Grand Duchy of Luxembourg
Rating Report

SCOPE AAA STABLE OUTLOOK

Credit strengths

- Wealthy economy with solid fundamentals
- Sound public finances and robust fiscal framework
- Strong external position
- Very strong institutions and political stability

Credit challenges

- Exposure to developments in global taxation and financial markets
- Rising vulnerabilities in the real estate sector
- Long-term fiscal pressure from an ageing population

Rating rationale:

Wealthy economy with solid fundamentals: Luxembourg benefits from its high wealth levels and competitive economy, supported by strong labour productivity and high value-added sectors such as financial services and information and communication technology. These factors, combined with forceful policy support, contribute to Luxembourg's economic resilience as demonstrated throughout recent crises and its robust medium-term growth outlook.

Sound public finances and ample fiscal buffers: Luxembourg's public finances benefit from very low public debt and substantial fiscal space, providing ample buffers to face future shocks driven by consistent fiscal surpluses. Comprehensive fiscal support resulted in a mild weakening of the budget balance and the near-to-medium term fiscal outlook.

Strong external position: Euro area membership, consistent current account surpluses and large external creditor position mitigate risks linked to Luxembourg's small, open economy and volatile net international position.

Rating challenges include: i) a small, open economy that is exposed to developments in global taxation frameworks and international financial markets; and ii) rising financial vulnerabilities from rapidly increasing real estate prices and elevated private debt amid monetary tightening; and iii) long-term fiscal pressures linked to population ageing and generous social security systems

Luxembourg's sovereign rating drivers

Risk pillars		Quantitative		Reserve currency	Qualitative*	Final rating
		Weight	Indicative rating	Notches	Notches	
Domestic Economic Risk		35%	aa	EUR [+1]	0	AAA
Public Finance Risk		20%	aaa		+1/3	
External Economic Risk		10%	aa-		0	
Financial Stability Risk		10%	aaa		-1/3	
ESG Risk	Environmental Factors	5%	bbb+		0	
	Social Factors	7.5%	a-		0	
	Governance Factors	12.5%	aaa		0	
Indicative outcome			**aaa**		**0**	
Additional considerations					**0**	

Note: *The qualitative scorecard adjustments, capped at one notch per rating pillar, are weighted equally with an aggregate adjustment rounded to the nearest integer. The reserve-currency adjustment applies to currencies in the IMF's SDR basket. For details, please see Scope's 'Sovereign Ratings' methodology. Source: Scope Ratings.

Outlook and rating triggers

The Stable Outlook reflects our view that risks to the ratings are balanced.

Positive rating-change drivers

- N/A

Negative rating-change drivers

- Growth outlook deteriorates substantially
- Fiscal fundamentals weaken significantly
- Vulnerabilities in the financial system threaten macro-economic stability.

Ratings and Outlook

Foreign currency

Long-term issuer rating	AAA/Stable
Senior unsecured debt	AAA/Stable
Short-term issuer rating	S-1+/Stable

Local currency

Long-term issuer rating	AAA/Stable
Senior unsecured debt	AAA/Stable
Short-term issuer rating	S-1+/Stable

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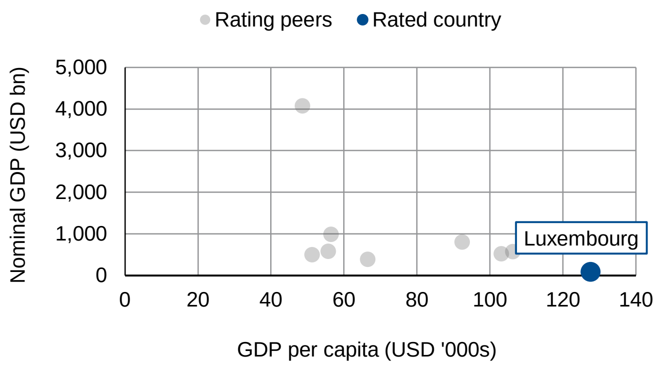
Domestic Economic Risks

