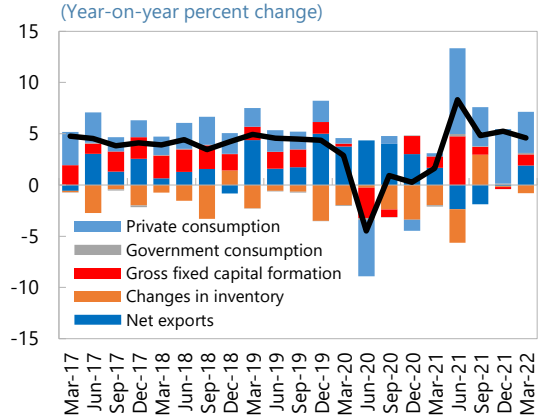


Sources: European Central Bank; Consensus Forecast; Eurostat; and IMF staff calculations.

Figure 3. Lithuania: Macroeconomic Developments

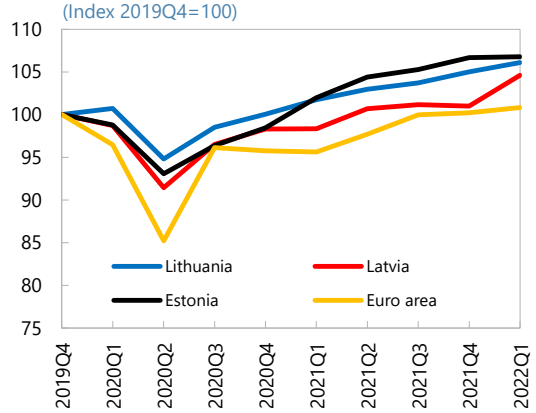
Before the war, Lithuania was on a strong recovery path...

Real GDP growth and Components Contribution
(Year-on-year percent change)



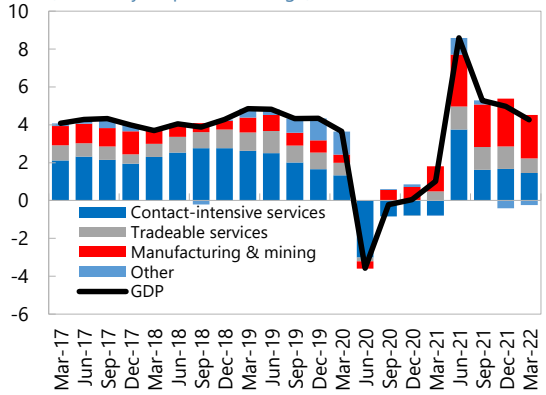
... outpacing most euro area peers.

Quarterly Real GDP
(Index 2019Q4=100)



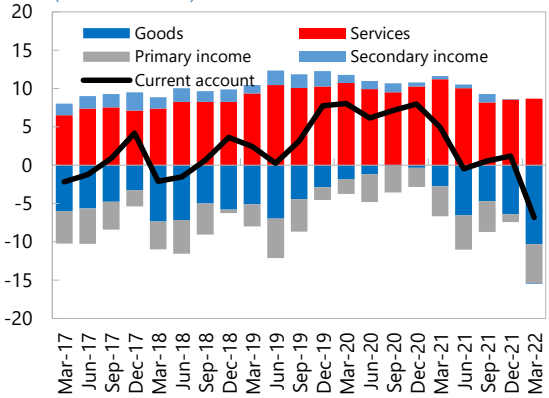
The rebound was broad-based...

Contributions to GDP Growth by Industry
(Year-on-year percent change)



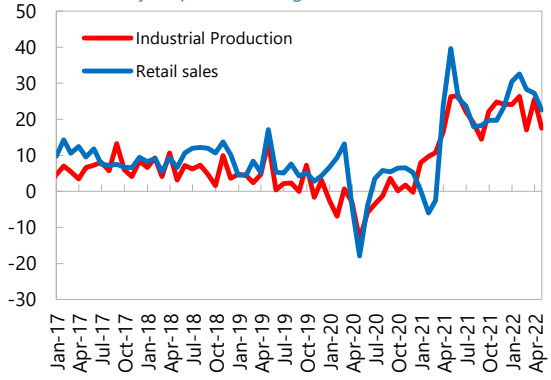
... and was accompanied by a declining trade surplus.

Current Account Balance
(Percent of GDP)



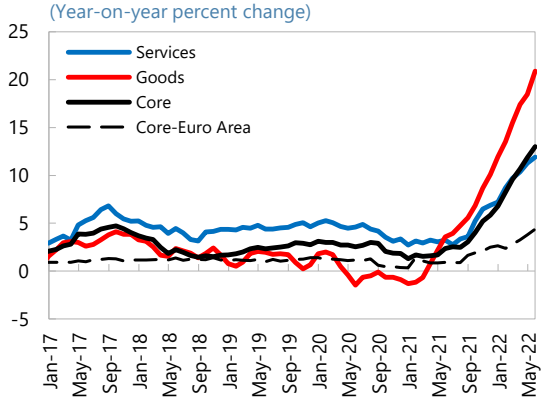
With the start of the war, industrial production has not been significantly affected yet...

Industrial Production and Retail Sales
(Year-on-year percent change)



... while inflation has picked up further.

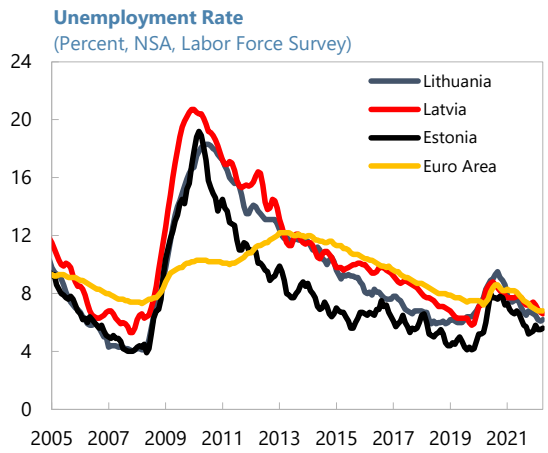
HICP Inflation
(Year-on-year percent change)



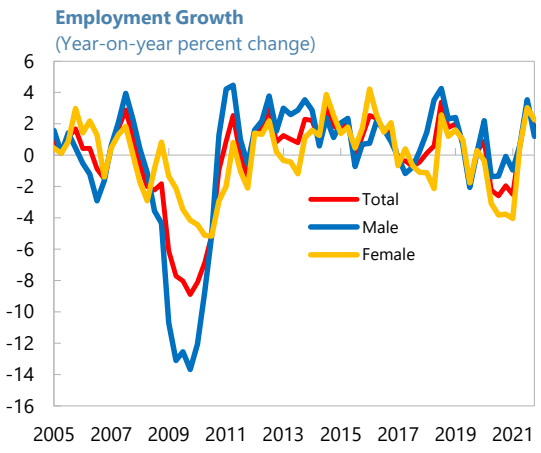
Sources: Haver Analytics; Statistics Lithuania; Bank of Lithuania; and IMF staff calculations.

Figure 4. Lithuania: Labor Market Developments

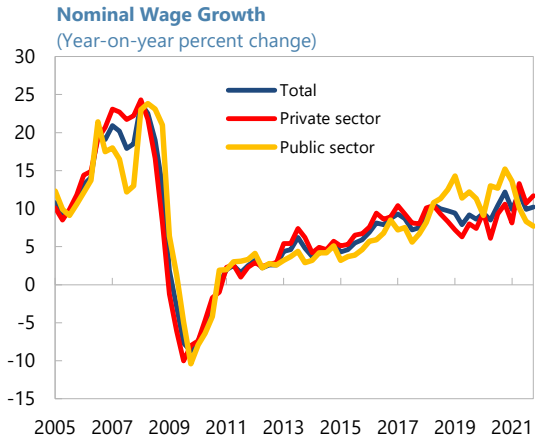
Unemployment has been persistent although declining…



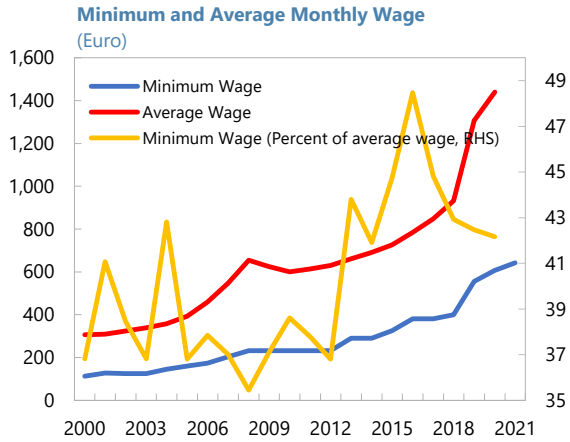
… while employment growth accelerated.



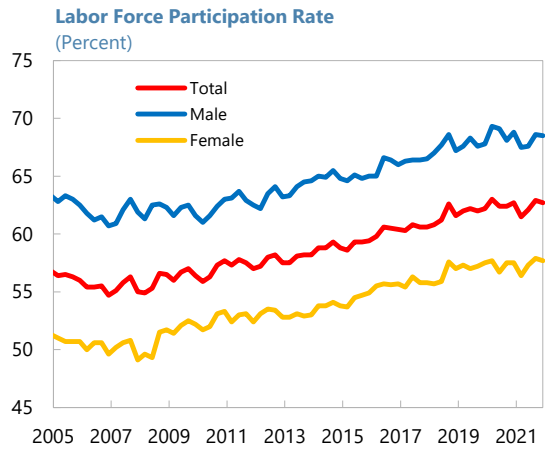
Wage growth has been strong for a few years now…



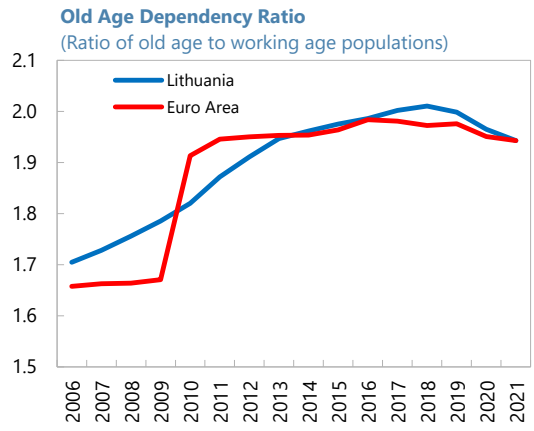
… as have been recent increases of the minimum wage.



Participation rate has trended upward…



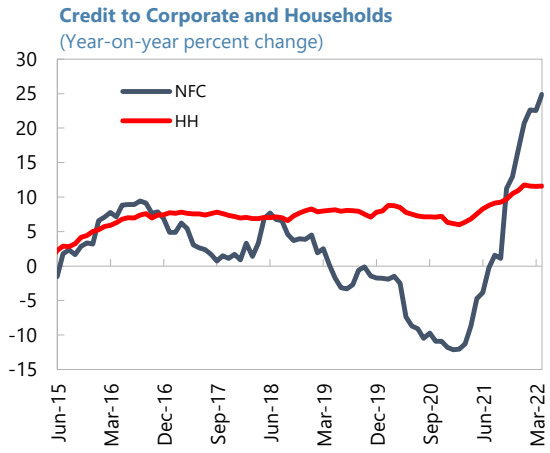
… helping to make the pension system more sustainable.



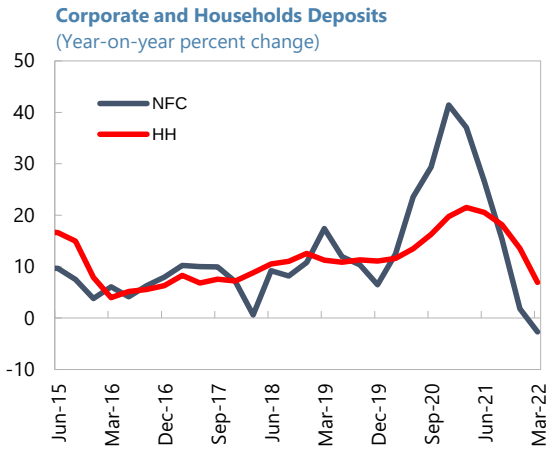
Sources: Haver Analytics; Eurostat; Statistics Lithuania; and IMF staff calculations.

Figure 5. Lithuania: Banking Sector Developments

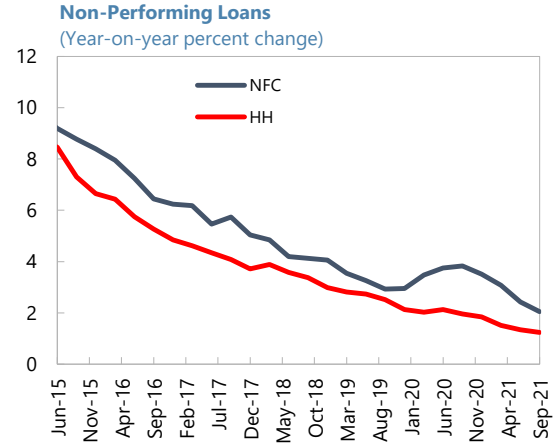
Credit growth has accelerated, with banks increasing their exposure to corporates and households...



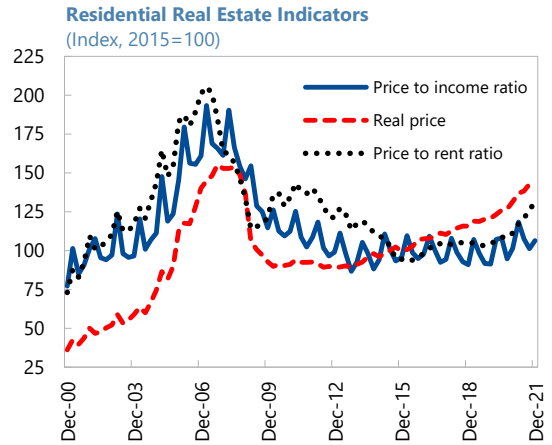
... funded by the continued increase in deposits.



