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Rating Object	Rating Information	
REPUBLIC OF LITHUANIA	Assigned Ratings/Outlook: A+ /stable	Type: Monitoring, Unsolicited with participation
Long-term sovereign rating Foreign currency senior unsecured long-term debt Local currency senior unsecured long-term debt	Initial Rating Publication Date: Rating Renewal: Rating Methodologies:	26-11-2016 11-11-2022 "Sovereign Ratings" "Rating Criteria and Definitions"

Rating Action

Neuss, 11 November 2022

Creditreform Rating has affirmed the unsolicited long-term sovereign rating of "A+" for the Republic of Lithuania. Creditreform Rating has also affirmed Lithuania's unsolicited ratings for foreign and local currency senior unsecured long-term debt of "A+". The outlook remains stable.

Key Rating Drivers

- Resilient and broad-based growth has translated into continued income convergence over recent years, with economic fallout from the pandemic being contained; despite being among the most vulnerable EU members, and although Russia's war against the Ukraine will make itself felt, we expect continued growth for the Lithuanian economy, mainly due to swift government policies to shield the private sector and remove reliance on Russian energy, as well as public investment aided by EU financing
- 2. High inflation and stubborn supply-side shortages, if persistent, could slow Lithuania's convergence process, with shortages of skilled labor, macro-financial volatility, and room to improve in health and education being further key risks to medium-term growth; nevertheless, we expect these risks to be balanced by co-financed investment and structural reform initiatives as well as still high trade competitiveness, while rapid wage growth should continue to evolve broadly in line with productivity gains going forward
- 3. Generally strong institutional framework, further buttressed by sizable benefits coming on the back of membership in the EU, EMU, and NATO; cross-party consensus on key themes of convergence, green and inclusive growth, and fiscal prudence; ongoing progress in terms of judicial reforms, combat of corruption and AML/CFT; strengths have to be set against pronounced geopolitical risks regarding Russia and Belarus, and rising cyber risks in view of Lithuania's growing role as a fintech hub
- 4. Despite the uncertain economic outlook and Russian military aggression, we believe fiscal risks will remain manageable over the medium term; public finances will likely deteriorate in the near term, largely driven by measures to soften the impact of rising energy prices, increase incomes, improve the quality of education, and enhance national security; however, the sovereign has ample fiscal buffers, and we expect public debt to remain at relatively low levels over the medium term, complemented by still affordable debt and a favorable debt profile

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5. Lithuania's net international investment position does not point to risks stemming from the external sector, having strengthened on a sustained basis over the last decade, and featuring FDI-heavy external liabilities; although Russia accounts for a significant share of international trade, only a small part of this consists of goods of Lithuanian origin

Reasons for the Rating Decision and Latest Developments¹

Macroeconomic Performance

The sovereign's credit profile mirrors its favorable macroeconomic performance, maintained by resilient and above-euro-area trend growth, which has translated into constant gains in GDP per capita. Although Lithuania is characterized by a history of high macro-financial volatility, we note that its economy pulled through the corona crisis quickly and without incurring major economic fallout. Moreover, Lithuania's macro performance is supported by its favorable business environment and high competitiveness in international trade, whilst migration trends have reversed since 2019. We expect Lithuanian economic growth to outpace the euro area's average growth over the medium term, but downside risks are large, with income convergence potentially being slowed if consumer prices continue to soar unabatedly and supply-side issues persist.

Longer-standing structural challenges add to these risks, led by labor market mismatches, lagging innovation capacities, and scope to improve on education, which could possibly dampen Lithuania's competitiveness, although wages and productivity have been broadly aligned so far. That being said, we assume that structural reforms and the boost to fixed investment, aided by EU funds from the Recovery and Resilience Facility (RRF) and the Multiannual Financing Framework (MFF) 2021-27, will largely ensure sustained income convergence. Also, we think that economic losses from the geopolitical situation will be limited by swift government policies to deflect damage from the private sector and remove reliance on Russian energy.

Having weathered the pandemic remarkably well, Lithuania's real GDP grew by a strong 6.0% in 2021 (2020: 0.0%). Household spending (+8.0%) was the main catalyst behind last year's economic growth, contributing 4.8 p.p. to total output expansion. The rebound in private consumption was particularly boosted by the consumption of services, driven by a sharp rise in wages and eased pandemic-related containment measures. Investment in machinery and equipment surged by 22.7%, leading to a 7.8% rise in overall fixed investment. Fueled by the relaxation of pandemic restrictions and fading uncertainty, import demand regained traction. Net external trade thus dragged on last year's growth (-0.7 p.p.), as import growth (+19.9%) outpaced that of exports (+17.0%).

Following a run of robust economic growth, with real GDP expanding significantly faster than in the euro area (EA) or European Union (EU) overall, Lithuania has made large strides in terms of income convergence towards the EU average over the last years. According to latest IMF data, Lithuania's GDP per capita amounted to USD 42,765 in 2021 (PPP terms, current prices), thus posting one of the highest per capita incomes among Central and Eastern European (CEE) economies, surpassed only by the Czech Republic and Slovenia. Set against the weighted EU average,

¹ This rating update takes into account information available until 04 November 2022.

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Lithuanian GDP p.c. came in at 87.4% in 2021. That said, we note that convergence appears to have slowed somewhat, as per capita GDP accounted for 88.0% in the preceding year.

With the Russian war against Ukraine, prospects for continued growth and income convergence have deteriorated significantly, as mirrored by markedly slower quarterly growth rates in the current year. To be sure, Lithuanian economic output has not yet seen a contraction. After expanding by 0.6% q-o-q in Q1, real GDP growth came in at 0.3% in the second quarter, partly due to import compression and public consumption. Judging by latest Eurostat flash data, economic growth surprised on the upside in Q3 as well, with total output increasing by 0.4% q-o-q.

However, Lithuanian inflation has continued to rise rapidly over recent months, moving among the highest in the EU. The annual rate of change leapt to 20.5% in June-22 (HICP) and has remained above 20% since then, largely driven by consumer energy prices. In our view, softening economic conditions and surging consumer prices set the Lithuanian economy up for some challenging times. While we expect that a recession can be avoided, we project real GDP to grow by 2.5% in 2022 and to slow down further to 1.2% in 2023.

