INTERNATIONAL MONETARY FUND

IMF Country Report No. 18/185

REPUBLIC OF LITHUANIA

2018 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR THE REPUBLIC OF LITHUANIA

June 2018

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

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 20, 2018 consideration of the staff report that concluded the Article IV consultation with the Republic of Lithuania.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 20, 2018, following discussions that ended on May 21, 2018, 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 June 4, 2018.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for the Republic of Lithuania

The documents 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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INTERNATIONAL MONETARY FUND

COMMUNICATIONS DEPARTMENT

Press Release No. 18/253
FOR IMMEDIATE RELEASE
June 25, 2018

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

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

On June 20, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with the Republic of Lithuania.

The economy picked up steam in 2017, following two years of sluggish growth. Real GDP expanded by 3.9 percent largely because of the acceleration of investment, which benefited from credit growth and high capacity utilization. Private consumption remained the main engine of growth, though it was held back by decelerating real wages. The external current account swung to a modest surplus with exports benefiting from past investments in export capacity and improved external demand. Rising wages, driven by a tightening labor market, and tax hikes led to a spike in inflation to 3.7 percent. With positive macroeconomic conditions, the government continued to consolidate public finances resulting in a headline budget surplus for the second year in a row. Data for the first quarter of 2018 point to a modest deceleration of the economy and inflation.

With Lithuania's economy expanding well above potential, growth is expected to moderate over time to a more sustainable pace. Growth in 2018 is projected at 3.2 percent, mainly because of weaker exports after a very strong performance last year and a slowdown of consumption driven by negative employment growth. Investment spending should pick up, however, thanks to faster EU funds absorption. Inflation is projected to moderate because of the waning effects of the 2017 tax hikes, lower wage increases, and a slowing economy.

Being a small open economy, Lithuania is highly vulnerable to a retreat from global trade, renewed euro area strains, geopolitics and global growth. On the domestic front, emigration and population aging, and lack of reforms are the main risks to the economic outlook.

[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.

Executive Board Assessment

Executive Directors welcomed Lithuania's strong economic performance supported by impressive macroeconomic management. The economy is rebounding and internal and external imbalances have been corrected. However, Directors noted that ambitious reforms are needed to address the significant medium-term structural challenges, including tackling adverse demographics as well as high poverty and income inequality, and ensuring continued convergence to the euro area income levels.

Directors commended the authorities for pursuing countercyclical fiscal policy in recent years. Recognizing that Lithuania is a small open economy with no independent monetary policy, they considered that adequate fiscal buffers are needed to address external shocks and medium-term fiscal pressures. Directors agreed that a broadly neutral fiscal stance over the medium-term would strike the right balance between rebuilding buffers and addressing pressing social needs. They noted that the authorities could use some of the available fiscal space to finance productivity-enhancing reforms while maintaining moderate structural surpluses and a declining debt path. Noting that there is scope to simplify the existing fiscal framework, a number Directors highlighted the need to safeguard its counter-cyclical nature.

Directors agreed that pension reform is important for reducing old-age poverty while safeguarding fiscal sustainability. They welcomed recent increases in minimum pensions and the transfer of the social assistance element to the state budget. Directors noted that increasing participation is essential for the success of the reform. They emphasized the need for broad political and social consensus to ensure stability and long-term success of the pension system.

Directors acknowledged that the financial system is sound and that recent credit and housing market developments do not pose risks to financial stability. Given the rapid growth in housing prices and credit and that spillovers from Nordic parent banks could pose risks, they encouraged the authorities to continue using macroprudential policy proactively to address systemic risks and cooperating closely with banks' home-country authorities.

Directors underscored the importance of continued productivity gains for sustainable improvement in wages and living standards. They noted that while low wages are increasingly posing challenges, excessive high wage growth above productivity could harm competitiveness. To ensure convergence with Western European living standards, Directors encouraged the authorities to implement reforms that boost productivity growth. Top priorities are education and healthcare reform, including rationalizing and consolidating bloated networks.

Directors underscored the importance of boosting labor supply to mitigate demographic pressures and raise potential growth. They agreed that policies in this area should include reducing the labor tax wedge, linking retirement to life expectancy, tightening early retirement schemes, retraining programs, and immigration.

Directors agreed that additional resources may be needed to reduce social disparities and address aging-related pressures. While welcoming recent tax proposals, they encouraged the authorities to consider greater reliance on capital and wealth taxes instead of labor. Given Lithuania's low tax ratio, Directors also urged more ambitious reforms to mobilize revenues allowing greater use of targeted social programs to tackle social disparities.

It is expected that the next Article IV consultation with the Republic of Lithuania will be held on the standard 12-month cycle.

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Republic of Lithuania: Selected Economic Indicators, 2014–23[1]

Quota (current, % of total): SDR 441.6 million, 0.09 percent
Main products and exports: minerals (incl. refined fuel), agricultural and wood products, chemicals, plastics, textiles
Key export markets: Russia, Latvia, Estonia, Poland, Germany

Per capita GDP (2016): € 13,500
Literacy rate (2015): 99.8 %
At-risk-of-poverty (after transfers), share of population (2016): 30.1%

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
				Projections						
Output										
Real GDP growth (annual percentage change)	3.5	2.0	2.3	3.9	3.2	2.9	2.7	2.4	2.2	2.0
Domestic demand growth (year-on-year, in percent)	3.4	6.9	2.5	3.1	4.1	3.9	3.6	3.3	3.1	3.0
Private consumption growth (year-on-year, in percent)	4.0	4.0	4.9	3.8	3.5	3.4	3.3	3.2	3.1	3.0
Domestic fixed investment growth (year-on-year, in percent)	5.7	4.8	-0.5	7.3	7.8	6.7	5.6	4.3	3.9	3.6
Inventories (contribution to growth)	-0.4	3.2	-0.8	-0.9	0.0	0.0	0.0	0.0	0.0	0.0
Net external demand (contribution to growth)	0.2	-5.2	-0.1	0.4	-0.9	-1.1	-1.0	-0.9	-1.1	-1.2
Nominal GDP (in billions of euro)	36.6	37.4	38.7	41.9	44.1	46.5	49.0	51.4	53.9	56.3
Output gap (percent of potential GDP)	-0.1	-0.6	-1.0	0.1	0.5	0.6	0.6	0.5	0.2	0.0
Employment										
Employment (annual percentage change)	2.0	1.2	2.0	-0.5	-0.5	-0.4	-0.3	-0.2	-0.1	0.0
Unemployment rate (year average, in percent of labor force)	10.7	9.1	7.9	7.1	6.9	6.8	6.7	6.7	6.6	6.5
Average monthly gross earnings (annual percentage change)	4.5	5.1	7.9	8.2	6.8	6.2	5.7	5.2	4.9	4.4
Average monthly gross earnings, real (CPI-deflated, annual percentage change)	4.3	5.8	7.2	4.3	4.3	3.9	3.3	2.7	2.4	2.0
Labor productivity (annual percentage change)	1.5	0.8	0.4	4.4	3.7	3.4	3.0	2.6	2.3	2.0
Prices										
HICP, end of period (year-on-year percentage change)	-0.1	-0.2	2.0	3.8	2.2	2.2	2.3	2.4	2.5	2.5
GDP deflator (year-on-year percentage change)	1.0	0.3	1.0	4.2	2.2	2.4	2.5	2.5	2.5	2.5
HICP core, period average (annual percentage change)	0.7	1.9	1.7	2.6	2.3	2.3	2.4	2.4	2.4	2.4
HICP, period average (annual percentage change)	0.2	-0.7	0.7	3.7	2.4	2.2	2.3	2.4	2.5	2.5
General government finances 2/										
Revenue (percent of GDP)	34.0	34.6	34.5	33.9	35.1	35.4	35.7	35.0	34.8	34.5
Of which EU grants	2.7	1.8	0.8	0.6	1.5	2.0	2.3	1.8	1.5	1.3
Expenditure (percent of GDP)	34.6	34.9	34.2	33.3	34.5	34.6	34.9	34.2	34.1	33.9
Of which: Non-interest	33.0	33.4	32.9	32.2	33.5	33.8	34.1	33.5	33.4	33.2
Fiscal balance (percent of GDP)	-0.6	-0.2	0.3	0.5	0.6	0.8	0.8	0.8	0.7	0.6
Fiscal balance excl. one-offs (percent of GDP)	-1.1	-0.5	0.2	0.6	0.7	0.7	0.7	0.7	0.6	0.6
Structural fiscal balance (percent of potential GDP) 3/	-0.9	-0.3	0.6	0.8	0.6	0.6	0.6	0.6	0.6	0.6
General government gross debt (percent of GDP)	40.5	42.6	40.1	39.7	37.1	34.4	31.9	29.6	27.6	25.7
Of which: Foreign currency-denominated	31.9	11.9	11.3	11.2	10.4	9.7	9.0	8.3	7.7	7.2
Credit										
Private sector credit (end of period, percent change)	-0.9	4.1	7.1	4.5	4.9	...	...	...	...	...
Long-term lending rate to private sector	7.0	8.0	6.6	...	...	...	...	...	...	...
Short-term lending rate to private sector	2.7	2.5	2.3	...	...	...	...	...	...	...
Balance of payments (in percent of GDP, unless otherwise specified)										
Current account balance	3.2	-2.8	-1.1	0.8	0.3	-0.1	-0.8	-1.5	-2.1	-2.6
Current account balance (billions of euros	1.2	-1.0	-0.4	0.3	0.1	-0.1	-0.4	-0.7	-1.1	-1.5
Exports of goods and services (volume change, in percent)	3.3	-0.4	3.5	13.6	4.8	4.0	4.1	3.8	3.6	3.4
Imports of goods and services (volume change, in percent)	3.1	6.2	3.5	12.8	5.7	5.1	5.0	4.6	4.5	4.4
Foreign direct investment, net	0.0	-1.9	-0.4	-1.3	-1.4	-1.4	-1.4	-1.4	-1.5	-1.6
Short-term debt at original maturity	22.6	26.8	39.7	36.9	34.6	32.4	30.9	29.9	28.6	27.6
Gross external debt 4/	69.9	75.7	85.5	83.3	78.6	74.0	70.3	67.4	64.4	61.9
Exchange rates										
Real effective exchange rate (2005=100, +=appreciation)	120.7	118.9	121.0	123.0	..	..	..	..	..	..
Exchange rate (euro per U.S. dollar, end of period)	0.81	0.92	0.95	0.84	..	..	..	..	..	..
Exchange rate (euro per U.S. dollar, period average)	0.75	0.90	0.90	0.89	..	..	..	..	..	..
Saving-investment balance (in percent of GDP)										
Gross national saving	22.2	17.8	16.2	18.0	18.6	18.4	18.1	17.6	17.1	16.7
Gross national investment	19.0	20.6	17.3	17.2	18.3	18.5	18.9	19.1	19.2	19.3
Foreign net savings	-3.2	2.8	1.1	-0.8	-0.3	0.1	0.8	1.5	2.1	2.6

Sources: Lithuanian authorities; World Bank; Eurostat; and IMF staff estimates and projections.
1/ Data are presented on ESA2010, and BPM6 manuals basis.
2/ The numbers for 2014 include 302 million euros (0.8 percent of GDP) in compensation payments for past pension cuts on accrued basis. The payments are spread over 2014-16, affecting the debt profile for these years. ESM contributions are spread over 2015–19, and also increase debt. Passive projections from 2016 onward; incorporate only announced budgetary measures; budgetary impact of further defense spending, wage compensation and their potential offsetting measures are not included.
3/ Calculation takes into account standard cyclical adjustments as well as absorption gap.
4/ Government external debt excludes guaranteed loans.

INTERNATIONAL MONETARY FUND

REPUBLIC OF LITHUANIA

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

June 4, 2018

KEY ISSUES

Context. Lithuania's economic performance has been impressive, but the country now risks falling into the middle-income trap. The economy is growing at a healthy pace, and external and internal imbalances have been corrected. Nevertheless, significant medium-term challenges have yet to be addressed. These include tackling adverse demographics, transitioning from a low-wage to high-productivity growth model and addressing high income inequality. Addressing these challenges will require ambitious structural reforms.

Key policy recommendations:

- **Increase labor force participation.** Reforms should focus on lowering labor taxation, raising the retirement age and reforming immigration.
- **Raise productivity growth.** Continued wage increases above productivity growth would harm competitiveness and prevent a sustainable improvement in living standards. To boost productivity growth, the authorities should reform the education and healthcare systems and overhaul Lithuania's cumbersome innovation promotion.
- **Pension reform.** Low old-age pensions are a major contributor to old-age poverty. Replacement ratios are already low and projected to decline further. The authorities should consider options for boosting the social sustainability of the pension system which, might require, among other things, additional resources from the budget since labor taxes are already high.
- **Tax Reform.** Lithuania has one of the lowest tax ratios in the EU and will need additional revenues to address fiscal pressures from demographics and to reduce income inequality. Environmental, capital and wealth taxes should be given high priority. Tax administration reforms also have an important role to play.
- **Preserve macroeconomic and financial stability.** Fiscal policy should aim at rebuilding pre-crisis buffers. Means-tested social assistance, rather than minimum wages, should be the main tool to address poverty and social disparities. The authorities should monitor developments in the housing and credit markets and proactively use macroprudential policy to address signs of overheating. They should also follow developments in Nordic parent banks.

Approved By
Philip Gerson and Johannes Wiegand

Discussions were held in Vilnius during May 9–21, 2018. The team comprised Messers. Borja Gracia (head), Iacovos Ioannou, Kanghoon Keah, Jean Guillaume Poulain, and Ms. Vina Nguyen (all EUR). Mr. Rimtautas Bartkus (OED) participated in most of the meetings. Ms. Nhu Nguyen and Ms. Hannah Jung supported the mission from headquarters.

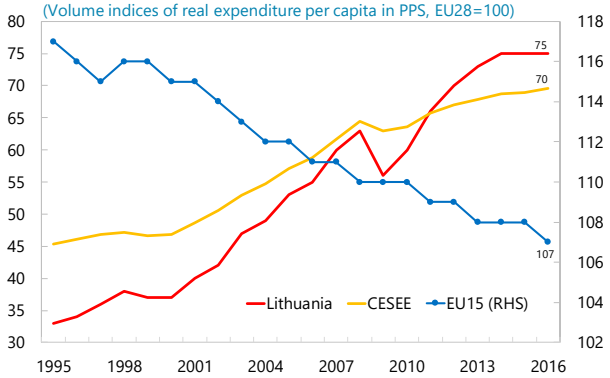
CONTENTS

CONTEXT: POSITIVE SHORT-TERM, CHALLENGING MEDIUM-TERM

1. Lithuania has an impressive growth performance over the years, but now risks falling into the middle-income trap. Since the late 1990s, the country has experienced the second-highest annual average growth rate in Central, Eastern, and Southeastern Europe. Recently, however, per capita income (PPP terms) has stalled and earlier post-crisis gains were largely driven by weak EU growth.

2. The main challenge is to transition from a low-wage to a high-productivity economy, while tackling negative demographics. Relying on low wages to make convergence gains is not a viable long-term strategy as it exacerbates social disparities and spurs further emigration. In the context of negative population dynamics, structural reforms will be a precondition for boosting productivity and raising living standards.

Real GDP Per Capita
(Volume indices of real expenditure per capita in PPS, EU28=100)



Sources: Eurostat and IMF staff calculations.

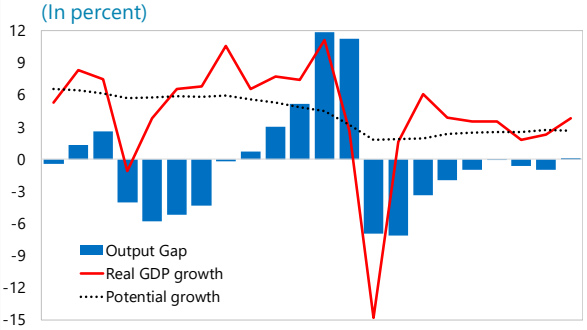
3. While there is broad consensus on the reform agenda, a major push forward has proven elusive. Most political parties and social agents broadly agree on needed reforms. However, translating these into concrete actions is politically difficult, partly because of post-crisis reform fatigue. Moreover, the government has a thin majority in parliament and depends on ad hoc support from different parties on a case-by-case basis. Recent government proposals covering key areas of reform (tax, pensions, education, healthcare, innovation, and informality) could provide a window of opportunity for reform before presidential, local, and European elections next year.

RECENT DEVELOPMENTS: RECOVERY WITHOUT PRE-CRISIS IMBALANCES RE-EMERGING

4. The economic recovery picked up steam last year. Following two years of sluggish growth, the economy rebounded in 2017, registering a growth rate of 3.9 percent. The strong performance relative to 2016 was mainly the result of the acceleration of investment, which benefited from credit growth, and high capacity utilization. Private consumption, which continued to be the main engine of growth, was held back by decelerating real wages. Exports bounced back strongly in 2017 owing to a pickup in external demand and past investments in export capacity. Surging demand for imports, however, largely offset their contribution to growth. Tentative signs

suggest a modest slowdown of the economy in the first quarter of 2018, with real GDP rising by 3.6 percent compared with 4.0 percent in 2017. Thanks to a tightening labor market and dwindling employment growth driven by adverse demographics, nominal wages continued to rise sharply—further fueled by minimum wage hikes—while unemployment declined below NAIRU, estimated at almost 10 percent. Rising wages and tax hikes led to a spike in inflation in 2017. The output gap is estimated to have turned positive.

Real Growth, Potential Growth and Output Gap 1/
(In percent)

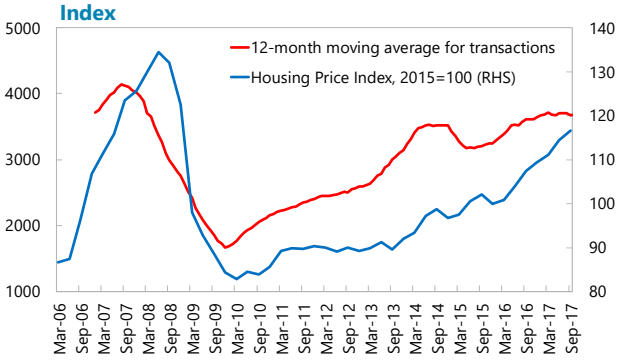


Sources: Statistics Lithuania and IMF staff calculations.
1/ For details on the methodology, see Annex I

5. With positive macroeconomic conditions, the authorities continued to consolidate public finances. During the last two years, the general government accumulated fiscal surpluses—0.3 and 0.5 percent of GDP in 2016 and 2017 respectively—as a result of moderate growth in current spending. All in all, fiscal policy continued to tighten in 2017, contributing to a total structural adjustment of 1.7 percent of GDP since 2014. Public debt continued its downward trend, falling below 40 percent of GDP in 2017 from the post-crisis peak of 43 percent of GDP in 2015.

6. There are no signs of financial imbalances reemerging. Private-sector credit slowed in 2017, driven by the nonfinancial corporate sector. Household credit remained strong, rising by 7 percent thanks to solid wage growth, and coincided with a surge in housing activity. The number of transactions in the real estate market rose sharply and neared the pre-crisis peak. Moreover, housing prices, especially in major urban centers, rose sharply, prompting the Bank of Lithuania (BoL) to raise the countercyclical capital buffer by 0.5 percentage points in December 2017. Nonetheless, the stock of credit is still modest at 41 percent of GDP, well below the pre-crisis peak of 68 percent of GDP. Similarly, housing prices remain significantly below their 2007 peak, especially when adjusted for inflation. Financial soundness indicators remain strong. Lithuania's banking system is well capitalized, liquid, and profitable despite the low interest rate environment. Nevertheless, spillovers from real-estate related vulnerabilities in Nordic parent banks, which control most of Lithuania's financial sector, remain a risk.

Number of Housing Transactions and House Price Index

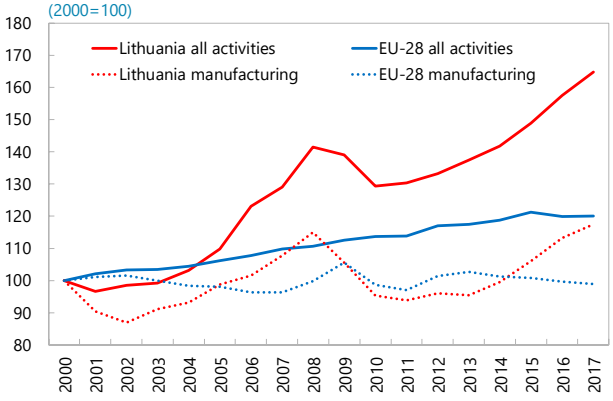


Sources: Statistics Lithuania, Bank of Lithuania, Haver Analytics, and IMF staff calculations.

7. While Lithuania's external position is moderately stronger than implied by medium-term fundamentals and desirable policies, this is mostly due to fiscal policy misalignment in the rest of the world (Box 1). The current account swung to a modest surplus (0.8 percent of GDP) in 2017, with exports benefiting from past investments in capacity and improved external demand. Strong domestic demand, notably investment, contributed to a significant pick up in import

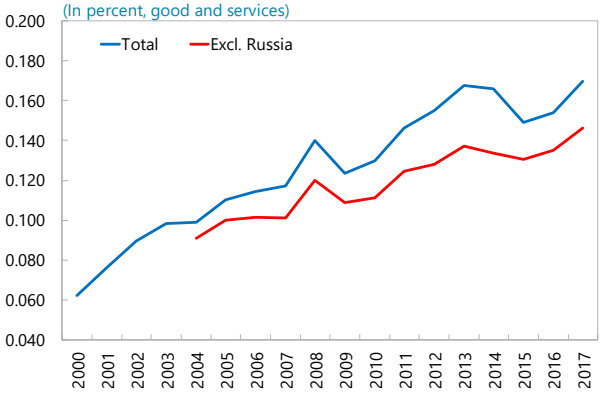
volumes. As a catching up economy, Lithuania is expected to register modest current account deficits over the medium-term driven by lagging productivity, worsening terms-of-trade, pickup in investment-related imports, and prospective decline in European Structural and Investment Funds (ESIFs) in the 2021–27 EU's Multiannual Financial Framework. These should not pose a threat to external stability and can be easily funded by FDI and other financial inflows, considering also Lithuania's sovereign credit rating upgrade to A by Standard and Poor's in March 2018. Nevertheless, the increase of unit labor costs—around 4.5 percent for the whole economy and 3.6 percent in manufacturing in 2017—associated with recent high wage growth above productivity, if persistent, could be a source of concern, especially if accompanied by signs of sliding export market shares. So far, this has not happened.

Lithuania and EU-28: Nominal ULCs, 2000-17
(2000=100)



Sources: Eurostat; and IMF staff calculations.

Lithuania: Export Market Shares, 2000-17
(In percent, good and services)



Sources: WEO and IMF staff calculations.

Box 1. Republic of Lithuania: External Sector Assessment

Staff considers the external position to be moderately stronger than implied by medium-term fundamentals and desirable policies owing mostly to looser-than-desirable fiscal policy in the rest of the world. This assessment is based on the EBA-lite Current Account approach (CA) which finds a positive current account gap of 2 percent of GDP implying a real effective exchange rate undervaluation of around 3 percent. The External Sustainability approach (ES) points to a medium-term current account balance that is higher than the level that would stabilize Lithuania's net foreign asset position (1.3 percent), implying an undervaluation of the exchange rate by 2.2 percent. Finally, the REER approach points to an overvaluation of 3 percent. Staff considers the CA approach to be more reliable given the better fit of the regression equation.

