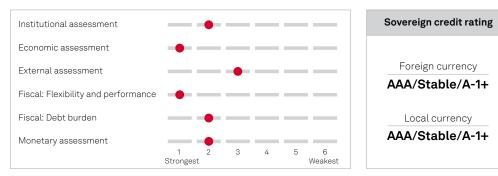
# **S&P Global** Ratings

# Luxembourg

January 29, 2024

This report does not constitute a rating action.

# Ratings Score Snapshot



# Credit Highlights

### Overview

Institutional and economic profile	Flexibility and performance profile
We expect no significant policy changes from the new coalition government, alongside modest GDP growth of about 2% on average in 2024-2026.	Luxembourg's net government asset position supports fiscal flexibility, but the large banking sector represents contingent liability risks.
Economic growth will recover in 2024, driven by a rebound in the financial sector, but also stronger private consumption and investment, following a mild recession in 2023.	The fiscal deficit is set to widen in 2024, but will decline thereafter, as revenue growth picks up and cost of living- related expenditures abate.
The new coalition government, formed after the October 2023 elections, has signaled policy continuity focused on increasing citizens' purchasing power, fiscal prudence, and a transition to greener energy.	The government's net asset position, of 9% of GDP in 2024, represents a buffer against budgetary risks.

# RatingsDirect®

### Primary contact

#### Adrienne Benassy

Paris 33-144206689 adrienne.benassy @spglobal.com

### Secondary contact

### Etienne Polle

Paris 33-01-40-75-25-11 etienne.polle @spglobal.com

### Research contributor

#### Ashay Gokhale

CRISIL Global Analytical Center, an S&P Global Ratings affiliate Mumbai

### Overview

#### Institutional and economic profile

-- A possible hard landing for house prices could pose economic risks, while--although not our baseline--a reduction in the attractiveness of Luxembourg's business environment to foreign companies remains a downside risk if changing international tax regulation has unforeseen ramifications.

#### Flexibility and performance profile

-- The financial system, at more than 13x the size of the economy, may pose contingent liability risks for the government and results in high external indebtedness, although recurring current account surpluses mitigate this somewhat.

S&P Global Ratings considers Luxembourg has ample fiscal space to weather lingering fiscal and economic pressures, characterized by timid GDP growth after an estimated recession in 2023, significant downside risks to the European economic outlook, and spending pressures, slowing the pace of the budget deficit reduction. Our ratings on Luxembourg reflect one of the highest levels of GDP per capita among the sovereigns we rate; the diversity of its economy, specifically its robust financial sector; a transparent and effective institutional framework; strong debt stock position, with net general government assets of 9% of GDP; and strong monetary policy settings. Conversely, its role as a global financial center exposes Luxembourg to changing international financial regulations and potential external shocks. On our measures of external indebtedness and external liquidity, the country also performs relatively poorly, largely due to financial sector transactions, although the related services exports mean it also posts large recurring current account surpluses.

# Outlook

The stable outlook reflects Luxembourg's ample fiscal space, allowing it to weather the persisting stresses, including a fragile expected recovery, and spending pressures, without denting its net government asset position. The outlook also mirrors our view that the country has the policy flexibility and financial soundness to overcome potential changes to its tax system, upon which its role as a financial center partially relies.

### Downside scenario

We could consider a negative rating action if the effects of the changing corporate taxation framework were more pronounced than we anticipate and weakened the country's economic growth prospects and budgetary performance. The rating could also come under pressure if Luxembourg's risks to economic and financial stability materialized, for example due to resurgent credit growth, potentially sparking an unsustainable acceleration in asset valuations.

## Rationale

# Institutional and economic profile: Growth will accelerate in 2024, after a mild recession, and the new coalition government has signaled policy continuity

We expect broad policy continuity from the new center-right coalition government. Luc Frieden of the Christian Social People's Party (CSV) took the lead of the new coalition, in partnership with the Democratic Party (DP), following the October 2023 parliamentary elections. Despite being in opposition for the past 10 years of DP-led coalition governments, CSV is broadly aligned with the policies of its coalition partner. In the short term, strengthening purchasing power of the population, including tackling housing affordability concerns, remains a top

#### Luxembourg

priority. Beyond 2024, when inflation should abate, we expect the government to focus on the transition to green energy and containing Luxembourg's rising--albeit still very low--government debt.