Due to strong ties with Russia, Belarus, and Ukraine in terms of energy and trade, the Russian war against Ukraine has left Lithuania highly exposed to adverse effects in terms of energy security, disruptions in critical transport infrastructure, fallout from economic sanctions against Russia, and corporate decisions to discontinue business with Russia and Belarus.

As we expect domestic demand-driven imports to outpace export growth, this should result in a negative growth contribution by net external trade this year, which is likely to narrow in the following year. Following cut ties with Russia and Belarus, and arguably more importantly disrupted international supply chains and the projected economic slowdown in its key trading partners, Lithuanian exports are likely to contract this year and expand moderately in 2023. While Russia, Belarus, and Ukraine accounted for a considerable share of Lithuania's exports in 2021, the lion's share of the exports to Russia and Belarus were re-exports, implying a less severe impact on gross value added. As illustrated by survey data, export expectations in the industry sector have weakened materially in the second half of this year.

The entry into force of the EU Mobility package will likely add to a less favorable near-term outlook for net exports. The same applies to diplomatic tensions with China over the launch of a Taiwanese representative office in Vilnius last year. Although the share of exports to China in total exports was relatively low (0.96% in 2020, Eurostat BoP data), plummeting external demand from China should also weigh on Lithuania's export growth. Meanwhile, Taiwan has pledged the creation of a USD 1bn investment fund and additional investments worth USD 200mn, possibly cushioning adverse effects somewhat.

Whilst Lithuania and the euro area feature a comparable energy mix, with oil and petroleum products (LT: 37.8%, EA: 34.3%) and natural gas (LT: 25.8%, EA: 26.2%) accounting for a substantial part of their energy coverage, Lithuania faces a significantly higher energy dependency on Russia. Russian imports accounted for 68.8% and 41.8% of Lithuania's total oil and gas imports (2020, Eurostat), whereas the Russian share in the euro area's oil and gas imports amounted to only 20.8% and 34.9%, respectively. At the same time, Lithuania's economy features one of the highest Russian gas intensities in the EU (European Commission, EC intelligence).

We note that Lithuanian authorities have already gone a long way in reducing energy dependency on Russia, having initiated phasing out Russian gas imports in the wake of the annexation of Crimea back in 2014 (2014 share: 94.7%). Moreover, the Lithuanian government reacted

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swiftly to the Russian invasion of Ukraine by cutting Russian gas imports completely in Apr-22, followed by the imposition of a de jure ban on Russian gas imports in Jun-22.

Overall, we think that the above-mentioned measures alleviate risks to Lithuania's economic growth prospects. The sovereign seems well advanced in terms of building the necessary infrastructure to swiftly pivot its energy sourcing to liquefied natural gas (LNG). The Klaipeda LNG terminal has ample capacity to cover Lithuania's annual natural gas needs. In addition, the Gas-Interconnection Poland-Lithuania (GIPL) commenced operations on 01-May-22, and the Latvia-Lithuania gas interconnection (ELLI) is expected to be completed by November 2022, providing further sources of natural gas.

Despite these efforts, brisk energy and food price inflation, as well as bottlenecks in the supply chain, result in soaring consumer prices (see above). We thus expect that consumer price inflation will act as a heavy drag on households' purchasing power, weighing on household spending, together with downbeat consumer sentiment. This September, consumer confidence has dropped to its lowest level since the onset of the Covid-19 pandemic.

To be sure, dynamic growth in nominal wages and household savings will presumably be important elements cushioning the erosion of real disposable income going forward. In this regard, we believe that tight labor markets and concomitant upward pressure on wages, coupled with government measures, will soften the adverse impact of soaring consumer prices on private consumption.

Vivid wage growth is partly fueled by shortages in skilled labor. During the first half of 2022, average gross monthly earnings increased by 11.9% y-o-y (2021: 11.1%, Statistics Lithuania), and we assume that monthly earnings growth will remain pronounced throughout this year and next. The government has envisaged a 15% hike of the monthly minimum wage to 840 euros, which will be particularly beneficial for lower income groups more heavily affected by rising consumer prices. Furthermore, the Lithuanian government shelled out roughly EUR 1.9bn for measures geared towards mitigating adverse repercussions from the Russian war against Ukraine, including a partial compensation for gas and electricity price increases, support for businesses, as well as increases in minimum non-taxable wages and pensions.

Meanwhile, labor market conditions have improved further throughout this year, as underscored by diminishing unemployment. Drawing on Eurostat data, the quarterly average of the unemployment rate fell from 7.6% in Q2-21 to 5.5% in Q2-22 (Eurostat, LFS-adj.). On a monthly basis, unemployment stood at 5.2% in Aug-22, 1.4 p.p. below the rate in the euro area overall. Likewise, employment saw persistently vivid growth. Following quarterly employment growth of at least 3.0% y-o-y since Q3-21, employment shot up by 6.7% in the second quarter of 2022 (EA: 2.7%), the highest reading in almost two decades.

Fast employment growth can be partly explained by a sharp increase in labor supply, triggered by the large influx of displaced persons from Ukraine, particularly women. As of 25 October, the number of recorded refugees from Ukraine amounted to 68,925 (UNHCR data). While we observe a slight decline in overall labor participation from 78.3% to 78.0% between Q1- and Q2-22, still well above the euro area average (74.7%), female labor participation rose from 82.0% to 83.6% over the same period. As a point of reference, the female participation rate in the euro area as a whole increased only slightly, from 74.1% to 74.4%.

Since the onset of the Russian war against Ukraine, more than 19,000 Ukrainian citizens have found work in Lithuania, as illustrated by Ministry of Social Security and Labor data (as of 24 Oct-

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22). Given the influx of refugees, we expect net migration to continue on its upward trajectory and post a positive reading for the fourth consecutive year (Statistics Lithuania). Looking ahead, positive net migration may ease demographic and labor market pressures somewhat over the coming years.