- **Growth outlook:** Luxembourg demonstrated remarkable resilience during the Covid-19 crisis, with a relatively mild recession of -0.8% in 2020 and a strong rebound of 5.1% in 2021. Growth has slowed amid the cost-of-living crisis due to rising prices and associated tightening in monetary policies, and a weaker external environment. Growth stood at an estimated 1.5% in 2022, with two quarters of negative quarter-on-quarter growth of -0.1% and -3.7% in Q2 and Q4 respectively, mostly due to weaker external demand, private consumption, and investment. Growth in early 2023 picked up, with 2% quarter on quarter growth in Q1, but the risk of more persistent inflation and economic uncertainty in key trading partners continue to weigh on short-term growth prospects. We project growth of 1.8% in 2023, which should accelerate gradually thereafter and average 2.3% on the back of strong private consumption.
- **Inflation and monetary policy:** HICP inflation declined substantially in recent months, reaching 2.7% in April 2023, the lowest in the EU and down from the June 2022 peak of 10.3%. This was mostly driven by lower energy prices while inflationary pressures broadened to other components, with core inflation at 4%. Energy price controls and subsidies for households and firms limited the pass-through from wholesale to retail prices and the effects of automatic wage indexation. Inflation may rise gradually following the withdrawal of support measures, including the temporary 1pp reduction across selected VAT rates and energy price control. The ECB has rapidly tightened monetary policies to tame price pressures, hiking rates for a total 400bps since July 2022, to a deposit facility rate of 3.5% while halting net asset purchases.
- **Labour markets:** Luxembourg's labour markets are strong, with employment rates at 74.9% in September 2022, 1.7pps above pre-Covid levels, while unemployment (for people aged 15-74) is moderate at 4.7%, 1pp below pre-crisis levels. We expect labour markets to remain buoyant with the government forecasting annual employment growth of around 2.4% over 2023-27. Luxembourg's economy continues to face substantial labour shortages, with 72% of companies indicating shortages as a constraint on production while the job vacancy rate reached 3.1% in 2022, versus 1.8% in 2020. Persistent sectoral labour shortages and skills mismatches constitute a key structural challenge for growth amid population ageing, as also highlighted by the OECD.

Overview of Scope's qualitative assessments for Luxembourg's *Domestic Economic Risks*

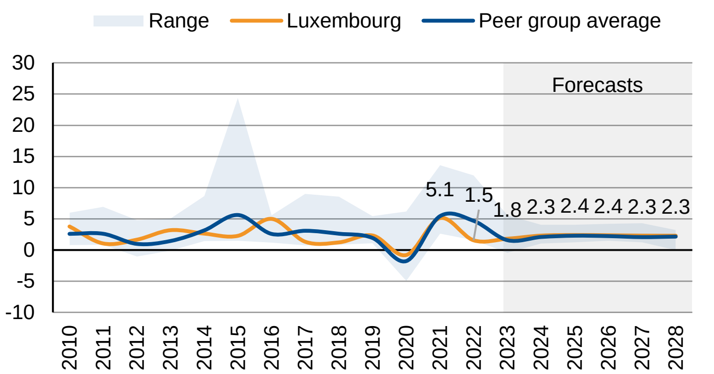
CVS indicative rating	Analytical component	Assessment	Notch adjustment	Rationale
aaa	Growth potential of the economy	Strong	+1/3	High growth potential, supported by sound economic policies and high value-added sectors
	Monetary policy framework	Neutral	0	ECB is a highly credible and effective central bank; appropriate monetary policy response to the Covid crisis
	Macro-economic stability and sustainability	Weak	-1/3	Small, open economy that is subject to volatility; exposed to changes in global tax environment