External Balance Assessment[1]

Methodology	CA Gap[2] (Percent of GDP)	REER Gap[3] (Percent)
(1) EBA-Lite CA Approach	2.0	-3.4
(2) EBA-Lite REER Approach	–	3.0
(3) EBA-Lite ES Approach	1.3	-2.2

Source: Fund Staff Calculations

1/ The assessment is done for the year 2017
2/ CA gaps: plus indicates a current account above its estimated norm.
3/REER gaps: minus indicates undervaluation. REER gaps between -5 and + 5 percent are considered to indicate the REER is broadly in line with fundamentals.

The Net International Investment position has been on an improving trend since the trough in 2008/09. It strengthened to -36 percent of GDP in 2017 from -59 percent of GDP in 2009. The improvement is mostly explained by the sharp reduction in the net negative position of the banking sector. Risks of sudden withdrawal and associated external pressures are, therefore, low.

OUTLOOK AND RISKS: AVOIDING THE MIDDLE-INCOME TRAP

8. In the context of a more advanced cyclical position than most euro area countries, growth is expected to moderate to a more sustainable pace in 2018. Growth is projected at 3.2 percent mainly because of weaker exports reflecting base effects. Domestic demand will be the main engine of growth, with investment picking up because of stronger ESIFs absorption. However, private consumption should moderate because of reduced employment. The contribution of net exports is projected to turn negative in 2018 as stronger domestic demand boosts imports. Inflation is projected to moderate because of the waning effects of the 2017 tax hikes, lower wage increases, and a slowing economy.

9. Growth is expected to decline in the coming years to its medium-term potential rate estimated at around 2 percent. This reflects adverse demographics and mediocre productivity growth in the absence of ambitious reforms (Annex II). Private consumption should moderate over time because of weaker real wage growth linked to productivity. Similarly, investment growth should decelerate over the medium-term relative to current high growth levels. The contribution of net exports to growth is expected to remain broadly unchanged. Inflation is projected to remain above the euro area level reflecting Balassa-Samuelson effects.

10. Risks to the outlook are broadly balanced in the short-term with downside risks dominating in the medium-term. Lithuania is a small open economy highly vulnerable to a retreat from global cross-border integration, renewed euro area strains, geopolitics, and global growth. Negative demographics may further tighten labor market conditions, undermining competitiveness. Lack of structural reforms may also affect medium-term growth. On the upside, a determined push on structural reforms could raise productivity growth and improve growth prospects.

11. The authorities broadly concurred with staff's outlook, but see the economy operating well above potential. They considered the output gap to be larger than staff's estimates and cited the tightening labor market and rising consumer prices as evidence. The Ministry of Finance was more optimistic about medium-term growth potential, estimated at 3.2 percent. In their view, Eurostat projections used by staff were pessimistic. While acknowledging the importance of structural reforms in boosting growth potential, they noted that ongoing capital investments in automation could partially mitigate demographic pressures. They were also less concerned about continued wage increases which they saw as an instrument to slow emigration. They believed that low productivity growth in recent years was driven by cyclical factors which are fading and pointed to increased export market shares despite substantial wage increases as evidence.

Box 2. Republic of Lithuania: Risk Assessment Matrix[1]

Source of Risks, Likelihood, and Time Horizon	Impact on Lithuania	Recommended Policy Response
External		
High (medium term) **Structurally weak growth in key advanced economies:** Low productivity growth (U.S., euro area and Japan), high debt, and failure to fully address crisis legacies by undertaking structural reforms amidst persistently low inflation (euro area and Japan) undermine medium-term growth.	**High/Medium** As a small, highly open economy, Lithuania would be affected through trade, confidence, and FDI channels. Growth and employment could suffer.	Participate in coordinated policy responses at the European level. Diversify exports to more dynamic destinations. Redouble efforts to spur domestic productivity growth.
Medium (short to medium term) **Retreat from cross-border integration**. Fraying consensus about the benefits of globalization leads to protectionism and economic isolationism, resulting in reduced global and regional policy and regulatory collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth	**Medium** As a small, highly open economy, Lithuania would be affected through trade and confidence channels. But with the single market—Lithuania's largest export destination—the fallout should be contained.	Participate in global and European policy responses. Diversify risk by pushing ahead with export diversification.
Medium (short to medium term) **Policy and geopolitical uncertainties:** Two-sided risks to U.S. growth with uncertainties about the positive short-term impact of the tax bill on growth and the extent of potential medium-term adjustment to offset its fiscal costs; uncertainty associated with negotiating post-Brexit arrangements and NAFTA and associated market fragmentation risks; and evolving political processes, including elections in several large economies, weigh on the whole on global growth.	**High/Medium** Lithuania could be affected through trade, confidence, and FDI channels. Euro area membership, fiscal buffers, and well-capitalized banks are mitigating factors. Growth and employment could suffer.	Participate in coordinated policy responses at the European level. Let fiscal stabilizers operate freely and consider discretionary fiscal policy.
High (short to medium term) **Tighter global financial conditions.** Against the backdrop of continued monetary policy normalization and increasingly stretched valuations across asset classes, an abrupt change in global risk appetite (e.g., due to higher-than-expected inflation in the U.S) could lead to sudden, sharp increases in interest rates and associated tightening of financial conditions. Higher debt service and refinancing risks could stress leveraged firms, households, and vulnerable sovereigns, including through capital account pressures in some cases.	**Low** Higher interest rates could somewhat cool economic momentum, but low leverage in the economy would guard against financial stress.	Let automatic fiscal multipliers operate freely. Consider discretionary fiscal policy in case of a severe growth setback.
Medium (medium term) **Further pressure on traditional bank business models:** Legacy problems, and potential competition from non-banks curtail banks' profitability globally. Loss of confidence if such profitability challenges are not addressed could increase the risk of distress at one or more major banks with possible knock-on effects on the broader financial sector and for sovereign yields in vulnerable economies. Migration of activities outside of the traditional banking sector, including provision of financial services by fintech intermediaries, raises competitive pressures on traditional banks, making risk monitoring and mitigation more difficult.	**Medium** Potential vulnerabilities in parent banks could spill over to Lithuania, curtailing credit supply.	Step up collaboration with home country supervisors and crisis preparedness.
Medium (short to medium term) **Cyber-attacks** on interconnected financial systems and broader private and public institutions that trigger systemic financial instability or widely disrupt socio-economic activities.	**Medium** Disruptions to Lithuania's highly interconnected financial system with Nordic countries could curtail credit growth and private investment, though cash buffers could limit the effect.	Step up collaboration with home country supervisors and strengthen crisis preparedness.
Domestic		
Medium (medium term) **Risks to competitiveness:** Wage growth continues to significantly outstrip productivity growth for an extended period.	**High** Competitiveness and growth potential would suffer. Catching-up with living standards in Western Europe would stall. Dealing with population aging would be more difficult.	Redouble efforts to implement a focused structural reform program. Avoid large minimum wage increases.

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

POLICY DISCUSSIONS: ADDRESSING LONG-TERM CHALLENGES WHILE SAFEGUARDING STABILITY

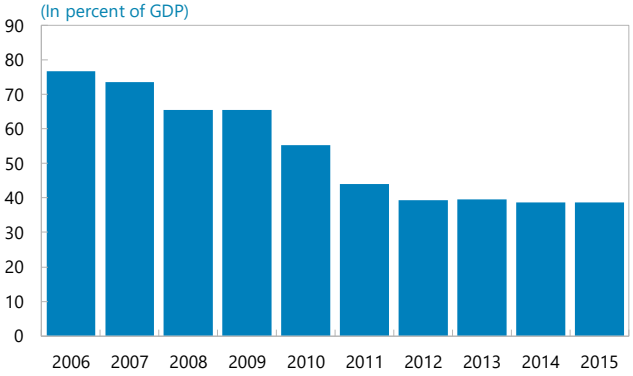
With imbalances addressed, macroeconomic policies should aim at preserving stability by preventing the reemergence of pre-crisis imbalances. Attention should turn to addressing medium-term challenges. Against the backdrop of recent proposals, discussions focused on a structural reform agenda to boost productivity growth and address social disparities.

A. Safeguarding Macroeconomic and Financial Stability: A Prerequisite for Sustained Growth

12. The 2018 budget preserves the strong fiscal position achieved after the crisis. With the economy now growing above potential, staff projects a headline surplus of 0.6 percent of GDP in 2018, in line with the fiscal rule. Tax revenues are projected to remain broadly unchanged, but overall revenues will increase because of higher ESIFs absorption. Current expenditure will increase considerably reflecting higher social benefits following the new pension indexation mechanism and higher teachers' and doctors' salaries. Staff estimates do not account for the impact of recently proposed reforms which have yet to be approved. Capital spending will rise considerably thanks to higher EU grants. The key priorities of the 2018 budget are poverty and inequality reduction, strengthening national security, and promoting private sector innovation.

13. Being a small open economy, Lithuania needs relatively large fiscal buffers to address external shocks and medium-term fiscal pressures. In the absence of an independent monetary policy, and with ECB's monetary policy stance looser than warranted for Lithuania given its cyclical position, fiscal policy plays a key role in maintaining macroeconomic stability. The evolution of net worth of the general government underscores the benefits of a strong position to absorb shocks. The global financial crisis had a persistent negative impact on the net worth of the government—which fell by around 40 percent of GDP.[1] Going forward, fiscal policy should seek to rebuild buffers to tackle shocks and aging-related spending pressures. In staff's view, gradually reducing public debt to pre-crisis levels, around 26 percent of GDP, is an appropriate fiscal anchor. A neutral fiscal stance would reach this objective over the medium-term, restoring the net worth position close to pre-crisis levels. Given the strong fiscal position, some of the available fiscal space could be used to finance productivity-enhancing reforms while maintaining moderate structural surpluses and a declining debt path. Debt sustainability analysis suggests that debt will remain manageable under different shocks (Annex I).

General Government Net Worth 1/
(In percent of GDP)



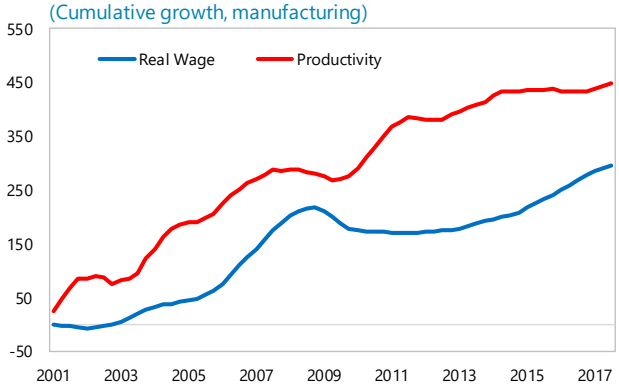
Source: Government Finance Statistics.
1/ Total assets minus total liabilities. Liabilties do not include pension liabilities.

[1] See Selected Issues Paper, "Fiscal Challenges in Lithuania."

14. Lithuania's fiscal rule places strong emphasis on counter-cyclicality, but could benefit from greater simplicity. Fiscal policy prior to the crisis was pro-cyclical, driven by strong expenditure growth and revenue windfalls. Since then, policy has turned counter-cyclical. While difficult to categorize, the rule can be described as a structural balance rule with a debt anchor in the form of an expenditure correction mechanism that is theoretically stringent and, when triggered, binding for several years. However, there are many escape clauses that result in a less severe adjustment, but which add complexity. Greater simplicity would enhance transparency and credibility by better signaling the path of future policy while maintaining a counter-cyclical stance.[2]

15. Recent deviations between real wage and productivity growth appear to be closing. Real wages and productivity have been traditionally closely linked and temporary deviations have been self-correcting (IMF Country Report No.15/139). Nevertheless, deviations at the sectoral level (e.g., communication, public administration and education) can be persistent although in the all-important manufacturing sector, wage growth has remained well below productivity growth. Since wage determination works well, attention should turn to boost labor supply and productivity. Staff expects the recent adoption of a new labor code (IMF Country Report No. 17/177), which makes employment more flexible while maintaining the pre-existing flexibility of the labor market, to help contain excessive wage pressures. After acquiring experience with its implementation additional reforms may be considered (e.g., fixed-term contracts, overtime restrictions, severance pay).

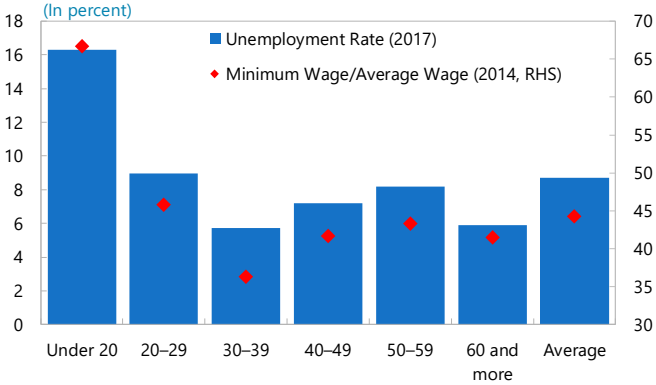
Productivity and Real Wages in Lithuania
(Cumulative growth, manufacturing)



Sources: Haver Analytics and IMF staff calculations.

16. Minimum wages, at 45 percent of the average wage, are too high and an inefficient income policy tool. Following the sharp increase in minimum wages since 2013, the Tripartite Council (comprised of trade unions, employers and the government) recently agreed to depoliticize the process by proposing a non-binding rule that would effectively keep minimum wages between 45–50 percent of average wages with annual revisions. This level will disproportionately affect low-skilled and young workers in rural areas where average wages are lower, reflecting lower productivity, and unemployment higher (Annex III). In view of these disparities, and considering international experience, the minimum wage should not exceed 40 percent

Lithuania: Minimum Wage and Unemployment Rate by Age Group
(In percent)



Sources: Statistics Lithuania and IMF staff calculations.

[2] See Selected Issues Paper, "Fiscal Challenges in Lithuania."

of the average wage, the level that prevailed in Lithuania before 2013. It could also be differentiated across groups or regions. Finally, while minimum wages are an appealing instrument to reduce poverty and income inequality, as they do not have direct fiscal costs, their untargeted nature means they are not the most effective instrument to achieve social objectives.

17. Maintaining financial stability will require close monitoring of housing and parent bank developments and proactive use of macroprudential policy. The BoL should monitor developments in the housing and credit markets for any signs of overheating (Box 3), and make full use of its broad powers to tighten macroprudential and supervisory policy to prevent a systemic-risk buildup. In this regard, the BoL has a broad set of countercyclical, sectoral, and liquidity macroprudential instruments to tackle shocks and should continue using them proactively as needed.[3] In implementing macroprudential policy, the BoL should cooperate closely with parent banks' regulators to assess potential spillovers from vulnerabilities in parent banks. Cooperation in the Nordic-Baltic Stability Group (NBSG) should be further enhanced following the conclusion of an MoU on cooperation and coordination on cross-border financial stability earlier this year. Given the fluidity of global markets, the crisis simulation exercise—which includes ECB supervisors covering some three quarters of the Lithuanian banking sector—should help ensure crisis preparedness and coordination. Finally, credit union reform, which is gradually strengthening the system, should continue as planned.

Box 3. Lithuania's Credit, Housing Price and Output Cycles[1]

An analysis of Lithuania's credit, housing price, and output cycles during 1995–2017Q3, reveals that housing price cycles are more frequent, but shorter-lived than the other two with credit cycles being the most volatile.

The analysis finds strong synchronization among them in Lithuania, particularly between the credit and housing price cycles.

Lithuania's cycles are highly synchronized with those of other Baltic and Nordic countries. This is particularly true for credit due to the close links of Lithuania's financial system to parent bank developments. Housing price cycles are the least synchronized possibly because real estate markets are mostly affected by local conditions.

Lithuania Synchronization of Cycles

	Output cycle	Credit cycle
Concordance index		
Output cycle	…	0.60
Credit cycle	0.60	…
House price cycle	0.64	0.77

Sources: IMF staff estimates.

An econometric exercise shows that housing price booms are the key determinant of credit upturns. Other factors causing a credit upturn include the negative impact of the global financial crisis, bank profitability, deposit growth, interest rates, and private sector indebtedness. The presence of an economic boom does not seem to be a significant determinant of a credit upturn, suggesting that other, potentially external, factors play a more significant role.

A panel VAR that includes other variables potentially influencing credit demand and supply shows that Lithuania is more vulnerable to shocks than the region as a whole, and that credit and real GDP shocks in Lithuania have a particularly strong impact on Lithuania's credit. Credit, housing price, and output shocks in other Baltic and Nordic countries on average also have a strong impact on Lithuania's credit.

1/ See IMF Working Paper, "Housing Price, Credit, and Output Cycles: How Domestic and External Shocks Affect Lithuania" by Mr. Ioannou forthcoming.

[3] See Selected Issues Paper, "Review of Macroprudential Policy in Lithuania Against International Best Practice."

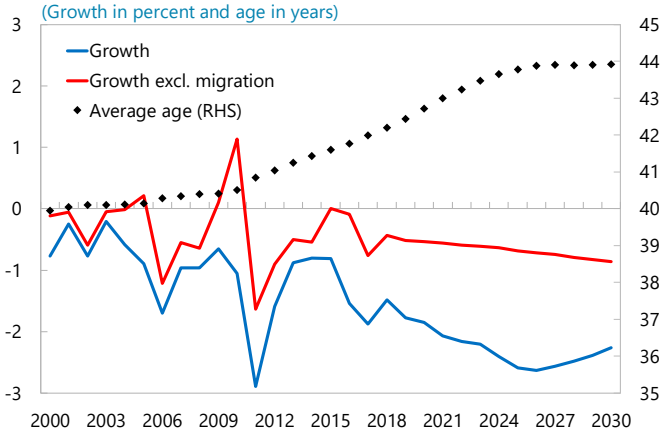
18. The authorities are committed to preserving macroeconomic and financial stability. Regarding fiscal policy, they estimated a weaker structural fiscal balance than staff in 2018 consistent with their assessment of a larger output gap. Going forward, they intended to pursue a broadly neutral fiscal stance in line with the fiscal rule and agreed that the rule could be simplified in the context of potential changes to the European framework. They are committed to expanding the tax base by combating the shadow economy and preserving capital spending following the expected decline in ESIFs after 2020. Regarding financial stability, the authorities pointed to the soundness of the three significant institutions and noted that there was no material increase in risks in 2017. They agreed that the main risks to the banking system related to fast credit and housing price growth and spillovers from potential vulnerabilities in Nordic parent banks. Recent credit growth was not perceived as an immediate concern. In their view, the BoL's macroprudential framework is adequate.

B. Implementing Structural Reforms to Tackle Medium-Term Challenges

19. Lithuania needs ambitious reforms to address medium-term challenges and avoid the middle-income trap. Limited productivity catch-up explains the lack of income convergence between euro area countries suggesting that structural reforms can help accelerate the convergence process (IMF Country Report No. 17/236). Medium-term challenges are significant: the work force is shrinking; productivity growth and investment are below pre-crisis levels; the growth model largely relies on low wages; and there is widespread poverty and social disparities that fuel emigration and weigh on growth.

20. Lithuania's population has been declining by 1 percent annually since the early 2000s and this trend is expected to continue. The main causes include low birth rates, ageing and net emigration. The rate of decline in the working age population projected by Eurostat is expected to peak between 2025 and 2030. Population dynamics are the main driving force behind the reduction in potential growth to about 1.5 percent during the next decade under the baseline or 30 percent reduction in per capita growth.

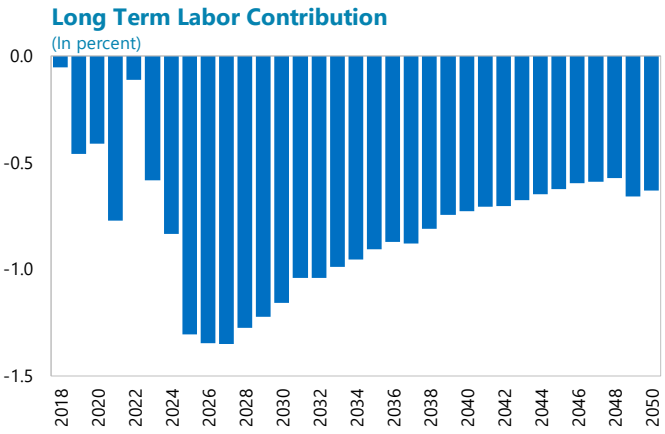
Lithuania: Working Age Population, 2000-30
(Growth in percent and age in years)



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

21. Lithuania must increase productivity growth to ensure convergence with Western European living standards and reverse migration flows. Low wages are increasingly becoming a driver of social discontent and emigration. Recent wage increases above productivity have addressed some of these concerns, but are not sustainable as they will eventually harm competitiveness. Lithuania is a small open economy with exports accounting for about 80 percent of GDP. It can only secure a sustainable increase in wages and income convergence by increasing

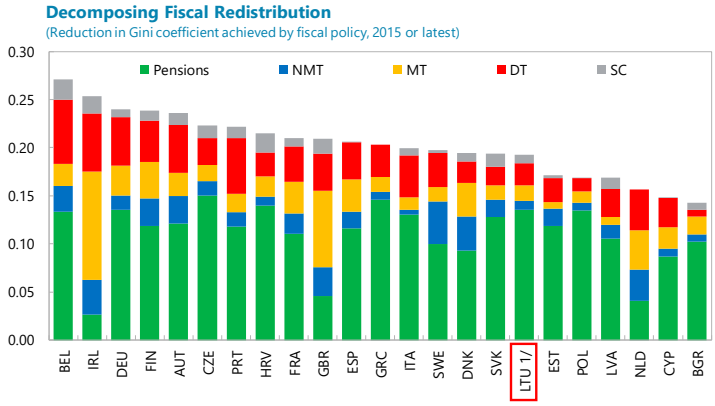
productivity growth above that of advanced economies, particularly in the high value-added market. Doing so requires structural reforms that will boost investment, diversify the export base, and raise living standards. These reforms are particularly needed in view of the projected demographic drag on growth, estimated to subtract 1.4 percentage points from potential growth over the next decade.



Sources: Statistics Lithuania and IMF staff calculations.

22. Poverty rates and social disparities remain high, especially in rural areas. Lithuania has one of the highest levels of income inequality in Europe, with 30 percent of the population at risk-of-poverty, compared to the EU average of 23.4 percent. Real wage incomes have recovered from the crisis, but there are significant regional disparities. Household survey data suggest that the poverty rate in rural areas could be much higher than in urban areas—almost three times as large in the aftermath of the crisis.[4] Moreover, median monthly expenditure for rural households is only 80 percent that of urban households. Pensioners face even a higher risk-of-poverty, with median purchasing power declining by 45 percent upon retirement.

23. With a relatively small public sector, a flat personal income tax and limited means-tested social programs, pensions are the main redistributive policy tool currently available. However, low and decreasing replacement ratios and recent and planned reforms of the pension system will likely reduce its redistributive effectiveness.



Note: Pension spending includes old age, disability and survivors. MT: means- tested spending, NMT: non-means-tested spending, DT: Direct taxes, SC: Social contributions.
Sources: Eurostat; and IMF staff calculations.
1/ 2014 data.