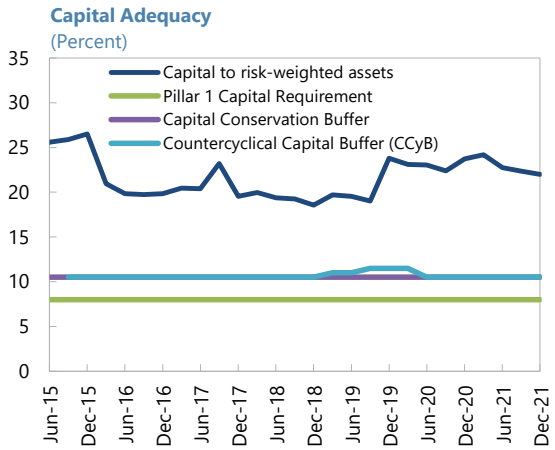
The buoyant economy and the stronger household and corporate balance sheet...



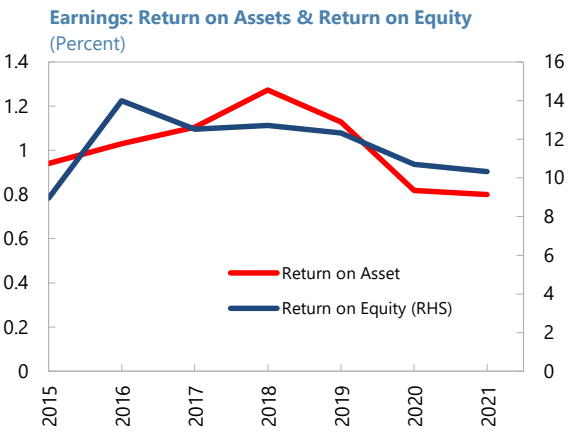
... have been conducive to a strong housing market, but with real estate indicators still around historic levels.



Banks continue to have significant capital buffers...



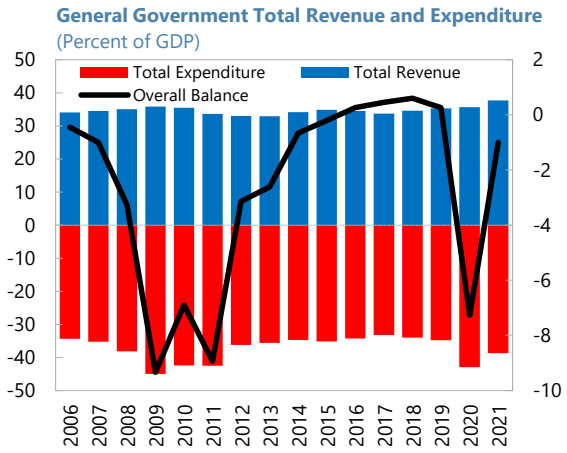
... and their profitability remains strong.



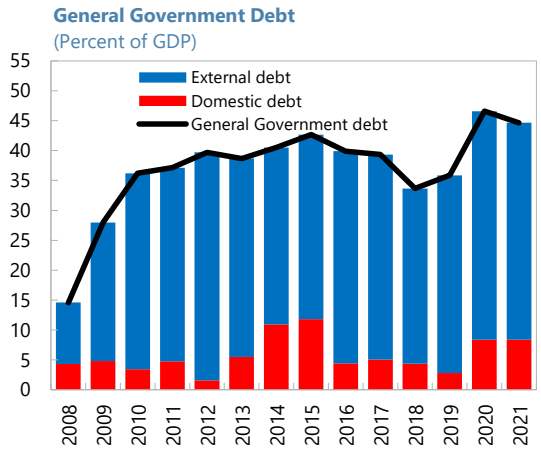
Sources: Bank of Lithuania; BIS; European Central Bank; Haver Analytics; and IMF staff calculations.

Figure 6. Lithuania: Fiscal Developments

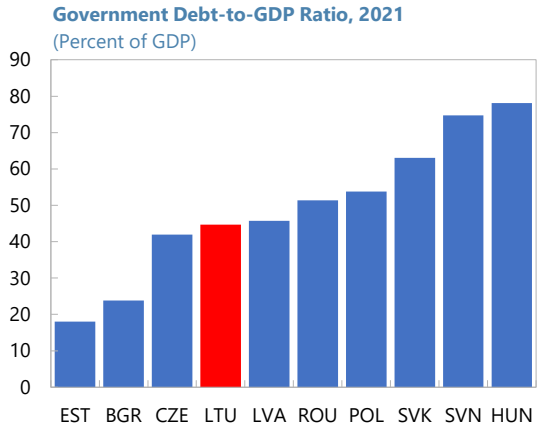
Strong revenue growth and lower (pandemic-related) spending narrowed the budget deficit.



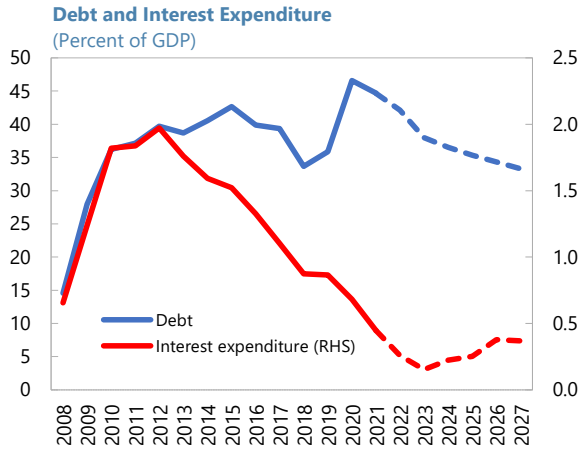
Better fiscal performance and higher nominal GDP growth lowered the debt-to-GDP ratio.



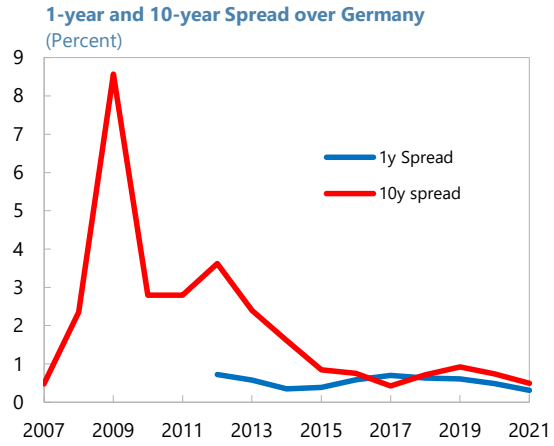
Lithuania's government debt is among the lowest in the region.



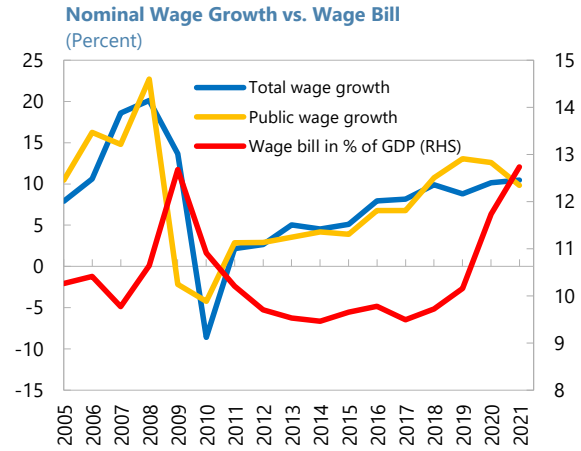
The interest bill is projected to remain low, thanks partly to the decline in government debt…



… and partly because of Lithuania's improving credit quality as measured by bond spreads.



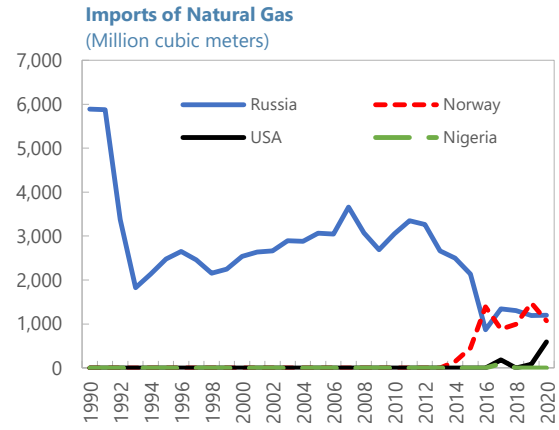
Wage growth is key to inflation and competitiveness, and the public sector will play a critical role.



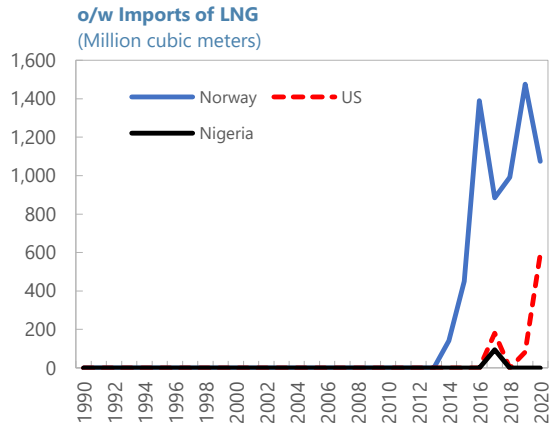
Sources: Ministry of Finance; Statistics Lithuania; Haver Analytics; and IMF staff calculations.

Figure 7. Lithuania: Energy Imports by Partner Countries, 1990–2020

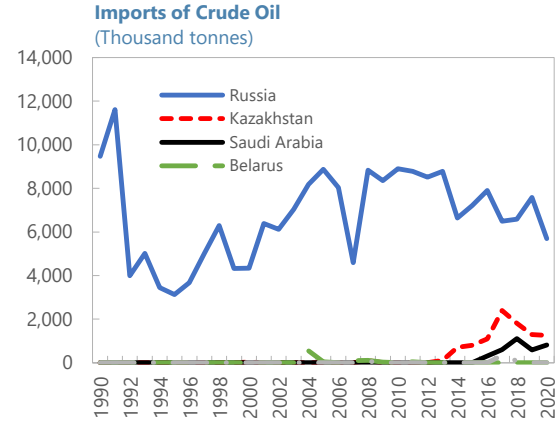
Efforts to diversify away from Russian gas started after Russia's annexation of Crimea...



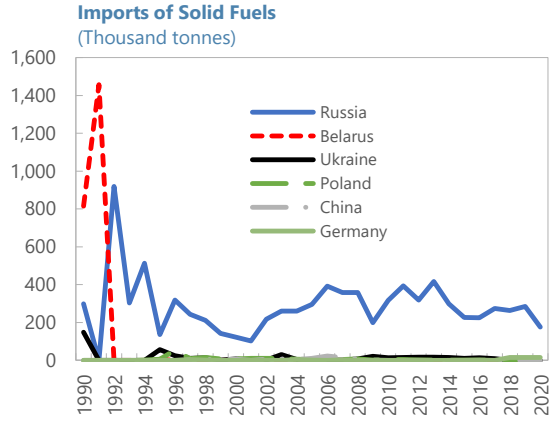
... replacing it with liquified gas from Norway and the United States.



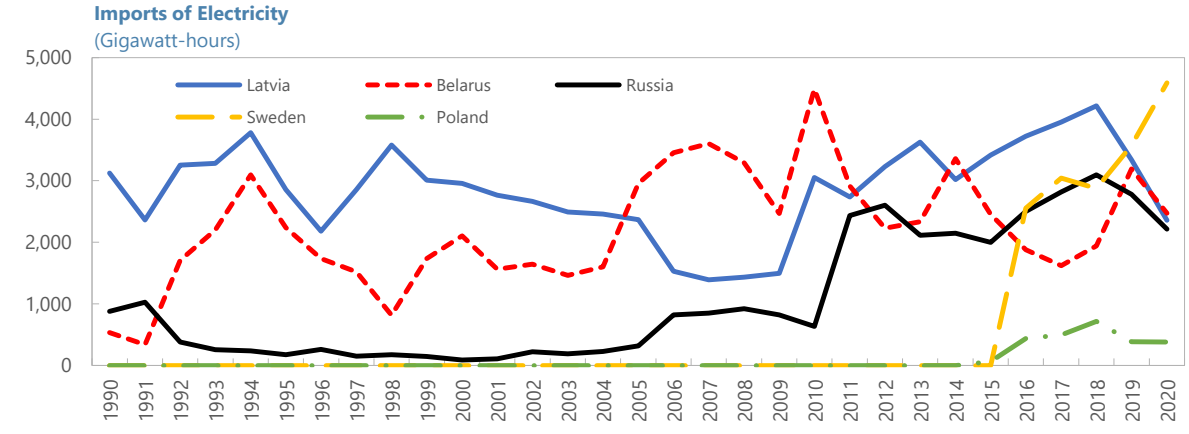
Diversification of crude oil and solid fuels have been more limited...



... as they are global markets.



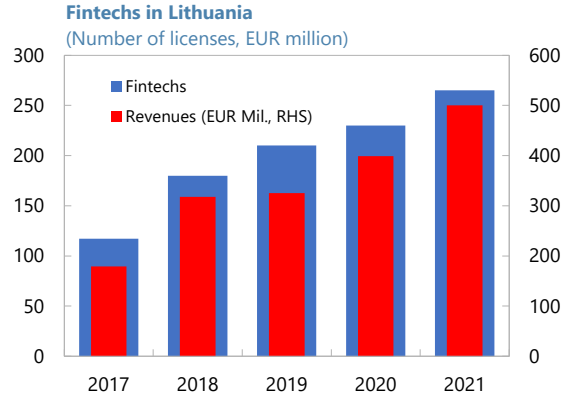
Electricity imports from Russia and Belarus remain large, albeit gained access to the European network will allow for a prompt decline in dependency.



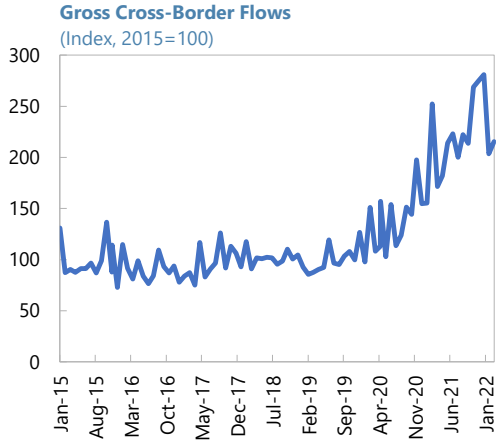
Sources: Eurostat; and IMF staff calculations.