We expect high economic uncertainty arising from the geopolitical situation to curb gross fixed capital formation, as businesses will act cautiously for the time being, pushing back their investment plans. Supply-side shortages leading to delays in the delivery of intermediate products, alongside surging producer prices and prospectively higher funding costs, are assumed to add to restraint in private investment activity. Survey data on new orders in the industry sector has deteriorated significantly throughout the year, industrial confidence has weakened rapidly, and almost half of the responding companies cite insufficient demand as a key factor limiting production – all pointing to a weaker near-term outlook for business investment.

Due to housing investment and public investment, we nevertheless expect fixed investment to grow this year and next, in turn supporting real GDP expansion. Public investment should foster economic growth under the premise of a timely disbursement of EU financing. Considering the absorption of ESIF funds in the past and the proactive approach of policy-making by Lithuanian authorities, we maintain a constructive view in this respect. We note that very high industry capacity utilization, standing well above its long-term average, and still healthy corporate balance sheets, as reflected by very low NFC debt (Q2-22: 30.0% of GDP, ECB data), essentially bode well for faster investment growth as soon as adverse factors weighing on the investment climate subside.

Large-scale investment plans by the government will receive a substantial boost from EU financing, namely the MFFs 2014-20 and 2021-27, as well as the RRF funds. As of 04-Nov-22, roughly EUR 2.7bn were still left to be spent by the end of 2023 under the MFF 2014-20, while Lithuania will benefit from RRF grants totaling EUR 2.2bn and EU cohesion policy funds of EUR 6.8bn under the commencing MFF cycle. Judging by latest Ministry of Finance data (MoF, 14-Sep-22), Lithuania will be allocated payments of EU funds under various programs amounting to EUR 1.48 and EUR 1.59bn in 2022 and 2023, corresponding to 2.6% and 2.8% of 2021 GDP, respectively.

We reiterate our belief that the various programs will foster Lithuania's underlying growth over the medium term. According to latest AMECO data, potential growth is set to remain above the level of its Baltic peers and the euro area as a whole, namely at 2.8% and 3.3% in 2022 and 2023.

A timely and successful implementation of reforms and investments related to the RRP could also prove valuable in maintaining the country's cost competitiveness. To be sure, growth in Lithuanian real unit labor costs has developed unfavorably against the euro area and main European trading partners over recent years. Real unit labor costs increased by 10.6% between 2016 and 2021 as compared to growth of a mere 0.8% in the euro area overall, mainly driven by dynamic real wage growth which posted well above growth in real productivity over this period (30.4% vs. 19.3%, AMECO data).

However, the trajectory of productivity and wage developments over the last two decades appears to be broadly aligned, and for now, Lithuania's trade competitiveness does not seem to be particularly affected, as suggested by its global export market share of goods and services. After having risen persistently from 0.13% to 0.19% in 2015-20, it remained unchanged at 0.19% in 2021, standing well above the export market share of its Baltic peers. Having said this, we will

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vigilantly monitor inflation developments, as a wage-price spiral could undermine Lithuania' cost competitiveness going forward, thereby threatening its convergence process.

Vital reforms and investments that will be financed via the RRP, in particular those regarding health and educational outcomes, digitalization, and innovation capacities, should also bode well for Lithuania's non-cost competitiveness. Lithuania already features a welcoming business environment, ranking relatively high in the World Bank's latest Doing Business evaluation (rank 11/190 economies), which is to be relaunched next year. The Baltic state was ranked 29th out of 63 economies in the 2022 edition of the IMD Competitiveness Ranking, scoring particularly high with regard to international trade competitiveness (14th rank). As highlighted by the EC's SME Performance Review, Lithuania achieved a remarkable 16th rank as regards the Global start-up ecosystem.

Although we have noticed that R&D investment edged up from 0.99% of GDP in 2019 to 1.17% of GDP in 2020, there seems to be room to catch up in this area, particularly as compared to the euro area as a whole (2020: 2.34% of GDP). Furthermore, Lithuania ranked 14th in the Digital Economy and Society Index 2022 and outperformed the EU average with regard to the provision of digital public services, whilst being on par in terms of the integration of digital technology.

Institutional Structure

In our opinion, the sovereign's generally strong institutional set-up remains a factor which supports its credit ratings, also buttressed by substantial advantages implied by EU/EMU membership, although geopolitical risks pertaining to the Russian Federation as well as Belarus have increased significantly since our last review. The same applies to the prevalence of cyber risks, which can be explained by geopolitical developments and has to be seen against the backdrop of Lithuania's vibrant fintech industry. Its leading role and growing attractiveness as a hub in Europe could also give rise to money laundering and terrorist financing risks. Institutional quality, however, remains favorable and is improving, as corroborated by the latest vintage of Worldwide Governance Indicators (WGIs), with steadfast headway being made with a view to its judicial system and combat of corruption, underscoring the sovereign's policy efforts and advances in this respect.

Drawing on the most recent set of the World Bank's WGIs, we observe that Lithuania continues to outperform the median of our A-rated sovereigns when it comes to the four indicators most relevant to our assessment of the institutional quality. Lithuania occupies relative ranks of 38 out of 208 economies considered when it comes to 'voice and accountability' (A-median: 42), 39 out of 209 in terms of 'government effectiveness' (vs. A-median: 47), 35 out of 209 concerning 'rule of law' (A-median: 45) and 42 out of 209 as regards 'control of corruption' (A-median: 50). Moreover, with the exception of 'voice and accountability', with regard to which the Baltic country is perceived as being in a somewhat weaker position, Lithuania moves roughly in line with the euro area average when it comes to the other three WGIs on which we put the highest emphasis for our assessment.

We have to stress that the sovereign has been advancing steadily in terms of its institutional quality, and reforms have brought about tangible long-term improvements across the board. With the most recent data set referring to the base year 2021, Lithuania achieved its most favorable relative ranks concerning 'control of corruption', 'voice and accountability' and 'rule of law' since the inception of the WGIs (reference year 1996).

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In our perception, authorities remain determined to make headway in implementing reforms to perpetuate the above-mentioned trend. We see this evidenced by progress in the combat of corruption, including via amendments to the Law on the prevention of corruption, which widened to include state-owned enterprises and their subsidiaries with effect from January 2022, and the implementation of the new anti-corruption agenda 2022-33. While the judicial system continues to operate efficiently, there appear to be some challenges pertaining to the time it takes to deal with some cases, as well as to transparency in determining judicial functions, as suggested by the EC's 2022 Rule of Law Report.