Nominal GDP and GDP per capita, USD



Source: IMF World Economic Outlook (WEO), Scope Ratings

Real GDP growth, %



Source: IMF WEO, Scope Ratings forecasts

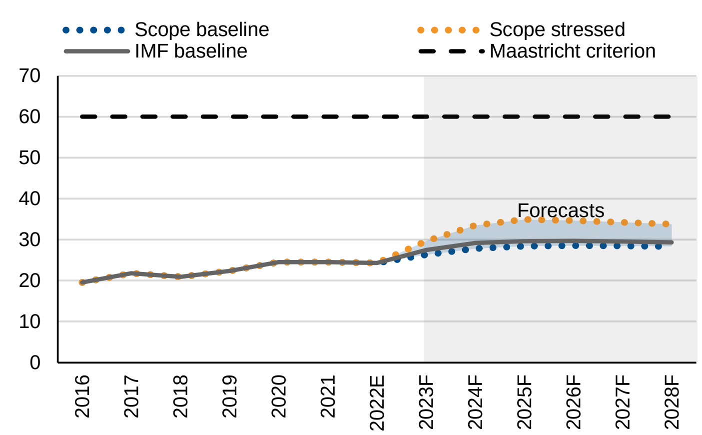
Public Finance Risks

- **Fiscal outlook:** The government provided substantial support to mitigate the impact of the cost-of-living crisis for households and firms. This included a mix of temporary tax cuts or credits, cash transfers, and energy subsidies for a total estimated cost of 1.3% and 2.2% of GDP in 2022 and 2023 respectively. The government's budget strategy centres around setting the foundations for sustainable growth, supported by a large investment plan for the green and digital transitions whilst addressing purchasing power challenges and maintaining long-term fiscal sustainability. We project budget deficits of around 2% of GDP in 2023, followed by a stabilisation at 0.5% of GDP by 2026. We note that this trend of sustained budget deficits contrasts markedly with the pre-crisis record of consistent surpluses with temporary periods of deficits, for instance during the great financial crisis. In addition, the country faces one of the sharpest increases in pensions spending for coming decades in the EU (+8.7pps of GDP over 2019-2070), a long-term fiscal challenge though plans to reform the system are underway.
- **Debt trajectory:** We see Luxembourg's public debt-to-GDP ratio rising moderately to 26% of GDP in 2023 and then stabilising at around 28-29% of GDP, nearing the government's self-imposed 30% of GDP threshold. The debt increasing effect of wider deficits will be offset by sound growth while the benefits of high inflation for debt consolidation should gradually dissipate. We note that these debt levels remain very comfortable and provide Luxembourg with ample fiscal space to respond to future crises though the trajectory is subject to risks, including the rising cost of ageing, higher-than-expected spending on support measures, and lingering economic uncertainty.
- **Debt profile and market access:** The debt structure is very favourable with an average debt maturity of 7.5 years, a short-term debt share of less than 1% of total debt, and no foreign currency exposure. The fiscal position is further bolstered by sizable government financial assets amounting to EUR 60bn (75% of GDP), mostly comprised of equity investments (46% of total), and deposit holdings (22%), and debt securities (18%). Financing costs have increased substantially since the beginning of 2022, with 10-year government bond yields reaching 3% in May 2023, the highest since 2011.

Overview of Scope's qualitative assessments for Luxembourg's *Public Finance Risks*

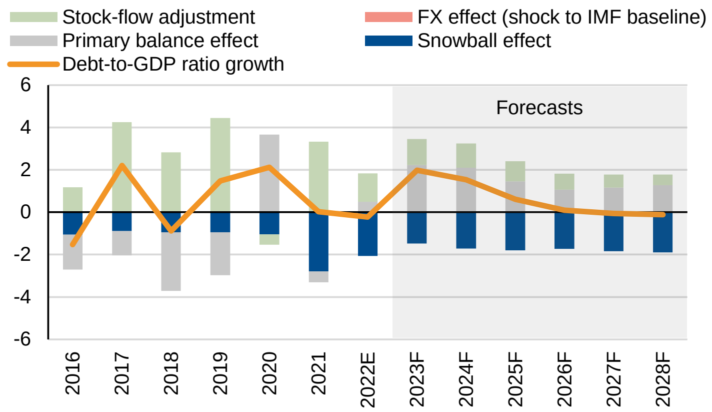
CVS indicative rating	Analytical component	Assessment	Notch adjustment	Rationale
aaa	Fiscal policy framework	Neutral	0	Effective fiscal policy frameworks with track record of conservative budgetary management
	Debt sustainability	Strong	+1/3	Very low debt levels and stable debt dynamics over the forecast horizon
	Debt profile and market access	Neutral	0	Favourable debt profile with a low interest payment burden