Figure 8. Lithuania: Evolving ML/FT Threats

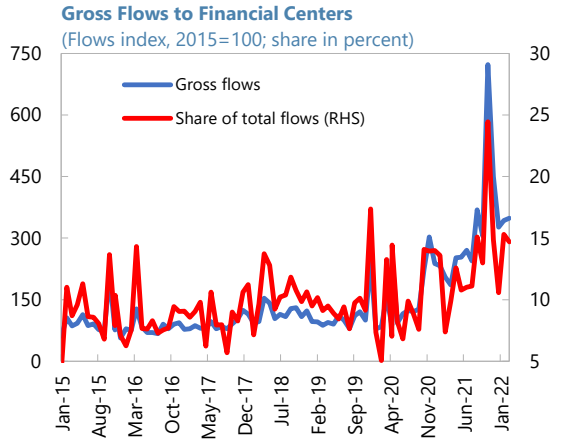
The success in attracting Fintech to Lithuania has led to a significant increase in non-resident cross-border activity...



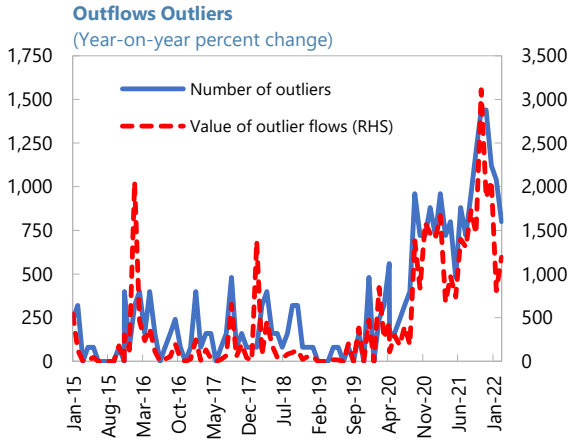
... with a large rise in cross-border flows in the last few years...



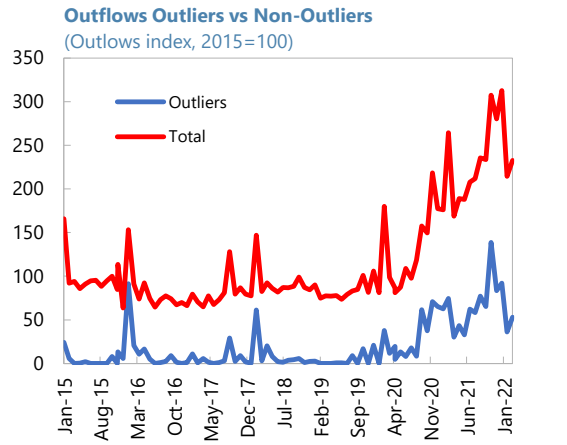
...particularly to financial centers.



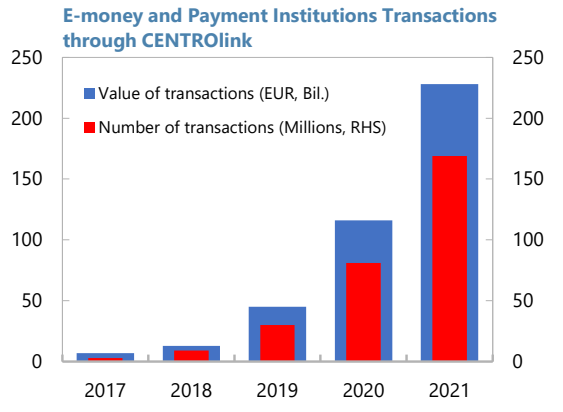
Outliers among outflows have intensified exponentially...



... accounting for a large share of the increase in outflows



CENTROlink fostered these flows, and its controls are key to safeguard the European payment system integrity.

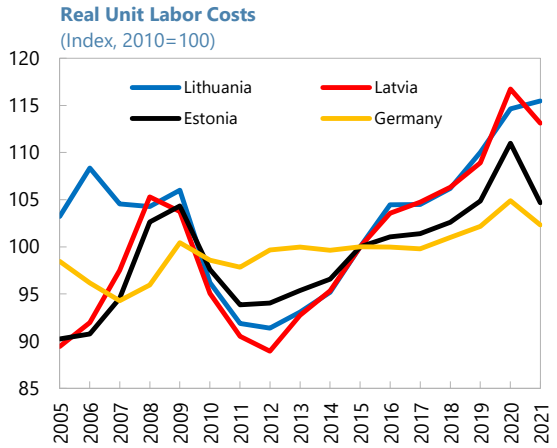


Sources: Invest Lithuania, 2021; Swift; and IMF staff calculations.

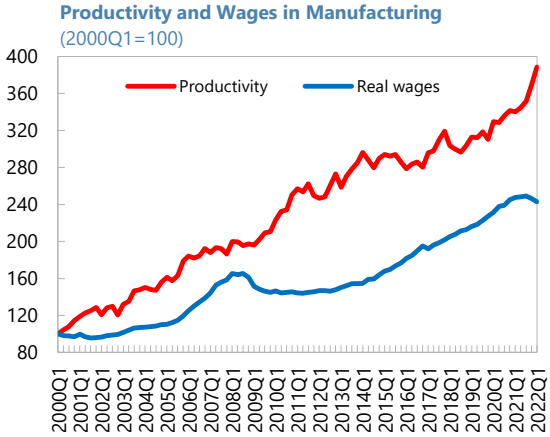
Figure 9. Lithuania: Developments in Competitiveness

High overall wage growth above productivity…

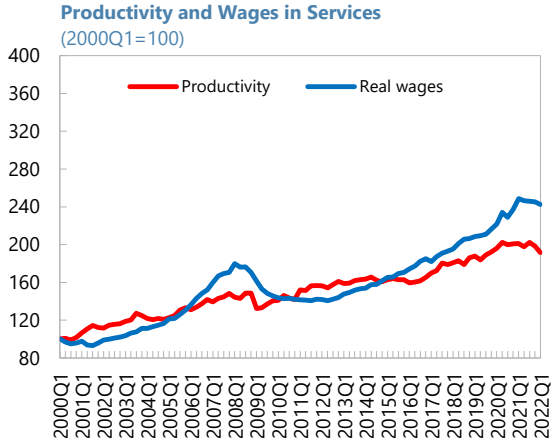
… has resulted in increasing ULC.



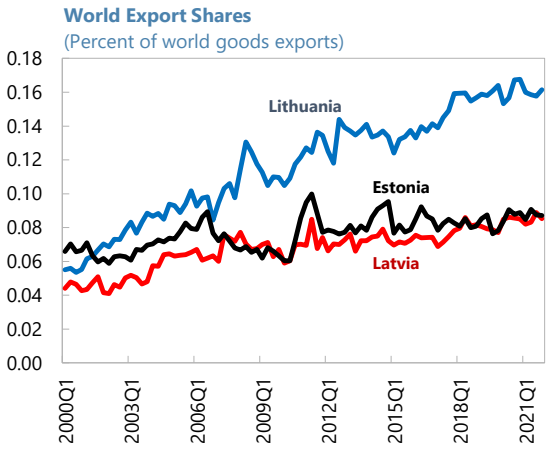
But wage developments in exporting sectors have been consistent with productivity developments…



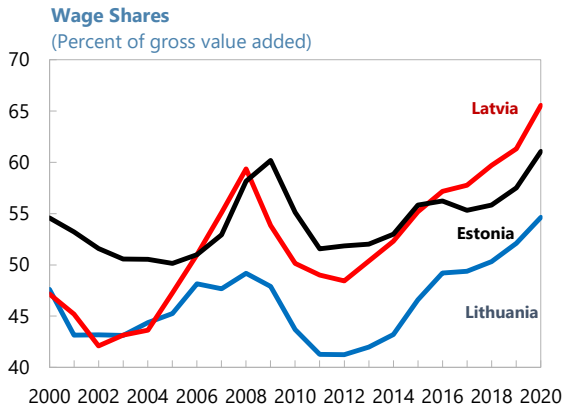
… with wages equalizing across the nontradables sector where productivity is lower…



Thus, export shares have increased more than peers in the region…



… while the wage share is at historic highs.



Sources: Statistics Lithuania; IMF Direction of Trade Statistics; Eurostat; IFS; and IMF staff calculations.

Table 1. Lithuania: Selected Economic Indicators, 2018–27

Life expectancy at birth (2020): 80 years (women), 70.1 years (men)
Quota (current, % of total): SDR 441.6 million, 0.09 percent
Main products and exports: refined fuel, machinery and equipment, chemicals, textiles, foodstuffs, plastics, wood products
Key export markets: Russia, Latvia, Poland, Germany, U.S.

Per capita GDP (2021): € 19,760
Literacy rate (2015): 99.8%
At-risk-of-poverty (after transfers), share of population (2020): 20.9%

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
					Projections					
Output										
Real GDP growth (annual percentage change)	4.0	4.6	-0.1	5.0	1.8	2.3	3.0	2.8	2.6	2.3
Domestic demand (contribution to growth)	3.3	1.4	-3.9	5.7	3.8	4.3	3.8	3.5	3.2	2.9
Domestic demand growth (year-on-year, in percent)	3.4	1.6	-4.0	5.9	4.1	4.5	4.0	3.6	3.2	3.0
Private consumption growth (year-on-year, in percent)	3.6	3.1	-2.1	7.4	3.3	4.3	3.7	3.4	3.0	2.8
Domestic fixed investment growth (year-on-year, in percent)	10.0	6.6	-1.8	7.0	3.6	6.6	5.9	5.4	4.9	4.5
Inventories (contribution to growth)	-1.1	-1.7	-2.0	-0.5	0.7	0.0	0.0	0.0	0.0	0.0
Net external demand (contribution to growth)	0.7	3.2	3.8	-0.7	-2.0	-2.0	-0.9	-0.8	-0.6	-0.6
Export growth (year-on-year, in percent)	6.8	9.9	0.4	15.9	-2.2	3.0	4.4	3.6	3.5	3.0
Import growth (year-on-year, in percent)	6.0	6.1	-4.4	18.7	0.0	5.5	5.6	4.6	4.2	3.7
Nominal GDP (in billions of euro)	45.5	48.9	49.5	55.4	64.6	72.4	77.5	82.1	86.5	90.8
Output gap (percent of potential GDP)	0.7	1.6	0.0	1.6	0.6	0.2	0.1	0.0	0.0	0.0
Employment										
Employment (annual percentage change)	1.5	0.3	-1.5	0.8	0.5	0.1	0.3	0.0	-0.2	-0.4
Unemployment rate (year average, in percent of labor force)	6.1	6.3	8.5	7.1	7.3	7.0	6.5	6.2	6.0	6.0
Average monthly gross earnings (annual percentage change) 1/	9.9	8.8	10.1	10.5	17.2	14.5	5.8	5.6	5.6	5.5
Average monthly gross earnings, real (annual percentage	7.2	6.4	9.0	5.6	-0.6	6.0	2.9	3.2	3.2	3.2
Labor productivity (annual percentage change)	2.5	4.3	1.4	4.2	1.3	2.2	2.6	2.8	2.8	2.8
Prices										
HICP, period average (annual percentage change)	2.5	2.2	1.1	4.6	17.9	8.5	3.0	2.4	2.4	2.3
HICP core, period average (annual percentage change)	1.9	2.3	2.6	3.4	9.3	5.8	3.6	2.6	2.4	2.4
HICP, end of period (year-on-year percentage change)	1.8	2.7	-0.1	10.7	17.2	4.6	2.4	2.5	2.3	2.3
GDP deflator (year-on-year percentage change)	3.5	2.7	1.5	6.5	14.5	9.6	3.9	3.1	2.8	2.5
General Government Finances										
Revenue (percent of GDP)	34.5	35.2	35.7	37.7	38.3	37.2	36.7	36.4	36.2	36.2
Of which EU grants	0.7	0.9	0.6	0.7	1.5	0.8	0.7	0.7	0.6	0.6
Expenditure (percent of GDP)	34.0	34.8	42.9	38.7	40.2	38.5	37.9	37.6	37.4	37.2
Of which: Non-interest	33.1	33.9	42.3	38.3	40.0	38.3	37.7	37.3	37.0	36.9
Interest	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.3	0.4	0.4
Fiscal balance (percent of GDP)	0.5	0.5	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.0
Fiscal balance excl. one-offs (percent of GDP)	0.5	0.4	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.1
Structural fiscal balance (percent of potential GDP) 2/	0.5	0.3	-6.6	-1.2	-2.0	-1.2	-1.1	-1.0	-1.0	-0.9
General government gross debt (percent of GDP)	33.7	35.9	46.6	44.7	42.1	38.3	36.5	35.2	34.1	33.1
Of which: Foreign currency-denominated	9.5	10.1	6.5	3.1	1.5	0.7	0.3	0.2	0.1	0.0
Balance of Payments (in percent of GDP, unless otherwise specified)										
Current account balance	0.3	3.5	7.3	1.4	-1.5	-1.5	-1.0	-0.5	-0.2	0.1
Current account balance (billions of euros)	0.1	1.7	3.6	0.8	-0.9	-1.1	-0.8	-0.4	-0.2	0.1
Saving-Investment Balance (in percent of GDP)										
Gross national saving	20.6	21.0	20.8	20.0	17.6	17.4	18.5	19.5	20.2	20.8
Gross national investment	20.4	17.6	13.5	18.6	19.1	18.8	19.6	20.0	20.5	20.7
Foreign net savings	-0.3	-3.5	-7.3	-1.4	1.5	1.5	1.0	0.5	0.2	-0.1

Sources: Lithuanian authorities; World Bank; Eurostat; and IMF staff estimates and projections.
Note: Data are presented on ESA2010, and BPM6 manuals basis.
1/ 2019 adjusted for tax reforms.
2/ Calculation takes into account standard cyclical adjustments as well as absorption gap.