Russia's hostilities against Ukraine have underscored the importance of Lithuania's NATO membership in terms of defense strategy as a neighbor of Russia. Moreover, Lithuania's integration into the EU and EMU, which comes with a number of economic and institutional advantages, has arguably also facilitated the partly rapid reorganization of trade routes and energy supplies, apart from offering funding to deal with these challenges. At the same time, Lithuania's increasing role as a hub for fintech and virtual asset service providers highlights vulnerabilities to cyber-attacks, having intensified against the current geopolitical backdrop, and potential issues around money laundering and financing of terrorism.

To be sure, authorities undertake efforts to counter such risks by enhancing the respective regulatory, supervisory and preventive frameworks, and we will monitor developments closely in this regard. To that end, we also recall that the Nov-21 Moneyval follow-up report highlighted some remaining recommendations to be fully satisfied in the AML/CFT framework, while acknowledging significant progress made regarding the level of compliance with the Financial Action Task Force (FATF) standards.

Further to the geopolitical backdrop, we are paying attention to some recent diplomatic strains with China (see above). Prior to this (May-21), Lithuania had withdrawn from China's so-called 17+1 format meant to sound out opportunities for economic cooperation between China and CEE countries.

Looking at indications on Lithuania's performance in terms of greening its economy, we note that the country ranks 19th among the 27 EU members with regard to the EC's 2022 Eco Innovation Index, hinting at room to improve. Its overall share of energy from renewable sources compared favorably against the overall EU-level in 2020, standing at 26.8% (EU: 22.1%), albeit leaving room to catch up with its Baltic peers Estonia and Latvia in this respect. While about half of the energy used for heating and cooling (2020: 50.4%) stemmed from renewable sources, the respective share in transport remains among the lowest in the EU, although it is to be stepped up from 5.5% in 2020 to 15% in 2030 and to 50% in 2050. To this end, approximately 54,000 private charging points to foster electric mobility are to be installed by 2030, and use of renewable gases such as biomethane is to be increased to up to 5.2% in 2030.

Not least due to the consequences of Russia's war in Ukraine, energy security and strengthening of the infrastructure has high priority for the government, and this also includes driving availability and use of green energy sources. A number of projects, such as the development of offshore wind facilities, are ongoing, with preparatory works for the latter as regards 700MW capacity expected to be concluded by 2024. However, the sovereign's commitment to reduce its greenhouse gas (GHG) emissions by 80% by the year 2050 appears ambitious. We see this corroborated by Eurostat data, according to which Lithuania's GHG emissions have remained virtually unchanged over the last decade (2020: 7.3 tons p.c., 2011: 7.1 tons), whereas these have been reduced noticeably in the EU overall (2020: 7.5 tons p.c., 2011: 9.5 tons).

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Fiscal Sustainability

We continue to view risks to fiscal sustainability as relatively low, given a comparatively moderate public debt ratio and a convincing track record of fiscal prudence, notwithstanding an assumed widening of the headline deficit in the near term on account of government support measures to alleviate adverse effects emanating from the war in Ukraine. Despite debt refinancing costs set to become less favorable, we consider high debt affordability to remain a risk-mitigating factor alongside a benign debt profile, also resulting from authorities' sound debt management. While the small banking sector appears solid, we would monitor residential property developments as well as cyber risks, which may become more pronounced with regard to financial stability, given the increasing significance of fintech.

In 2021, Lithuania's fiscal outturn came in markedly better than we had expected in our last review (Nov-21), on the back of stronger GDP growth, lower-than-planned expenditure and higher-than-planned revenue, underscoring the sovereign's economic resilience to the corona crisis and benefiting fiscal capacities to address currently dominating challenges deriving from Russia's hostilities against Ukraine.

Posting at -1.0% of GDP in 2021, Lithuania's headline deficit was in fact one of the lowest registered among the EU countries last year (EU: -4.6% of GDP, EA: -5.1% of GDP), following a comparatively large deficit in 2020 (-7.0% of GDP). On the revenue side, considerable increases in tax intake and net social contributions were the main factors driving total general government receipts, which expanded by 15.6% vis-à-vis 2020.

By contrast, the expenditure side benefited from a sharp cutback in subsidies (-24.8%) following the phasing out of pandemic support measures, while intermediate consumption and public wages rose by 7.6% and 7.4%, respectively. Taken together, total general government outlays fell by 0.8% compared to 2020. According to the MoF, pandemic-related support measures were reduced from about 6.0% of GDP in 2020 to 2.7% of GDP in 2021, less than budgeted.

Available monthly budget execution data hitherto point to a relatively favorable course of public finances in 2022, at least on the revenue side, revealing an increase of the state budget revenue by 21.7% y-o-y in the first eight months (cash terms, MoF data), with VAT and corporate and income tax revenue recording pronounced increases vs. Jan-Aug-21. On the expenditure side, spending related to the support of refugees from Ukraine is on course to turn out lower than planned in the 2022 budget, as is spending on pandemic support, which is expected to come in a touch lower than the budgeted EUR 0.4bn (DBP23).

That said, over the course of 2022, the budget for the current year was amended twice (March and May 2022) in order to cater for increased energy security and geopolitical risks due to the Russia-Ukraine war, as well as to cushion adverse economic effects, mainly stemming from higher energy prices. In March 2022, the Seimas voted in favor of stepping up defense spending from 2.05% of GDP to 2.52% of GDP for the current year. Moreover, in July 2022, the coalition parties signed an agreement endorsing that military expenditure is to be maintained at 2.5% of GDP until at least 2030.

The so-called 'Mitigation of the Effects of Inflation and Strengthening Energy Independence' package with a total volume of EUR 2.26bn, announced by the government in Apr-22 and approved by parliament in May-22, envisages an array of measures to bring some relief to private households and businesses. Apart from the aim to curb inflation and bring forward the use of alternative energy sources to reduce dependency on energy imports, the package also includes

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measures to support displaced persons from Ukraine and enhance the security of critical infrastructure.