Contributions to changes in debt levels, pps of GDP



Source: IMF WEO, Scope Ratings forecasts

Debt-to-GDP forecasts, % of GDP



Source: IMF WEO, Scope Ratings forecasts

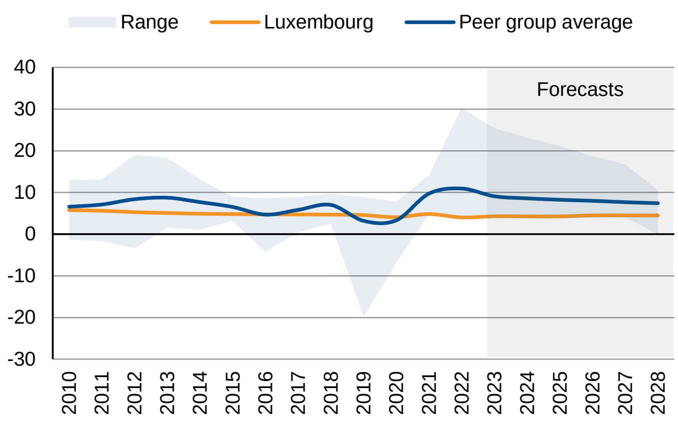
External Economic Risks

- **Current account:** Luxembourg consistently generates current account surpluses thanks to a wide service trade surplus, which outweighs a large primary income deficit. This reflects the country's position as a financial and professional service hub. The current account surplus stood at 3.6% of GDP in 2022, down from 4.6% and 3.2% in 2021 and 2020 respectively. Looking forward, we expect the current account balance to moderate slightly as normalising import prices are offset by a weaker service trade balance reflecting tighter financial conditions and thus less buoyant financial service activity.
- **External position:** Luxembourg's external statistics are volatile given the importance of externally oriented financial services in the economy and exposure to global financial conditions. After a sharp decline to 15% of GDP in March 2022, Luxembourg's net international investment position stood at 35% of GDP in March 2023. This reflects a decline in net portfolio inflows due to adverse financial market conditions while other positions were impacted by valuation effects stemming from euro depreciation. Given its role as a financial service hub and centre for intra-corporation cash pooling, Luxembourg has very high external debt levels. External debt represented 4,472% of GDP in 2022 with over a quarter being short-term while 39% is in the form of intercompany loans. Large external debt levels present low risks given that they reflect large financial exposures and cash pooling activities with a limited link to Luxembourg's real economy.
- **Resilience to shocks:** Euro area membership bolsters the country's resilience to short-term shocks. Still, Luxembourg's small, open economy is highly integrated in global financial markets and is concentrated on financial services. It is thus exposed to short-term external shocks such as a sharp tightening in global financial conditions, though associated risks are in part offset by the EU's robust regulatory framework.

Overview of Scope's qualitative assessments for Luxembourg's *External Economic Risks*

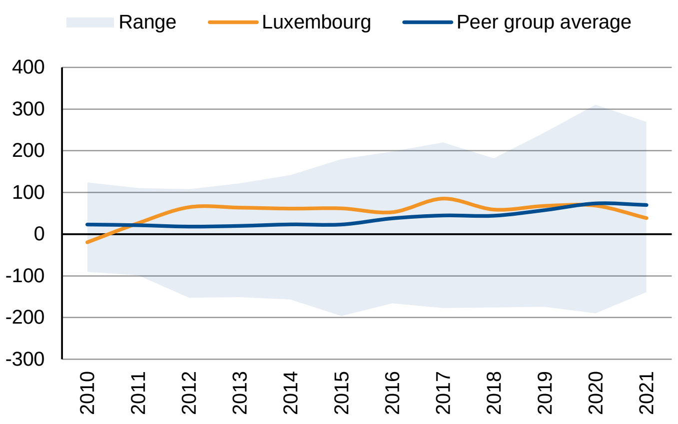
CVS indicative rating	Analytical component	Assessment	Notch adjustment	Rationale
aaa	Current account resilience	Neutral	0	Strong current account surpluses; reliance on financial service exports; sensitive to dividend policies vis-à-vis foreign investors
	External debt structure	Neutral	0	High external debt levels offset by external assets with a net international creditor position
	Resilience to short-term external shocks	Neutral	0	Euro-area membership mitigates risks from strong integration with global financial markets