Table 2. Lithuania: General Government Operations, 2018–27

(ESA 2010 aggregates, in percent of GDP)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
					Projections					
Statement of Operations										
Revenue	34.5	35.2	35.7	37.7	38.3	37.2	36.7	36.4	36.2	36.2
Revenue excluding EU grants	33.8	34.3	35.0	37.0	36.7	36.3	36.0	35.7	35.5	35.6
Tax revenue	17.1	20.4	20.3	22.1	21.9	21.6	21.3	21.2	21.1	21.1
Direct taxes	5.7	8.9	8.8	9.9	9.5	9.3	9.1	9.1	8.9	8.9
Personal income tax	4.0	7.1	7.1	7.5	7.4	7.3	7.2	7.2	7.2	7.2
Corporate income tax	1.5	1.6	1.6	2.1	2.0	2.0	1.8	1.8	1.7	1.7
Indirect taxes	11.5	11.5	11.6	12.2	12.4	12.2	12.2	12.1	12.1	12.2
VAT	7.7	7.9	7.9	8.6	8.7	8.6	8.5	8.5	8.5	8.5
Excises	3.2	3.0	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Other	0.6	0.6	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Social contributions	13.0	10.0	10.7	10.7	10.8	10.9	10.8	10.8	10.8	10.9
Grants	0.7	0.9	0.6	0.7	1.5	0.8	0.7	0.7	0.6	0.6
Other revenue	3.7	3.9	4.0	4.2	4.0	3.9	3.9	3.7	3.7	3.7
Total Expenditure	34.0	34.8	42.9	38.7	40.2	38.5	37.9	37.6	37.4	37.2
Current spending	30.8	31.6	38.6	35.4	36.5	35.0	34.6	34.3	34.1	33.9
Compensation of employees	9.7	10.2	11.3	10.9	10.8	10.9	10.9	10.9	10.9	10.9
Goods and services	4.4	4.4	4.5	4.7	5.5	5.2	5.2	5.2	5.1	5.1
Interest payments	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.3	0.4	0.4
Foreign	0.8	0.6	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.3
Domestic	0.1	0.2	0.5	0.3	0.0	0.0	0.0	0.0	0.1	0.1
Subsidies	0.4	0.4	2.5	1.6	1.8	1.2	0.6	0.5	0.4	0.4
Grants	0.8	0.8	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Social benefits	13.4	13.9	16.8	15.3	15.3	14.7	15.0	15.0	15.2	15.3
Other expense	1.1	1.1	1.8	1.5	2.0	2.0	1.8	1.7	1.3	1.0
Capital spending	3.2	3.2	4.3	3.3	3.7	3.4	3.3	3.3	3.3	3.3
Net Lending (+) / Borrowing (-)	0.5	0.5	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.0
Net Lending (+) / Borrowing (-) excl. one-offs	0.5	0.4	-7.3	-1.0	-2.0	-1.3	-1.2	-1.2	-1.2	-1.1
Net acquisition of financial assets	-2.0	5.5	3.7	2.1	1.8	-0.6	-0.5	-0.5	-0.5	-0.4
Domestic	-1.6	3.5	5.2	2.1	1.8	-0.5	-0.5	-0.5	-0.5	-0.4
Foreign	-0.4	2.0	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	-2.6	5.1	11.1	3.0	3.8	0.7	0.7	0.7	0.7	0.6
Domestic	0.0	-0.8	5.6	0.9	0.5	-1.3	0.2	0.5	0.7	0.7
Foreign	-2.6	5.9	5.4	2.1	3.4	2.0	0.5	0.2	0.0	-0.1
Financial Balance Sheet										
Financial assets	26.2	30.9	34.3	34.0	...	...	...	...	...	...
Currency and deposits	5.6	8.9	12.9	13.0	...	...	...	...	...	...
Securities other than shares	0.6	1.0	0.3	0.5	...	...	...	...	...	...
Loans	1.2	1.7	1.9	2.2	...	...	...	...	...	...
Shares and other equity	14.1	13.7	13.5	12.9	...	...	...	...	...	...
Other financial assets	4.6	5.7	5.7	5.3	...	...	...	...	...	...
Financial liabilities	40.8	44.5	55.5	51.4	...	...	...	...	...	...
Currency and deposits	0.4	0.4	0.2	0.2	...	...	...	...	...	...
Securities other than shares	31.4	34.8	42.3	37.5	...	...	...	...	...	...
Loans	5.0	5.1	8.1	8.6	...	...	...	...	...	...
Other liabilities	3.9	4.3	4.8	5.0	...	...	...	...	...	...
Net financial worth	-14.6	-13.6	-21.2	-17.4	...	...	...	...	...	...
Memorandum Items:										
GDP (in millions of euros)	45,515	48,860	49,507	55,383	64,583	72,410	77,469	82,073	86,531	90,809
General government debt (Maastricht def.)	33.7	35.9	46.6	44.7	42.1	38.3	36.5	35.2	34.1	33.1
Foreign debt	29.3	33.1	38.2	36.3	34.5	32.7	31.1	29.5	28.1	26.7
Domestic debt	4.4	2.8	8.4	8.4	7.6	5.6	5.4	5.6	6.0	6.4

Sources: Ministry of Finance; Ministry of Social Security; and IMF staff estimates.

Note: Passive projections from 2022 onward. Projections incorporate only announced budgetary measures.

Table 3. Lithuania: Balance of Payments, 2018–27

(Billions of Euros, unless otherwise indicated)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
					Projections					
Current Account Balance	0.1	1.7	3.6	0.8	-0.9	-1.1	-0.8	-0.4	-0.2	0.1
Merchandise trade balance	-2.8	-2.3	-0.4	-2.9	-5.4	-5.4	-5.5	-5.6	-5.8	-6.0
Exports (f.o.b.)	24.6	26.0	25.5	31.7	38.4	40.8	42.0	43.4	44.8	46.4
Imports (f.o.b.)	27.3	28.3	25.9	34.5	43.8	46.2	47.5	49.0	50.5	52.4
Services balance	3.6	4.9	5.0	5.2	5.9	6.3	6.5	6.8	7.0	7.2
Exports	9.7	11.8	10.9	12.9	15.6	16.6	17.1	17.6	18.2	18.8
Imports	6.0	6.9	5.9	7.7	9.7	10.3	10.5	10.9	11.2	11.6
Primary income balance	-1.4	-1.7	-1.4	-1.5	-2.0	-2.5	-2.4	-2.2	-2.0	-1.8
Receipts	1.1	1.1	1.1	1.3	1.1	1.5	1.8	2.1	2.4	2.7
Payments	2.6	2.8	2.6	3.2	3.1	4.0	4.2	4.3	4.4	4.5
Secondary income balance	0.7	0.8	0.5	0.3	0.5	0.5	0.6	0.6	0.6	0.6
Capital and Financial Account Balance	0.8	-1.7	-3.3	-0.1	2.0	2.1	0.5	0.3	0.1	0.0
Capital account balance	0.7	0.8	0.9	0.9	1.1	1.2	1.1	1.2	1.2	1.3
Foreign direct investment balance	-0.3	-1.2	-0.5	-1.2	-1.5	-1.6	-1.5	-1.3	-1.2	-1.1
Portfolio investment balance	1.7	-2.4	-1.8	0.7	-1.0	-0.5	0.7	0.9	1.0	1.1
Financial derivatives	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Other investment balance	-1.5	6.0	6.5	1.5	1.5	1.0	1.3	1.3	1.2	1.2
Errors and omissions	0.2	-0.7	-0.7	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Overall Balance	1.2	-0.6	-0.3	0.6	1.1	1.0	-0.3	-0.2	-0.1	0.1
Financing	-1.1	0.6	0.4	-0.6	-1.1	-1.0	0.3	0.2	0.1	-0.1
Gross international reserves (increase: -)	...	...	...	...	...	...	...	...	...	...
Use of Fund credit, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other prospective financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In Percent of GDP (unless indicated)										
Current Account Balance	0.3	3.5	7.3	1.4	-1.5	-1.5	-1.0	-0.5	-0.2	0.1
Trade balance of goods and services	1.9	5.3	9.3	4.2	0.8	1.2	1.3	1.4	1.4	1.4
Exports	75.2	77.3	73.5	80.4	83.7	79.1	76.3	74.4	72.9	72.0
Imports	73.3	72.1	64.2	76.2	82.9	77.9	75.0	73.0	71.5	70.6
Primary income	-3.1	-3.5	-2.9	-2.8	-3.1	-3.4	-3.1	-2.7	-2.3	-2.0
Secondary income	1.6	1.7	0.9	0.5	0.8	0.8	0.8	0.8	0.7	0.7
Capital and Financial Account Balance	1.8	-3.4	-6.6	-0.2	3.1	2.9	0.6	0.3	0.1	0.0
Capital account balance	1.6	1.7	1.9	1.7	1.7	1.6	1.5	1.5	1.4	1.4
Foreign direct investment balance	-0.6	-2.4	-1.1	-2.1	-2.3	-2.2	-1.9	-1.6	-1.4	-1.3
Portfolio investment balance	3.7	-4.9	-3.6	1.3	-1.5	-0.7	0.9	1.1	1.2	1.2
Financial derivatives balance	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Other investment balance	-3.3	12.3	13.1	2.7	2.3	1.4	1.7	1.5	1.4	1.3
Overall Balance	2.5	-1.2	-0.7	1.1	1.7	1.4	-0.4	-0.2	-0.1	0.1
Gross External Debt 1/	78.1	66.4	70.6	70.8	61.0	55.6	51.9	48.7	46.1	43.7
Public	49.9	42.1	46.3	44.3	38.9	36.4	34.2	32.4	30.7	29.2
Short-term	22.5	11.0	10.9	12.5	9.6	8.2	7.5	7.1	6.8	6.5
Long-term	27.4	31.0	35.4	31.8	29.3	28.2	26.7	25.3	24.0	22.8
Private	28.2	24.3	24.3	26.5	22.1	19.2	17.6	16.4	15.3	14.4
Short-term	17.9	11.6	10.0	13.8	13.0	12.9	13.5	14.3	15.2	16.1
Long-term	10.3	12.7	14.3	12.7	9.1	6.3	4.1	2.1	0.1	-1.7
Gross external debt (in percent of GS exports)	103.8	85.9	96.0	88.1	72.9	70.3	68.0	65.5	63.2	60.7
Net external debt	14.2	11.6	0.2	-5.5	-6.9	-6.4	-6.2	-6.5	-6.9	-7.7
Net international investment position	-30.4	-24.0	-15.8	-7.2	-6.3	-6.0	-5.6	-4.8	-3.8	-2.4
Merchandise export volume (percent change) 2/	6.8	9.9	0.4	15.9	-2.2	3.8	4.4	3.6	3.4	3.1
Merchandise import volume (percent change) 2/	6.0	6.1	-4.4	18.7	0.0	6.3	5.6	4.6	4.2	3.8
Merchandise export prices (percent change) 2/	3.0	0.4	-4.1	5.6	24.2	2.2	-1.4	-0.4	-0.1	0.5
Merchandise import prices (percent change) 2/	4.6	-0.6	-5.6	11.9	26.9	-0.7	-2.6	-1.6	-0.9	-0.2
GDP (in billion of Euros)	45.5	48.9	49.5	55.4	64.6	72.5	77.4	81.9	86.3	90.6

Sources: Data provided by the Lithuanian authorities; IMF International Financial and Trade Statistics; and IMF staff estimates and projections.

1/ Government external debt does not include guaranteed loans.

2/ Derived from national accounts data.

Table 4. Lithuania: Summary of Monetary Accounts, 2012–21

(Billions of Euros, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Monetary Authority										
Gross foreign assets	6.4	6.0	7.9	2.9	3.0	4.2	5.7	5.3	4.7	5.9
Gross foreign liabilities	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.5	1.2	3.2
Net foreign assets	6.4	6.0	7.8	2.7	2.8	4.0	5.3	4.7	3.5	2.6
Net domestic assets	-1.7	-1.0	-1.9	6.5	9.8	11.7	13.4	10.8	17.0	22.1
Net credit to government	-1.1	-0.5	-1.2	0.0	1.0	-0.1	1.2	0.3	10.1	8.9
Credit to banks	0.0	0.0	0.0	1.0	0.7	0.6	0.5	0.3	6.3	16.8
Credit to private sector	0.0	0.0	0.0	1.7	4.8	8.0	8.9	8.2	0.5	0.4
Other items, net	-0.7	-0.6	-0.7	3.8	3.3	3.3	2.9	1.9	0.2	-3.9
Reserve money	4.7	4.9	5.9	9.1	12.6	15.7	18.8	15.5	20.6	24.8
Currency outside the central bank	3.3	3.4	1.7	6.1	6.2	6.4	6.8	7.1	7.8	8.4
Currency outside banks	3.0	3.2	1.4	5.7	5.8	6.0	6.3	6.6	7.3	7.8
Cash in vaults of banks	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.5
Deposit money banks' deposits with BoL	1.4	1.5	4.3	3.1	6.4	9.3	12.0	8.5	12.8	16.4
Banking Survey										
Net foreign assets	2.8	2.9	4.5	-2.3	-3.5	-2.7	-2.2	-1.8	-2.7	-4.4
Monetary authority	6.4	6.0	7.8	2.7	2.8	4.0	5.3	4.7	3.5	2.6
Banks and other banking institutions	-3.6	-3.1	-3.3	-5.0	-6.2	-6.7	-7.5	-6.5	-6.2	-7.0
Net domestic assets	12.9	13.5	12.1	24.3	27.1	27.7	30.0	32.5	41.3	50.1
Net claims on government 1/	0.3	1.7	0.5	1.7	2.3	0.7	1.9	1.0	10.4	10.0
Monetary authority	-1.1	-0.5	-1.2	0.0	1.0	-0.1	1.2	0.3	10.1	8.9
Banks and other banking institutions	1.4	2.1	1.7	1.8	1.3	0.8	0.8	0.6	0.3	1.1
Credit to private sector	15.3	14.9	14.8	17.1	21.3	25.2	27.2	27.1	19.0	21.4
Credit to nonbank financial institutions	1.3	0.9	0.9	3.1	6.5	9.9	11.2	10.4	2.3	2.5
Other items, net	-4.0	-4.0	-4.1	2.5	-3.1	-8.1	-10.3	-5.9	9.6	16.2
Broad Money	15.7	16.4	16.6	22.0	23.6	25.0	27.8	30.7	38.6	45.7
Currency outside banks	3.0	3.2	1.4	5.7	5.8	6.0	6.3	6.6	7.3	7.8
Deposits	12.7	13.2	15.2	16.3	17.8	19.0	21.5	24.1	31.3	37.9
In national currency	9.3	9.7	11.3	15.4	16.9	18.1	20.6	23.1	30.3	36.7
In foreign currency	3.4	3.5	4.0	0.9	0.9	0.9	0.9	1.0	1.0	1.2
Memorandum Items:										
Reserve money (yearly percent change)	-6.4	4.9	20.9	53.3	38.4	24.9	19.3	-17.4	32.4	20.5
Broad money (yearly percent change)	7.2	4.4	1.2	32.9	7.2	5.8	11.4	10.4	25.8	18.4
Private sector credit (yearly percent change)	-0.8	-2.3	-0.9	4.1	7.1	4.5	6.0	3.3	-1.8	13.4
Money multiplier	3.3	3.3	2.8	2.4	1.9	1.6	1.5	2.0	1.9	1.8
Currency outside banks, in percent of deposits	23.6	24.0	8.9	34.9	32.5	31.6	29.3	27.3	23.4	20.7
Foreign-currency deposits (percent of total deposits)	26.4	26.5	26.0	5.5	5.1	4.8	4.1	4.1	3.1	3.3
Foreign-currency loans (percent of total loans) 2/	72.7	72.1	72.7	0.9	0.6	0.5	0.4	0.3	0.2	0.2
Velocity of broad money	2.1	2.1	2.2	1.7	1.6	1.7	1.6	1.6	1.3	1.2
Gross official reserves (billions of U.S. dollars) 3/	8.4	8.0	8.8	1.9	3.0	4.6	4.9	5.6	4.9	6.1
Gross official reserves (billions of euros) 3/	6.4	6.0	7.9	2.9	3.0	4.2	5.7	5.3	4.7	5.9
GDP	33.4	35.0	36.6	37.3	38.9	42.3	45.5	48.9	49.5	55.4

Sources: Bank of Lithuania; and IMF staff estimates and projections.