24. Tackling these challenges presents difficult choices. Top priorities for raising productivity and potential growth include education and healthcare reform and an overhaul of innovation promotion, while demographic pressures should be addressed by boosting labor supply. To reduce poverty and social disparities, reform priorities include pension and tax policy reform and an expansion of targeted social assistance. Some of these reforms will improve spending efficiency, effectively generating additional fiscal space. However, depending on how ambitious these reforms are, particularly regarding social assistance or pensions, the authorities may need to mobilize additional resources since the tax ratio is one of the lowest in the EU.

[4] See Selected Issues Paper, "Social Inequality in Lithuania after the Global Financial Crisis: Evidence from Household Survey Data."

25. Education is at the top of the list of structural reform priorities. An improvement in human capital is essential for boosting productivity and growth. Lithuania's poor educational outcomes (IMF Country Report No. 17/178) are manifested by the mismatch between labor demand and supply. About 40 percent of firms reported an inadequately qualified workforce as a major constraint, more than double the OECD and EU averages. Moreover, there are too many teachers in general education (despite poor remuneration), and regional vocational training centers have large excess capacity. In tertiary education, there are 22 universities, 23 colleges, and 22 research institutes for a population of less than 3 million and the consolidation process so far has been disappointing. Reforming education while safeguarding access will require: (i) consolidating the number of educational establishments and reducing the number of teachers; (ii) paying educators better, using savings from the consolidation process; (iii) linking the decision making and funding to performance; (iv) giving more emphasis to vocational training over tertiary education; and (v) holding educational management accountable for school performance.

26. Healthcare reform should focus on addressing system inefficiencies. Public health spending in 2017 stood at 6.5 percent of GDP, among the lowest in the OECD (partly because of high private out-of-pocket costs). While low spending makes the system financially sustainable, the healthcare system yields subpar outcomes, even in comparison to countries with similar spending levels. Life expectancy is less than the EU28 average and among the lowest in the OECD, with the gender gap one of the highest due to high alcohol and tobacco consumption among men. Moreover, population aging may exert additional pressures on the healthcare system, adding as much as 1 percent of GDP to spending by 2030.[5] The main source of inefficiency in the healthcare system is the large number of small hospitals operating under low occupancy rates. Addressing these challenges requires strengthening primary health care, enhancing accountability of hospital management, and consolidating hospitals while safeguarding access. There is also scope for public health initiatives to address the high level of preventable deaths.

27. Making innovation promotion more effective will help increase potential growth. Despite substantial infrastructure buildup and large amounts of ESIFs allocated to RDI, innovation outcomes lag those of the EU (IMF Country Report No. 17/177). To boost innovation, the authorities should consolidate innovation instruments and institutions and make them more business-friendly. More importantly, funds should be made available directly to businesses who can better decide how to use them rather than on programs for which there is limited demand.

28. Boosting labor supply is critical for mitigating demographic pressures and raising potential growth. While the labor code adopted in June 2017 should enhance flexibility of working-time arrangements, additional measures may be needed to boost labor force participation, especially among women and older workers. These include reducing the large labor tax wedge; linking the retirement age to life expectancy; further improving flexibility of working-time arrangements; lowering the cost of child care; tightening early retirement schemes, including the

[5] Based on IMF staff estimates.

disability regime; retraining programs for the long-term unemployed; and reforming immigration to attract more high-skilled workers.

29. Reforms to the multi-pillar pension system should contribute to lowering income inequality and poverty while preserving financial soundness. Past changes to the pension system—a new pension formula and indexation mechanism—have significantly strengthened financial sustainability by reducing the present value of future liabilities by 50 percent of GDP. However, with the most unfavorable demographics in the EU[6] and with already high social security contributions, Lithuania's multi-pillar pension system faces significant challenges. Average replacement ratios are currently around 35 percent, and are projected to decline below 30 percent (25 percent for pensioners not participating in the capitalized defined benefit pillar).[7] Thus, although financially sustainable, the current system is not socially sustainable, representing a fiscal risk.

30. Recent pension reform proposals (Box 4) aim at increasing replacement ratios by strengthening the capitalized second pillar of the system. The increase in minimum pensions could help alleviate old-age poverty. Moving basic pensions, which are a significant part of the social security fund, to the state budget in a budget neutral way, will remove the social assistance component and increase the link between benefits and contributions in Pillar I, potentially enhancing participation and compliance. Reforms aim at strengthening Pillar II by increasing the number of participants and their contributions, enlarging the funds and exploiting economies of scale. However, it is not clear if the reform will result in higher replacement ratios over the long-term. The proposals, particularly the introduction of a ceiling on social security contributions, will weaken the redistributive elements of the system, enhanced only by the increase in the minimum pension (and the non-taxable income). Finally, the reform effort should seek broad political and social consensus to avoid further changes and ensure predictability.

31. To strengthen the system, the authorities should consider several additional reforms:[8] i) further extending the retirement age, linking it to life expectancy and introducing flexibility to pension eligibility to incentivize deferred retirement; ii) reconsidering the budgetary matching contribution to Pillar II, which effectively represents a subsidy that could be better targeted at reducing old-age poverty or making enrollment compulsory; iii) uniformly raising gross pensions and subjecting them to income taxation; and iv) strengthening the redistributive component of basic pension. For illustrative purposes, the government could increase the replacement ratio to 40 percent, while simultaneously raising the effective retirement age of both men and women to at least 67 by 2030 and thereafter linking it to life expectancies to partially offset the fiscal cost.

[6] Old age dependency ratio, defined as population aged 65 and over in percent of population aged 20–64, is expected to increase from its current level of 32 percent to 71 percent by 2060.

[7] Lithuania pensions are not subject to personal income taxes. At the same time, rental spending is relatively low compared to other countries given high home ownership. These factors tend to result in low replacement ratios when making international comparisons.

[8] See Selected Issues Paper, "Fiscal Challenges in Lithuania."

Box 4. Main Elements of the 2018 Pension and Tax Reform Proposals

Tax reform:

- Reduce social security contributions from 39.5 to 19.97 percent.
- Apply a ceiling on social security contributions for employees. The ceiling will be halved by 2021.
- Reform personal income tax by:
    - Raising rates on labor income from 15 to 21 percent
    - Gradually increasing the threshold for non-taxable income, from the current 380 euros to 470 euros in 2021
    - Applying a higher rate of 25 percent for the highest income bracket above the ceilings for social security contributions.
- Apply a flat tax rate of 0.3 percent for non-primary properties below a threshold of 220 thousand euros per individual. For properties whose value exceeds the threshold, a higher rate continues to be applied even to primary residential property.
- Tax amnesty for 6 months for penalties and interests related to overdue tax payments, without reductions in tax liabilities

Pension reform:

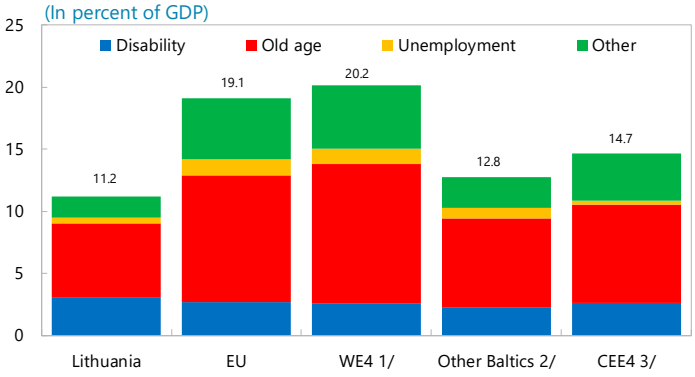
- Pillar I: *move basic pension to state budget and strengthen link between benefits and contributions*
    - The basic pension component, currently funded from social security contributions, will be transferred to the state budget
    - On top of the minimum guaranteed assistance for those not receiving old-age pension, currently at 117 euros, additional benefits from the state budget will be paid to those receiving old-age pension below 230 euros.
    - The current transfer of 2 percent from Sodra to Pillar II will be eliminated.
    - Along with returns on Pillar II, the replacement ratio will increase by 8 percentage points by 2050, although it will fall in the medium-term.
- Pillar II: *will be strengthened.*
    - Employees aged below 40 years would be automatically enrolled unless they opt out for couple of years before being enrolled again. The opt out becomes permanent after 3 attempts.
    - Previous contribution formula of "2+2+2" (from employee, social security contribution and state budget) will be replaced by "4+0+2" (from employee and state budget). Additional contributions above 4 percent and up to a ceiling will receive some tax benefits.
    - Total social security contributions paid by employers and employees will be combined, paid by employees and will amount to 18.5 percent from 9 percent currently.
    - Employers will pay 1.47 percent for unemployment and occupational insurances.
    - Lower cap for management fees of pension funds from 1 to 0.5 percent or lower.
    - Lower threshold for receiving annuities from 17 to 10 thousand euros.
    - Investment risk profile will be linked to the life cycle. There is no state guarantee on returns.
- Pillar III: *no changes proposed*

32. Additional resources will be needed for reducing social disparities and making a dent in poverty. Lithuania has one of the lowest tax-GDP ratios in the EU (IMF Country Report No. 17/178). Over time Lithuania will need additional resources to address aging-related spending (including pensions), and expand targeted social programs. Reliance on labor taxes should gradually decline in favor of corporate income tax (by reducing large existing exemptions and loopholes, including for the self-employed), capital and wealth taxes. Other measures such as the introduction of environmental taxes linked to vehicle pollution emissions should also be considered. These reforms could generate additional revenues, encourage labor participation, especially among low-income earners, and improve tax progressivity. Recent reforms to the personal income tax increasing tax-exempt amounts are a step in the right direction. Finally, with a large informal economy, tax administration reforms should help mobilize additional revenues by improving compliance and reducing undeclared work. There are risks that gains in this area may not fully materialize as expected. The proposed tax amnesty, despite focusing on fees and late interest and leaving tax liabilities unchanged, may, unintentionally, weaken compliance in the absence of a significant improvement in enforcement.

33. Additional targeted spending on social protection should be the main tool to reduce social disparities. Instead of relying on the minimum wage, the authorities should move toward greater reliance on targeted social transfers. Social protection spending, both in percent of GDP and as a share of overall spending, is well below the EU average. Under these circumstances, the scope for redistributive policies is limited without more resources. Greater reliance on carefully designed means-tested programs will help better target limited resources and avoid disincentives to work and welfare dependency. Moreover, greater emphasis on in-work benefits will help reduce inequality and increase employment. Finally, expanding the role of active labor market programs and strengthening their links to social assistance should continue[9]. In line with past advice, unemployment benefits have become more generous recently (the coverage ratio increased to 45 percent, above the OECD average). ALMPs should be finetuned to better suit the country's needs and extended beyond public works which do little to increase employability.

Lithuania and Selected Regions: Social Protection Spending, 2016

(In percent of GDP)



Sources: Eurostat and IMF staff calculations.
1/ Average of France, Germany, Italy, and the UK.
2/ Average of Estonia and Latvia.
3/ Average of the Czech Republic, Hungary, Poland, and Slovakia.

34. The authorities expect that a prompt approval and implementation of their reform proposals will have a positive impact on productivity and growth. While agreeing that in some areas reforms could have been more ambitious, they highlighted political and social constraints to

[9] See Working Paper "From Expenditure Consolidation to Expenditure Efficiency: Addressing Public Expenditure Pressures in Lithuania," by D. Coady and N. Geng.

explain their measured approach and emphasized that implementing all six reforms would create synergies. They acknowledged existing inefficiencies in education and healthcare and agreed that increasing compensation upfront poses risks, but were optimistic that they would implement substantial reforms in these areas. Regarding the pension system, they argued that the current pensions are low and that strengthening Pillar II would improve social sustainability. They agreed that moving the basic pension to the state budget would strengthen the link between contributions and benefits and raise compliance. Regarding tax reforms, they acknowledged that the proposed reforms would not raise tax revenues, but pointed to efforts to combat the shadow economy. While a larger shift from labor to property and wealth taxation would have been preferable, they noted that high home ownership makes such a shift politically difficult. Regarding tax amnesty, they did not expect it to weaken taxpayer compliance given its limited scope. The authorities reiterated poverty and inequality reduction as a top priority and outlined recent measures including universal child benefits, state-supported income for poor residents, and increases in the non-taxable income that, as projected by the European Commission, could reduce at-risk-of-poverty by 2 percentage points this year. They agreed that excessive minimum wages could hamper employment for some groups, but underscored its contribution to reducing emigration and income inequality.

STAFF APPRAISAL

35. With a strong recovery underway and short-term challenges largely addressed, reaccelerating convergence through higher productivity is the key priority. This is the only way to ensure sustained increases in real wages and public resources to meet social demands, raise living standards and reverse migration outflows. With a less favorable global environment after the global financial crisis, relying on external tailwinds is not an option. Productivity-enhancing reforms are, therefore, critical. These will require a multipronged strategy and clear prioritization. In this connection, the recent reform package by the government is a step in the right direction.

36. Being a small open economy without monetary policy, Lithuania needs adequate buffers. This is particularly the case given ECB's monetary policy stance that is more accommodative than would be optimal from a purely Lithuanian perspective given its advanced cyclical position with respect to the euro area.

37. The strong fiscal position achieved should be preserved to tackle shocks and medium-term spending pressures. The intention to maintain a broadly neutral fiscal stance going forward strikes the right balance between rebuilding fiscal buffers, strengthening fiscal sustainability and addressing pressing social needs.

38. The banking system is well placed to sustain the recovery with no signs of financial imbalances reemerging. The main risks are rapid growth in housing prices and credit, and spillovers through Nordic parent banks. Although the former has moderated in recent months, the authorities should continue to use macroprudential policy proactively to address systemic risks. With the stock of credit and housing prices well below pre-crisis levels, the reemergence of sizable imbalances in the near term is unlikely. Moreover, the increasing reliance of Nordic subsidiaries on domestic funding is a positive development limiting funding risks.

39. The external position is moderately stronger than implied by medium-term fundamentals and desirable policies owing mostly to looser-than-desirable fiscal policy in the rest of the world.

40. Education and health reforms have the right focus, but are subject to significant implementation risks. Inefficiencies in systems that are over-sized result in poor outcomes. Reform proposals in education lack specificity to fully assess their potential impact. In healthcare, reform proposals would expand primary and long-term care and optimize the current system. These are steps in the right direction. However, upfront wage increases, while popular given current low wages, will put at risk the implementation of politically sensitive, but critical reform elements such as the rationalization and consolidation of the education and university networks. Only a comprehensive reform of these sectors will allow Lithuania to produce a competitive workforce necessary to tackle strong demographic headwinds.

41. Plans to overhaul innovation promotion by streamlining the number of agencies and instruments will increase the effectiveness of innovation policy. These efforts should seek to exploit synergies under a more centralized structure rather than create a network of loosely coordinated agencies that run the risk of perpetuating existing inefficiencies.

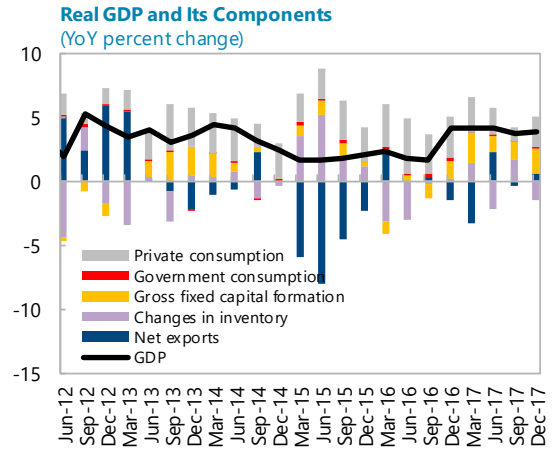
42. Pension reform proposals are positive but, to be succesful in delivering higher pensions without compromising fiscal sustainability, risks need to be addressed. Reforms to the funded pillar will increase replacement ratios by increasing participants and their contributions (helping to diversify risks) and reducing fees. The envisaged contribution from the state budget should weigh the benefits of increasing incentives to achieve high participation against a more targeted use of those resources to reduce old-age poverty. High participation, crucial for the success of the reform, could also be achieved through compulsory enrollment. Importantly, pension reform should seek broad political and social consensus to ensure long-term stability and predictability, and maximize participation.

43. Tax reforms proposals would lower reliance on labor taxes, but will not generate additional revenue needed to address social disparities. Notwithstanding some reforms introduced last year, the tax system has a small degree of progressivity and the proposed reform of property taxes is unlikely to have a meaningful impact on revenue and redistribution. The introduction of a ceiling on social security contributions, while reflecting the existing ceiling on benefits, will reduce redistribution further. Reform efforts could be more ambitious by increasing reliance on capital and wealth taxes and increasing revenues to address social disparities.

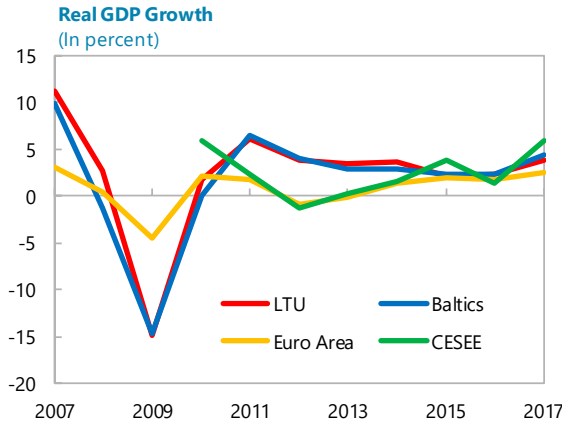
44. It is recommended that the next Article IV Consultation be held on the 12-month cycle.

Figure 1. Lithuania: Recent Macroeconomic Developments, 2012–17

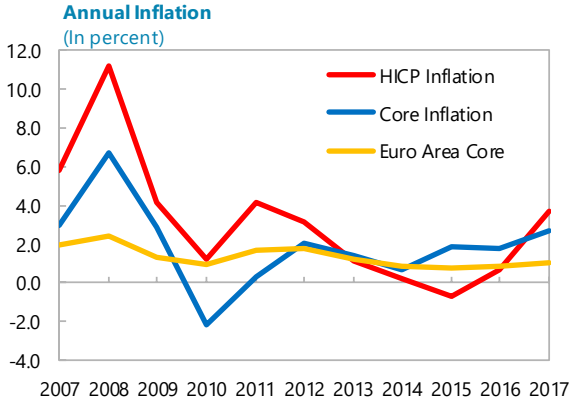
Growth has picked up recently...



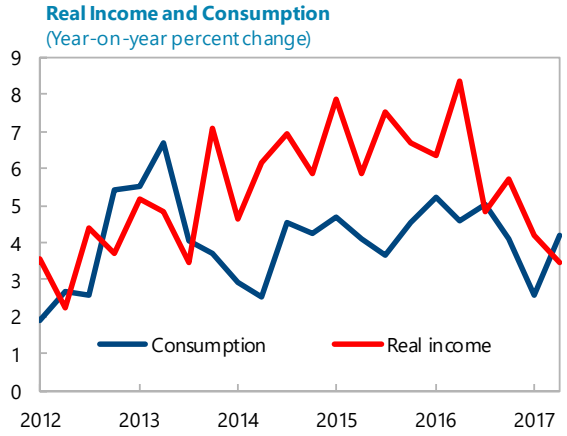
but still lags other peers...



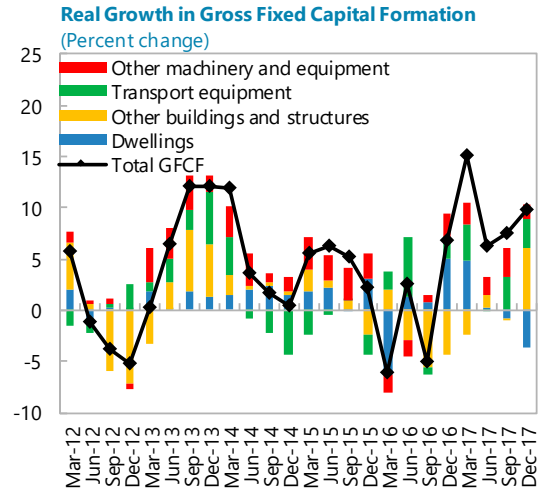
Despite rising inflation ...



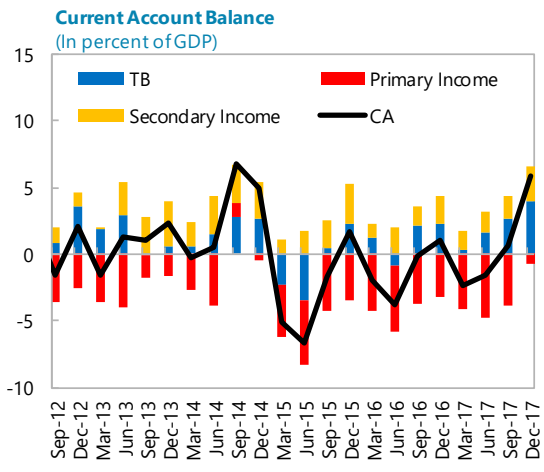
and falling real income, consumption is recovering.



While investment is firming up...



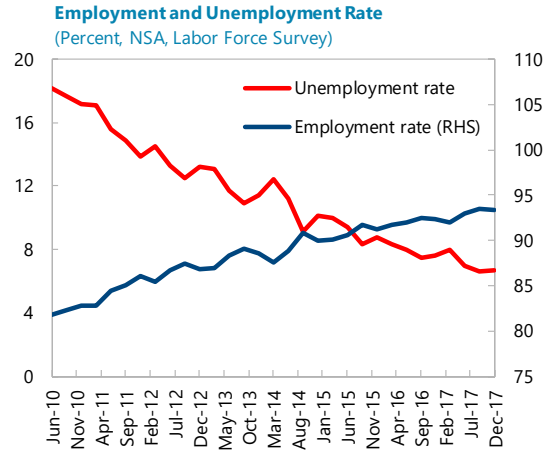
the current account is improving.



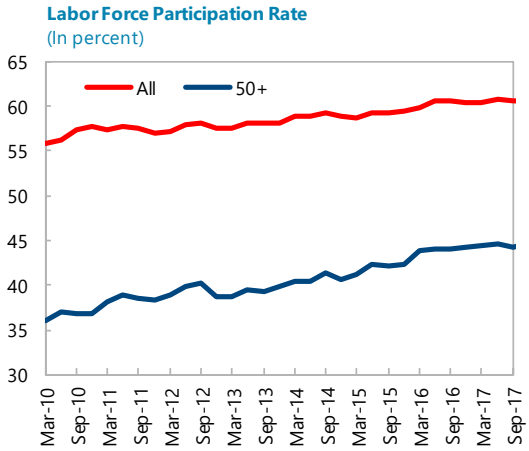
Sources: Haver; Lithuania Statistical Office; Bank of Lithuania; and IMF staff calculations.

Figure 2. Lithuania: Labor Market and Competitiveness Developments

Unemployment has plateaued despite rising employment...

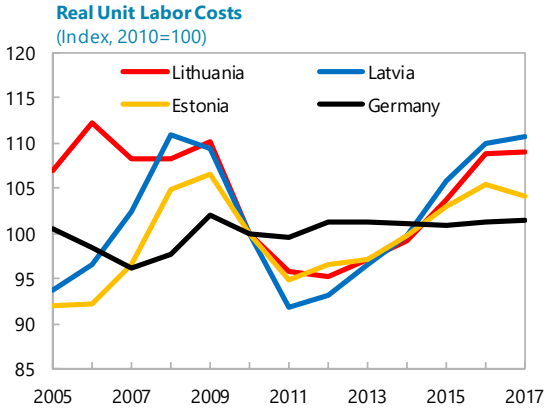


...and continued increases in participation rates.