Current-account balance, % of GDP



Source: IMF WEO, Scope Ratings

Net international investment position (NIIP), % of GDP



Source: IMF, Scope Ratings

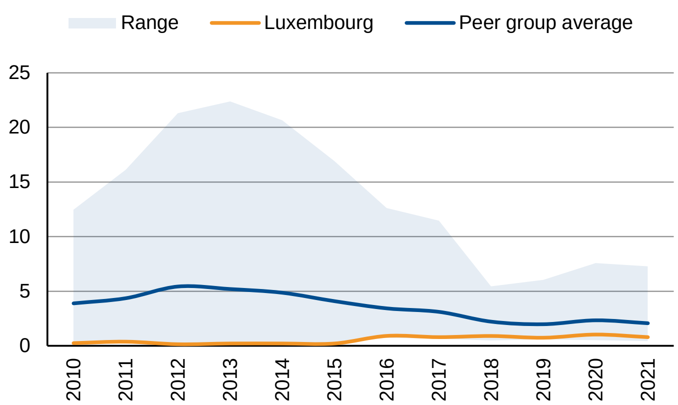
Financial Stability Risks

- **Banking sector:** Luxembourg benefits from its resilient banking sector which has largely been insulated from the Covid-19 and cost-of-living crises thanks to broad-based policy support. Capitalisation levels are high, with a Tier 1 ratio of 22% in December 2022, broadly unchanged since 2019. Asset quality is strong though it has weakened in recent months. The NPL ratio rose to 1.6% in Q4 2022, from 0.7% in Q4 2019, all the while remaining among the lowest in the EU. Still, high inflation, rising interest rates and a weaker economic outlook could feed through to higher credit risks, in particular the construction and manufacturing sectors, where the NPL ratio has already started to rise. Rising interest rates could support banking sector profitability – which remains weaker than peers – though funding costs are also likely to rise.
- **Private debt:** Non-financial corporate debt is the highest in the EU, at around 2.4 times GDP as of Q1 2023. This stems from Luxembourg's position as an international business treasury centre and reflects large amounts of intra-company cross border loans. Liabilities are usually matched by equivalent assets. An ECB study of non-financial corporate loan exposure to interest rates and energy price shocks ranked Luxembourg as the most exposed in the euro area, posing a risk amid tighter financial conditions. Household indebtedness is also high at 67% of GDP, versus a euro area average of 57%. A high share of variable household debt (around two fifths) exposes households to interest rate risk. Elevated household debt is mitigated by high household wealth though it is typically unevenly distributed.
- **Financial imbalances:** Growth in housing prices has accelerated in recent years owing to strong demographic and economic growth, increasing mortgage debt combined with supply-side constraints. Residential prices have continued to grow despite the pandemic and inflationary shock though they have stabilised somewhat in recent months. The Eurostat house price index reached 32% above pre-crisis levels in Q1 2023, versus 34% a year prior. Persistent increases in residential prices worsens housing affordability, exacerbates already high household indebtedness, and may pose risks to financial stability. The rapid increase in interest rates and economic uncertainty could lead to price corrections though sustained supply-demand imbalances should continue to support valuations.