1/ Excludes local government deposits; includes counterpart funds.

2/ Loans to households and non-financial corporations.

3/ BOP basis. Differs from gross foreign assets as shown in the monetary authority's balance sheet because of valuation effects (BoP-basis official reserves include accrued interest on deposits and securities but exclude investments in shares and other equity).

Table 5. Lithuania: Financial Soundness Indicators, Banking Systems Data, 2013–21

(In percent unless otherwise indicated)

	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21
Capital adequacy									
Regulatory capital to risk-weighted assets 1/ 2/	17.6	21.3	24.9	19.4	19.1	18.6	23.7	24.0	23.5
Regulatory Tier 1 capital to risk-weighted assets 1/ 2/	17.1	20.9	24.3	19.1	18.8	18.5	23.3	23.6	23.2
Capital to assets 1/	12.6	12.9	11.1	10.4	9.4	8.6	9.1	8.1	7.1
Asset quality									
Nonperforming loans to capital 1/ 3/	42.6	46.9	38.3	35.5	28.6	26.9	15.2	15.0	8.6
Nonperforming loans net of provisions to capital 1/ 3/	19.7	29.8	25.0	23.2	18.8	20.0	10.5	10.4	6.0
Nonperforming loans to total (non-interbank) loans 1/ 3/	11.6	7.0	5.7	4.1	3.1	2.5	1.5	1.4	0.7
Nonperforming loans to capital 1/ 3/ 4/	42.6	46.9	38.3	35.5	28.6	26.9	15.2	15.0	8.6
o/w impaired loans to capital 1/ 3/ 4/	27.4	29.1	23.4	23.1	18.4	26.0	14.3	14.2	7.7
o/w non-impaired loans overdue more than 60 days to capital 1/ 3/ 4/ 14/	15.2	8.0	6.4	7.9	5.8	..	..	..	..
Nonperforming loans net of provisions to capital 1/ 3/ 4/ 5/	19.7	29.8	25.0	23.2	22.9	20.0	10.5	10.4	6.0
Nonperforming loans to total (non-interbank) loans 3/ 4/	11.0	7.0	5.7	4.1	4.1	2.5	1.5	1.4	0.7
o/w impaired loans to total (non-interbank) loans 4/	8.5	4.7	3.8	3.1	2.2	2.4	1.4	1.3	0.6
o/w non-impaired loans overdue more than 60 days to total (non-interbank) loans 4/ 14/	2.5	1.2	1.0	0.9	0.6	..	..	..	..
Impairment losses to total (non-interbank) loans 6/ 7/	4.2	2.5	2.0	1.4	1.1	0.8	0.6	0.6	0.4
Impairment losses to nonperforming loans 3/ 4/ 6/ 7/	53.7	36.5	34.7	34.7	30.8	33.4	39.4	43.8	56.8
Sectoral distribution of corporate loans 8/									
Agriculture, forestry and fishing	2.8	2.9	3.6	3.7	3.6	3.6	3.2	3.5	3.0
Mining and quarrying	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2
Manufacturing	17.9	15.7	14.7	14.2	14.3	14.0	14.9	14.7	14.6
Electricity, gas, steam and air conditioning supply	7.6	9.5	11.0	8.7	4.7	5.3	7.4	5.7	5.3
Water supply; sewerage, waste management and remediation activities	0.8	1.0	1.0	0.9	0.8	0.6	0.6	0.7	1.0
Construction	8.6	7.3	6.1	5.4	5.2	3.7	3.1	2.9	3.1
Wholesale and retail trade; repair of motor vehicles and motorcycles	19.3	20.3	21.9	21.3	22.7	25.4	23.0	19.4	21.3
Transportation and storage	5.7	5.0	5.8	5.8	6.1	8.7	9.3	9.0	8.1
Accommodation and food service activities	2.7	2.6	2.4	2.4	2.4	3.0	2.6	3.1	2.3
Information and communication	0.8	0.9	0.8	2.4	2.4	2.0	1.8	1.1	0.8
Real estate activities	28.3	27.8	26.3	26.6	25.8	25.0	27.0	31.9	32.5
Professional, scientific and technical activities	2.6	3.7	2.6	3.2	5.0	2.6	1.8	2.2	3.0
Administrative and support service activities	1.0	1.8	2.0	3.0	4.4	2.6	2.4	2.9	2.6
Remaining activities	1.2	1.1	1.3	1.8	2.2	3.0	0.0	0.0	0.0
Residential real estate loans to total (non-interbank) loans	38.0	28.7	29.8	31.3	31.3	31.1	30.1	27.8	24.5
Large exposures to regulatory capital 1/ 5/	..	..	..	..	..	..	..	..	..
Earnings and profitability									
RoE 1/ 9/	8.9	8.1	9.0	14.0	12.5	12.7	12.3	10.7	10.3
RoA 9/	1.2	1.3	0.9	1.0	1.1	1.3	1.1	0.8	0.8
Interest margin to gross income	24.3	49.9	49.7	50.3	53.3	53.7	52.2	53.9	51.2
Noninterest expenses to gross income	60.5	56.6	55.3	50.9	53.2	50.5	47.5	52.7	55.7
Trading and foreign exchange gains (losses) to gross income	9.9	8.2	6.2	4.3	7.2	6.2	6.2	6.3	7.4
Personnel expenses to noninterest expenses	38.3	38.7	42.7	43.6	41.7	42.2	43.2	43.5	41.3
Liquidity									
Liquidity coverage ratio	..	..	..	266.3	281.9	254.2	272.4	743.3	392.3
Liquidity ratio (liquid assets to current liabilities) 10/	41.2	43.6	..	..	..	..	..	..	..
Liquid assets to total assets 10/	24.0	29.3	..	15.3	23.6	25.6	28.9	37.0	43.7
Current liabilities to total liabilities 10/	73.1	81.6	..	..	..	..	..	..	..
3-month VILIBOR-EURIBOR spread, b.p. 8/	12.0	10.0	..	..	..	..	..	..	..
Spread between highest and lowest interbank rate, b.p. 10/	39.0	25.0	..	..	..	..	..	..	..
Loan to deposit ratio in the banking sector 11/	121.5	101.6	98.6	99.0	94.6	89.3	81.9	61.4	64.0
Foreign exchange risk									
Foreign-currency-denominated loans to total (non-interbank) loans 12/	68.7	..	..	..	..	..	..	..	..
Foreign-currency-denominated liabilities to total liabilities 12/	48.2	..	..	..	..	..	..	..	..
Net open position in foreign exchange to regulatory capital 1/ 13/	0.4	0.4	0.1	0.0	0.0	0.0	0.0	..	..
Memo item									
Provisioning (in percent of NPLs)	16.5	..	..	..	..	..	..	..	..

Sources: Bank of Lithuania; and http://fsi.imf.org/.

Notes: Banking system data was compiled by aggregating banks solo (i.e. no cross-border cross-sector consolidation) data. No intra-sector adjustments were made. FSIs were mostly derived from supervisory data and comprise all banks and foreign bank branches incorporated in Lithuania, except if stated otherwise. Starting 2008, bank financial data is collected through FINREP tables (EU-wide common reporting templates). This might have some influence on the values of the indicors compiled. The fact should be considered when making straightforward comparison of time series.

1/ Excluding foreign bank branches.

2/ As defined in Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

3/ Consolidated data are used. Due to changes in consolidation methodology, data from Q1 2014 are not entirely comparable with previous. 2015 Q3 - 2016 Q1 data were adjusted eliminating accounting changes due to the transaction between Swedbank, AB, and Danske Bank A/S Lithuania Branch.

4/ From end-2005 to Q1-2008, NPLs are loans overdue more than 60 days. Untill 2004 NPLs are loans in Substandard, Doubtful and Loss loans categories. Starting June 2008, non-performing loans are defined as the sum of impaired loans and non-impaired loans that are overdue more than 60 days.

5/ Specific provisions include allowances for both individually and collectively assessed loans.

6/ Specific provisions include provisions against general portfolio risk until end-2004. From end-2005, due to the change in definition of NPLs, specific provisions are not directly attributable to the NPLs. Therefore, the ratio may be negative.

7/ Specific provisions include allowances for both individually and collectively assessed loans.

8/ According to Nace 1 up to Sept 2011. Data according to Nace 2 thereafter.

9/ Total profits (losses) after tax. Interim quarterly results are annualized.

10/ Composition of liquid assets and current liabilities is defined in the Liquidity Ratio Calculation Rules approved by Resolution No. 1 of the Board of the Bank of Lithuania of 29 January 2004.

11/ Consolidated data; due to changes in data consolidation methodology, data from Q1 2014 are not entirely comparable with previous data.

12/ The large majority of foreign currency loans and foreign currency liabilities were in euros, to which the national currency 'litas' was pegged via a currency board arrangement until 2015 when the euro was introduced as a national currency.

13/ As defined in Rules for Calculation of Capital Adequacy approved by Bank of Lithuania Board Resolution No. 138 of 9 November 2006.

14/ As of 2018, breakdown for loans that are overdue more than 60 days is no longer available in FINREP.

Annex I. Implementation of Past IMF Recommendations

2021 Article IV Recommendations	Policy Actions
Fiscal Policy	
Fiscal policy stance. Maintain targeted policy support in the short-term and proactively manage risks by maintaining countercyclical fiscal and macroprudential policies as the recovery strengthens. Ensure policies remain countercyclical, particularly if growth exceeds expectations, within the existing policy framework that has served Lithuania so well.	The authorities continued to provide targeted support for post-pandemic recovery, while reducing the overall budget deficit by 6.3 percentage points to 1 percent of GDP consistent with staff advice.
Financial Sector Policy	
AML/CFT. Complement the implementation of the 2018 MONEYVAL report recommendations and ensure inter-agency coordination with adequate resources for all agencies involved.	The authorities approved the establishment of the Centre of Excellence in Anti-Money Laundering in collaboration with the private sector.
Structural Reforms	
Education. Address overcapacities (reduce number of teachers and consolidate school and university infrastructure). Review nexus between universities, financial incentives, and quality standards. Planned wage increases should be made conditional on progress in network optimization.	Since approved reforms in 2018 in line with past recommendations, implementation has been slow, yet planned wage increases have continued. COVID-19 has delayed reforms, but the government is preparing its plan to resume implementation efforts.
Health. Continue reorganizing and rationalizing the hospital sector, improve out-patient and long-term care, and expand role of primary care. Develop a copayments system to incentivize cost efficiency. Strengthen accountability, particularly at municipal level. Planned wage increases should be made conditional on progress in network optimization.	The authorities have diverted more financial resources, including wage increases, to the health sector in response to COVID-19. Consultations with the European Commission on best practices in inter-hospital communication and coordination occurred in 2020. The government is renewing implementation efforts, including by introducing legal changes to allow for joint ownership of hospitals with municipalities.
Tax policy. Reduce social security contributions for low wage earners. Rebalance tax system from indirect and labor taxes towards wealth and capital (e.g., environmental and property). Continue tax administration reform. Reduce tax exemptions and privileged regimes.	The authorities slightly reduced labor tax wedge by raising PIT rates, lowering social contributions and increasing the non-taxable income threshold in 2019. In addition, they have introduced an ambitious overhaul of environmental taxes, but the war in Ukraine has delayed the parliamentary process.

2021 Article IV Recommendations	Policy Actions
Structural Reforms	
Social assistance. Given limited resources, social protection should increase reliance on means-tested programs. Design should avoid welfare dependency and disincentives to work (e.g., in-work benefits to reduce inequality and increase employment).	In response to the pandemic, large temporary increases in social assistance were provided in 2020 and into 2021, including both targeted and universal measures.
Labor market. Reduce reliance on employment subsidies and focus on most disadvantaged groups only. Shift emphasis to well-designed training curricula to upskill workforce. Strengthen ALMPs, including life-long learning and apprenticeships, and increase its funding.	As a response to the pandemic, large temporary wage subsidies were provided to firms to support employment and incomes. The government plans to resume focus on pre-existing issues including skills gaps and ALMPs.
Pensions. Link retirement age to life expectancy and tighten early retirement. Raise gross pensions (to at least preserve replacement ratios) and scale back incidence of disability pensions.	One-off increases in pension benefits outside of the indexation formula were introduced again at the beginning of 2022, which could undermine the system's actuarial sustainability, especially in view of temporary deferrals of social security contributions during the pandemic.
Innovation. Consolidate a highly fragmented system and improve coordination.	The authorities have recently consolidated innovation agencies and continue the promotion of innovation in its new program.
Source: IMF staff.	