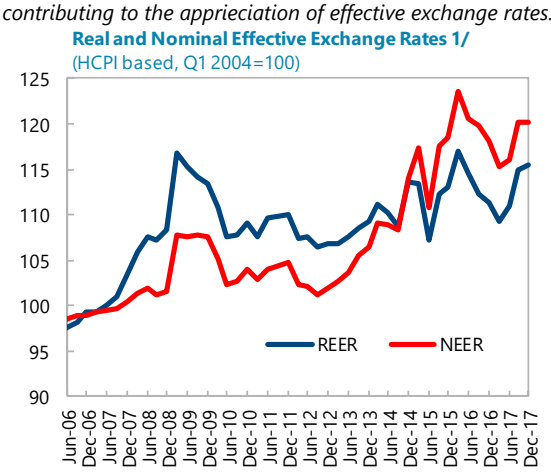


With productivity lagging....

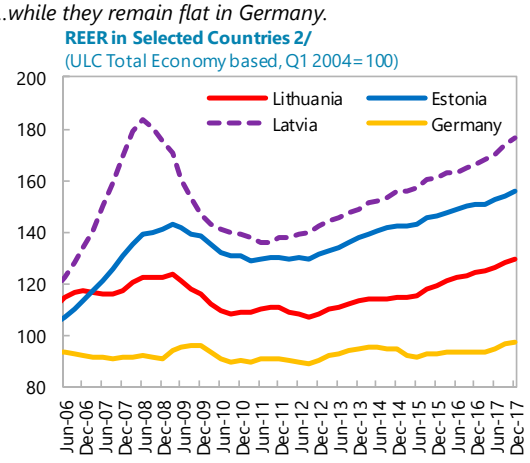
...real unit costs relative to other countries are rising faster...



contributing to the appreciation of effective exchange rates....



...while they remain flat in Germany.



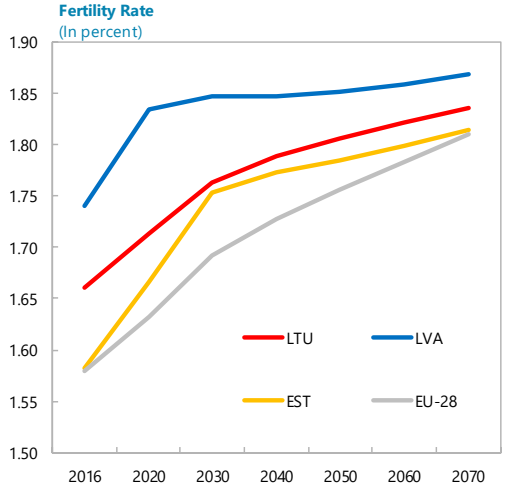
Sources: Haver; Eurostat; Lithuania Statistical Office; and IMF staff calculations.

1/ REER and NEER against a group of 42 trading partners including Russia.

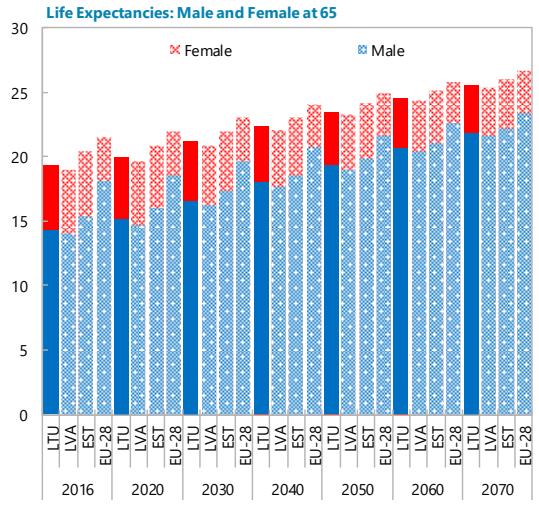
2/ Manufacturing ULC-based REER against a group of 38 trading partners not including Russia.

Figure 3. Lithuania: Demographic Trends

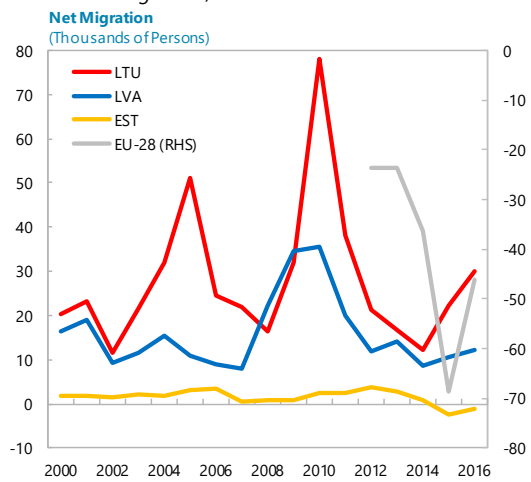
Due to relatively low fertility rates, ...



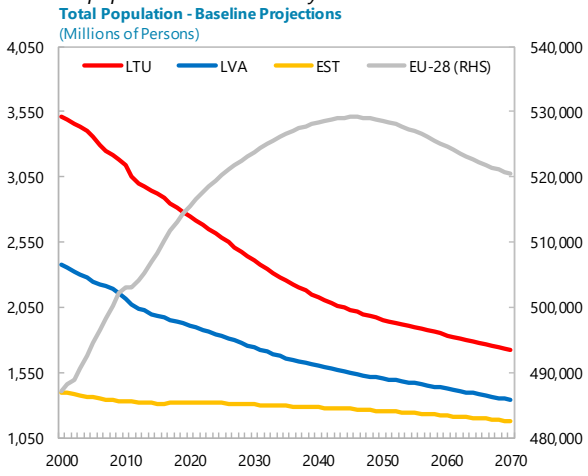
...increasing life expectancy,



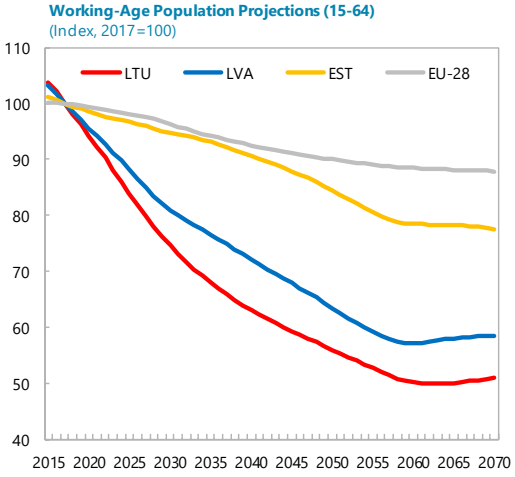
And extreme net migration, ...



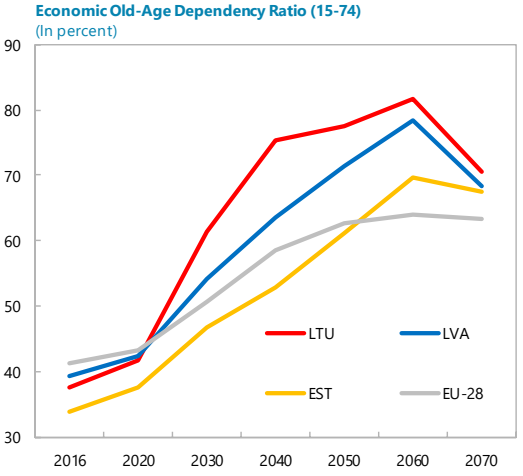
...overall population is on a steady decline.



The working age population is also on a sharp decline.



As a result, economic old age dependency ratio is most severe.

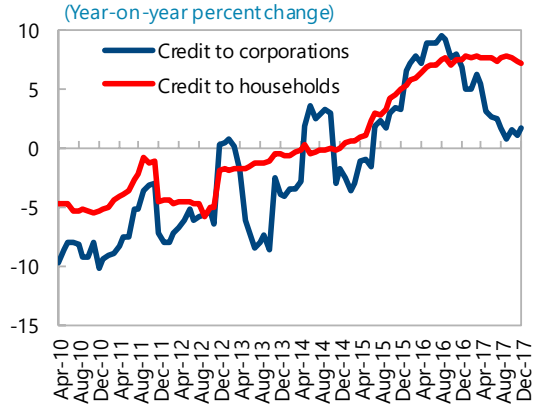


Sources: Eurostat, Haver Analytics, and IMF staff calculations.

Figure 4. Lithuania: Financial Sector Developments

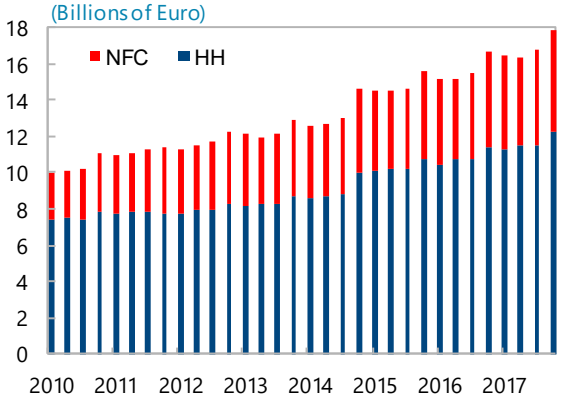
Despite a recent slowdown, credit remains strong...

Credit Stock
(Year-on-year percent change)



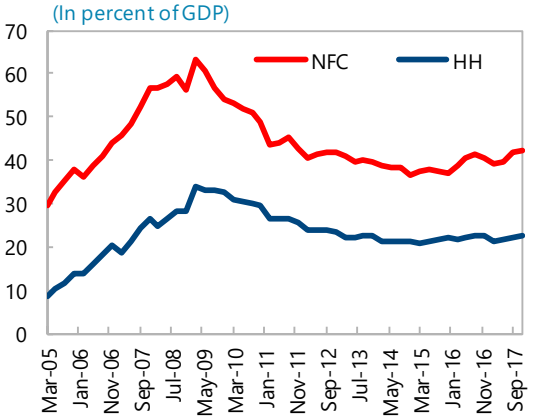
...supported by continued deposit growth...

Total Deposits of Corporations and Households
(Billions of Euro)



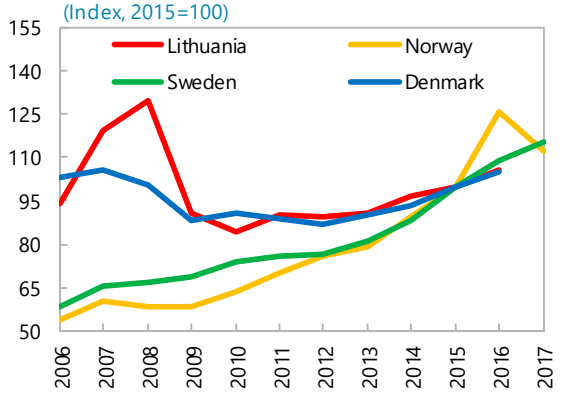
Repaired balance sheets...

Household and Non-financial Corporation Debt
(In percent of GDP)



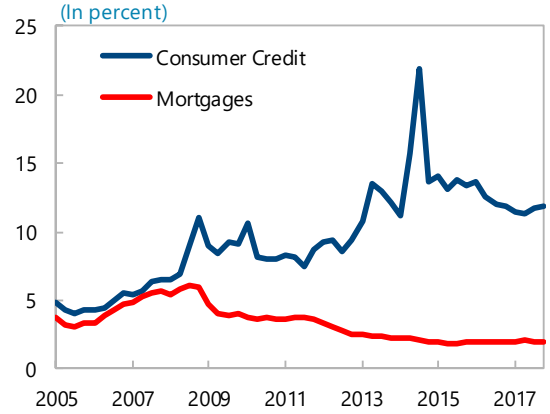
...are contributing to higher housing prices.

Real House Prices
(Index, 2015=100)



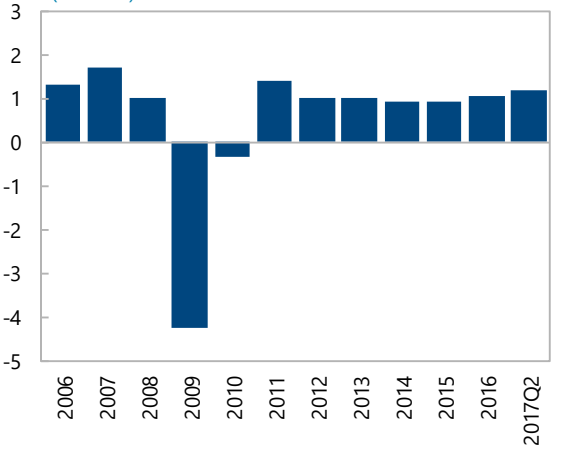
Despite low interest rates...

Household Lending Rates
(In percent)



...bank profitability remains strong.

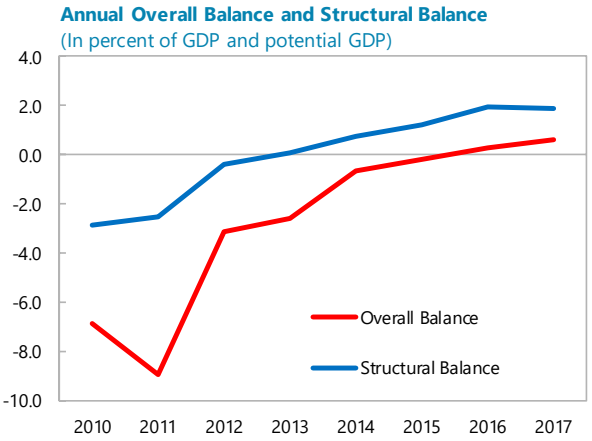
Return on Assets
(Percent)



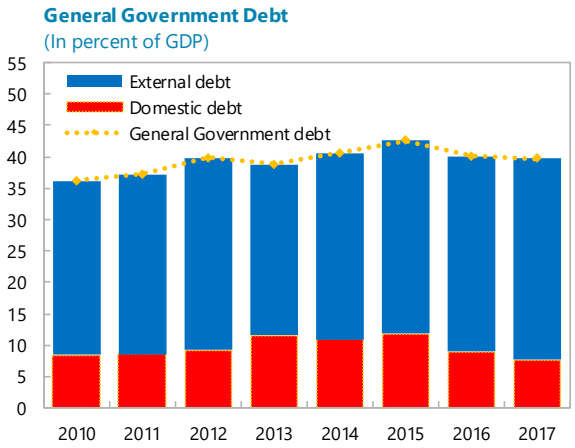
Sources: Bank of Lithuania; and IMF staff calculations.

Figure 5. Lithuania: Fiscal Developments

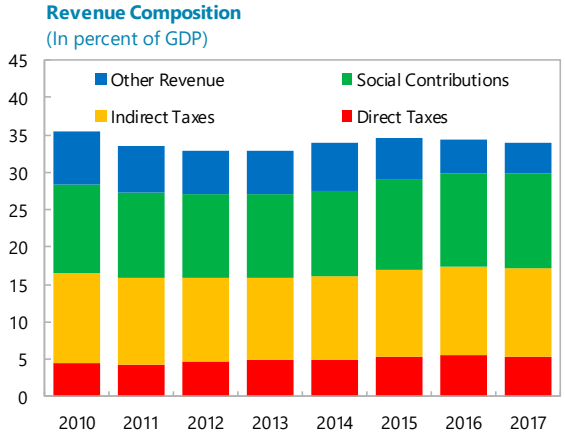
Recent overperformance of public finances…



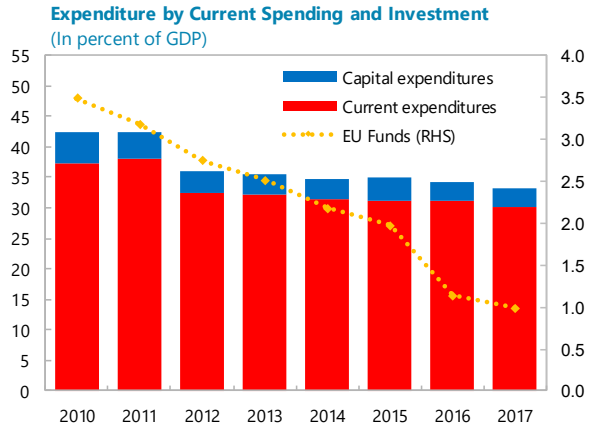
…has contributed to declining debt ratios.



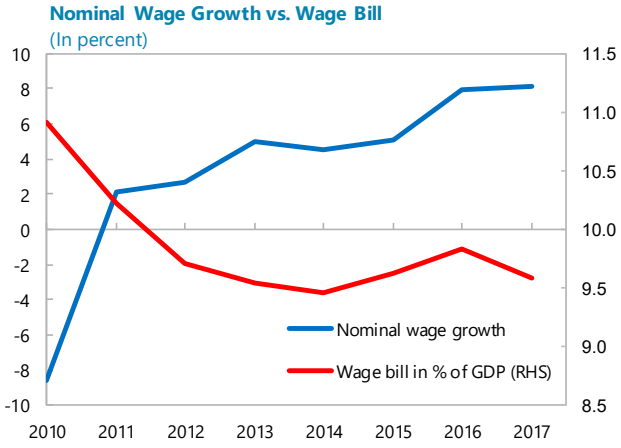
The main drivers have been the revenue-rich growth…



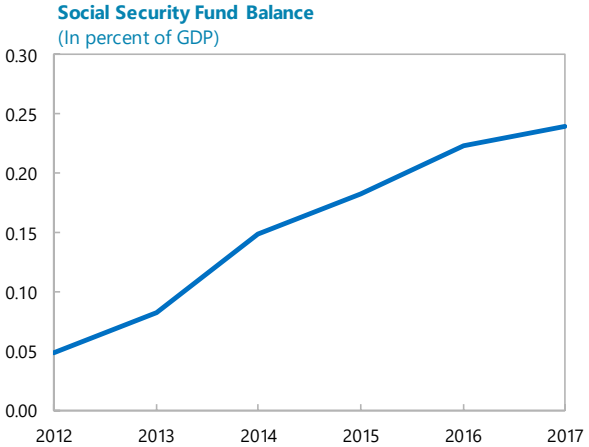
… and the under-spending of the budget, including the under-utilization of EU funds.



Recent strong wage growth has put some pressure on the wage bill…



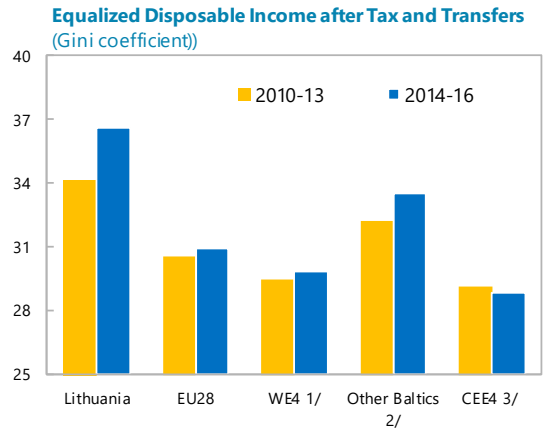
…while improving the balance of Social Security Fund.



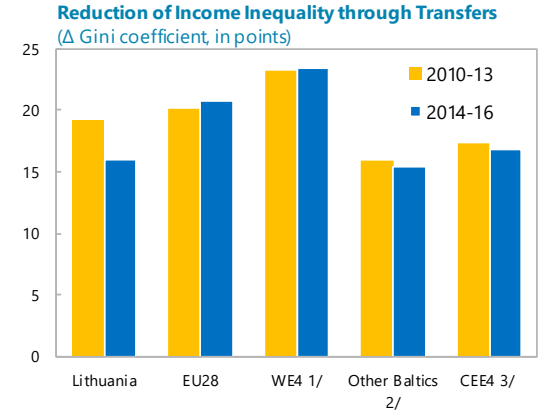
Sources: Ministry of Finance; Statistics Lithuania; and IMF staff calculations.

Figure 6. Lithuania and Selected Regions: Income Inequality, 2010–16 Averages

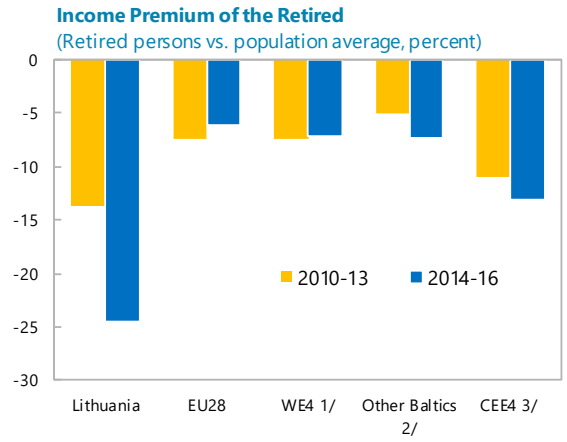
Income inequality is high...



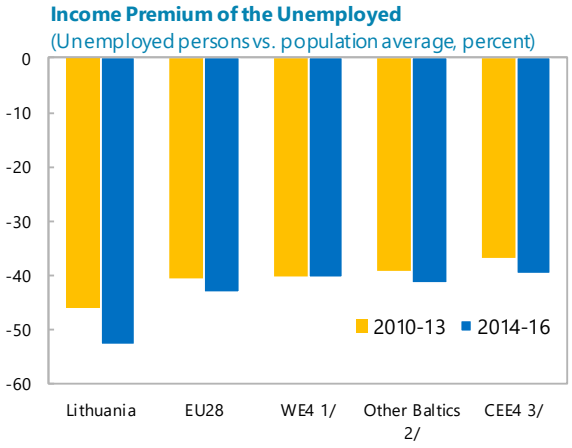
...partly because of fewer redistributive transfers.



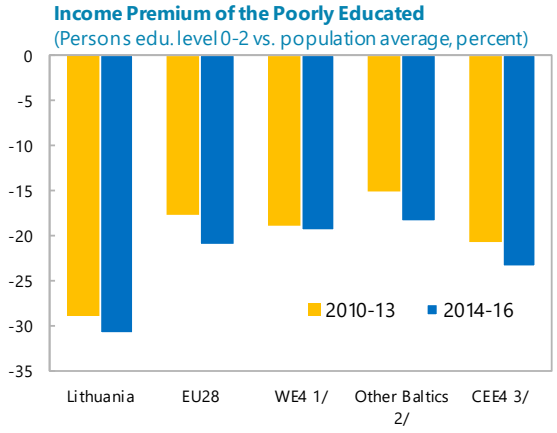
Retirement income is relatively low, ...



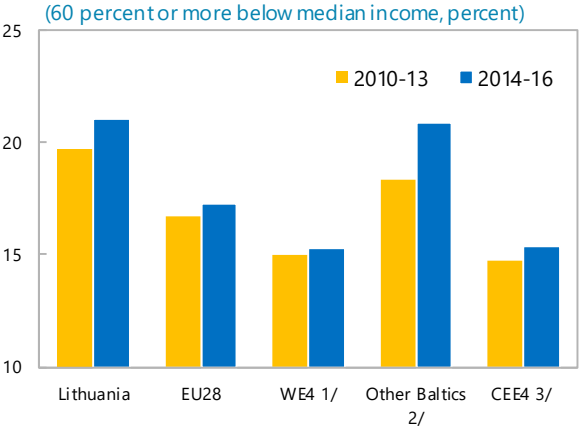
... so is the income of the unemployed, ...