Overview of Scope's qualitative assessments for Luxembourg's *Financial Stability Risks*

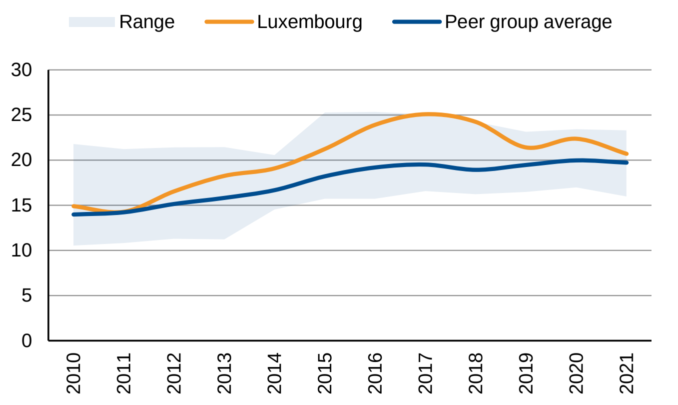
CVS indicative rating	Analytical component	Assessment	Notch adjustment	Rationale
aaa	Banking sector performance	Neutral	0	Efficient banking sector with large capital buffers and strong asset quality but some profitability pressures
	Banking sector oversight	Neutral	0	Efficient, credible oversight frameworks under the Central Bank of Luxembourg and the ECB
	Financial imbalances	Weak	-1/3	Imbalances in the housing sector due to supply constraints; high private debt levels

Non-performing loans, % of total loans



Source: IMF, Scope Ratings

Tier 1 ratio, % of risk-weighted assets



Source: IMF, Scope Ratings

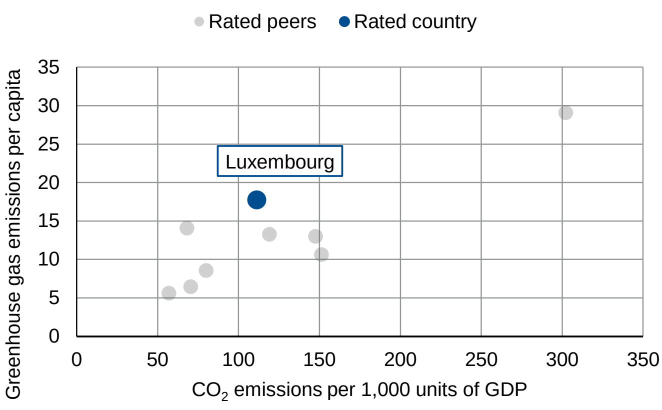
ESG Risks

- **Environment:** Luxembourg's economy is among the least carbon intensive in the EU in terms of emissions per GDP but is the most intensive in terms of emissions per capita, reflecting its very high wealth levels and foreign, commuting workforce. Its energy mix is dominated by fossil fuels (79% of total energy supply in 2021). It is highly dependent on resource imports given its natural resource constraints The government adopted some of the most ambitious climate targets in the EU, pledging to shrink non-ETS emissions in 2030 by 50-55% versus 2005, and net-zero greenhouse gas emissions and 100% renewable electricity by 2050. The country has made considerable climate policy progress, including the introduction of a carbon tax in January 2021, which was increased in 2022 to EUR 25 per tonne and will increase further over the medium term, and policy incentives for renewable energy. An important focus will be greening the transport sector, which represents 61% of total CO2 emissions, for instance through public procurement, infrastructure development, or incentivising public transport use.
- **Social:** Social outcomes are strong in an EU context though poverty levels and income inequality have worsened over the past decade. The proportion of people at risk of poverty or social exclusion after transfers stood at 18.1% in 2021, up from 12% in 2000, with a markedly sharper increase for children. Similarly educational outcomes and labour force participation is heavily influenced by socioeconomic backgrounds. The rapid increase in house prices of recent years has exacerbated these trends. Finally, while Luxembourg benefits from more favourable demographic dynamics than European peers, the generosity of its social systems could come under strain in the context of population ageing, the implications of which the National Economic and Social Council is discussing.
- **Governance:** The country benefits from a stable political environment. Strong democratic institutions and broad consensus on key issues, including European integration also support political coherence. Xavier Bettel has been prime minister since 2013 and was confirmed after the 2018 elections, with support from a coalition formed by his party (the Democrats), the Socialist Party and the Greens. The next elections are scheduled for October 2023.