Annex II. External Sector Assessment

Overall Assessment: *The external position of Lithuania in 2021 was moderately stronger than the level implied by fundamentals and desirable policies. Over the medium-term and under the policies expected under the baseline scenario, Lithuania's current account balance is expected to remain in the vicinity of the norm as investment rebounds and private sector savings decline. Therefore, there is no concern about long-term misalignments.*

Potential Policy Responses: *The envisaged path of public investment should support a return to pre-pandemic domestic investment and a reduction in the fiscal policy gap relative to other countries.*

Foreign Assets and Liabilities: Position and Trajectory

Background. Since 2016, the NIIP has strengthened by about 35 percent of GDP. It reached -7.2 percent of GDP in 2021 from -15.8 percent in 2020. In 2021, gross assets increased to 115.3 percent of GDP, while liabilities reached 122.5 percent of GDP. The increase in assets continued, while liabilities remained virtually unchanged as a share of GDP. While gross external debt increased by about 1 percent of GDP, net debt declined by 5.7 percent of GDP, turning negative, and stood at -5.7 percent of GDP, as deposits increased by more than 11 percent of GDP.

Assessment. The current NIIP and its projected path do not imply risks to external sustainability.

2021 (% GDP)	NIIP: -7.2	Gross Assets: 115.3	Debt Assets: 8.1	Gross Liab.: 122.5	Debt Liab.: 76.7

Current Account

Background. The 2021 current account surplus reached 1.4 percent of GDP. This figure is much smaller than 7.3 percent of GDP in 2020 and close to the position over the last five years when the current account has been broadly balanced. Part of this is explained by the oil-related balance, which deteriorated by 2.8 percent of GDP in 2021. Net tourism balance declined by over 40 percent in the pandemic, but given its relatively small size, the effect from resuming demand is limited. While national savings remained broadly unchanged in 2021, investment increased by 5.1 percent of GDP, recovering strongly from the low pandemic low. At 18.6 percent of GDP in 2021, the level of gross capital formation increased from 13.5 percent in 2020, slightly above the 17.8 percent of GDP average during the last five years.

Assessment. The EBA-lite CA model estimates that the current account gap is 1.4 percent of GDP. The cyclically adjusted CA was 2.0 percent in 2021, with Lithuania's cyclical position broadly compensating the impact of the conflict and the pandemic. In line with that, the norm envisages a surplus of only 0.6 percent of GDP. Policies account for about 2.3 percent of GDP. The main contributors are fiscal policy—which despite being supportive, remains modest relative to other countries—and health spending which is relatively low.

Lithuania: Model Estimates for 2021 (in percent of GDP)

	CA model	REER model
CA-Actual	**1.4**	
Cyclical contributions (from model) (-)	-0.2	
COVID-19 adjustor (-) 1/	-0.1	
Natural disasters and conflicts (-)	-0.2	
Adjusted CA	**2.0**	
CA Norm (from model) 2/	**0.6**	
Adjustments to the norm (+)	0.0	
Adjusted CA Norm	**0.6**	
CA Gap	**1.4**	**1.5**
o/w Relative policy gap	2.3	
Elasticity	-0.54	
REER Gap (in percent)	**-2.6**	**-2.8**

1/ Additional cyclical adjustment to account for the temporary impact of the pandemic on tourism and remittances (0.1 percent of GDP).

2/ Cyclically adjusted, including multilateral consistency adjustments.

Real Exchange Rate

Background. The exchange rate appreciated almost 4 percent in 2021, and about 8 percent during the last two years. As of March, the exchange rate has appreciated by 5.1 percent relative to the 2021 average level.

Assessment. The REER model estimates a REER gap of -2.8 percent, which is consistent with a CA gap of -2.6 percent—with the estimate being broadly in line with those obtained from the CA model.

Capital and Financial Accounts: Flows and Policy Measures

Background. Lithuania experienced strong capital flows during 2021. Outflows amounted to 14.6 percent of GDP, while inflows moderated to 11.9 percent of GDP. The outflow largely reflects the acquisition of currency and deposits assets (13.9 percent of GDP), predominantly by the Bank of Lithuania. While direct investment continued to show net inflows, portfolio flows reverted to modest net outflows.

Assessment. While gross debt remains high, most of it is held by the public sector, risks are ameliorated by the holding of significant assets, with the increased holdings of currency and deposits assets by the central bank.

FX Intervention and Reserves Level

Background. The euro has the status of a global reserve currency.

Assessment. Reserves in the euro area tend to be low relative to standard metrics, but the currency is free floating.

Annex III. Debt Sustainability Analysis

Table 1. Lithuania: Public Sector Debt Sustainability Analysis—Baseline Scenario

(in percent of GDP unless otherwise indicated)

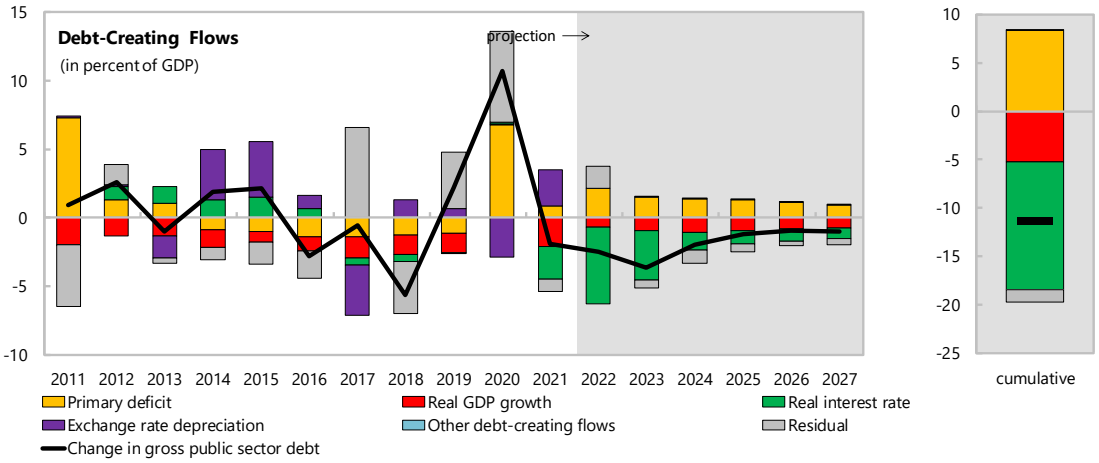
Debt, Economic and Market Indicators [1/]

	Actual			Projections					
	2011-2019 [2/]	2020	2021	2022	2023	2024	2025	2026	2027
Nominal gross public debt	38.6	46.6	44.7	42.1	38.5	36.5	35.3	34.3	33.3
Public gross financing needs	6.7	12.5	5.2	2.0	2.9	2.6	3.3	2.6	2.8
Real GDP growth (in percent)	3.8	-0.1	5.0	1.8	2.6	2.9	2.7	2.5	2.3
Inflation (GDP deflator, in percent)	2.5	1.5	6.5	14.5	9.5	3.7	3.0	2.7	2.5
Nominal GDP growth (in percent)	6.4	1.3	11.9	16.6	12.3	6.8	5.8	5.4	4.9
Effective interest rate (in percent) [4/]	3.9	1.9	1.1	0.1	0.1	0.2	0.2	0.3	0.3

As of April 27, 2022		
Sovereign Spreads		
EMBIG (bp) 3/		94
5Y CDS (bp)		57
Ratings	Foreign	Local
Moody's	A2	A2
S&Ps	A+	A+
Fitch	A	A

Contribution to Changes in Public Debt

	Actual			Projections							
	2011-2019	2020	2021	2022	2023	2024	2025	2026	2027	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	0.0	10.7	-1.9	-2.5	-3.7	-2.0	-1.2	-1.0	-1.0	-11.3	
Identified debt-creating flows	0.1	4.1	-1.0	-4.2	-3.1	-1.0	-0.6	-0.6	-0.6	-10.0	
Primary deficit	0.3	6.8	0.8	2.1	1.5	1.4	1.3	1.1	0.9	8.3	-1.5
Primary (noninterest) revenue and grants	33.9	35.5	37.4	37.9	36.9	36.4	36.0	35.9	35.9	219.0	
Primary (noninterest) expenditure	34.2	42.3	38.3	40.0	38.4	37.8	37.3	37.0	36.9	227.4	
Automatic debt dynamics [5/]	-0.2	-2.7	-1.9	-6.3	-4.6	-2.4	-1.9	-1.7	-1.5	-18.4	
Interest rate/growth differential [6/]	-0.8	0.2	-4.5	-6.3	-4.6	-2.4	-1.9	-1.7	-1.5	-18.4	
Of which: real interest rate	0.5	0.2	-2.4	-5.6	-3.6	-1.3	-1.0	-0.9	-0.7	-13.1	
Of which: real GDP growth	-1.4	0.0	-2.1	-0.7	-1.0	-1.1	-0.9	-0.9	-0.8	-5.3	
Exchange rate depreciation [7/]	0.6	-2.9	2.6	...	...	...	...	...	...	...	
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	
LTU_FIS: Privatization Receipts (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)	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/]	-0.1	6.6	-0.9	1.7	-0.6	-1.0	-0.6	-0.4	-0.5	-1.3	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

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

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) 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 - π (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.

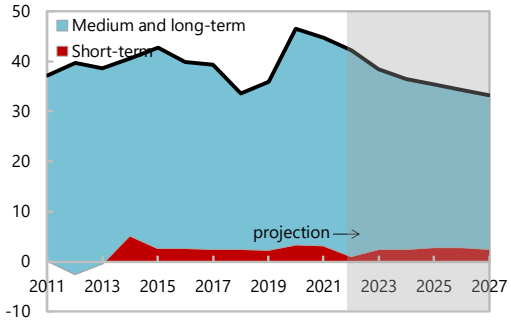
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Table 2. Lithuania: Public Debt Sustainability Analysis—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

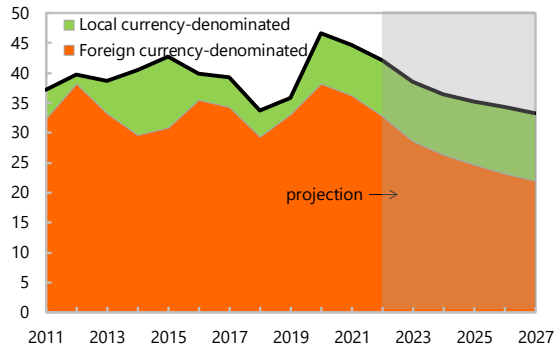
By Maturity

(in percent of GDP)

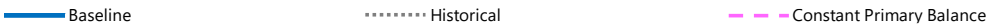


By Currency

(in percent of GDP)

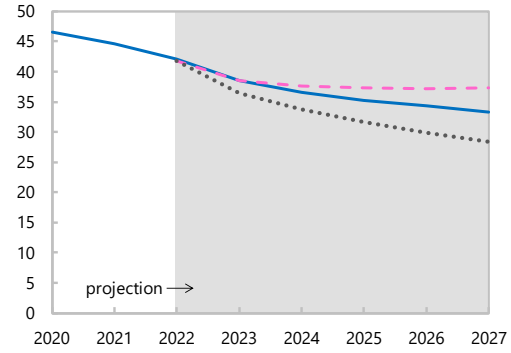


Alternative Scenarios



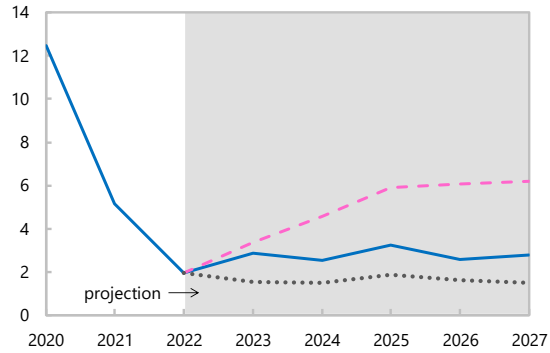
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

Baseline Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	1.8	2.6	2.9	2.7	2.5	2.3
Inflation	14.5	9.5	3.7	3.0	2.7	2.5
Primary Balance	-2.1	-1.5	-1.4	-1.3	-1.1	-0.9
Effective interest rate	0.1	0.1	0.2	0.2	0.3	0.3
Constant Primary Balance Scenario						
Real GDP growth	1.8	2.6	2.9	2.7	2.5	2.3
Inflation	14.5	9.5	3.7	3.0	2.7	2.5
Primary Balance	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1
Effective interest rate	0.1	0.1	0.2	0.2	0.3	0.4

Historical Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	1.8	3.3	3.3	3.3	3.3	3.3
Inflation	14.5	9.5	3.7	3.0	2.7	2.5
Primary Balance	-2.1	-0.3	-0.3	-0.3	-0.3	-0.3
Effective interest rate	0.1	0.1	0.3	0.4	0.5	0.7

Source: IMF staff.