... and the poorly educated.



A relatively high share of the population is at risk of poverty.



Sources: Eurostat; and IMF staff estimates.

1/ Simple average of France, Germany, Italy, and the UK.
2/ Simple average of Latvia and Lithuania.
3/ Simple average of the Czech Rep., Hungary, Poland, and Slovakia.

Table 1. Lithuania: Selected Economic Indicators, 2014–23[1]

Quota (current, % of total): SDR 441.6 million , 0.09 percent
Main products and exports: minerals (incl. refined fuel), agricultural and wood products, chemicals, plastics, textiles.
Key export markets: Russia, Latvia, Estonia, Poland, Germany

Per capita GDP (2016): € 13,500
Literacy rate (2015): 99.8%
At-risk-of-poverty (after transfers), share of population (2016): 30.1%

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
				Projections						
Output										
Real GDP growth (annual percentage change)	3.5	2.0	2.3	3.9	3.2	2.9	2.7	2.4	2.2	2.0
Domestic demand growth (year-on-year, in percent)	3.4	6.9	2.5	3.1	4.1	3.9	3.6	3.3	3.1	3.0
Private consumption growth (year-on-year, in percent)	4.0	4.0	4.9	3.8	3.5	3.4	3.3	3.2	3.1	3.0
Domestic fixed investment growth (year-on-year, in percent)	5.7	4.8	-0.5	7.3	7.8	6.7	5.6	4.3	3.9	3.6
Inventories (contribution to growth)	-0.4	3.2	-0.8	-0.9	0.0	0.0	0.0	0.0	0.0	0.0
Net external demand (contribution to growth)	0.2	-5.2	-0.1	0.4	-0.9	-1.1	-1.0	-0.9	-1.1	-1.2
Nominal GDP (in billions of euro)	36.6	37.4	38.7	41.9	44.1	46.5	49.0	51.4	53.9	56.3
Output gap (percent of potential GDP)	-0.1	-0.6	-1.0	0.1	0.5	0.6	0.6	0.5	0.2	0.0
Employment										
Employment (annual percentage change)	2.0	1.2	2.0	-0.5	-0.5	-0.4	-0.3	-0.2	-0.1	0.0
Unemployment rate (year average, in percent of labor force)	10.7	9.1	7.9	7.1	6.9	6.8	6.7	6.7	6.6	6.5
Average monthly gross earnings (annual percentage change)	4.5	5.1	7.9	8.2	6.8	6.2	5.7	5.2	4.9	4.4
Average monthly gross earnings, real (CPI-deflated, annual percentage change)	4.3	5.8	7.2	4.3	4.3	3.9	3.3	2.7	2.4	2.0
Labor productivity (annual percentage change)	1.5	0.8	0.4	4.4	3.7	3.4	3.0	2.6	2.3	2.0
Prices										
HICP, end of period (year-on-year percentage change)	-0.1	-0.2	2.0	3.8	2.2	2.2	2.3	2.4	2.5	2.5
GDP deflator (year-on-year percentage change)	1.0	0.3	1.0	4.2	2.2	2.4	2.5	2.5	2.5	2.5
HICP core, period average (annual percentage change)	0.7	1.9	1.7	2.6	2.3	2.3	2.4	2.4	2.4	2.4
HICP, period average (annual percentage change)	0.2	-0.7	0.7	3.7	2.4	2.2	2.3	2.4	2.5	2.5
General government finances 2/										
Revenue (percent of GDP)	34.0	34.6	34.5	33.9	35.1	35.4	35.7	35.0	34.8	34.5
Of which EU grants	2.7	1.8	0.8	0.6	1.5	2.0	2.3	1.8	1.5	1.3
Expenditure (percent of GDP)	34.6	34.9	34.2	33.3	34.5	34.6	34.9	34.2	34.1	33.9
Of which: Non-interest	33.0	33.4	32.9	32.2	33.5	33.8	34.1	33.5	33.4	33.2
Fiscal balance (percent of GDP)	-0.6	-0.2	0.3	0.5	0.6	0.8	0.8	0.8	0.7	0.6
Fiscal balance excl. one-offs (percent of GDP)	-1.1	-0.5	0.2	0.6	0.7	0.7	0.7	0.7	0.6	0.6
Structural fiscal balance (percent of potential GDP) 3/	-0.9	-0.3	0.6	0.8	0.6	0.6	0.6	0.6	0.6	0.6
General government gross debt (percent of GDP)	40.5	42.6	40.1	39.7	37.1	34.4	31.9	29.6	27.6	25.7
Of which: Foreign currency-denominated	31.9	11.9	11.3	11.2	10.4	9.7	9.0	8.3	7.7	7.2
Credit										
Private sector credit (end of period, percent change)	-0.9	4.1	7.1	4.5	4.9	...	...	...	...	...
Long-term lending rate to private sector	7.0	8.0	6.6	...	...	...	...	...	...	...
Short-term lending rate to private sector	2.7	2.5	2.3	...	...	...	...	...	...	...
Balance of payments (in percent of GDP, unless otherwise specified)										
Current account balance	3.2	-2.8	-1.1	0.8	0.3	-0.1	-0.8	-1.5	-2.1	-2.6
Current account balance (billions of euros)	1.2	-1.0	-0.4	0.3	0.1	-0.1	-0.4	-0.7	-1.1	-1.5
Exports of goods and services (volume change, in percent)	3.3	-0.4	3.5	13.6	4.8	4.0	4.1	3.8	3.6	3.4
Imports of goods and services (volume change, in percent)	3.1	6.2	3.5	12.8	5.7	5.1	5.0	4.6	4.5	4.4
Foreign direct investment, net	0.0	-1.9	-0.4	-1.3	-1.4	-1.4	-1.4	-1.4	-1.5	-1.6
Short-term debt at original maturity	22.6	26.8	39.7	36.9	34.6	32.4	30.9	29.9	28.6	27.6
Gross external debt 4/	69.9	75.7	85.5	83.3	78.6	74.0	70.3	67.4	64.4	61.9
Exchange rates										
Real effective exchange rate (2005=100, +=appreciation)	120.7	118.9	121.0	123.0	..	..	..	..	..	..
Exchange rate (euro per U.S. dollar, end of period)	0.81	0.92	0.95	0.84	..	..	..	..	..	..
Exchange rate (euro per U.S. dollar, period average)	0.75	0.90	0.90	0.89	..	..	..	..	..	..
Saving-investment balance (in percent of GDP)										
Gross national saving	22.2	17.8	16.2	18.0	18.6	18.4	18.1	17.6	17.1	16.7
Gross national investment	19.0	20.6	17.3	17.2	18.3	18.5	18.9	19.1	19.2	19.3
Foreign net savings	-3.2	2.8	1.1	-0.8	-0.3	0.1	0.8	1.5	2.1	2.6

Sources: Lithuanian authorities; World Bank; Eurostat; and IMF staff estimates and projections.
1/ Data are presented on ESA2010, and BPM6 manuals basis.
2/ The numbers for 2014 include 302 million euros (0.8 percent of GDP) in compensation payments for past pension cuts on accrued basis. The payments are spread over 2014-16, affecting the debt profile for these years. ESM contributions are spread over 2015-19 and also increase debt. Passive projections from 2016 onward; incorporate only announced budgetary measures; budgetary impact of further defense spending, wage compensation and their potential offsetting measures are not included .
3/ Calculation takes into account standard cyclical adjustments as well as absorption gap.
4/ Government external debt excludes guaranteed loans.

Table 2. Lithuania: General Government Operations, 2014–23[1]

(ESA 2010 aggregates, in percent of GDP)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							Projections			
Statement of Operations										
Revenue	34.0	34.6	34.5	33.9	35.1	35.4	35.7	35.0	34.8	34.5
Revenue excluding EU grants	31.3	32.8	33.7	33.3	33.6	33.5	33.4	33.2	33.3	33.2
Tax revenue	16.2	17.0	17.4	17.2	17.3	17.1	17.1	17.1	17.1	17.2
Direct taxes	5.0	5.4	5.7	5.4	5.4	5.5	5.5	5.4	5.4	5.4
Personal income tax	3.6	3.8	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Corporate income tax	1.4	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Indirect taxes	11.2	11.6	11.7	11.7	11.8	11.7	11.7	11.7	11.7	11.7
VAT	7.6	7.7	7.8	7.9	7.8	7.8	7.8	7.9	7.9	7.9
Excises	2.9	3.1	3.1	3.2	3.3	3.2	3.2	3.2	3.2	3.2
Other	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Social contributions	11.4	11.9	12.5	12.7	12.8	12.8	12.8	12.6	12.6	12.6
Grants	2.7	1.8	0.8	0.6	1.5	2.0	2.3	1.8	1.5	1.3
Other revenue	3.7	3.9	3.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total expenditure	34.6	34.9	34.2	33.3	34.5	34.6	34.9	34.2	34.1	33.9
Current spending	31.3	31.2	31.2	30.2	30.9	30.8	30.7	30.6	30.6	30.5
Compensation of employees	9.5	9.6	9.8	9.6	9.8	9.8	9.8	9.8	9.8	9.8
Goods and services	4.7	5.0	4.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Interest payments	1.6	1.5	1.3	1.1	1.0	0.8	0.8	0.7	0.7	0.7
Foreign	1.3	1.2	1.1	0.9	0.8	0.7	0.7	0.6	0.6	0.6
Domestic	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Subsidies	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Grants	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Social benefits	12.4	12.5	12.7	12.6	13.3	13.3	13.3	13.3	13.2	13.2
Other expense	2.0	1.3	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Capital spending	3.3	3.7	3.0	3.1	3.6	3.8	4.2	3.6	3.5	3.4
Net lending (+) / borrowing (-)	-0.6	-0.2	0.3	0.5	0.6	0.8	0.8	0.8	0.7	0.6
Net lending (+) / borrowing (-) excl. one-offs	-1.1	-0.5	0.2	0.6	0.7	0.7	0.7	0.7	0.6	0.6
Net acquisition of financial assets	3.4	1.1	-0.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0
Domestic	3.3	0.0	-0.3	3.0	0.1	0.1	0.1	0.1	0.1	0.1
Foreign	0.1	1.1	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Net incurrence of liabilities	4.1	1.3	-0.5	2.3	-0.6	-0.8	-0.8	-0.8	-0.7	-0.6
Domestic	0.7	2.2	-1.9	-1.0	0.1	0.1	0.1	0.1	0.1	0.1
Foreign	3.4	-0.9	1.4	3.3	-0.7	-0.9	-0.9	-0.9	-0.8	-0.7
Financial Balance Sheet										
Financial assets	27.3	29.9	29.6	30.2	...	...	...	...	...	...
Currency and deposits	7.4	7.5	6.3	8.9	...	...	...	...	...	...
Securities other than shares	0.1	0.0	0.0	0.0	...	...	...	...	...	...
Loans	0.3	0.3	0.2	0.2	...	...	...	...	...	...
Shares and other equity	14.2	15.7	15.9	14.7	...	...	...	...	...	...
Other financial assets	5.3	6.5	7.2	6.5	...	...	...	...	...	...
Financial liabilities	52.6	53.8	51.7	47.9	...	...	...	...	...	...
Currency and deposits	0.8	1.4	1.4	1.0	...	...	...	...	...	...
Securities other than shares	38.3	40.7	38.9	37.6	...	...	...	...	...	...
Loans	7.8	7.8	7.1	5.7	...	...	...	...	...	...
Other liabilities	5.7	3.9	4.3	3.7	...	...	...	...	...	...
Net financial worth	-25.2	-23.9	-22.2	-17.7	...	...	...	...	...	...
Memorandum items:										
GDP (in millions of euros)	36,568	37,427	38,681	41,858	44,132	46,497	48,951	51,406	53,878	56,317
General government debt (Maastricht def.)	40.5	42.6	40.1	39.7	37.1	34.4	31.9	29.6	27.6	25.7
Foreign debt	29.6	30.8	31.2	32.1	29.8	27.4	25.1	23.1	21.3	19.6
Domestic debt	10.9	11.8	8.9	7.6	7.3	7.0	6.8	6.5	6.3	6.1

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

1/ Passive projections from 2016 onward. Projections incorporate only announced budgetary measures.

Table 3. Lithuania: Balance of Payments, 2014–23

(BPM6, Billions of Euros, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
						Projections				
Current account balance	1.2	-1.0	-0.4	0.3	0.1	-0.1	-0.4	-0.7	-1.1	-1.5
Merchandise trade balance	-0.9	-2.0	-1.8	-2.2	-2.6	-2.8	-3.0	-3.3	-3.7	-4.1
Exports (f.o.b.)	23.7	22.3	21.9	25.7	25.7	26.6	27.4	28.5	29.4	30.2
Imports (f.o.b.)	24.7	24.3	23.7	27.9	28.3	29.3	30.4	31.8	33.0	34.3
Services balance	1.6	1.7	2.2	3.1	3.0	3.1	3.2	3.3	3.3	3.4
Exports	5.8	6.0	6.8	8.4	8.4	8.7	9.0	9.3	9.6	9.9
Imports	4.2	4.3	4.6	5.3	5.4	5.6	5.8	6.0	6.3	6.5
Primary income balance	-0.5	-1.6	-1.6	-1.4	-1.2	-1.3	-1.5	-1.7	-1.7	-1.8
Receipts	0.8	0.8	0.7	1.0	0.9	0.9	1.0	1.0	1.1	1.2
Payments	1.3	2.3	2.3	2.3	2.1	2.2	2.5	2.7	2.8	2.9
Secondary income balance	1.0	0.7	0.6	0.8	0.8	0.9	0.9	0.9	1.0	1.0
Capital and financial account balance	1.6	-0.9	1.3	0.6	0.1	0.8	1.1	1.3	1.5	1.7
Capital account balance	1.0	1.1	0.6	0.5	0.9	1.0	1.0	1.1	1.2	1.2
Foreign direct investment balance	0.0	-0.7	-0.1	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.9
Portfolio investment balance	-1.0	-0.1	3.5	1.5	1.4	0.8	0.6	0.5	0.4	0.4
Financial derivatives	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment balance	0.4	3.0	-4.1	-1.0	0.0	0.0	0.0	0.0	0.0	0.0
Errors and omissions	-1.5	0.7	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	1.3	-1.3	0.8	1.4	0.3	0.7	0.7	0.6	0.4	0.2
Financing	-1.3	1.3	-0.8	-1.4	-0.3	-0.7	-0.7	-0.6	-0.4	-0.2
Gross international reserves (increase: -)	-1.3	...	...	...	...	...	...	...	...	...
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	3.2	-2.8	-1.1	0.8	0.3	-0.1	-0.8	-1.5	-2.1	-2.6
Trade balance of goods and services	1.9	-0.6	1.2	2.2	1.1	0.8	0.4	0.0	-0.6	-1.3
Exports	80.9	75.7	74.4	81.5	77.3	75.9	74.3	73.5	72.3	71.3
Imports	79.0	76.3	73.1	79.3	76.3	75.1	73.9	73.5	72.9	72.5
Primary income	-1.4	-4.1	-4.0	-3.3	-2.7	-2.8	-3.1	-3.2	-3.2	-3.1
Secondary income	2.6	2.0	1.7	1.8	1.9	1.9	1.8	1.8	1.8	1.8
Capital and financial account balance	4.4	-2.5	3.3	1.3	0.3	1.7	2.2	2.6	2.9	2.9
Capital account balance	2.7	3.0	1.5	1.2	2.1	2.1	2.1	2.1	2.1	2.1
Foreign direct investment balance	0.0	-1.9	-0.4	-1.3	-1.4	-1.4	-1.4	-1.4	-1.5	-1.6
Portfolio investment balance	-2.8	-0.3	9.0	3.6	3.2	1.8	1.3	1.0	0.8	0.8
Financial derivatives balance	0.0	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment balance	1.2	7.9	-10.6	-2.4	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	3.4	-3.5	2.1	3.3	0.6	1.6	1.4	1.1	0.8	0.4
Gross external debt 1/	69.9	75.7	85.5	83.3	78.6	74.0	70.3	67.4	64.4	61.9
Public	38.5	49.1	55.7	54.7	51.5	48.2	45.2	42.5	40.0	37.9
Short-term	3.5	12.4	21.9	20.7	19.9	19.1	18.3	17.7	17.1	16.6
Long-term	35.0	36.7	33.9	34.0	31.6	29.2	26.9	24.8	22.9	21.3
Private	31.4	26.6	29.8	28.6	27.2	25.8	25.1	24.9	24.4	24.0
Short-term	24.8	19.8	22.7	20.3	18.7	17.3	16.5	16.1	15.4	14.9
Long-term	6.6	6.8	7.1	8.3	8.5	8.5	8.6	8.8	9.0	9.1
Gross external debt (in percent of GS exports)	86.3	100.0	115.0	102.2	101.7	97.5	94.6	91.7	89.1	86.8
Net external debt	27.7	25.7	24.7	17.6	14.7	12.6	11.1	10.8	11.0	11.8
Net international investment position	-45.1	-43.7	-43.2	-35.5	-32.7	-30.5	-29.0	-28.7	-29.1	-30.1
Merchandise export volume (percent change) 2/	3.3	-0.4	3.5	13.6	4.8	4.0	4.1	3.8	3.6	3.4
Merchandise import volume (percent change) 2/	3.1	6.2	3.5	12.8	5.7	5.1	5.0	4.6	4.5	4.4
Merchandise export prices (percent change) 2/	-2.3	-4.0	-2.0	4.4	-4.6	-0.6	-0.9	0.0	-0.5	-0.3
Merchandise import prices (percent change) 2/	-3.2	-6.9	-4.3	4.0	-4.1	-1.3	-1.3	-0.2	-0.5	-0.3
GDP (in billion of Euros)	36.6	37.4	38.7	41.9	44.1	46.5	49.0	51.4	53.9	56.3

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: Financial Soundness Indicators, 2012–17

(In percent, unless otherwise indicated)

	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17
Capital adequacy						
Regulatory capital to risk-weighted assets 1/ 2/	15.7	17.6	21.3	24.9	19.4	19.1
Regulatory Tier 1 capital to risk-weighted assets 1/ 2/	14.6	17.1	20.9	24.3	19.1	18.8
Capital to assets 1/	12.3	12.6	12.9	11.1	10.4	9.4
Asset quality						
Nonperforming loans to capital 1/ 3/ 4/	53.4	42.6	46.9	38.3	35.5	28.6
o/w impaired loans to capital 1/ 3/ 4/	39.7	27.4	29.1	23.4	23.1	18.4
o/w non-impaired loans overdue more than 60 days to capital 1/ 3/ 4/	13.7	15.2	8.0	6.4	7.9	5.8
Nonperforming loans net of provisions to capital 1/ 3/ 4/ 5/	20.8	19.7	29.8	25.0	23.2	22.9
Nonperforming loans to total (non-interbank) loans 3/ 4/	13.6	11.0	7.0	5.7	4.1	4.1
o/w impaired loans to total (non-interbank) loans 4/	11.4	8.5	4.7	3.8	3.1	2.2
o/w non-impaired loans overdue more than 60 days to total (non-interbank) loans 4/	2.2	2.5	1.2	1.0	0.9	0.6
Impairment losses to total (non-interbank) loans 6/ 7/	5.6	4.2	2.5	2.0	1.4	1.1
Impairment losses to nonperforming loans 3/ 4/ 6/ 7/	61.0	53.7	36.5	34.7	34.7	30.8
Sectoral distribution of corporate loans 8/						
Agriculture, forestry and fishing	2.3	2.8	2.9	3.6	3.7	3.6
Mining and quarrying	0.6	0.5	0.5	0.5	0.5	0.5
Manufacturing	18.3	17.9	15.7	14.7	14.2	14.3
Electricity, gas, steam and air conditioning supply	6.8	7.6	9.5	11.0	8.7	4.7
Water supply; sewerage, waste management and remediation activities	0.7	0.8	1.0	1.0	0.9	0.8
Construction	10.4	8.6	7.3	6.1	5.4	5.2
Wholesale and retail trade; repair of motor vehicles and motorcycles	19.7	19.3	20.3	21.9	21.3	22.7
Transportation and storage	4.0	5.7	5.0	5.8	5.8	6.1
Accommodation and food service activities	2.8	2.7	2.6	2.4	2.4	2.4
Information and communication	0.8	0.8	0.9	0.8	2.4	2.4
Real estate activities	27.8	28.3	27.8	26.3	26.6	25.8
Professional, scientific and technical activities	4.0	2.6	3.7	2.6	3.2	5.0
Administrative and support service activities	0.9	1.0	1.8	2.0	3.0	4.4
Remaining activities	1.1	1.2	1.1	1.3	1.8	2.2
Residential real estate loans to total (non-interbank) loans	37.9	38.0	28.7	29.8	31.3	31.3
Earnings and profitability						
RoE 1/ 9/	7.7	8.9	8.1	9.0	14.0	12.5
RoA 9/	1.1	1.2	1.3	0.9	1.0	1.1
Interest margin to gross income	41.1	24.3	57.5	62.1	61.0	62.8
Noninterest expenses to gross income	63.1	60.5	58.6	57.4	52.0	55.0
Trading and foreign exchange gains (losses) to gross income	9.9	9.9	9.4	7.9	11.4	5.9
Personnel expenses to noninterest expenses	38.2	38.3	37.4	41.2	42.6	41.1
Liquidity						
Liquidity coverage ratio	..	..	..	..	266.3	281.9
Liquidity ratio (liquid assets to current liabilities) 10/	41.2	41.2	43.6	..	..	..
Liquid assets to total assets 10/	23.9	24.0	29.3	..	15.3	23.6
Current liabilities to total liabilities 10/	67.7	73.1	81.6	..	..	..
Loan to deposit ratio in the banking sector 11/	127.9	121.5	101.6	98.6	99.0	94.6
Foreign exchange risk						
Foreign-currency-denominated loans to total (non-interbank) loans 12/	71.6	68.7	..	..	..	..
Foreign-currency-denominated liabilities to total liabilities 12/	50.4	48.2	..	..	..	..
Net open position in foreign exchange to regulatory capital 1/ 13/	0.3	0.4	0.4	0.1	0.0	0.0
Memo item						
Provisioning (in percent of NPLs)	21.3	16.5	..	..	..	..

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

1/ Excluding foreign bank branches.

2new/ As defined in Rules for Calculation of Capital Adequacy approved by Bank of Lithuania Board Resolution No. 138 of 9 November 2006.

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 annualised.

10/ Composition of liquid assets and current liabilities is defined in the Liquidity Ratio Calculation Rules approved by Resolution No. 1 of

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 are in euros, to which the national currency is pegged via a currency board arrangement.