Overview of Scope's qualitative assessments for Luxembourg's *ESG Risks*

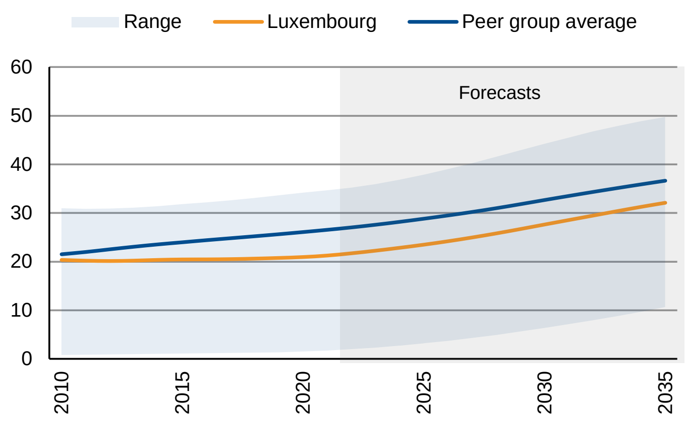
CVS indicative rating	Analytical component	Assessment	Notch adjustment	Rationale
aaa	Environmental factors	Neutral	0	Ambitious climate goals with accelerating climate policy momentum; limited share of renewables; rapid population growth poses challenges
	Social factors	Neutral	0	Strong social outcomes, supported by generous social systems; increasing women participation rates; poverty and inequalities are increasing
	Governance factors	Neutral	0	Strong democratic institutions and stable political landscape

Emissions per GDP and per capita, $mtCO_2e$



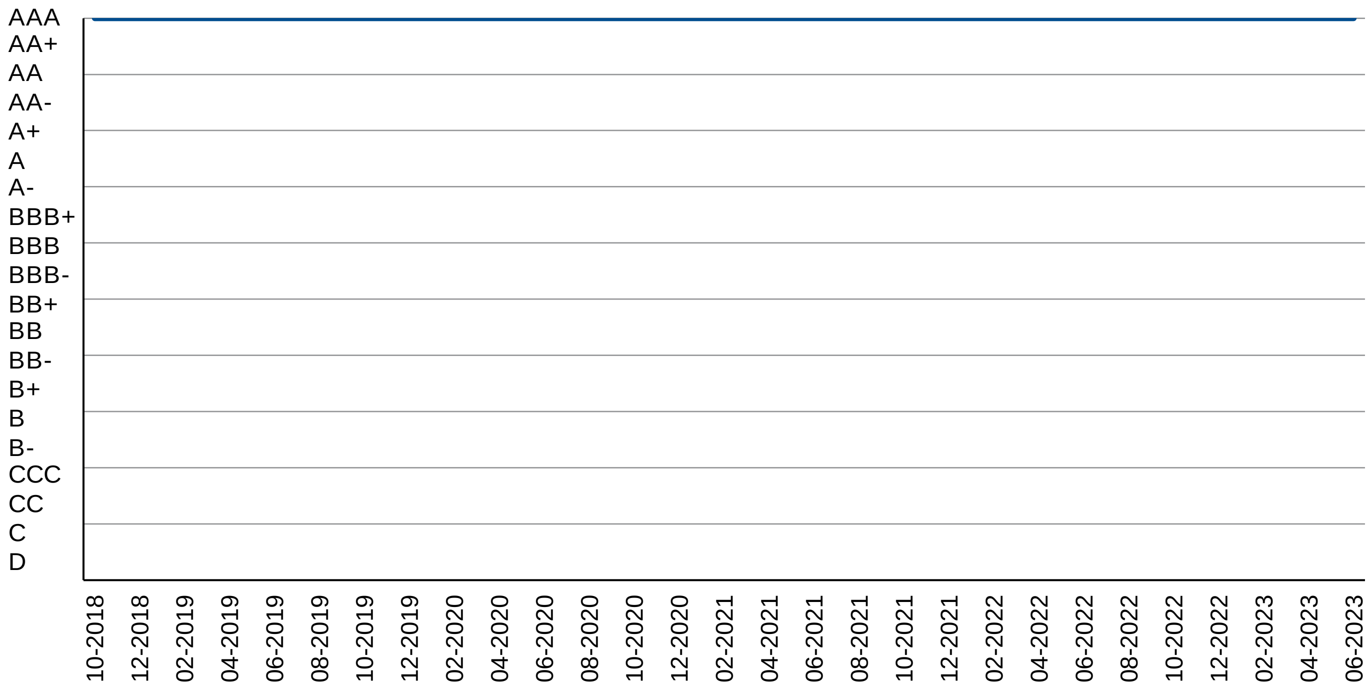
Source: European Commission, Scope Ratings