We estimate a shallow economic recession occurred in 2023 but GDP data revisions relating to the financial sector could provide some upside. The first three quarters point to a contraction in real terms in the financial sector, which represents, with the insurance sector, almost half of Luxembourg's real GDP. These estimates suggest the volume of transactions and credit dwindled on the back of higher interest rates, concomitantly curbing banks' commissions and affecting asset performance. But we handle this data with caution, since performance in this sector is subject to substantial data revisions given its sheer size and reliance on approximate GDP deflator estimates at this stage. Indeed, the sector concomitantly posts strong results in nominal terms with soaring net interest margins, thanks to higher interest rates and dynamic employment in this sector, signaling some upside. To a lesser extent, poor performance in the construction and real-estate sectors contributed to the downturn in 2023, offsetting the timid recovery in the industrial and nonfinancial services sectors.

**Economic activity will strengthen in 2024 and remain modest over the period to 2027.** We assume monetary policy could start to ease starting mid-2024 (see "Economic Outlook Eurozone Q1 2024: Headed For A Soft Landing," published Nov. 27, 2023, on RatingsDirect), loosening somewhat financing conditions and hence bolstering private consumption and investments. Moderating inflation will also support domestic demand, although the impact is likely to be milder than for peers, due to base effects. The main difference is that Luxembourg's automatic wage indexation mechanism somewhat shielded real incomes and hence consumption in 2022-2023. Our forecast also considers the freezing of electricity prices until end-2024 fleshed out in "Solidaritéitspak 3.0," the authorities' tripartite agreement with representatives of the business community and unions. Absent any unforeseen financial market volatility, financial services exports should also rebound, driven by recovering European demand and easing financing conditions. The latter will also benefit the construction and real-estate sectors, although we do not expect them to return to their peak dynamism as housing prices are set to stabilize.

The implementation of the OECD global minimum corporate tax rate of 15% (for multinationals with revenue above €750 million) in 2024 is unlikely to significantly affect Luxembourg's near-term attractiveness as a eurozone business and financial hub. Its headline corporate tax rate, of about 25% in Luxembourg city for example, is already higher than the OECD threshold. Some companies have lower effective tax rates fleshed out in advance tax agreements--although since 2019 the latter are only valid for five years. These companies have been under investigation by the European Commission for several years. Nevertheless, strong revenue performance prior to the pandemic signals limited negative ramifications, such as companies leaving Luxembourg and thereby reducing the tax base. In addition, the authorities are actively participating in these initiatives, and are well-positioned to overcome potential hurdles in our view. Recently, the Commission lost a case against Amazon, Fiat, and Engie, claiming they had a preferential tax deal with the country. This could indicate that further scrutiny by the EU might not have material implications for Luxembourg's economic model.

**Unemployment will increase due to the lagged effect of the economic downturn.** Employment growth will continue to slow, and unemployment will increase to 6.0% in 2024 compared with 5.2% in 2023, hovering around the eurozone average of 5.9% in November 2023. We expect pressures on wages to continue given Luxembourg's automatic indexation mechanism, but at a slower pace than 2023, with labor costs increasing by 7.4% year on year for the third quarter of 2023, compared with 5.3% in the eurozone. Structural unemployment is likely to remain relatively stable as labor shortages tend to benefit highly skilled nonresident transborder workers (44% of the workforce in 2023).

Housing prices will stabilize after a modest correction in 2023. Monetary tightening, the economic slowdown, government measures to boost housing supply, and the introduction of

loan-to-value limits led to a 7% decline in housing prices in the first three quarters of 2023. This comes after five years of strong house price growth, averaging 11% from 2018 to 2022. Despite the subdued short-term outlook, we do not expect a sharp price correction in the medium term given the structurally high demand, driven by a growing population and supply constraints. But measures to improve housing affordability voted mid-2023 should limit further price increases. Financial stability risks are limited as the rise in house prices was not fueled by credit growth and households generally have very strong balance sheets.

### Flexibility and performance profile: Luxembourg's ample fiscal space allowed it to weather the economic downturn and increase in the cost of living

**Public finances remain robust despite a temporary deterioration.** In 2024, indexed public wages and benefits will continue to result in strong spending growth, while lower energy prices will contain transfers to keep electricity prices stable until end-2024. Rising government expenditure will more than offset revenue growth, leading to a higher general government deficit. The growth in revenue will be slower than expenditure growth due, in part, to the adjustment of personal tax brackets effective in 2024, the cooling down of the labor market, and scarcer real estate transactions. This will offset the benefits from the VAT normalization and the slight growth rebound. As a result, we expect the budget deficit to widen in 2024, although new measures to be announced in the new government's adjusted 2024 budget, planned for the first quarter of 2024, could slightly alter this trajectory. In line with its past track record of fiscal prudence, we expect the government will strive to reduce the deficit--although persisting spending pressures will hamper the return to surplus in the medium term, in our view.