With regard to 2023, the government announced further measures in its DBP23 to ensure economic resilience against the backdrop of ongoing pressure on energy and other commodity prices. Apart from subsidies to residents and businesses to compensate for gas and electricity prices, low- and medium-income earners are to receive tax relief via a higher non-taxable amount. Private households will also benefit from a 15% rise in the monthly minimum wage (to EUR 840 euro) and a 13% increase in old-age pensions (DBP23). Businesses are to be partly compensated for soaring electricity prices through subsidies and tax deferrals. Moreover, industries such as catering and cultural services are to see the reduced VAT rate extended throughout the first half of 2023, while a reduced VAT rate is to be made permanent for accommodation services. The total volume provided for by the government amounts to EUR 1.9bn for consumers and businesses.

We expect Lithuania's fiscal balance to see a limited deterioration this year, to about 1.6% of GDP. For 2023, given the envisaged support measures and our assumption of weaker GDP growth, we currently anticipate the deficit to turn out markedly higher than this year, coming to roughly 4.5% of GDP. This said, we acknowledge considerable uncertainty over the further evolution of the war in Ukraine and, related to that, over the eventual scope of applied compensatory measures to alleviate any downside risks to the economy. We note that the government assumes the fiscal balance will remain negative through the years up to and including 2025, with the deficit expected to narrow well below 3% of GDP in 2024.

Underscoring commitment to strengthening the fiscal framework, the creation of a medium-term budgeting and managing framework is a work in progress, with legal acts expected to be prepared in 2023. We also assess as positive ongoing efforts to lower the VAT gap and reduce the shadow economy, e.g. including the law to limit cash payments, adopted in 2022, and improving digitalized data collection. With an estimated 21.4% of the VTTL, Lithuania's VAT gap was assumed to be among the highest in the EU in 2019 (EU: 10.3 %, EC).

Amid a strong expansion of nominal GDP and a more favorable fiscal outturn than assumed in 2021, Lithuania's debt-to-GDP ratio declined from 46.3% of GDP in 2020 to 43.7% of GDP in 2021 and continued to decrease to 39.6% of GDP in Q2-22, partly due to a (pre-financed) bond redemption in Q1-22. With that, the sovereign's debt ratio continues to compare moderately against the euro area as a whole (Q2-22: 94.2% of GDP), as well as the median of our A-rated sovereigns (Q2-22: 51.6% of GDP).

Given our estimates for nominal GDP, fueled by vividly rising prices, and the general government balance, we expect Lithuania's public debt ratio to decrease to 37.2% of GDP in 2022. For 2023, on account of expected weaker nominal growth, resulting from both softening economic activity and moderating inflation, as well as due to a widening headline deficit, we expect debt-to-GDP to deteriorate to about 40.4% of GDP.

However, we continue to view fiscal sustainability risks as limited. On the one hand, EU funds should act as a stabilizing pillar, assuming that agreed targets and milestones linked to RRF-disbursements are met. In addition, Lithuania has demonstrated fiscal discipline over recent years, in particular prior to the recent accumulation of crises. On the other hand, debt affordability remains an important risk-mitigating factor, partly thanks to continued sound debt management and despite deteriorating capital market conditions in light of increasingly tightened

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monetary policy (see below). In 2021, interest payment declined by another 26.8%, resulting in a decline of the interest-to-revenue ratio from 1.9% to 1.2%. Since the Russian invasion of Ukraine, the yields of Lithuanian 10-year government bonds have risen from 1.0% (25-Feb) to 4.8% (28-Oct-22, weekly data). Likewise, the bund spread has widened noticeably (25-Feb: 78bp, 28-Oct: 271bp).

On 18-Oct-2022, Lithuania issued a 5.5-year Eurobond comprising a volume of EUR 900mn at a yield of 4.283%, illustrating rising refinancing costs on capital markets. That said, Lithuania's debt profile comes with a relatively long average weighted maturity of 9.2 years as of Aug-22, well above the euro area average of 8.0 years (ECB data). Moreover, since the last USD-denominated bond matured in Feb-22 (EUR 1.1bn), foreign exchange risks of the debt portfolio have been eliminated.

The Eurosystem's asset purchases under the PSPP and PEPP accounted for 37.2% of general government gross debt as of Sep-22, lending further support to our essentially positive assessment of the debt holding structure. For the time being, reinvestment of maturing government bonds under both programs is continuing, but any changes to this policy will likely be discussed in the upcoming ECB monetary policy meeting in December. The ECB raised its policy rates by another 75bp at its October meeting, lifting the total amount of increases to 200bp since the start of the rate tightening cycle this July. We assume that the ECB will hike its policy rates by another 50bp by the end of the year and continue with the somewhat slower pace in the first half of 2023. A shrinking of its accumulated asset purchases could start in the course of next year.

We continue to regard risks emanating from public guarantees as low, considering that state guarantees total only 1.17% of GDP as of 31-Aug-22, 0.34 p.p. of which are related to the Covid-19 pandemic (MoF data). Still, state guarantees are expected to rise to 1.7% of GDP in 2023. Similarly, fiscal risks associated with the relatively small banking sector (asset-to-GDP ratio of 73.5% in Q1-22), which remains highly concentrated and dominated by Nordic players, seem contained at this stage, also given comfortable capital buffers and high asset quality. As of Q2-22, Lithuania's CET 1 ratio was the second highest among the EU members, standing at 20.0% (EU: 12.5%, EBA data), while its NPL ratio, at 0.9% in Q2-22, counted among the lowest (EU: 1.8%).

At the current juncture, we asses risks to Lithuania's banking sector emanating from possible corrections on the housing market as manageable, despite dynamically increasing mortgage lending and ongoing brisk house price growth, the latter also facilitated by high demand on the back of rising wages and accumulation of savings. The annual growth rate in outstanding loans to households for house purchases posted at 12.1% in Aug-22, while annual house price increases reached 22.1% in Q2-22 (EA: 9.3%, Eurostat data).

However, household debt measured against disposable income compares as relatively low in the European context, suggesting some shock-absorbing capacity, and affordability indicators (OECD) do not point to severe price misalignments. Moreover, the Bank of Lithuania is applying macroprudential levers to strengthen the resilience of the banking sector, having applied the sectoral systemic risk buffer of 2.0% to housing loan exposures with effect from 01-Jul-22.