Old age dependency ratio, %



Source: United Nations, Scope Ratings

Appendix I. Rating history (foreign-currency long-term debt)



NB. Positive/Negative Outlooks are treated with a +/-0.33-notch adjustment. Credit Watch positive/negative with a +/-0.67-notch adjustment.

Appendix II. Rating peers

Rating peers are related to sovereigns with an indicative rating in the same rating category or in adjacent categories per Scope's Core Variable Scorecard, including a methodological reserve-currency adjustment.

Peer group*
Denmark
Germany
Ireland
Netherlands
Norway
Sweden
Switzerland

*Publicly rated sovereigns only; the full sample may be larger.

Appendix III. Statistical table for selected CVS indicators

This table presents a selection of the indicators (24 out of 30 – with the governance indicator reflecting a composite of six indicators) used in Scope's quantitative model, the Core Variable Scorecard, in line with Scope's Sovereign Rating Methodology. The metrics and sources for the data presented here ensure comparability across global peers and may therefore differ from national and other selective international statistics.

Pillar	Core variable	Source	2018	2019	2020	2021	2022
Domestic Economic	GDP per capita, USD '000s	IMF	118.0	113.8	118.1	134.8	127.6
	Nominal GDP, USD bn	IMF	71.0	69.8	73.9	85.6	82.3
	Real growth, %	IMF	1.2	2.3	-0.8	5.1	1.5
	CPI inflation, %	IMF	2.0	1.7	0.0	3.5	8.1
	Unemployment rate, %	WB	5.6	5.6	6.8	5.3	4.7
Public Finance	Public debt, % of GDP	IMF	20.9	22.4	24.5	24.5	24.3
	Net interest payment, % of revenue	IMF	-0.5	-0.5	-0.5	-0.6	-0.6
	Primary balance, % of GDP	IMF	2.8	2.0	-3.7	0.5	-0.5
External Economic	Current-account balance, % of GDP	IMF	4.7	4.6	4.1	4.8	4.0
	Total reserves, months of imports	WB	0.0	0.0	0.0	0.1	0.1
	NIIP, % of GDP	IMF	59.2	68.0	68.7	38.6	28.5
Financial Stability	NPL ratio, % of total loans	IMF	0.9	0.7	1.0	1.3	1.6
	Tier 1 ratio, % of risk-weighted assets	IMF	24.6	22.8	20.7	21.8	21.6
	Credit to the private sector, % of GDP	WB	105.6	109.1	109.7	104.6	-
ESG	CO_2 per EUR 1,000 of GDP, $mtCO_2e$	EC	136.3	134.3	115.0	111.4	-
	Income share of bottom 50%, %	WID	19.1	19.7	18.9	19.0	-
	Labour-force participation rate, %	WB	71.8	72.8	72.9	74.1	-
	Old-age dependency ratio, %	UN	20.6	20.8	21.0	21.3	21.7
	Composite governance indicators*	WB	1.7	1.7	1.7	1.7	-

* Average of the six World Bank Worldwide Governance Indicators.

Appendix IV. Economic development and default indicators

IMF Development Classification	Advanced economy
5y USD CDS spread (bps)	N/A

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