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

Annex I. Public Sector Debt and External Sustainability Analysis

Lithuania: Public DSA—Baseline Scenario

(in percent of GDP, unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

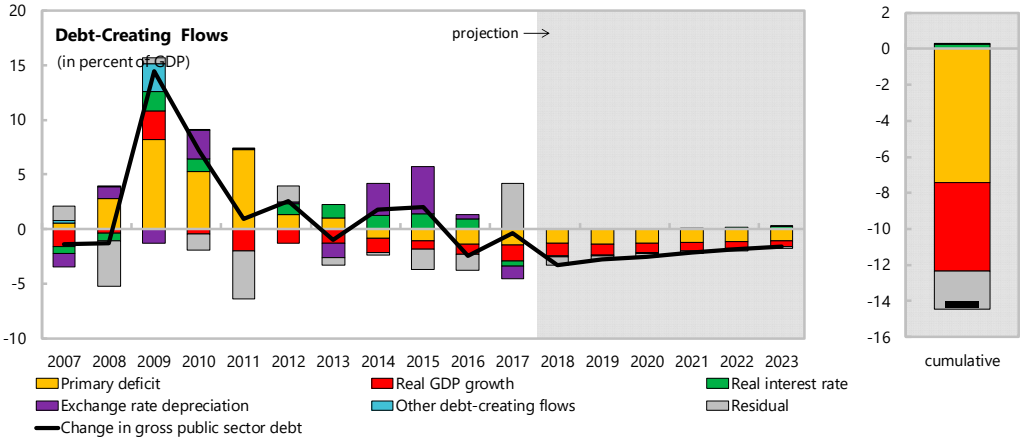
	Actual			Projections					
	2007-2015 [2/]	2016	2017	2018	2019	2020	2021	2022	2023
Nominal gross public debt	32.7	40.1	39.7	36.4	33.6	31.1	29.0	27.1	25.5
Public gross financing needs	8.7	5.8	3.7	4.8	2.0	3.6	2.3	1.8	0.8
Net public debt									
Real GDP growth (in percent)	2.2	2.3	3.9	3.2	2.9	2.7	2.4	2.2	2.0
Inflation (GDP deflator, in percent)	3.1	1.0	4.2	2.2	2.4	2.5	2.5	2.5	2.5
Nominal GDP growth (in percent)	5.5	3.4	8.2	5.4	5.4	5.3	5.0	4.8	4.5
Effective interest rate (in percent) [4/]	5.3	3.2	3.0	2.1	2.2	2.4	2.8	3.2	3.4

As of March 26, 2017

Sovereign Spreads		
EMBIG (bp) 3/		58
5Y CDS (bp)		56
Ratings	Foreign	Local
Moody's	A3	A3
S&Ps	A	A
Fitch	A-	A-

Contribution to Changes in Public Debt

	Actual			Projections							
	2007-2015	2016	2017	2018	2019	2020	2021	2022	2023	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	2.8	-2.5	-0.4	-3.3	-2.8	-2.5	-2.2	-1.9	-1.6	-14.2	
Identified debt-creating flows	3.9	-1.0	-4.6	-2.5	-2.4	-2.2	-1.9	-1.6	-1.4	-12.1	
Primary deficit	2.7	-1.4	-1.5	-1.3	-1.4	-1.3	-1.2	-1.2	-1.1	-7.4	-0.3
Primary (noninterest) revenue and gra	34.1	34.2	33.7	34.8	35.2	35.5	34.8	34.6	34.3	209.1	
Primary (noninterest) expenditure	36.8	32.9	32.2	33.5	33.8	34.1	33.5	33.4	33.2	201.6	
Automatic debt dynamics [5/]	0.8	0.3	-3.1	-1.3	-1.1	-0.9	-0.7	-0.5	-0.3	-4.6	
Interest rate/growth differential [6/]	0.0	0.0	-1.9	-1.3	-1.1	-0.9	-0.7	-0.5	-0.3	-4.6	
Of which: real interest rate	0.7	0.9	-0.5	-0.1	-0.1	-0.1	0.1	0.2	0.2	0.3	
Of which: real GDP growth	-0.7	-1.0	-1.4	-1.2	-1.0	-0.9	-0.7	-0.6	-0.5	-4.9	
Exchange rate depreciation [7/]	0.8	0.4	-1.2	...	...	...	...	...	...	...	
Other identified debt-creating flows	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LTU_FIS: Privatization Receipts (Nega	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euro	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/]	-1.1	-1.4	4.2	-0.8	-0.3	-0.3	-0.3	-0.2	-0.2	-2.1	



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

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

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

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

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

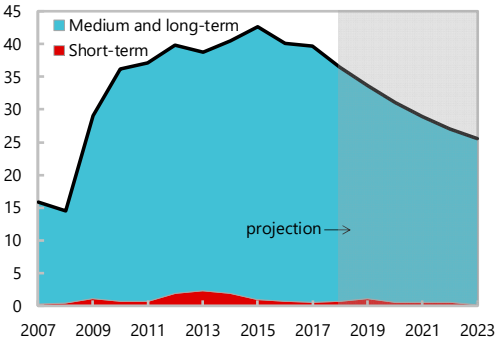
Lithuania: Public DSA—Composition of Public Debt and Alternative Scenarios

Lithuania Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

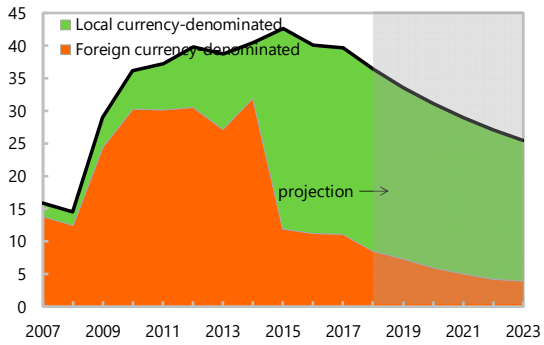
By Maturity

(in percent of GDP)

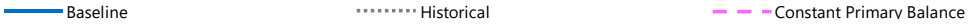


By Currency

(in percent of GDP)

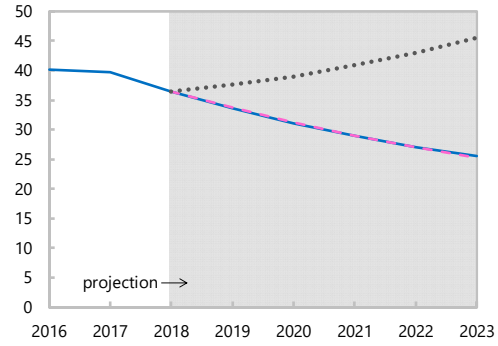


Alternative Scenarios



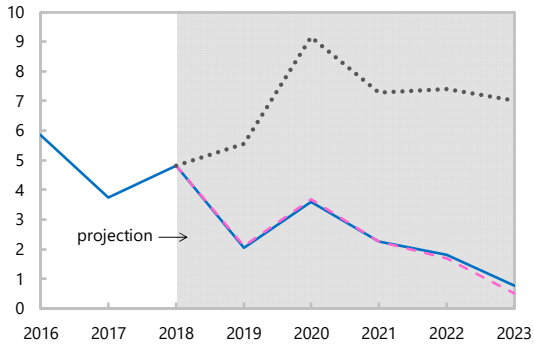
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

Baseline Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	3.2	2.9	2.7	2.4	2.2	2.0
Inflation	2.2	2.4	2.5	2.5	2.5	2.5
Primary Balance	1.3	1.4	1.3	1.2	1.2	1.1
Effective interest rate	2.1	2.2	2.4	2.8	3.2	3.4
Constant Primary Balance Scenario						
Real GDP growth	3.2	2.9	2.7	2.4	2.2	2.0
Inflation	2.2	2.4	2.5	2.5	2.5	2.5
Primary Balance	1.3	1.3	1.3	1.3	1.3	1.3
Effective interest rate	2.1	2.2	2.4	2.8	3.2	3.4

Historical Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	3.2	1.5	1.5	1.5	1.5	1.5
Inflation	2.2	2.4	2.5	2.5	2.5	2.5
Primary Balance	1.3	-2.1	-2.1	-2.1	-2.1	-2.1
Effective interest rate	2.1	2.2	2.8	4.0	4.8	5.5

Source: IMF staff.

Lithuania: External Debt Sustainability Framework, 2013–23

(in percent of GDP, unless otherwise indicated)

	Actual							Projections						
	2013	2014	2015	2016	2017			2018	2019	2020	2021	2022	2023	Debt-stabilizing non-interest current account 6/
1 **Baseline: External debt**	53.0	52.5	68.2	77.3	73.8			**63.4**	**59.0**	**55.4**	**52.8**	**50.1**	**47.9**	**-0.7**
2 Change in external debt	-7.7	-0.4	15.7	9.1	-3.5			-10.3	-4.4	-3.6	-2.7	-2.7	-2.2	
3 Identified external debt-creating flows (4+8+9)	-5.0	-4.6	13.2	0.5	-6.7			-1.3	-0.7	0.1	0.1	1.3	1.8	
4 Current account deficit, excluding interest payments	-2.2	-3.9	1.0	-0.3	-1.9			-0.5	-0.3	0.2	0.5	0.8	1.2	
5 Deficit in balance of goods and services	-0.9	-1.4	0.6	-1.1	-2.0			-0.9	-0.7	-0.3	0.0	0.5	1.0	
6 Exports	63.3	60.9	68.2	67.2	72.2			62.4	60.5	58.6	57.5	56.2	55.2	
7 Imports	62.4	59.4	68.8	66.1	70.2			61.5	59.9	58.3	57.5	56.7	56.2	
8 Net non-debt creating capital inflows (negative)	0.3	0.2	1.7	1.6	1.3			0.9	0.9	0.9	0.3	0.8	0.8	
9 Automatic debt dynamics 1/	-3.0	-0.9	10.5	-0.7	-6.1			-1.7	-1.4	-1.0	-0.6	-0.4	-0.1	
10 Contribution from nominal interest rate	1.6	1.5	1.5	1.4	1.2			0.3	0.4	0.5	0.6	0.7	0.8	
11 Contribution from real GDP growth	-2.0	-1.8	-1.3	-1.6	-2.7			-2.0	-1.7	-1.5	-1.3	-1.1	-0.9	
12 Contribution from price and exchange rate changes 2/	-2.7	-0.6	10.2	-0.5	-4.6			...	...	...	...	...	...	
13 Residual, incl. change in gross foreign assets (2-3) 3/	-2.8	4.1	2.5	8.6	3.2			-9.0	-3.7	-3.7	-2.8	-4.0	-4.0	
External debt-to-exports ratio (in percent)	83.7	86.3	100.0	115.0	102.2			101.7	97.5	94.6	91.7	89.1	86.8	
Gross external financing need (in billions of US dollars) 4/	13.2	11.0	12.3	12.4	18.3			19.6	18.0	19.4	19.4	20.1	19.4	
in percent of GDP	28.4	22.7	29.6	29.0	38.7	10-Year	10-Year	35.8	30.9	31.2	29.6	29.0	26.7	
Scenario with key variables at their historical averages 5/								**63.4**	**62.7**	**61.9**	**61.6**	**59.8**	**57.6**	**1.3**
Key Macroeconomic Assumptions Underlying Baseline						Historical Average	Standard Deviation							
Real GDP growth (in percent)	3.5	3.5	2.0	2.3	3.9	1.5	5.9	3.2	2.9	2.7	2.4	2.2	2.0	
GDP deflator in US dollars (change in percent)	4.6	1.2	-16.3	0.7	6.3	0.9	9.7	12.2	3.6	3.7	3.2	3.2	3.0	
Nominal external interest rate (in percent)	2.9	2.9	2.5	2.0	1.7	3.1	1.0	0.5	0.6	0.9	1.2	1.5	1.8	
Growth of exports (US dollar terms, in percent)	8.0	0.7	-4.3	1.6	18.6	10.2	17.6	0.0	3.4	3.1	3.8	3.2	3.0	
Growth of imports (US dollar terms, in percent)	7.5	-0.2	-1.2	-1.0	17.3	7.9	19.3	1.4	3.7	3.7	4.4	4.0	4.0	
Current account balance, excluding interest payments	2.2	3.9	-1.0	0.3	1.9	0.4	3.1	0.5	0.3	-0.2	-0.5	-0.8	-1.2	
Net non-debt creating capital inflows	-0.3	-0.2	-1.7	-1.6	-1.3	-0.8	0.8	-0.9	-0.9	-0.9	-0.3	-0.8	-0.8	

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.

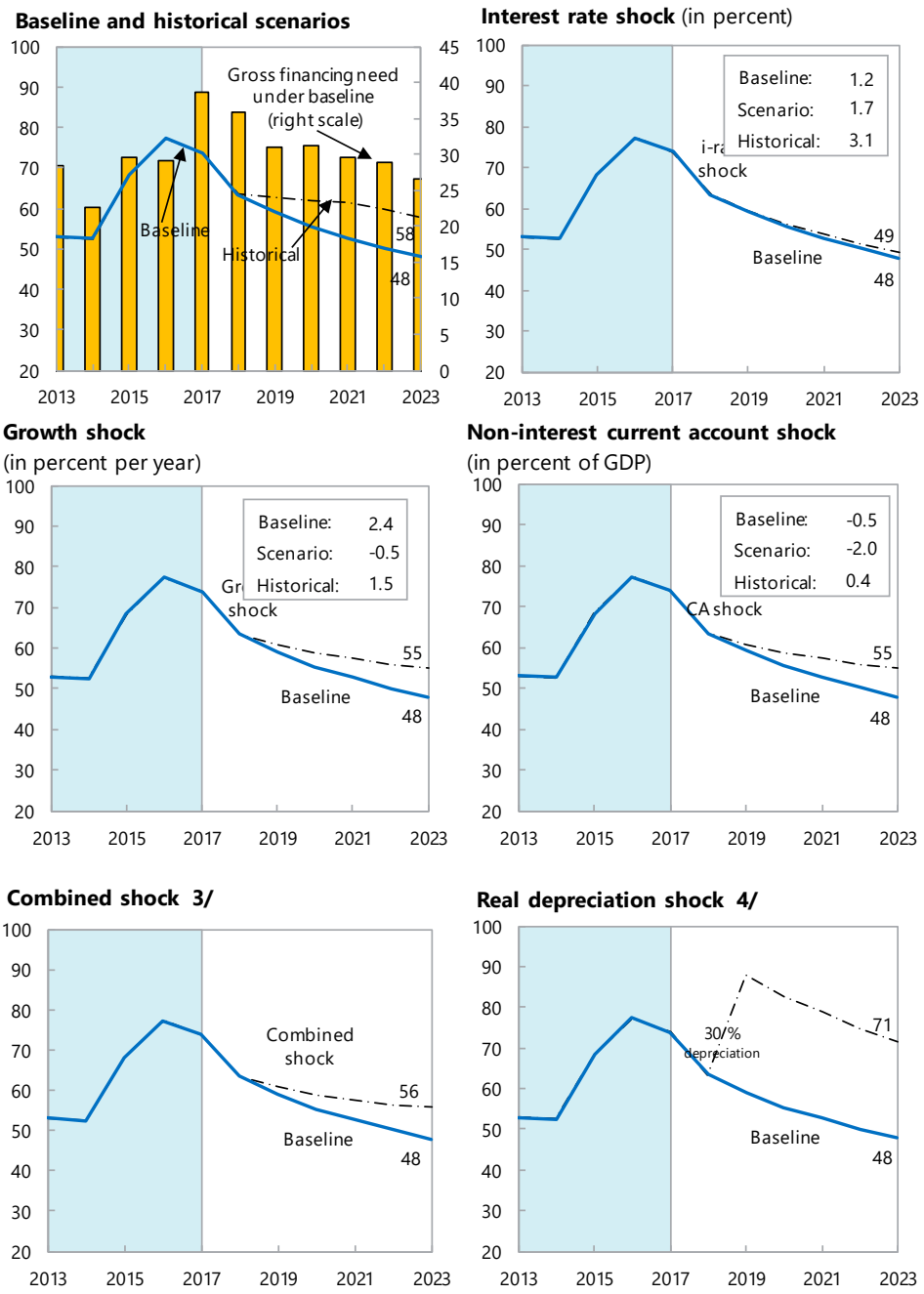
4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

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.

Lithuania: External Debt Sustainability—Bound Tests [1, 2]

(External debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
4/ One-time real depreciation of 30 percent occurs in 2010.

Annex II. Lithuania's Potential Growth

This note discusses developments in Lithuania's potential growth pre- and post-global financial crisis (GFC) and projects longer term growth in a context of rapidly declining working age population. The analysis suggests that there has been a sharp decline in potential growth following the GFC (more than half). The large output gap that opened in 2009 was almost closed in 2013 amidst a strong economic rebound. Going forward and driven by the rate of working age population decline, potential growth is expected to further deteriorate in the coming decades, with a trough of 1 to 1.5 percent around 2030 under the baseline. Mitigating adverse demographic factors calls for policies to increase labor participation and retirement age, and boost productivity.

A. Potential Growth and Output Gap—Past Developments

1. Potential output and output gaps are not observable variables and estimating them is an exercise subject to a significant degree of uncertainty. Potential output in this note follows Okun's definition, i.e. the level of output that can be achieved without giving rise to inflation.[1]

2. We estimate potential growth and output gap using three different approaches:

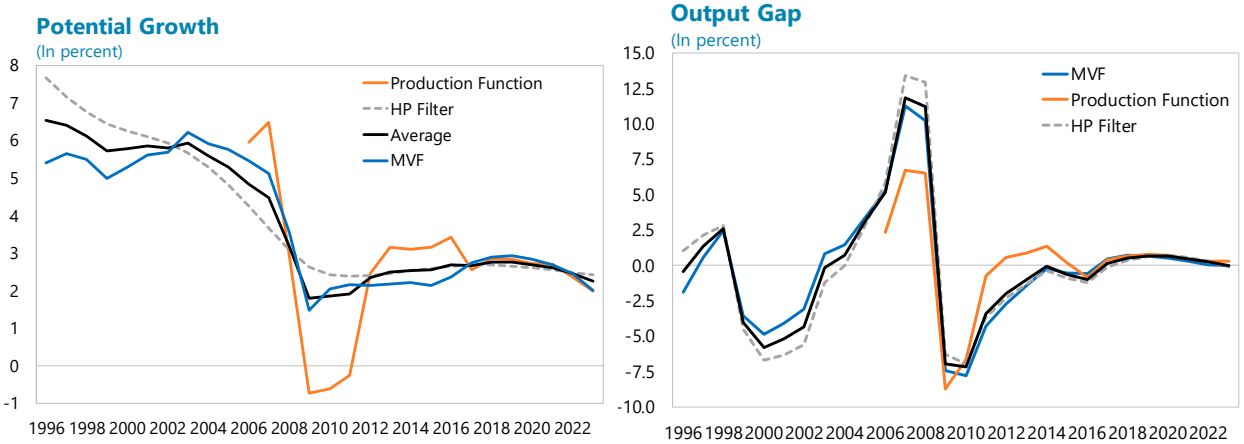
- First, we use the Multivariate filter approach (MVF) developed by Blagrave and others based on a model that captures the relationship between actual and potential GDP, unemployment, and inflation.[2] Seven equations describe the evolution of three key variables (output, unemployment, inflation) where two key economic relations are imposed: Okun's law and the Philips Curve.
- Second, we estimate potential output using a Cobb-Douglas production function with constant returns to scale (PF). We account for factor utilization using capacity utilization (for capital) and average hours worked (for labor). The total factor productivity (TFP) is computed as a residual. This approach allows to determine the different drivers of potential growth, i.e. factor accumulation (labor and capital) and TFP growth.[3]
- Finally, we use a univariate filter (HP filter). This standard and purely statistical technique has no economic theory content and is rather a trend than a potential à la Okun.

3. The GFC had a major and persistent impact on potential output. Before the GFC, potential growth slowly declined from 6.5 percent in 1996 to 4.8 percent in 2006, before declining sharply to slightly below 2 percent in 2009–11. The subsequent rebound has been moderate, with potential growth gradually increasing to about 2.7 percent by 2017, less than half its average pre-crisis level (5.7 percent over 1996–2007).

[1] A related, but different concept is that of sustainable potential output, which differs in that it is not only inflation-neutral, but also financial-neutral.

[2] See IMF Working Paper WP/15/79 "A Simple Multivariate Filter for Estimating Potential Output" P. Blagrave, R. Garcia-Saltos, D. Laxton, and F. Zhang.

[3] For further details on the methodology, see IMF WP/17/37 "A Fresh Look at Potential Output in Central, Eastern, and Southeastern European Countries," J. Popdiera and others.



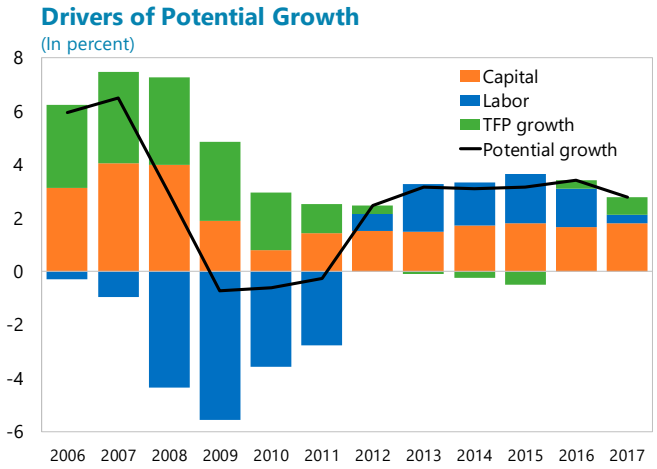
Sources: Statistics Lithuania and IMF staff calculations.

Sources: Statistics Lithuania and IMF staff calculations.

4. Using the PF approach, it is also possible to analyze the contribution of capital, labor, and TFP growth of potential growth since 2006:

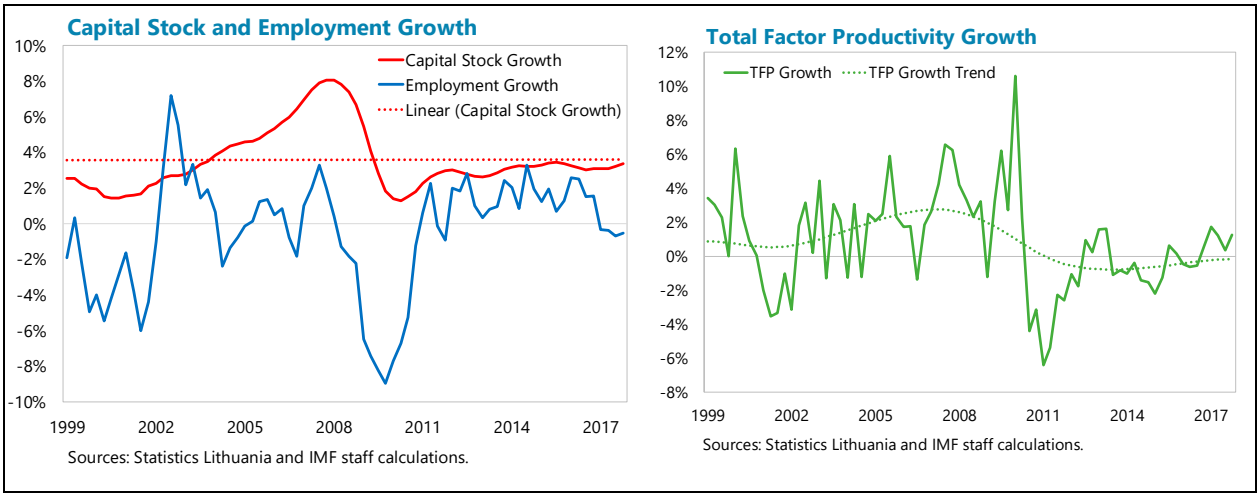
- Capital accumulation has been the main driver of growth, although its contribution post-crisis (1.6 percent since 2011) is much lower than before (3.7 percent on average over 2006–08).