With a view to the rising significance of fintech entities, we would flag a higher level of cyber risks by now, potentially entailing negative reverberations to the overall financial system, and thus ultimately to the fiscal position. As mentioned above, in light of the current geopolitical tensions, the threat of cyber-attacks may have become more immediate.

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Foreign Exposure

We view external risks as moderate overall, notwithstanding vulnerabilities generally associated with Lithuania's status as small, open economy, and previous close trade links to Russia and Belarus. Moreover, any risks from recent diplomatic tensions with China will have to be monitored. Demonstrated economic resilience through the pandemic, partly backed by increasing service exports, and sustained improvement in its net international investment position (NIIP), suggest a firmer ground from which the various challenges resulting from the geopolitical situation are tackled. Current commodity price developments have contributed to pushing the current account balance into deficit, which we consider temporary, but contingent on an assumed price moderation over the medium term. Elevated macrofinancial volatility remains a factor which at times complicates the interpretation of underlying developments in external trade.

Following its pandemic-induced sharp increase in 2020 (7.3% of GDP) amid a narrowing deficit in goods trade, Lithuania's current account surplus shrank to 1.1% of GDP in 2021, closer to the average surplus registered over the years 2015-2019 (0.2% of GDP). The pullback was primarily driven by a re-widening negative balance in goods trade (-4.4 p.p. to -5.2% of GDP) against the backdrop of the overall economic recovery, but also added to by rising commodity prices.

The latter, partly as a result of the need to find alternative energy suppliers, will likely push up the goods trade deficit this year, as illustrated by available quarterly data. Calculated as four-quarter-moving sums, the goods deficit has risen to 8.3% of GDP as of Q2-22, driving the current account balance into deficit as well (Q2-22: -2.9% of GDP). We thus expect the current account to remain in deficit at the end of this year and into 2023. Developments in the service account, which has continued to display a comparatively stable surplus amounting to 9.0% of GDP as of Q2-22 (four-quarter-moving-sum; 2021: 10.2% of GDP), on the back of solid increases in ICT and financial service exports, and despite downside risks to transport services associated with the EU Mobility package, will presumably not offset this.

Aided by repeated current account surpluses, Lithuania's highly negative NIIP has improved substantially over recent years, decreasing to -7.6% of GDP in 2021 (2016: -42.8% of GDP) and further to -6.3% of GDP as of Q2-22. A large net liability position as regards direct investment (-30.2% of GDP in 2021), typically viewed as a less volatile component, corroborates our assessment of manageable external risks in Lithuania's case, even though perception of more pronounced uncertainty related to its geographic location as a neighbor to Russia may affect foreign investors' preferences for the time being.

Rating Outlook and Sensitivity

Our rating outlook on the Republic of Lithuania's long-term credit ratings is stable, as we regard downside risks to macroeconomic performance, fiscal consolidation and foreign exposure mainly associated with the war in Ukraine as largely mitigated by ultimately still constructive medium-term growth perspectives, ample fiscal and external buffers to address the current challenges and continued improvements regarding the sovereign's institutional framework.

We could consider a positive rating action if real GDP growth performance exceeds our expectations over the medium term, defying the demanding geopolitical and economic backdrop and leading to accelerated income convergence towards EU levels, also prompting the public debt-to-GDP ratio to resort to a firm downward trajectory. Swift implementation of the envisaged structural reforms, possibly added to by sustained positive net migration, could also constitute

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a backdrop favoring a more positive assessment of Lithuania's creditworthiness and/or the outlook, as could further significant improvements regarding the country's external position.

By contrast, we could contemplate a negative rating action in the event of a more significant slowdown of economic growth over a prolonged period of time – resulting in a protracted stagnating or even reversing convergence process and continued worsening of fiscal metrics. Failure to implement key structural reforms, or substantial delays thereof, could also have us consider downward revisions to the outlook and/or the rating, as could a further escalation of the tensions between Russia and Western allies.

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Ratings*

Long-term sovereign rating A+ /stable

Foreign currency senior unsecured long-term debt A+ /stable

Local currency senior unsecured long-term debt A+ /stable

ESG Factors

Creditreform Rating has signed the ESG in credit risk and ratings statement formulated within the framework of the UN Principles for Responsible Investment (UN PRI). The rating agency is thus committed to taking environmental and social factors as well as aspects of corporate governance into account in a targeted manner when assessing creditworthiness.

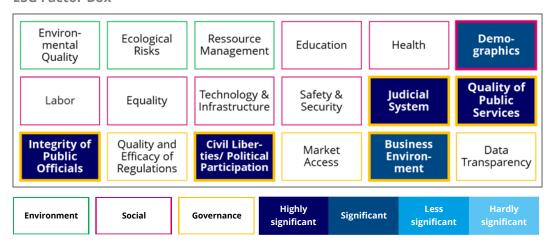
While there is no universal and commonly agreed typology or definition of environment, social, and governance (ESG) criteria, Creditreform Rating views ESG factors as an essential yardstick for assessing the sustainability of a state. Creditreform Rating thus takes account of ESG factors in its decision-making process before arriving at a sovereign credit rating. In the following, we explain how and to what degree any of the key drivers behind the credit rating or the related outlook is associated with what we understand to be an ESG factor, and outline why these ESG factors were material to the credit rating or rating outlook.

^{*)} Unsolicited

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For further information on the conceptual approach pertaining to ESG factors in public finance and the relevance of ESG factors to sovereign credit ratings and to Creditreform Rating credit ratings more generally, we refer to the basic documentation, which lays down key principles of the impact of ESG factors on credit ratings.

ESG Factor Box



The governance dimension plays a pivotal role in forming our opinion on the creditworthiness of the sovereign. As the World Bank's Worldwide Governance Indicators Rule of Law, Government Effectiveness, Voice and Accountability, and Control of corruption have a material impact on Creditreform Rating's assessment of the sovereign's institutional set-up, which we regard as a key rating driver, we consider the ESG factors 'Judicial System and Property Rights', 'Quality of Public Services and Policies', 'Civil Liberties and Political Participation', and 'Integrity of Public Officials' as highly significant to the credit rating.