Table 3. Lithuania: External Debt Sustainability Framework, 2017–2027

	Actual							Projections						
	2017	2018	2019	2020	2021			2022	2023	2024	2025	2026	2027	Debt-stabilizing non-interest current account 6/
1 **Baseline: External Debt**	87.9	75.2	65.9	75.3	67.6			**60.5**	**56.0**	**52.1**	**48.9**	**46.2**	**43.8**	**-1.7**
2 Change in external debt	6.8	-12.6	-9.3	9.3	-7.6			-7.1	-4.5	-3.9	-3.2	-2.8	-2.4	
3 Identified external debt-creating flows (4+8+9)	-11.0	-12.4	-6.8	-12.0	-13.5			-1.2	-1.5	-2.0	-2.2	-2.5	-2.6	
4 Current account deficit, excluding interest payments	-1.9	-1.4	-4.7	-8.3	-2.1			0.3	-0.5	-1.0	-1.5	-1.9	-2.2	
5 Deficit in balance of goods and services	-2.5	-1.9	-5.3	-9.3	-4.2			-0.8	-1.2	-1.3	-1.4	-1.4	-1.4	
6 Exports	75.0	75.2	77.3	73.5	80.4			83.7	79.1	76.3	74.4	72.9	72.0	
7 Imports	72.6	73.3	72.1	64.2	76.2			82.9	77.9	75.0	73.0	71.5	70.6	
8 Net non-debt creating capital inflows (negative)	-2.4	-2.2	-2.1	-2.5	-1.7			-1.6	-1.5	-1.5	-1.5	-1.5	-1.5	
9 Automatic debt dynamics 1/	-6.7	-8.7	-0.1	-1.1	-9.7			0.0	0.5	0.5	0.8	1.0	1.1	
10 Contribution from nominal interest rate	1.3	1.1	1.2	1.0	0.7			1.2	1.9	2.1	2.1	2.1	2.1	
11 Contribution from real GDP growth	-3.1	-3.1	-3.4	0.1	-3.2			-1.1	-1.4	-1.5	-1.3	-1.2	-1.0	
12 Contribution from price and exchange rate changes 2/	-4.9	-6.7	2.1	-2.2	-7.1			...	...	...	...	...	...	
13 Residual, incl. change in gross foreign assets (2-3) 3/	17.8	-0.2	-2.5	21.3	5.9			-5.9	-3.0	-1.9	-1.0	-0.3	0.2	
External debt-to-exports ratio (in percent)	117.1	100.1	85.3	102.4	84.1			72.2	70.8	68.3	65.7	63.3	60.8	
Gross External Financing Need (in billions of US dollars) 4/	18.9	23.9	23.3	12.4	16.9			23.0	21.4	21.4	22.2	21.8	22.2	
in percent of GDP	39.6	44.4	42.6	21.9	25.7	10-Year	10-Year	33.0	27.3	25.3	24.5	22.7	22.0	
Scenario with Key Variables at their Historical Averages 5/								**60.5**	**56.6**	**51.3**	**46.3**	**41.8**	**37.6**	**-3.1**
Key Macroeconomic Assumptions Underlying Baseline						Historical Average	Standard Deviation						For debt stabilization	
Real GDP growth (in percent)	4.3	4.0	4.6	-0.1	5.0	3.3	1.5	1.8	2.6	2.9	2.7	2.5	2.3	
GDP deflator in US dollars (change in percent)	6.4	8.3	-2.7	3.4	10.5	1.1	7.8	4.5	9.6	5.2	4.0	3.4	3.0	
Nominal external interest rate (in percent)	1.8	1.5	1.6	1.6	1.1	2.2	0.8	1.8	3.6	4.0	4.3	4.6	4.9	
Growth of exports (US dollar terms, in percent)	12.6	12.9	4.6	-1.8	26.9	5.6	12.2	10.8	6.2	4.4	4.2	4.0	4.0	
Growth of imports (US dollar terms, in percent)	10.7	13.8	-0.1	-7.9	37.6	4.9	14.8	15.7	5.6	4.3	4.0	3.9	4.0	
Current account balance, excluding interest payments	1.9	1.4	4.7	8.3	2.1	2.8	2.7	-0.3	0.5	1.0	1.5	1.9	2.2	
Net non-debt creating capital inflows	2.4	2.2	2.1	2.5	1.7	2.2	0.3	1.6	1.5	1.5	1.5	1.5	1.5	

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.

REPUBLIC OF LITHUANIA

Annex IV. Inflation Developments in Lithuania

1. We use an open-economy hybrid New Keynesian Phillips curve to assess the role of domestic and external drivers of inflation. We also assess the change in the role of forward-looking and backward-looking behavior in the expectation formation. The estimation equation is similar to those used in recent papers (Kamber, Mohanty, Morley, 2020; Finck and Tillmann, 2022):[1]

$$\pi_t = (1-\gamma)\pi_{t-1} + \gamma E_t[\pi_{t+1}] + \kappa\tilde{y}_t + \lambda z_t$$

where π_t is current (HICP) inflation, π_{t-1} is lagged inflation representing backward-looking expectations, $E_t[\pi_{t+1}]$ is the survey-based expectation of future inflation, $\tilde{y}_t$ is the domestic output gap or some other measure of domestic slack serving as a proxy for marginal costs of domestic factors of production, and z_t represents a set of global variables serving as a proxy for marginal costs for foreign factors of production.

2. We look at several measures of external and domestic slack to ensure robustness. External pressures are measured by import price inflation as well as energy and oil and gas price inflation. Domestic pressures are captured by the output gap and the job vacancy rate. To alleviate endogeneity concerns, we use lagged values of external and domestic slack measures; we address heteroskedasticity by using Davidson and MacKinnon (1993) robust standard errors (Table 1).

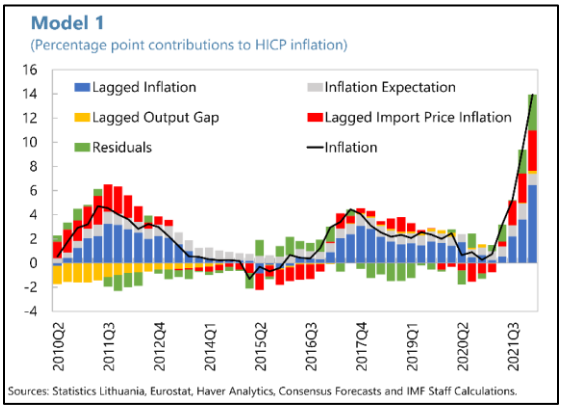
Table 1. Lithuania: Phillips Curve Estimation

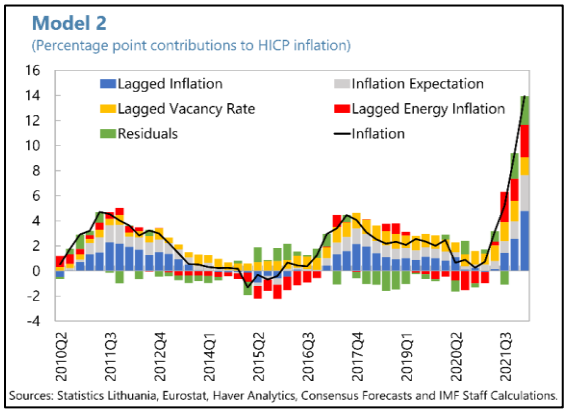
	(1)	(2)	(3)	(4)
π_{t-1}	0.349	0.506	0.498	0.533
	[0.241]	[0.239]*	[0.257]	[0.257]*
$E_t[\pi_{t+1}]$	0.651	0.535	0.579	0.551
	[0.241]*	[0.331]	[0.343]	[0.339]
$\tilde{x}_{t-1}$: output gap	0.219		0.079	
	[0.071]**		[0.074]	
$\tilde{x}_{t-1}$: job vacancy rate		0.917		0.838
		[0.459]*		[0.482]
z_{t-1} : import prices inflation	0.138			
	[0.025]**			
z_{t-1} : energy prices inflation		0.024	0.028	
		[0.008]**	[0.009]**	
z_{t-1} : oil and gas inflation				0.019
				[0.007]**
Constrained sum to 1:	Yes	No	No	No

Notes: Dependent variable is HICP inflation measured as change in per cent compared to the same quarter of the previous year (π_t); standard errors according to Davidson and MacKinnon (1993) in parentheses (except model 1).
**, * significant at the 1% and 5% significance level, respectively.

[1] Kamber, Mohanty, and Morley (2020): "Have the driving forces of inflation changed in advanced and emerging market economies?" BIS Working Paper 896, Bank for International Settlements. Finck and Tillmann (2022): "The Role of Global and Domestic Shocks for Inflation Dynamics: Evidence from Asia." Oxford Bulletin of Economics and Statistics.

3. In contrast to other countries in Europe, inflation is driven not just by external factors but to a larger extent by domestic factors. Model 1 uses the overall import price inflation and the output gap (interpolated from annual WEO data using the observed variation in real GDP). The coefficients on past HICP inflation and on expected inflation (from the Consensus Forecast) are restricted to one, to ensure long-term neutrality. The recent spike in HICP inflation is driven by increasing contributions from lagged inflation and imported prices, but relatively stable contribution from inflation expectations and the negligible role of the output gap. Model 2 replaces the output gap by the job vacancy rate and import price inflation by energy prices. Contributions from inflation expectations, which recently capture the expected impact of high commodity prices on future inflation, are increasing and the role of domestic pressures is more pronounced. On average, from 2020q1 to 2022q1, about a third of HICP inflation is explained by past inflation, another third by the vacancy rate, a fifth by expected inflation, and the reminder by energy prices (that had had a negative contribution in 2020).





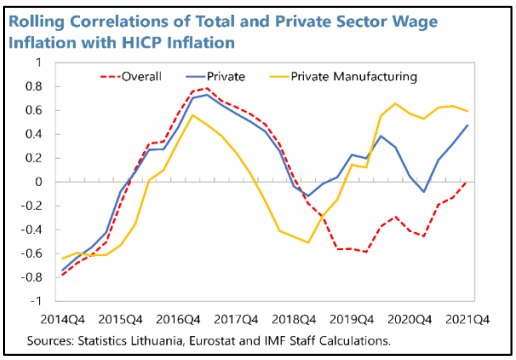
4. Inflation persistence seems to have increased after the pandemic. The rolling window estimates of Model 2 (not reported) suggest increasing coefficient on the sum of backward-looking and forward-looking inflation. This result is broadly consistent with the findings from other studies. Using monthly CPI data for five major Lithuanian cities, Cevik (2022a) finds that despite the lack of persistence in the headline inflation rate, most consumption categories exhibit significant persistence.[2] In a companion paper, Cevik (2022b) looks at the co-movement of city-level inflation rates—and reports significant increases in the degree of synchronization across cities, reflecting major external shocks including the COVID-19 pandemic.[3]

5. There is an increasingly positive correlation between inflation and private sector wage growth, particularly in manufacturing. In many advanced economies, this correlation has recently been at historical lows supported by institutional factors such as the declining rate of union

[2] Cevik (2022a): "Breaking Bad: Post-pandemic inflation inertia", IMF Working Paper xx/2022.

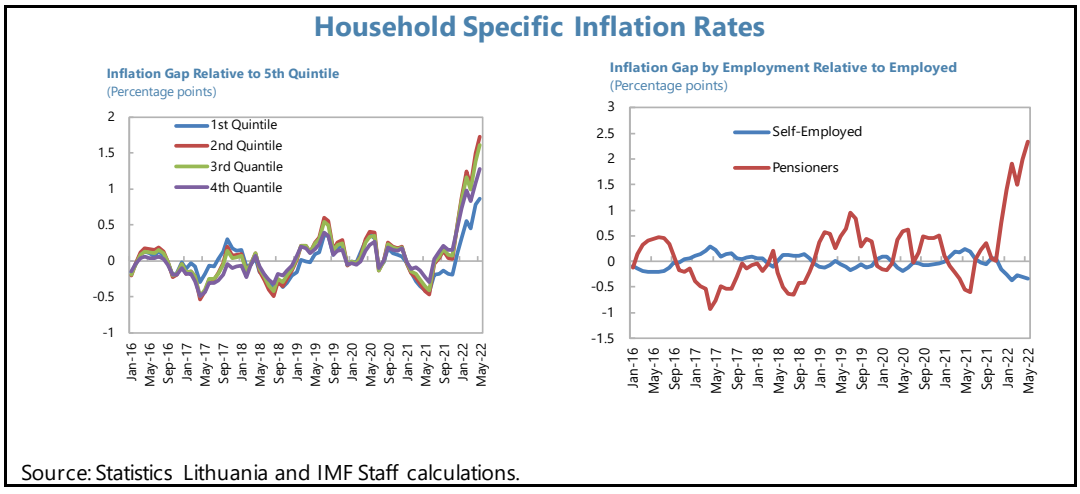
[3] Cevik (2022b): "Mind the Gap: City level inflation convergence", IMF Working Paper xx/2022.

membership and lower prevalence of indexation and cost-of-living-adjustment arrangements (BIS, 2022). In the case of Lithuania, the 12-quarters rolling contemporaneous correlations of HICP and wage inflation has, in line with the findings in BIS (2022), recently increased.[4] This change appears to be driven by the private sector where the correlation has been higher since 2019. In particular, wages in manufacturing have shown a positive, large, and stable correlation with inflation since 2020q2.



6. Inflation rates can vary across household groups due to heterogeneity in expenditure consumption patterns. Although granular data is preferable to avoid aggregation bias, inflation differences across groups can still be captured by standard survey data. In Lithuania, the last Household Budget Survey dates back to 2016 which results in constant weights over the entire 2016-2022 period. Data for countries where weights are updated more frequently (e.g., Italy) suggest that the difference in the consumption weights tend to be stable over time (Claeys, G. and L. Guetta-Jeanrenaud, 2022).[5]

7. The recent sharp increase in inflation has disproportionately affected low-income groups and pensioners. We use 2016 cash expenditure weights for 12 COICOP categories to calculate specific inflation rates by income quantile, employment status and other dimensions. Until the recent increase in inflation and since 2016, deviations of inflation among income quantiles or employment status fluctuated around zero and were not persistent over time. However, the recent dramatic increase in inflation has resulted in increasing inflation rates for lower income groups and pensioners whose consumption is more heavily biased towards energy and food (Figure IV.1). Furthermore, this gap increases with the level of inflation.



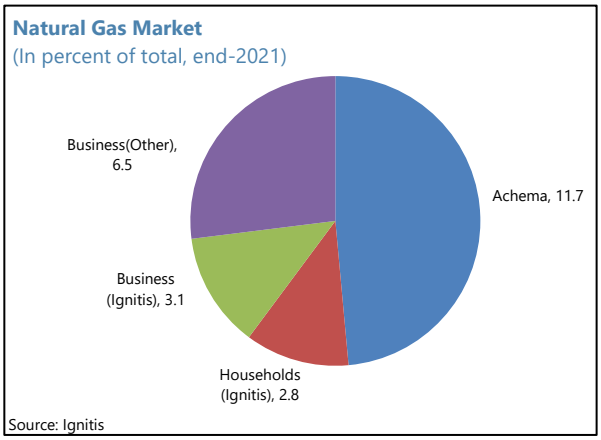
[4] BIS (2022): "Are major advanced economies on the verge of a wage-price spiral?" BIS Bulletin no. 53, Bank for International Settlements.

[5] Claeys and Guetta-Jeanrenaud (2022): "Who is suffering most from rising inflation?" Bruegel Blog, 1 February.