- TFP growth has also been an important engine of growth in Lithuania until 2012. Its contribution has come down to zero on average in the last five years. Over the last two years, there seems to be a small positive contribution, but it is too soon to know if this new trend will be sustained going forward. TFP trend growth turned negative in 2011 and has remained so ever since, although the rate of decline is improving (-0.2 percent in 2017 vs. -0.8 percent in 2013) thanks to the positive performance in 2017.

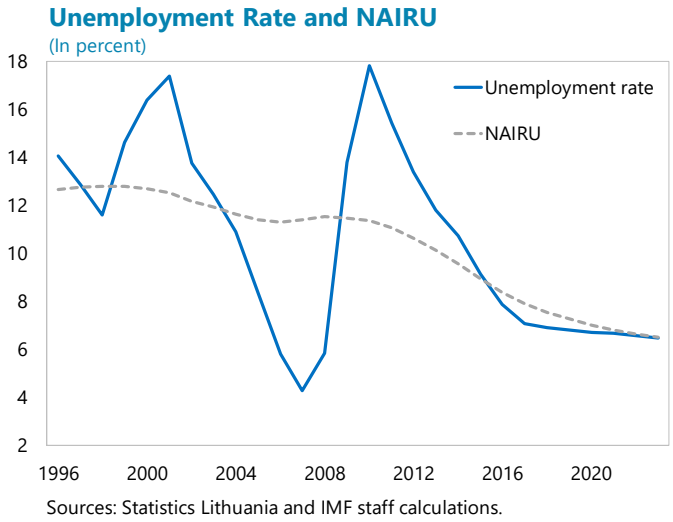


Sources: Statistics Lithuania and IMF staff calculations.

- Labor contribution, which was largely negative pre-crisis, turned positive in the aftermath of the crisis, mainly reflecting changes in participation rates (declining pre-crisis and increasing post-crisis). Nevertheless, reflecting ageing and continued migration, labor's contribution has started to decline again in 2015.



5. Finally, the MVF suggests that after staying broadly constant until early 2000s, structural unemployment has slowly declined since. This decline from around 13 percent in 1995 to around 8 percent in 2016 was partially interrupted in 2006–08. The model suggests that the decline will continue and could reach 6.5 percent by 2023. This result is somewhat at odds with the findings of the Baltic Cluster report where they argue that the NAIRU in the Baltics is high and stable. Their estimates cover the period 2002–13, but is robust to adding the last three years to the sample.[4]



B. Long-Term Prospects

6. We use the PF approach presented in the previous section to project long-term growth in Lithuania. The main assumptions under the baseline over 2020–50 are:

- **Capital:** we assume that the capital stock grows at its average rate since 1999, contributing around 2 percentage points to growth. Note that post-crisis capital contribution to growth has been 1.5 percentage points.

- **Labor:** we use Eurostat baseline population projections. To derive employment projections, we assume that unemployment decreases to 6.5 percent by 2023 and stays at that level thereafter.

[4] Baltic Cluster Report, 2014 Cluster Consultation, IMF Country Report No. 14/117.

- **TFP growth:** the baseline scenario assumes an annual TFP growth of 0.55 percent on average, consistent with the average TFP growth since 2006. As explained in the previous section, TFP trend growth has been negative since 2011, so achieving an average annual growth of 0.55 percent going forward is rather optimistic.

7. Under the downside scenario:[5] (i) Capital growth fails to return to its long-term average and stays at its average since 2011, i.e. 3.1 percent; and (ii) TFP growth is lower than in the baseline and stays at 0.2 percent per year after 2020 (this is the TFP growth in the euro area since 2000).

8. Finally, under an upside scenario: (i) Demographic development follow Eurostat's upside scenario with lower migration; (ii) labor participation increases further between 2023 and 2038; and (iii) TFP growth, at 1 percent, slightly exceeds its longer-term average of 0.77 percent.

9. Lithuania's potential growth is expected to decline further in the coming decade, mostly driven by demographic developments. The positive contribution of labor in the post-GFC rebound has already started to fade out. Going forward, the contraction in working age population accelerates resulting in labor being a major drag on potential growth. Under the baseline (upside), the drag is expected to be maximal, -1.3 (-0.7) percentage points, around 2030, where employment would decline by 2.3 percent per year on average. As demographic dynamics gradually improve thereafter, the drag of labor halves by 2050, -0.6 percentage points.

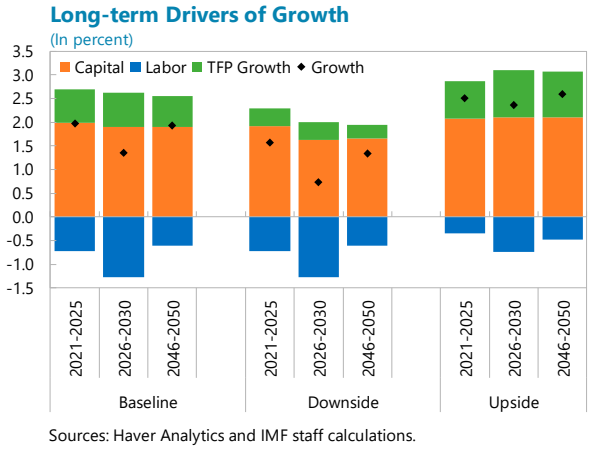
Potential Growth and Contribution of Different Factors Historical and Long-Term Projections

(in percent)

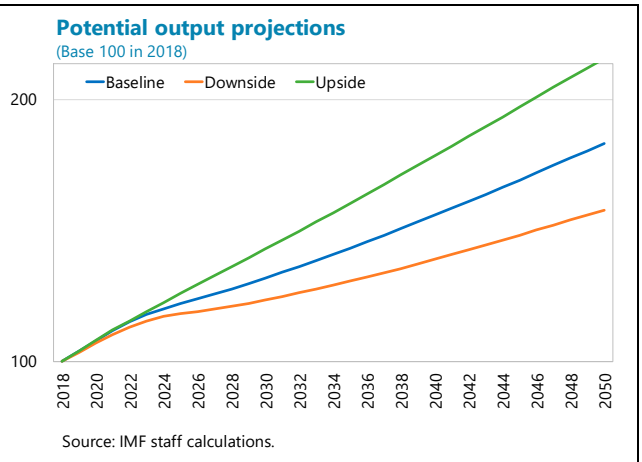
	Pre-Crisis	Post-Crisis	Baseline		Downside		Upside	
	2006-2007	2010-2017	2026-2030	2046-2050	2026-2030	2046-2050	2026-2030	2046-2050
Growth	**6.2**	**2.2**	**1.4**	**1.9**	**0.7**	**1.3**	**2.4**	**2.6**
Capital	3.6	1.5	1.9	1.9	1.6	1.7	2.1	2.1
Labor	-0.6	0.1	-1.3	-0.6	-1.3	-0.6	-0.7	-0.5
TFP growth	3.3	0.5	0.7	0.6	0.4	0.3	1.0	1.0

10. Productivity will only partially offset the negative contribution from labor under the baseline. At the peak of the projected rate of decline in employment, TFP growth contribution is only expected to offset about half (a third) of the drag from labor, 0.7 versus -1.3 (0.4 vs -1.3) percentage points under the baseline (downside). It is only by 2046–50 that the two offset each other under the baseline scenario, but never under the downside scenario.

[5] While Eurostat has a downside scenario with higher migration or lower fertility than under the baseline, we keep demographic dynamics unchanged in our downside scenario.



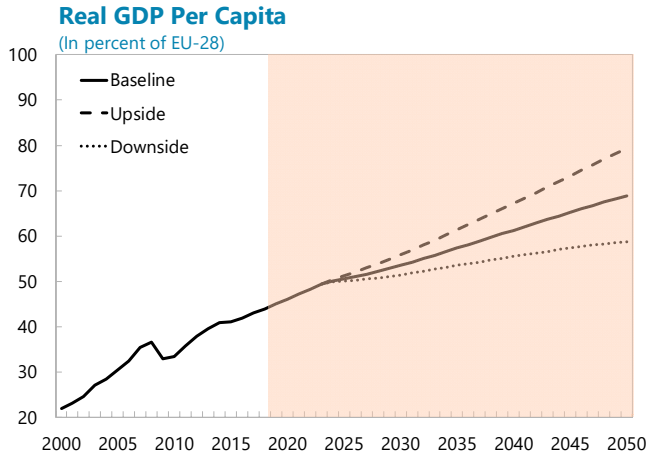
Sources: Haver Analytics and IMF staff calculations.



Source: IMF staff calculations.

11. Finally, income convergence will continue at a slower pace, increasing the risks of falling into the middle-income trap.

Average real GDP growth per capita over 2025 is projected to be 2.2, 2.8 and 3.4 percent under the downside, baseline and upside scenario respectively. This would allow to continue the convergence process towards the average EU level, but at a somewhat slower pace than in the past. By 2050, real GDP per capita in Lithuania would still remain about a third below the EU as a whole.



Sources: Eurostat, World Economic Outlook, and IMF staff calculations.

Annex III. Minimum Wage

Minimum wages have implications on multiple fronts. It is generally used to reduce income inequality. However, it can also have an impact on overall wage growth and inflation, competitiveness, employment, and efficiency. This note highlights the key tradeoffs involving minimum wages, particularly between equity and efficiency, in the context of the Lithuanian economy and provides some policy implications. Minimum wages in Lithuania are high, particularly for low-skilled, young workers in rural areas. Several options could be considered going forward including targeting a lower minimum wage relative to average wages and introducing differentiated minimum wages.

A. The Economics of the Minimum Wage[1]

1. During the recent economic recovery, many countries in Central Eastern and South-Eastern Europe (CESEE) have increased minimum wages and use them as an income policy tool. This followed several years when real minimum wages fell in many of these countries as they were kept constant in nominal terms in the aftermath of the global financial crisis. In order to examine the effectiveness of minimum wages in Lithuania, we first analyze the channels through which minimum wages affect economic activity. This requires looking at the intended as well as unintended (although not necessarily unpredictable) consequences.

- **Compliance:** The effectiveness of minimum wages will depend on the degree of compliance as well as its incidence. Hikes might not translate into higher remuneration in practice in countries with large shadow economy where minimum wages could be easily circumvented. Lithuania, with an estimated shadow economy around 25 percent of GDP, stands as one of the developed nations with highest informal sector. Note that high minimum wages tend to exacerbate non-compliance, by prompting firms and workers to flee to the shadow economy. Alternatively, minimum wage hikes can be offset by lowering non-wage benefits, official hours worked, or unofficial wages.

- **Efficiency:** Minimum wages result in efficiency losses when labor markets are competitive. In this instance, fixing wages above market-clearing levels hurts job creation, growth and investment. Labor-intensive industries competing in international markets are likely most affected and forced to substitute low-skilled labor for capital and high-skilled labor. However, where there is monopsony power in labor markets, minimum wages can have a positive impact if they correct pre-existing market imperfections.

- **Overall wages:** The literature suggests that minimum wages push up the general wage level directly through the rise in wages of low-paying workers, and indirectly through "ripple effects" or as signaling for the pace of overall wage growth. In Lithuania, the pass-through of minimum wage into general wages is estimated at around 0.3. Pass-through varies across

[1] This section largely feeds from 'Cross-Country Report on Minimum Wages,' IMF Country Report No. 16/151.

sectors depending on the minimum wage incidence, with 60 percent and 10 percent for Lithuania's construction and financial sectors, respectively.

- **Competitiveness:** Competitiveness could be weakened if rising minimum wages fuel general wage growth. Lithuania is more exposed to loss of competitiveness because labor-intensive exports are prominent in total exports, and wage growth has outstripped productivity growth recently. Some evidence for CESEE countries suggests that minimum wage hikes tend to cut into profits, especially in the tradable sector—a 10 percent increase in minimum wages reduces profit margins by 3 percent on average for all firms and by 8 percent for firms in tradable sector. As such, minimum wages could dampen export performance in labor-intensive sectors.

- **Employment:** There appears to be growing consensus that the impact of the minimum wage on employment of low-income earners, is modest. According to the Wage Dynamics Network (WDN) survey, only 10 percent of employers would adjust employment in response to higher minimum wages, while 18 percent reduced non-labor costs and 25 percent increased productivity.[2] However, the negative impact may be disproportionately concentrated in young, unskilled workers in relatively poorer regions where wages tend to be lower and the incidence of minimum wages larger. A recent IMF study on minimum wages finds that a 10 percent increase in minimum wages relative to productivity, results in a 2 percent decrease in youth employment in CESEE countries, where minimum wages represented 17 percent of labor productivity in 2016.

- **Income distribution:** The evidence suggests that the minimum wage improves income inequality measures such as the Gini coefficient, but largely fails to scale back poverty. They improve the distribution of total household income primarily by influencing the lower tail of the wage distribution. However, the impact on poverty is negligible because the very poor do not work at all and, therefore, cannot benefit from higher wages. Furthermore, where minimum wage hikes lead to job losses, they might have negative distributional effects. Finally, in-work poverty is often the result of few working hours, rather than low hourly pay. However, note that there is much more related to income inequality other than wages, notably income on capital and wealth, the progressivity of the tax system, and social protection spending. Accordingly, there are many other policy levers to address inequality, but unlike minimum wages, most of them involve direct fiscal costs.

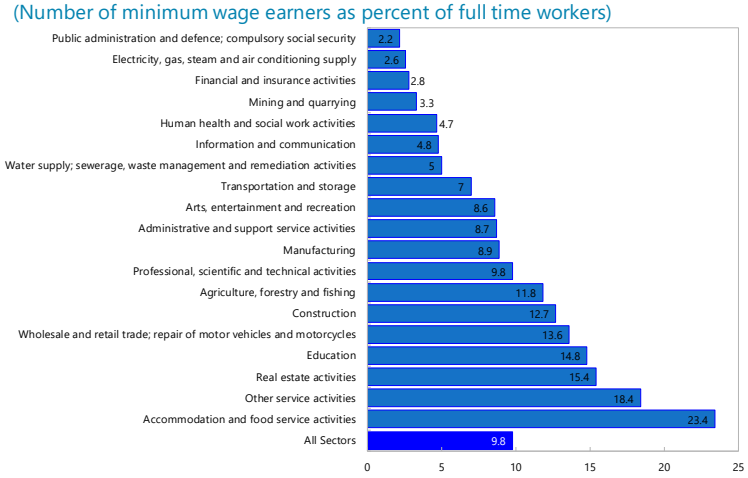
[2] The WDN survey is conducted by the European System of Central Banks (ESCB) with the aim to understand features and sources of wage and labor costs dynamics in EU member states. Bank of Lithuania presented results for Lithuanian minimum wages at 'Lithuanian Economic Review,' December 2015.

B. Minimum Wages in Lithuania

2. While Lithuania kept minimum wages constant for several years after the global financial crisis, the authorities have actively increased it starting in 2013. It rose from 232 euros in 2012 to 400 euros in January 2018. The Tripartite Council (formed with representatives of unions, businesses and the government) has recently agreed on annual revisions of the minimum wage targeted between 45 and 50 percent of the national average monthly wage.

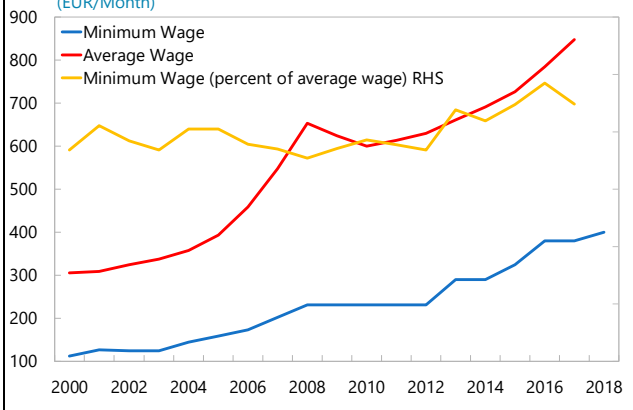
3. Due to the rapid minimum wage hikes, 10 percent per annum on average since 2013, the ratio of minimum wage to average wages, that had been kept around 40 percent since 2000, rose sharply from 37 percent in 2012 to 49 percent in 2016. This was the second highest in CESEE in 2016. The ratio moderated to 45 percent in 2017 after the rapid wage growth of 8.2 percent that year. Also, the incidence of the minimum wage in Lithuania is relatively high around 10 percent in 2016 in line with Poland (9 percent in 2014) but higher than the US and the UK (around 5 percent) and Estonia (6 percent).

Lithuania: Minimum Wage Incidence by Sector, 2016
(Number of minimum wage earners as percent of full time workers)



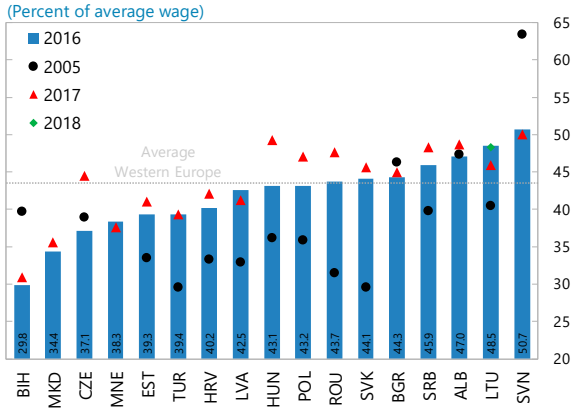
Source: Statistics Lithuania.

Lithuania: Minimum and Average Monthly Wage, 2000-2017
(EUR/Month)



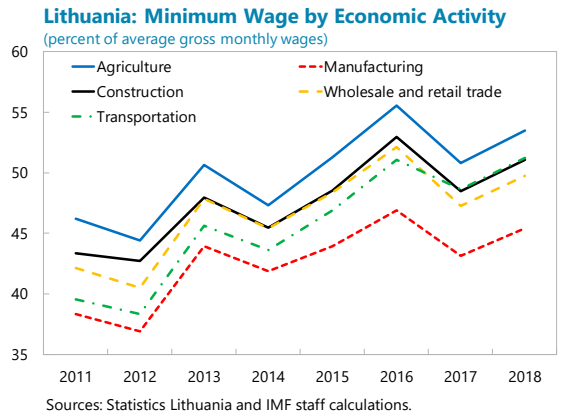
Source: Haver Analytics.

CESEE Countries: Minimum Wages
(Percent of average wage)

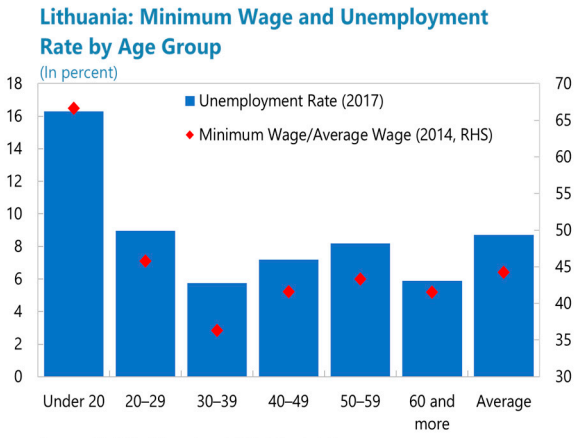


Sources: Eurostat; IMF, World Economic Outlook; national authorities; and IMF staff calculations.

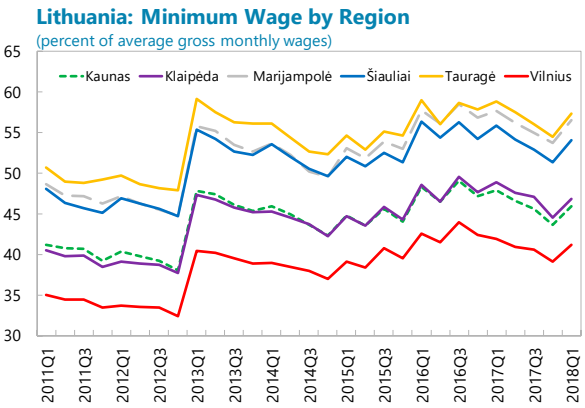
4. The impact of the minimum wages varies across economic sectors with a high ratio in agriculture and wholesale and retail, where its incidence is highest. These sectors also exhibit higher inflation relative to manufacturing where the incidence of the minimum wage is smaller. In addition, the impact of minimum wages is higher for young workers and in rural areas both of which exhibit significantly higher rates of unemployment.



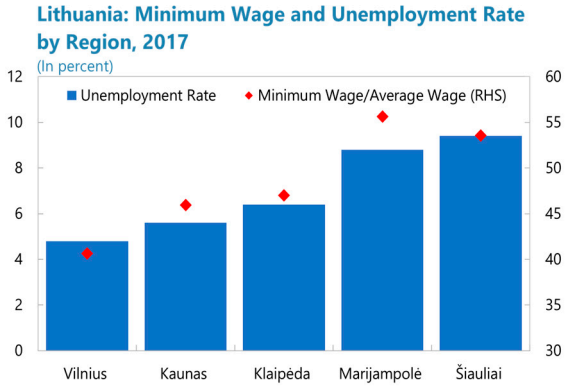
Sources: Statistics Lithuania and IMF staff calculations.



Sources: Statistics Lithuania and IMF staff calculations.



Sources: Statistics Lithuania and IMF staff calculations.



Sources: Statistics Lithuania and IMF staff calculations.

C. Policy Implications

5. It is generally accepted that minimum wage increases at *reasonable* levels are unlikely to cause substantial job loss.[3] However, whereas the impact on wages, inflation and employment may not be substantial at the aggregate level, country- and time-specific factors may result in considerable negative impact in certain groups, industries or regions.

6. Lithuania is a small open economy with a large labor-intensive tradable sector, high informality, high regional income heterogeneity and high structural unemployment, especially for young and unskilled workers in rural areas. This suggests that the current level of the minimum wage is high and binding for some sectors and for low-skilled workers in rural areas. Furthermore, high profit margins built in the aftermath of the global financial crisis, have prevented a large pass-through of high wage inflation into CPI inflation. Going forward however, as profit margins have fallen to pre-crisis levels, pass-through of wages to inflation will be higher.

[3] See OECD, 2015, *OECD Employment Outlook*.

7. Several options could be considered going forward:

- Targeting the minimum wage at 45–50 percent of average wages appears to be inefficiently high for Lithuania, disproportionately affecting low-skilled and young workers in rural areas. Rutkowski (2003) concludes that, as a rule of thumb, the minimum wage should not exceed 40 percent of the average wage in developing economies.[4] He argues that the threshold should be lower when unemployment of the young and low-skilled is high, as is in Lithuania. Furthermore, there is no robust evidence that high minimum wages in Lithuania have an impact in poverty or inequality.
- Minimum wages could be differentiated to alleviate some of its adverse effects. It seems unlikely that the appropriate level of the minimum wage is the same across the economy. What may be appropriate at urban and industrial areas, might be detrimental for workers in poorer regions, for young people with low experience or for the long-term unemployed. Thus, many countries set differentiated minimum wages: Germany exempts apprentices, and the UK and the Netherlands apply differentiated minimum wages for the young for example.
- Inequality and poverty should be addressed in a broad policy approach. While minimum wages are appealing as they do not have associated fiscal costs, they are not the most effective and efficient policy instrument to address high income inequality or poverty.

[4] See Rutkowski, J., "The Minimum Wage: Curse or Cure?" The World Bank, July 2003.