Since indicators relating to the assessment of a economy's competitive stance by e.g. the World Bank, the World Economic Forum, the European Commission, and IMD Business School add further input to our rating or adjustments thereof, we judge the ESG factor 'Business Environment' as significant.

The social dimension plays an important role in forming our opinion on the creditworthiness of the sovereign. Indicators or projections providing insight into likely demographic developments and related cost represent a social component affecting our rating or adjustments thereof. We regard the ESG factor 'Demographics' as significant since it has a bearing on the economy's potential growth.

While Covid-19 may have significant adverse effects on several components in our ESG factor framework in the medium to long term, it has not been visible in the relevant metrics we consider in the context of ESG factors – though it has a significant bearing concerning economic prospects and public finances. To be sure, we will follow ESG dynamics closely in this regard.

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Economic Data

GDP per capita (PPP, USD) 30,922 33,827 36,363 38,809 39,214 42,765 46,159 Credit to the private sector/GDP 45.4 43.4 42.8 41.2 39.4 40.1 n/a Unemployment rate 7.9 7.1 6.2 6.3 8.5 7.1 n/a Real unit labor costs (index 2015=100) 104.5 104.5 106.2 110.0 114.6 115.5 115.1 World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a n/a Default history (years since default) n/a	[in %, otherwise noted]	2016	2017	2018	2019	2020	2021	2022e
GDP per capita (PPP, USD) 30,922 33,827 36,363 38,809 39,214 42,765 46,159 Credit to the private sector/GDP 45.4 43.4 42.8 41.2 39.4 40.1 n/a Unemployment rate 7.9 7.1 6.2 6.3 8.5 7.1 n/a Real unit labor costs (index 2015=100) 104.5 104.5 106.2 110.0 114.6 115.5 115.1 World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a n/a Default history (years since default) n/a	Macroeconomic Performance							
Credit to the private sector/GDP 45.4 43.4 42.8 41.2 39.4 40.1 n/a Unemployment rate 7.9 7.1 6.2 6.3 8.5 7.1 n/a Real unit labor costs (index 2015=100) 104.5 104.5 106.2 110.0 114.6 115.5 115.1 World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 <td< td=""><td>Real GDP growth</td><td>2.5</td><td>4.3</td><td>4.0</td><td>4.6</td><td>0.0</td><td>6.0</td><td>2.5</td></td<>	Real GDP growth	2.5	4.3	4.0	4.6	0.0	6.0	2.5
Unemployment rate 7.9 7.1 6.2 6.3 8.5 7.1 n/a Real unit labor costs (index 2015=100) 104.5 104.5 106.2 110.0 114.6 115.5 115.1 World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 1.0 1.1 1.0 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.1 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a Default history (years since default) n/a	GDP per capita (PPP, USD)	30,922	33,827	36,363	38,809	39,214	42,765	46,159
Real unit labor costs (index 2015=100) 104.5 104.5 106.2 110.0 114.6 115.5 115.1 World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Government Effectiveness (score) 1.1 1.0 0.9 1.0 1.0 1.0 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a	Credit to the private sector/GDP	45.4	43.4	42.8	41.2	39.4	40.1	n/a
World Competitiveness Ranking (rank) 30 33 32 29 31 30 29 Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.0 1.1 <td>Unemployment rate</td> <td>7.9</td> <td>7.1</td> <td>6.2</td> <td>6.3</td> <td>8.5</td> <td>7.1</td> <td>n/a</td>	Unemployment rate	7.9	7.1	6.2	6.3	8.5	7.1	n/a
Life expectancy at birth (years) 74.9 75.8 76.0 76.5 75.1 74.5 n/a Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a n/a Default history (years since default) n/a n/a n/a n/a n/a n/a n/a n/a n/a Fiscal Sustainability Fiscal balance/GDP 0.3 0.4 0.5 0.5 -7.0 1.0 -1.6 General government gross debt/GDP 39.7 39.1 33.7 35.8 46.3 43.7 37.2 Interest/revenue 3.8 3.3 2.5 2.5 1.9 1.2 n/a Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a	Real unit labor costs (index 2015=100)	104.5	104.5	106.2	110.0	114.6	115.5	115.1
Institutional Structure WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.1 1.1 n/a 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.1 1.1 1.0 1.1 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 1.1 1.1 1.0 </td <td>World Competitiveness Ranking (rank)</td> <td>30</td> <td>33</td> <td>32</td> <td>29</td> <td>31</td> <td>30</td> <td>29</td>	World Competitiveness Ranking (rank)	30	33	32	29	31	30	29
WGI Rule of Law (score) 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.1 n/a WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.1 n/a HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a <t< td=""><td>Life expectancy at birth (years)</td><td>74.9</td><td>75.8</td><td>76.0</td><td>76.5</td><td>75.1</td><td>74.5</td><td>n/a</td></t<>	Life expectancy at birth (years)	74.9	75.8	76.0	76.5	75.1	74.5	n/a
WGI Control of Corruption (score) 0.7 0.5 0.5 0.7 0.8 0.9 n/a WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 <td< td=""><td>Institutional Structure</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Institutional Structure							
WGI Voice and Accountability (score) 1.0 1.0 0.9 1.0 1.0 1.0 n/a WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.1 1.1 n/a 1.1 1.6 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0	WGI Rule of Law (score)	1.0	1.0	1.0	1.0	1.0	1.1	n/a
WGI Government Effectiveness (score) 1.1 1.0 1.1 1.0 1.1 1.0 1.1 1.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a 1.6 8 6.9 8.4 9.4	WGI Control of Corruption (score)	0.7	0.5	0.5	0.7	0.8	0.9	n/a
HICP inflation rate, y-o-y change 0.7 3.7 2.5 2.2 1.1 4.6 18.0 GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.3 n/a n/a n/a Default history (years since default) n/a	WGI Voice and Accountability (score)	1.0	1.0	0.9	1.0	1.0	1.0	n/a
GHG emissions (tons of CO2 equivalent p.c.) 7.2 7.4 7.3 7.4 7.2 7.4 7.3 7.4 7.3 7.4 7.3 7.4 7.3 7.4 7.2 7.4 7.3 7.4 7.2 7.4 7.3 7.4 7.2 7.4 7.3 7.4 7.2 7.4 7.3 7.4 7.2 7.4 7.3 7.2 7.2 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1 7.1	WGI Government Effectiveness (score)	1.1	1.0	1.1	1.0	1.1	1.1	n/a
Default history (years since default) n/a	HICP inflation rate, y-o-y change	0.7	3.7	2.5	2.2	1.1	4.6	18.0
Fiscal Sustainability Fiscal balance/GDP 0.3 0.4 0.5 0.5 -7.0 -1.0 -1.6 General government gross debt/GDP 39.7 39.1 33.7 35.8 46.3 43.7 37.2 Interest/revenue 3.8 3.3 2.5 2.5 1.9 1.2 n/a Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	GHG emissions (tons of CO2 equivalent p.c.)	7.2	7.4	7.3	7.4	7.3	n/a	n/a
Fiscal balance/GDP 0.3 0.4 0.5 0.5 -7.0 -1.0 -1.6 General government gross debt/GDP 39.7 39.1 33.7 35.8 46.3 43.7 37.2 Interest/revenue 3.8 3.3 2.5 2.5 1.9 1.2 n/a Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	Default history (years since default)	n/a						
General government gross debt/GDP 39.7 39.1 33.7 35.8 46.3 43.7 37.2 Interest/revenue 3.8 3.3 2.5 2.5 1.9 1.2 n/a Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	Fiscal Sustainability							
Interest/revenue 3.8 3.3 2.5 2.5 1.9 1.2 n/a Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	Fiscal balance/GDP	0.3	0.4	0.5	0.5	-7.0	-1.0	-1.6
Debt/revenue 115.2 116.3 97.5 101.8 130.0 119.6 n/a Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	General government gross debt/GDP	39.7	39.1	33.7	35.8	46.3	43.7	37.2
Total residual maturity of debt securities (years) 5.6 6.1 6.8 6.9 8.4 9.4 n/a Foreign exposure	Interest/revenue	3.8	3.3	2.5	2.5	1.9	1.2	n/a
Foreign exposure	Debt/revenue	115.2	116.3	97.5	101.8	130.0	119.6	n/a
	Total residual maturity of debt securities (years)	5.6	6.1	6.8	6.9	8.4	9.4	n/a
Compart account belong (CDD) 4.4 0.5 0.3 3.5 7.3 4.4 7.5	Foreign exposure							
Current account balance/GDP -1.1 0.5 0.3 3.5 /.3 1.1 n/a	Current account balance/GDP	-1.1	0.5	0.3	3.5	7.3	1.1	n/a
International reserves/imports 0.1 0.1 0.2 0.1 0.1 0.1 n/a	International reserves/imports	0.1	0.1	0.2	0.1	0.1	0.1	n/a
NIIP/GDP -42.8 -37.3 -30.2 -23.5 -15.6 -7.4 n/a	NIIP/GDP	-42.8	-37.3	-30.2	-23.5	-15.6	-7.4	n/a
External debt/GDP 86.2 83.9 78.3 70.1 75.3 77.0 n/a	External debt/GDP	86.2	83.9	78.3	70.1	75.3	77.0	n/a