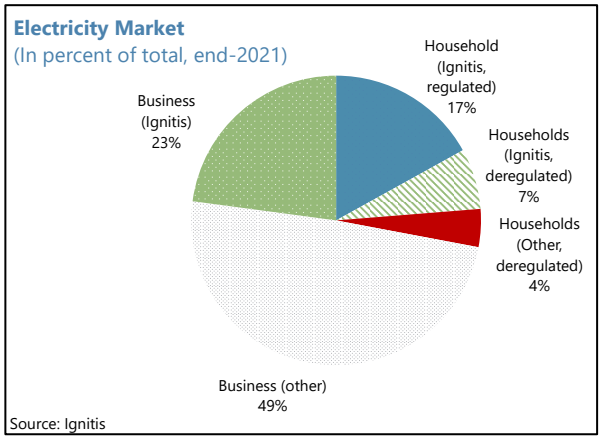
Annex V. Lithuania's Energy Markets and Policy Response to Higher Energy Costs

1. Lithuania is highly dependent on foreign sources of energy. Needs are largely covered by the regional markets after the nuclear power plant—that covered 70 percent of the electricity consumed—was decommissioned in 2009. Domestically produced electricity, which accounts for a third of total consumption, originates predominantly from renewable sources and fossils. Lithuania has taken steps towards reducing its energy dependency on Russia by integrating into the Nordic/Baltic and Western European electricity markets. The gas and electricity market for businesses are largely liberalized, while the liberalization of the customer segment of the electricity market is in its final stages. For regulated segments, the National Energy Regulatory Council (NERC) is responsible for setting prices and price caps, approving related methodologies, and monitoring the wholesale and retail markets.

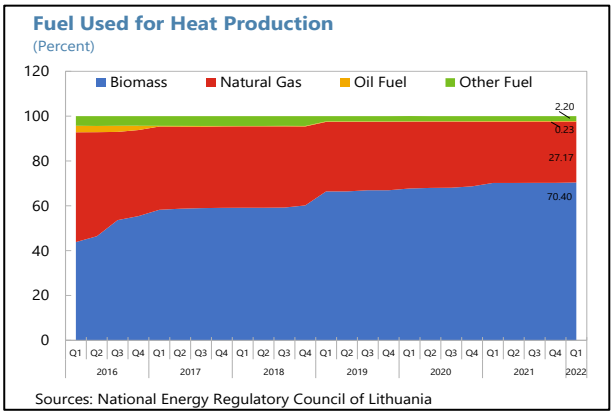
2. The natural gas market is dominated by a few players. With no domestic production and no more imports from Russia, Lithuania is entirely dependent on imports through the NLG terminal at Klaipeda and a pipeline to Poland. Industrial natural gas consumption accounts for about two-thirds of total consumption, with one fertilizer producer accounting for half of total consumption and importing gas on its own, while Ignitis—a state own energy company—supplies about a third of the rest of the business market share. Residential consumption is relatively limited as it is predominantly used for cooking. The state company supplies all consumers, and the regulator adjusts prices bi-annually to reflect changes in transmission, distribution, storage, regasification, and supply costs. No liberalization plans are envisaged for this segment.



3. The electricity market has been partially liberalized. The non-household retail market was fully liberalized in 2013. After repeated delays, the liberalization of the household market was initiated in 2020 and is currently foreseen to be completed by end-2022. All regulated households are serviced by Ignitis. Adjusted bi-annually, regulated prices include several public service, network, and investment charges, which together with electricity purchase costs form end-consumer prices. Electricity prices for households are among the lowest in the EU.



4. Heating is supplied by a large district heating network with generation largely dependent on biomass. Lithuania's district heating (DH) network covers 18,000 of the country's 38,000 apartment buildings. The system is composed of DH suppliers, regulated by NERC or municipalities, and of independent heat producers. Heat generation has gradually shifted from natural gas to biomass. End-consumer heat prices are calculated monthly based on the prices of fuel and heat purchased from independent producers. Prices also reflect depreciation, maintenance, and personnel costs as well as return on investment (adjusted annually).



5. The authorities' multi-pronged response to the energy crisis aims to limit economic disruption, provide targeted support, and allow for market price signals. The authorities are providing untargeted subsidies that seek to limit economic disruptions through two support packages. These still allowed for a significant rise in prices, with regulated natural gas increased between 25 and 35 percent at the beginning of the year, and between 27 and 40 percent in July. While the respective increases for the regulated electricity prices amounted to 10 and 46 percent respectively. In addition, the authorities strengthen their targeted subsidies and supported low-income earners through other budgetary measures.

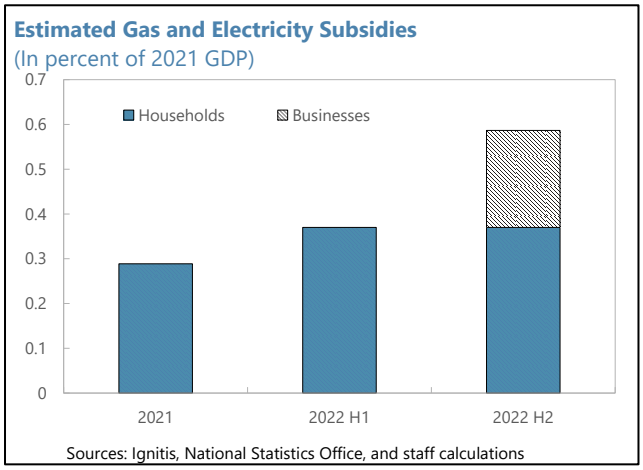
6. The initial package of untargeted subsidies to respond to the increase in global energy prices was not in line with best international practices. In November 2021, legal amendments allowed the regulator to limit gas and electricity price increases for households if such increases were to exceed 40 percent. The regulator was also granted the power to spread the associated cost over 5 years, with future tariffs compensating suppliers for the postpone income including interests. Thus, a regulated price significantly below market was set for gas and electricity during the first half of 2022, which implied that Ignitis had to cover the cost of the subsidy from its balance sheet. Consumers that had already moved to the liberalized market—basically businesses and a few households—did not benefit from this scheme.

7. As high energy prices proved persistent, a second package was approved to transparently reflect energy subsidies through the budget and compensating Ignitis for past losses. In May, ahead of the scheduled revision to regulated prices, a new initiative revamped the government's approach. With energy prices increasing further after Russia's invasion of Ukraine and considering the implications of the previous scheme on Ignitis balance sheet, investment plans, and governance, the authorities decided to provide the support explicitly on the budget, while also compensating Ignitis for the cost of the previous subsidies.

- **The cost of the subsidies is expected to be 690 million (1¼ percent of GDP).** Parliament approved 570 million in funding to cover previous subsidies—the difference between the regulated and market price during 2021 and the first half of 2022 which would have to otherwise be charged in future tariffs—as well as for the envisaged subsidies for households for the

second half of 2022. Additional 120 million were approved to support businesses, albeit they exact means have not being determined and will likely depend on finding a scheme consistent with the European rules on state aid.

- **The new scheme improved transparency and supports the liberalization of the electricity market.** With subsidies now explicit in the budget, the discussion of whether they will be needed or not in the future will be transparently discussed and decided in Parliament, and the fiscal cost of continuing support will be clear to the public. As the new scheme also covers unregulated household, it places regulated and unregulated households on level footing, reducing incentives for further delays in the liberalization process.[1]



8. The authorities also enhanced pre-existing targeted programs. The authorities also enhanced targeted subsidies for heating of vulnerable households. In addition, they temporarily (from January to April) reduced to zero the VAT on district heating for households, at a modest cost.

[1] The subsidy seeks to set a price ceiling for each household customer, so the amount of support depends on the difference between such ceiling and the contracted price. But with contracted prices tending to be variable or set for short duration, such differences should dissipate.

Annex VI. Risk Assessment Matrix[1]

Source of Risks, Likelihood, and Time Horizon	Impact on Lithuania	Recommended Policy Response
External Risks		
High (Short-term) **Russia's invasion of Ukraine leads to escalation of sanctions and other disruptions.** Sanctions on Russia are broadened to include oil, gas, and food sectors. Russia is disconnected almost completely from the global financial system and large parts of the trading system. This, combined with Russian countersanctions and secondary sanctions on countries and companies that continue business with Russia, leads to even higher commodity prices, refugee migration, tighter financial conditions, and other adverse spillovers, which particularly affect LICs and commodity-importing EMs.	**High** The impact through direct trade linkages with Russia, Ukraine and Belarus will be moderate. The main impact will come through rising commodity prices and from a weaker global outlook (including EU trading partners) and confidence effects. Energy supply disruptions might have some impact, albeit recent efforts ameliorate the risks (Box 3).	Use fiscal space to provide targeted relief to firms and households and let automatic stabilizers work fully.
High (Short-term) **Rising and volatile food and energy prices.** Commodity prices are volatile and trend up amid supply constraints, war in Ukraine, export restrictions, and currency depreciations. This leads to short-run disruptions in the green transition, bouts of price and real sector volatility, food insecurity, social unrest, and acute food and energy crises (especially in EMDEs with lack of fiscal space).	**High/Medium** Further increases in energy and food prices will put additional pressure on consumers and firms. However, their balance sheets are strong, and the government has fiscal space to provide further assistance if needed.	Ameliorate the impact of higher food/energy prices on vulnerable households. If needed, address disorderly conditions in the energy market.
High (Short-term) **Widespread social discontent and political instability.** Social unrest fueled by increasing prices and shortages of essentials, rising inequality, inadequate healthcare, financial and social scars from the prolonged pandemic, and heavier household debt burdens amid rising interest rates trigger political instability, capital outflows, higher unemployment, and slower economic growth.	**Low** The Lithuanian economy has shown significant resilience to pandemic related shocks, while price increases and shortages link to the War in Ukraine are unlikely to result in social discontent given the social support for Ukraine.	Ameliorate the impact of higher food/energy prices on vulnerable households.
Medium (Short-term) **Abrupt growth slowdown in China.** A combination of extended COVID-19 lockdowns, rising geopolitical tensions, a sharper-than-expected slowdown in the property sector, and/or inadequate policy responses result in a sharp slowdown of economic activity, with spillovers affecting other countries through supply chain disruptions, trade, commodity-price, and financial channels.	**Medium** A slowdown in China will impact Lithuania through its impact on the global economy, and to key EU trading partners.	A slowdown in economic activity may warrant a more gradual pace of fiscal consolidation.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. 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. The conjunctural shocks and scenarios highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Source of Risks, Likelihood, and Time Horizon	Impact on Lithuania	Recommended Policy Response
External Risks		
Medium (Short-term) **Outbreaks of lethal and highly contagious COVID-19 variants.** Rapidly increasing hospitalizations and deaths due to low vaccine protection or vaccine-resistant variants force more social distancing and/or new lockdowns. This results in extended supply chain disruptions and a reassessment of growth prospects, triggering capital outflows, financial tightening, currency depreciations, and debt distress in some EMDEs.	**Low** The Lithuanian economy has shown significant flexibility to address new pandemic bouts and strong balance sheets place it on solid grounds to handle new shocks.	Monitor impact on the most vulnerable and use available fiscal space to provide support if needed.
Medium (Short-term) **De-anchoring of inflation expectations in the U.S. and/or advanced European economies.** Worsening supply-demand imbalances, higher commodity prices (in part due to war in Ukraine), and higher nominal wage growth lead to persistently higher inflation and/or inflation expectations, prompting central banks to tighten policies faster than anticipated. The resulting sharp tightening of global financial conditions and spiking risk premia lead to lower global demand, currency depreciations, asset market selloffs, bankruptcies, sovereign defaults, and contagion across EMDEs.	**Low** A tightening of monetary policy, particularly by the ECB, will better align with the needs for Lithuania helping to ameliorate inflation risks. EU and euro area membership have reduced sovereign risks levels and volatility.	A tighter monetary policy by the ECB would likely lead to the need for a more gradual fiscal consolidation and would reduce the risks of requiring additional macroprudential measures.
High (Long-term) **Geopolitical tensions and deglobalization.** Intensified geopolitical tensions, security risks, conflicts, and wars cause economic and political disruptions, fragmentation of the international monetary system, production reshoring, a decline in global trade, and lower investor confidence.	**Medium** The slowdown in global growth and trade will affect Lithuania's overall trade prospects and particularly the transportation sector.	Continue to integrate with the EU to secure access to a large market. Pursue education reform to shift the labor force to higher value-added sectors with fast growing labor demand.
Medium (Short-term) **Cyberthreats.** Cyberattacks on critical physical or digital infrastructure (including digital currency platforms) trigger financial instability or widespread disruptions in socio-economic activities.	**Medium** Credit growth and investment could be impaired, though high liquidity in the economy could limit the impact.	Step up collaboration with home country supervisors and strengthen crisis preparedness.
Medium (Long-term) **Natural disasters related to climate change.** Higher frequency of natural disasters cause severe economic damage to smaller vulnerable economies and accelerate emigration. Severe events in large economies hitting key infrastructure reduce global GDP, cause further supply chain disruptions and inflationary pressures, and prompt a recalculation of risk and growth prospects.	**Medium** While Lithuania could benefit from higher temperatures, associated increased volatility entails risks to biodiversity, food production, infrastructure, and weather sensitive activities.	Continue to strengthen climate-related policies along with energy security, including increasing the share of renewables.

Source of Risks, Likelihood, and Time Horizon	Impact on Lithuania	Recommended Policy Response
Domestic Risks		
High/Medium (Short-term) **Significantly stronger than expected recovery leads to higher growth.** Pent-up demand and large build-up of deposits combined with very accommodative monetary conditions over the next two years drive a surge in domestic demand.	**High/Medium** Higher domestic demand will push GDP further above pre-pandemic trends. While these dynamics could help correct the external position, if sustained over time, it could lead to the re-emergence of imbalances.	Maintain a decisively countercyclical policy stance. Gradually tighten fiscal and financial policies while maintaining highly targeted support to vulnerable pockets of the economy.
Low/Medium (Long-term) **Risks to competitiveness.** Wage growth exceeds productivity growth in tradeable sectors for an extended period.	**Medium** Competitiveness and growth potential would suffer, and income convergence would stall. However, real wages and productivity have traditionally been closely linked and temporary deviations have been self-correcting.	Redouble efforts to implement structural reform programs. Avoid large minimum wage increases, minimize the public-private sector wage gap, and reduce skills mismatch.
High (Medium-term) **Failure to implement structural reforms.** Elusive implementation of reforms in critical areas, including education and health care, limit opportunities to increase potential growth and productivity.	**High** Lithuania would be vulnerable to a middle-income trap and face continued social demands without commensurate growth and revenue.	Accelerate the implementation of elusive structural reforms and elaborate a medium- term fiscal plan that raises potential and meets social needs.