INTERNATIONAL MONETARY FUND

REPUBLIC OF LITHUANIA

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

June 4, 2018

Prepared By European Department

CONTENTS

FUND RELATIONS

(As of April 30, 2018)

Membership Status: Joined: April 29, 1992; Article VIII

General Resources Account:

	SDR Million	Percent of Quota
Quota	441.60	100.00
Fund holdings of currency (Exchange Rate)	441.58	100.00
Reserve Tranche Position	0.03	0.01

SDR Department:

	SDR Million	Percent of Allocation
Net cumulative allocation	137.24	100.00
Holdings	137.29	100.04

Outstanding Purchases and Loans: None

Latest Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-By	Aug 30, 2001	Mar 29, 2003	86.52	0.00
Stand-By	Mar 08, 2000	Jun 07, 2001	61.80	0.00
Stand-By	Oct 24, 1994	Oct 23, 1997	134.55	134.55

Projected Payments to Fund:

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

	Forthcoming				
	2017	2018	2019	2020	2021
Principal	0.00	0.00	0.00	0.00	0.00
Charges/Interest	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00

Implementation of HIPC Initiative: Not applicable.

Implementation of MDRI Assistance: Not applicable.

Implementation of Catastrophe Containment and Relief (CCR): Not applicable.

Exchange Rate Arrangement:

As of January 1, 2015, the currency of Lithuania is the euro, which floats freely and independently against other currencies. Prior to 2015, the currency of Lithuania was the litas. From April 1, 1994 to February 1, 2002, the litas was pegged to the U.S. dollar at LTL 4 per U.S. dollar under a currency board arrangement. From February 2, 2002 to Dec 31, 2014, the litas was pegged to the euro at LTL 3.4528 per euro. Lithuania joined the European Union (EU) on May 1, 2004, and ERM II on June 28, 2004. Lithuania has accepted the obligations of Article VIII of the Fund's Articles of Agreement and maintains an exchange system free of restrictions on the making of payment and transfers for current international transactions except for those maintained solely for the preservation of national or international security and which have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51).

Previous Article IV Consultation:

Lithuania is on the 12-month consultation cycle. The last Article IV consultation was concluded on May 13, 2016. The staff report and other related documents are available at http://www.imf.org/en/Publications/CR/Issues/2017/06/30/Republic-of-Lithuania-2017-Article-IV-Consultation-Press-Release-and-Staff-Report-45018.

Safeguards Assessment:

Under the Fund's safeguards assessment policy, the Bank of Lithuania (BoL) was subject to and completed a safeguards assessment with respect to the Stand-By Arrangement, (the SBA was approved on August 30, 2001 and expired on March 29, 2003) on December 10, 2001. The assessment identified certain weaknesses and proposed appropriate recommendations as reported in EBS/01/211. The BoL has implemented these recommendations.

FSAP Participation and ROSCs:

An FSAP Update mission was completed on November 19, 2007. Fiscal and statistics ROSCs were completed in November 2002 and December 2002, respectively.

Republic of Lithuania: Technical Assistance from the Fund, 1999–2016				
Department	**Issue**	**Action**	**Date**	**Counterpart**
STA	Balance of payments statistics (also covering Latvia)	Mr. Buxton	Resident Advisor, Oct. 1999–Oct. 2000	Bank of Lithuania
LEG	Bankruptcy legislation	Mr. Dimitrachkov	Mar. 2000	Ministry of Economy
FAD	Establishment of Fiscal Reserve Fund	Mission	Jul. 2000	State Privatization Fund
MAE	Multi-topic	Mission	Mar. 2001	Bank of Lithuania
FAD	Tax policy issues	Mission	Jun. 13–26, 2001	Ministry of Finance
STA	ROSC	Mission	May 8–22, 2002	Department of Statistics, Ministry of Finance, and Bank of Lithuania
FAD	ROSC	Mission	Jul. 10–23, 2002	Ministry of Finance
FAD	Treasury Operations	Mr. Ramachandran	Nov. 22–Dec. 5, 2004	Ministry of Finance
FAD	Decentralization	Mission	Dec. 3–Dec. 15, 2004	Ministry of Finance
STA	External debt statistics	Mission	Aug. 2–4, 2006	Bank of Lithuania
MCM	Stress testing	Mr. Miguel A. Segoviano Basurto	Jun. 11–21, 2007	Bank of Lithuania
STA	External debt statistics	Mission	Nov. 8–19, 2007	Bank of Lithuania
FAD	Public expenditure review	WB mission / Ms. Budina (FAD) participation	Apr. 14–24, 2009	Ministry of Finance
FAD	Tax Administration	Mission	Aug. 26–Sep. 8, 2009	Ministry of Finance
MCM/LEG	Bank Resolution/Banking Law	Mission	Sep. 28–Oct. 6, 2009	Bank of Lithuania/Ministry of Finance
FAD	Reform of Social Security and Health Funds	Mission	Apr. 6–20, 2010	Ministry of Finance/State Social Insurance Fund Board
LEG	Personal Bankruptcy Reform	Mission	Apr. 30–May 8, 2010	Ministry of Economy
FAD	Tax Administration	Mission	Jul. 14–27, 2010	Ministry of Finance
FAD	General Tax Policy	Mission	Oct. 19–25, 2010	Ministry of Finance
STA	GFS 2001 Statistics	Mission	Feb. 11–22, 2013	Ministry of Finance
MCM	Credit Unions	Mission	Nov. 18–29, 2013	Bank of Lithuania
MCM	Stress Testing	Mission	Dec. 16–18, 2013	Bank of Lithuania
FAD	Local Government Finance	Mission	Dec. 9–16, 2014	Ministry of Finance

Resident Representative:

None

Anti-Money Laundering (AML) and Combating Financing of Terrorism (CFT): Lithuania's compliance with the Financial Action Task Force (FATF) standard, was last assessed by MONEYVAL, the FATF-style regional body of which it is a member, in April 2012. The assessment report was published in December 2012. Lithuania was rated partially compliant on nineteen FATF Recommendations, leading to the application of the first stage of the Compliance Enhancing Procedure (CEP). In response, the authorities amended the Criminal Code and the AML/CFT Law and put in place secondary legislation and guidelines. This extended the list of punishable activities, criminalized financing of terrorism, reorganized the suspicious transactions reporting system, strengthened customer due diligence, and extended record keeping requirements. Lithuania has submitted to date three compliance reports under the CEP procedure. In recognition of the progress achieved in the key areas of concern, MONEYVAL ended the CEP at step 1 in April 2015, but recommended that the authorities address the remaining deficiencies and ensure effective implementation of its AML/CFT framework in order to exit the regular follow-up procedures. At the 50th Plenary meeting in April 2016, the MONEYVAL Secretariat acknowledged progress made by Lithuania but noted that further progress is needed with respect to R.5, R.13/SR.IV and SR.III. While Lithuania has made progress on criminalizing ML/FT, it remained subject to regular follow-up. At the MONEYVAL Plenary in September 2017, the Plenary agreed that Lithuania has taken sufficient steps to remedy deficiencies on key and core FATF recommendations which resulted in Lithuania being removed from the regular follow-up process. Currently, Lithuania is under 5th round mutual evaluation. An on-site visit took place during May 7–18, 2018.

Lithuania has transposed the 4th Anti Money Laundering and Terrorist Financing Directive. The new AML/CFT law came into force on July 13, 2017. Following changes in primary legislation, a number of secondary legal acts governing AML/CFT prevention were amended during 2017. The new legislation improves the identification process of beneficial owners, broadens the definition of politically exposed persons, and strengthens the sanctions regime, among other improvements. In particular, the new legislation extends the scope of anti-money laundering legislation to providers of all gambling and lottery services, and to agents involved in the renting of real estate properties and crowdfunding platforms. The EU Member States are obliged to create central registers containing information on the beneficial ownership of corporate and other legal entities, including trust structures. This is currently in the process in Lithuania.

Lithuania is expected to transpose the 5th AMLD within 18 months after its publication. The new legislation, among other things, makes public the registers of beneficial owners of companies (and under some conditions trusts) operating within the EU and improves interconnectedness of member countries' national registers. Virtual currencies and custodian wallet providers are included into the scope of Directive.

STATISTICAL ISSUES

General: Over the past several years, Lithuania has made good progress in establishing a macroeconomic database. Official data for all sectors are adequate for surveillance purposes. Lithuania subscribed to the Special Data Dissemination Standard (SDDS) in May 1996, and its metadata have been posted on the Fund's Dissemination Standards Bulletin Board (DSBB) since April 1997. Lithuania meets the SDDS specifications for coverage, periodicity and timeliness of the data, and for the dissemination of the advance release calendars. A significant amount of economic and financial information is now available on various websites through the Internet (see section on Dissemination of Statistics, below). A ROSC data module was published in November 2002. Data provision to the Fund for surveillance purposes is considered adequate.

Meanwhile, the authorities' preparatory work for adhering to the SDDS Plus is at final stage and envisaged to be completed shortly. SDDS Plus is the highest tier of the Data Standards Initiatives. The new data sets disseminated under the SDDS Plus will facilitate a more informed assessment of the performance of Lithuania's financial sector, cross-border financial linkages, and vulnerabilities of the economy to shocks.

National Accounts: The national accounts are compiled by Statistics Lithuania (SL) in accordance with the guidelines of the European System of Accounts 2010 (ESA 2010) from 2005 data onwards (data before 2005 still follow the European System of Accounts 1995, ESA 95). Quarterly GDP estimates at current and at constant prices are compiled using the production, expenditure and income approaches. GDP estimates by production are considered to be more reliable than the corresponding estimates by expenditure and income, but no statistical discrepancies between these three estimates are shown separately in the published figures as the discrepancies are included in the estimates of changes in inventories (expenditure approach) and operating surplus and mixed income (income approach). The annual and the quarterly national accounts are compiled at previous year prices and chain-linked to 2010. In general, good data sources and sound methods are used for the compilation of the national accounts, but measuring activity during the volatile environment of the 2008/09 crisis proved challenging. Moreover, difficulties remain in measuring the non-observed economy. Estimates compiled at detailed levels of economic activity using fixed coefficients derived from benchmark surveys conducted in 1996 and 2003, and updated in 2006 and in 2011, measured the non-observed economy at 28.5 percent of GDP in 2012. According to the most recent estimate, this figure was 14.2 percent of GDP in 2015.

Price Statistics: The main statistical data source for the production of the CPI is a monthly statistical survey on prices for consumer goods and services. Information published in the legal acts of state institutions, catalogues, pricelists, and on enterprises' websites is also used. The price survey covers the entire territory of the country, and data is collected in small, medium, and large towns. The CPI covers consumption expenditure of the residents of the country and is the main instrument of indexation. The authorities also produce the Harmonized Index of Consumer Prices (HICP) which is used to measure inflation in the EU and is fully comparable across countries. In addition to the consumption expenditure of residents, the HICP covers also consumption expenditure of non-residents and foreign visitors but excludes financial intermediation services and games of chance. Differences in coverage and hence weighting account for most of the differences in the value of the CPI and HICP. Since December 1998, CPI weights have been updated annually. The base period for the CPI is 2010 and for the HICP is 2015 (first year of data

availability). The monthly CPI and HICP are available in the second week following the reference month. The consumer price index is calculated according to the chain-linked Laspeyres formula with weights updated every year.

Government Finance Statistics: Data on the central government budget execution are available at a monthly and quarterly frequency. A new methodology, incorporating the GFSM 2014, was adopted in October 2014. Annual and quarterly historical data have been converted into the GFSM 2014 format. Administrative data sources include the Ministry of Finance, State Social Insurance Fund Board (Sodra), Compulsory Health Insurance Fund, Employment Fund, and financial statements of enterprises. The MoF is reporting to STA general government's annual data on an accrual basis for publication in the Government Finance Statistics Yearbook (GFSY). In addition, the MoF is reporting quarterly and monthly data for publication in the IFS. Lithuania participates in the Eurostat GFS convergence project with the IMF since 2012.

Monetary Statistics: Lithuania uses the ECB reporting framework for monetary statistics and data are reported to the IMF through a gateway arrangement with the ECB that provides for efficient transmission of monetary statistics to the IMF and for publication in the IFS. IFS coverage includes the central bank and other depository corporations (ODCs) using Euro Area wide and national residency criteria.

Financial sector surveillance: Lithuania reports all core and encouraged financial soundness indicators (FSIs) for deposit takers and other sectors on a quarterly basis.

Balance of Payments: The BoL is responsible for compiling balance of payments, international investment position (IIP), external debt and international reserves statistics. The BoL reports quarterly data on balance of payments, IIP and monthly international reserves to STA on a timely and regular basis. Balance of payments data (on a monthly and quarterly basis) are compiled using the format recommended in the Balance of Payments Manual, sixth edition (BPM6) from 2004 data onwards (data before 2004 still follow the BPM5 methodology). The monthly data correspond to several key balance of payments components, compiled on the basis of a sample survey covering the public sector, commercial banks, and some nonfinancial private sector institutions. Lithuania reports comprehensive data to two STA initiatives: (i) the Coordinated Direct Investment Survey (CDIS); and (ii) the Coordinated Portfolio Investment Survey (CPIS). The Data Template on International Reserves and Foreign Currency Liquidity is disseminated monthly according to the operational guidelines and is hyperlinked to the Fund's DSBB. Since late 2004, the BoL disseminates quarterly external debt data in the World Bank's Quarterly External Debt Statistics (QEDS) database.

Data Standards and Quality: The authorities publish a range of economic statistics through a number of publications, including the SL's monthly publication, Economic and Social Developments, and the BoL's monthly Bulletin. A significant amount of data is available on the Internet:

- metadata for data categories defined by the Special Data Dissemination Standard are posted on the IMF's DSBB (http://dsbb.imf.org);

- the BoL website (http://www.lb.lt/statistical_data_tree) provides data on monetary statistics, treasury bill auction results, balance of payments, IIP, external debt and other main economic indicators;
- the SL website (http://osp.stat.gov.lt) provides monthly and quarterly information on economic and social development indicators;
- the MoF (http://www.finmin.lrv.lt) home page includes data on the national budget, as well as information on laws and privatization; and government finance statistics (deficit, debt);
- NASDAQ OMX Baltic website (http://www.nasdaqomxbaltic.com/market/?lang=en) includes information on stock trading at NASDAQ OMX Baltic stock Exchange in Vilnius (the former Vilnius Stock Exchange).

Republic of Lithuania: Table of Common Indicators Required for Surveillance

As of May 31, 2018

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]	Memo Items:	
						Data Quality – Methodological soundness[8]	Data Quality – Accuracy and reliability[9]
Exchange Rates	May 31, 2018	May 31, 2018	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	April 2018	May 10, 2018	M	M	M		
Reserve/Base Money	April 2018	May 10, 2018	M	M	M	O, LO, LO, LO	O, O, LO, O, O
Broad Money	April 2018	May 10, 2018	M	M	M		
Central Bank Balance Sheet	April 2018	May 14, 2018	M	M	M		
Consolidated Balance Sheet of the Banking System	April 2018	May 14, 2018	M	M	M		
Interest Rates[2]	April 2018	May 29, 2018	M	M	M		
Consumer Price Index	April 2018	May 10, 2018	M	M	M	O, O, O, O	O, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	Q4/2017	Apr 4, 2018	Q	Q	Q	LO, LO, LO, O	O, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	Q1/2018	Apr 4, 2018	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	March 2018	Apr 20, 2018	M	M	M		
External Current Account Balance	Q4/2017	Mar 23, 2018	Q	Q	Q	O, O, LO, O	O, O, O, O, O
Exports and Imports of Goods and Services	March 2018	May 14, 2018	M	M	M		
GDP/GNP	Q1/2018	Apr 28, 2018	Q	Q	Q	O, LO, O, LO	O, LO, LO, LO, O
Gross External Debt	Q4/2017	Mar 23, 2018	Q	Q	Q		
International Investment Position[6]	Q4/2017	Mar 23, 2018	Q	Q	Q		

[1] Any reserve assets that are pledged of otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means
[2] Both market-based and officially-determined, including deposit and lending rates, discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and local governments.
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability position vis-à-vis nonresidents.
[7] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Not Available (NA).
[8] Reflects the assessment provided in the data ROSC published in July 2004, the findings of the mission that took place during September 2003 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), or not observed (NO).
[9] Same as footnote 8, except referring to international standards concerning source data, statistical techniques, assessment and validation of source data, assessment and validation of intermediate data and statistical outputs, and revision studies.

Statement by Thomas Ostros, Executive Director for the Republic of Lithuania and Rimtautas Bartkus, Senior Advisor
June 20, 2018

The Lithuanian authorities highly appreciate constructive engagement with the Fund staff that provides a welcomed contribution to the internal policy debate on core economic and financial sector issues. The authorities broadly agree with the thrust of the staff appraisal that is well-aligned with the main policy recommendations formulated in the context of the economic surveillance by the EU regional bodies.

Lithuania has made strong progress in income convergence over the years despite a volatile economic and financial cycle, setbacks during the GFC, achieving the second highest average growth rate in the EU during 1996-2017 period. Lithuania's transition story has been marked by substantial structural transformation and a successful European integration. Imbalances of the past have been fully addressed with the economy on a much stronger footing than before. A strong fiscal position and proactive macroprudential policy stance confirms that the authorities are strongly determined to minimize any possibility of resurgence of imbalances.

The near-term outlook remains favorable. The real GDP increased by 3.9 percent in 2017, driven by strong consumption, exports, and investment. Strong growth is expected to continue over the next two years. The labor market situation has improved, with high labor participation and declining unemployment. Rising wages contributed to inflation, although it was also influenced by an increase in excises. After reaching 3.7 percent in 2017, inflation is expected to moderate to 2.2 percent by 2019. External competitiveness has been maintained despite increasing labor costs, as evidenced by significant gains in export market shares, positive shifts in productivity, and the current account surplus.

With the near-term outlook broadly secured, the authorities are shifting their attention to the medium-term challenges and structural reforms. These challenges mostly relate to unfavorable demographics, productivity, income inequality, and quality of public services. The authorities are well-aware that the window of opportunity to address these challenges will not last for long, putting a higher premium on reform acceleration. Without broad reaching reforms, the growth potential is envisaged to slow and the old age dependency ratio set to double in the next twenty years, putting further strains on social services delivery and public finances. There is a broad acknowledgement of these challenges in the society, though finding efficient remedies so far proved to be difficult, not least due to the political economy constrains. The authorities are hopeful that the OECD membership will help to further strengthen reform diagnostics, benefiting from the OECD expertise on structural issues and identification of international best practices.

Fiscal policy

At around 40 percent of GDP, Lithuania's public debt is among the lowest in the EU and is on a downward trend following the fiscal surpluses recorded over the last two years. Revenue growth has been supported by an improved cyclical position, whereas expenditure growth has been contained. Lithuania has high income inequality and the share of people at risk of poverty and social exclusion further increased since 2015. The authorities have taken a number of steps to remedy the situation. The tax wedge for low income earners has been lowered through a set of increases in the non-taxable PIT threshold. The 2018 budget maintains social orientation with a measured increase in social spending, pensions, and public sector wages. Low income earners benefited from redefined child benefits and an introduction of a universal child benefit, there was also an increase in state supported income. The headline fiscal balance will remain in surplus (0.6 percent of GDP) this year due to continued cyclical revenue growth, some tax adjustments, and expenditure rationalisation.

More recently, the government submitted to the Parliament a package of additional tax amendments and measures to improve pension system sustainability. The main elements of the proposed tax amendments include a three-year plan for envisaged tax changes, consolidation of the PIT and social security contributions for the basic pension, a ceiling on social security contributions, further increase in the PIT non-taxable allowance, a progressive PIT rate, hikes in excises, and broadening the real estate taxation. The associated loss in revenue is expected to be financed through further gains in tax administration and compliance.

Earlier reforms of the pension system have addressed long-term fiscal sustainability by increasing the retirement age and introducing the new indexation formula, though social sustainability of pensions remains a challenge, with low income replacement ratios and high old age poverty. The proposals under the current consideration include transferring the financing of the basic pension to the budget and measures to strengthen the Pillar II by increasing contribution rates, broadening participation, and enhancing its administrative efficiency.

The authorities take note of staff's assessment of the existing fiscal rules that are viewed by staff as complicated even compared with the European framework. The authorities note that the fiscal framework should respond to country specificity. Lithuania is a small open economy, more susceptible to external shocks, therefore maintaining fiscal prudence and adequate fiscal buffers remains of utmost importance. The authorities agree that there might be scope to simplify the existing fiscal framework, though the issue should be approached cautiously not to increase risks to public finance sustainability and also taking into account the debate at the European level.

Financial sector

The financial sector clean-up has been largely completed. Lithuania's financial system is dominated by the Nordic banks that are well capitalized and liquid. The banking sector maintains strong profitability with no legacy issues and the credit union sector has been significantly strengthened by broad-based structural reform. The level of NPLs came down to 3 percent. The banking sector cost efficiency, ROE and ROA are among the strongest in the region. The banking sector performance is also strong when comparing profits to risk weighted assets, confirming that profitability is driven not by an increase in risk taking but operational efficiency. The banking sector is domestically oriented, bank reliance on parent bank funding has decreased through time, and the share of non-resident deposits is negligible. The stress tests confirm that the banks would remain resilient even under the adverse economic scenario.

As confirmed by staff, Lithuania's macroprudential framework is strong, with the Bank of Lithuania having a clear mandate, broad powers, and adequate tools to conduct macroprudential policy. The BoL maintains a proactive approach to conducting macroprudential policy, using a broad-array of policy tools at its disposal. Currently activated instruments include a capital conservation buffer, countercyclical capital buffer, O-SII capital buffer for systemically important banks, LTV, DSTI, and maximum loan maturity requirements. The available toolkit consists of additional instruments (e.g. systemic risk buffer, risk weight adjustments for real estate exposures, etc.) that could be activated if needed.

Credit growth has accelerated with improved macroeconomic prospects, positive changes in household income, and increased investment demand after reaching high capacity utilization in the corporate sector, though overall private sector indebtedness remains low. According to the latest available information, the corporate credit increased by 6.4 percent on an annual basis and that of households by 7.3 percent. Activity in the real estate sector has intensified since 2015, with an increase in housing prices and the number of transactions, though the housing prices did not deviate from fundamentals. Credit growth is in line with the nominal GDP and does not cause a concern for now. Nonetheless, against the backdrop of favorable trends in the economy, credit and real estate market, it is the right time to strengthen the resilience of the financial system by accumulating additional reserves. Thus, a decision to increase the countercyclical capital buffer rate up to 0.5 percent was taken in end- 2017 and will become binding by end-2018.

Structural issues

The authorities are using an economic upswing to accelerate the structural reform agenda and to make growth more inclusive. Steps have been taken to reform labor relations with passage of amendments to the Labor Code. The authorities have also taken steps to depoliticize the decisions on minimum wage by introducing a non-binding rule that the minimum wage should effectively be kept within 45-50 percent of average wages.

Reforms in health care and education have been long overdue and the authorities prioritize progress in these areas, with focus on network consolidation and efficiency, adequacy of salaries for education and health-care professionals. If spending on education is broadly in line with the EU averages, suggesting that the key issue is resource allocation, spending on health care remains among the lowest in the EU.

In line with past Fund recommendations, the authorities also aim to increase efficiency of public R&D expenditure, strengthening cooperation between business and science communities, streamlining governance of research and innovation policy, and addressing fragmentation.