 $Sources: IMF, World\ Bank, Eurostat, AMECO, ECB, Statistics\ Lithuania, own\ estimates$

Appendix

Rating History

Event	Publication Date	Rating /Outlook
Initial Rating	26.11.2016	A /stable
Monitoring	24.11.2017	A /stable
Monitoring	23.11.2018	A /positive
Monitoring	22.11.2019	A+ /stable
Monitoring	22.05.2020	A+ /negative
Monitoring	20.11.2020	A+ /negative
Monitoring	12.11.2021	A+/stable
Monitoring	11.11.2022	A+ /stable

Regulatory Requirements

In 2011 Creditreform Rating AG (CRAG) was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation. The rating was not endorsed by Creditreform Rating AG from a third country as defined in Article 4 (3) of the CRA-Regulation.

Creditreform C Rating

This sovereign rating is an unsolicited credit rating. Lithuania's Ministry of Finance participated in the credit rating process as it provided additional information. Creditreform Rating AG had no access to the accounts, representatives or other relevant internal documents for the rated entity or a related third party. Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	YES
With Access to Internal Documents	NO
With Access to Management	NO

The rating was conducted on the basis of CRAG's <u>"Sovereign Ratings" methodology</u> (v1.2, July 2016) in conjunction with its basic document <u>"Rating Criteria and Definitions"</u> (v1.3, January 2018). CRAG ensures that methodologies, models and key rating assumptions for determining sovereign credit ratings are properly maintained, up-to-date, and subject to a comprehensive review on a periodic basis. A complete description of CRAG's rating methodologies and basic document "Rating Criteria and Definitions" is published on our <u>website</u>.

To prepare this credit rating, CRAG has used the following substantially material sources: International Monetary Fund, World Bank, Organization for Economic Co-operation and Development, Eurostat, European Commission, European Banking Authority, European Central Bank, World Economic Forum, IMD Business School, European Center for Disease Prevention and Control (ECDC), Blavatnik School of Government, Central Bank of Lithuania, Ministry of Finance Lithuania, Official Statistics Portal Lithuania.

A Rating Committee was called consisting of highly qualified analysts of CRAG. The quality and extent of information available on the rated entity was considered satisfactory. The analysts and committee members declared that the rules of the Code of Conduct were complied with. No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks. The analysts presented the results of the quantitative and qualitative analyses and provided the Committee with a recommendation for the rating decision. After the discussion of the relevant quantitative and qualitative risk factors, the Rating Committee arrived at a unanimous rating decision. The weighting of all risk factors is described in CRAG´s "Sovereign Ratings" methodology. The main arguments that were raised in the discussion are summarized in the "Reasons for the Rating Decision".

As regards the rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the credit rating report. There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRAG website. In case of providing ancillary services to the rated entity, CRAG will disclose all ancillary services in the credit rating report.

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The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks is indicated clearly and prominently in the rating report; the first release is indicated as "initial rating"; other updates are indicated as an "update", "upgrade or downgrade", "not rated", "affirmed", "selective default" or "default".

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available on the ESMA website: https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml.

An explanatory statement of the meaning of each rating category and the definition of default are available in the credit rating methodologies disclosed on the website.

Disclaimer

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