Spending on defense, the transition to greener energy, and EU regulations on cross-border worker benefits will put pressure on spending in the medium term. With 0.6% of GDP earmarked for defense in the budget, Luxembourg still falls short of NATO's 2.0% of GDP target. Given its position as a small landlocked country highly reliant on a nonresident workforce, Luxembourg targets 2.0% of gross national income, which focuses on valued-added generated by residents, which would represent about 1.6% of GDP. We expect Luxembourg to increase defense spending toward this level over the medium term. In addition, Luxembourg aims to bring its share of renewable energies to 37% by the end of the decade from 20% currently, thanks to investment in photovoltaic and hydrogen energies. New EU rules due to come into place in 2026 would allow nonresidents working in Luxembourg to claim unemployment benefits, currently provided by their country of residence. This would weigh on Luxembourg's fiscal position, but notwithstanding further clarification on the implementation and scope of the policy, we currently do not expect the impact to be material.

Talks to tackle mounting pressures on pension spending could materialize before 2027.

Currently, the pension system posts a surplus--albeit declining--and social security reserves are high (32% of GDP at end-2022). But, absent a pension reform, age-related spending will exceed social contributions in 2027. And, according to our calculations, by 2060, age-related spending would balloon by an additional 11% of GDP compared with 2022 levels, bringing total spending to 25% of GDP, one of the steepest surges and levels in the EU. Pension reform has been discussed for years, but the new government has clearly put it on its agenda.

**Luxembourg's net asset position offers large budgetary buffers.** Due to higher-thanpreviously-projected budget deficits, we now expect Luxembourg's net general government asset position to remain relatively high, but to decline to -7.5% of GDP by 2027 from -10.7% in 2023, excluding guarantees related to the European Financial Stability Facility (see "S&P Clarifies Its Approach To Accounting For EFSF Liabilities When Rating The Sovereign Guarantors," published Nov. 2, 2011, on RatingsDirect). In our view, the cost of debt will rise in 2024 due to higher yields, but remain low, averaging 1% of general government revenue per year over 2024-2027. Luxembourg's average government debt maturity of 7.8 years is relatively long and reduces rollover risks. Luxembourg's external position demonstrates high levels of indebtedness, compared with our estimate of liquid external assets, and very high external financing needs, averaging 445% of current account receipts (CARs) plus usable reserves over 2024-2027. This is largely due to the country's role as a financial hub. Reduced inflows to special-purpose vehicles or funds would likely be matched by reduced corresponding outflows, limiting balance-of-payment risks. But service exports associated with these activities would also decline, undermining economic growth and current account performance. Broader measures of Luxembourg's external flow positions mitigate this somewhat. The country's current account will continue to post a surplus over 2024-2027, as exports recover in line with the economy, after a temporary narrowing of the current account balance due to higher energy imports and the softer performance of financial services exports.

### $\label{eq:constraint} \mbox{European Central Bank (ECB) policy rates may have peaked and we expect the monetary$

**authority to start cutting rates in the second half of 2024.** But it remains to be seen whether the ECB decides to scale back its balance sheet faster by actively selling government bonds it has acquired in the context of its quantitative easing programs. This will keep upward pressure on bond yields and interest payments, although yields on Luxembourg's debt are low compared with European peers. As a result of the ECB's monetary tightening, inflation will further decline in Luxembourg from its 2022 peak. Inflation will remain sensitive to energy prices, which could increase as a result of a potentially wider conflict in the Middle East.

Luxembourg's sizable financial system, at more than 13x the entire economy, may pose contingent liability risks for the government, although robust application of EU regulatory measures mitigate these somewhat. In our view, risks mainly stem from banks' focus on nontraditional lending activities, such as private banking, wealth management, securities services, and funds administration. These businesses are central to Luxembourg's role as a global financial center and are generally profitable. But they are exposed to higher confidence sensitivity and reputational risks than traditional lending activities. Luxembourg recently called for targeted measures to further strengthen the global regulatory framework to limit systemic risks. Regulatory standards for the country's banks are aligned with eurozone standards, and we consider that the local banking industry has a favorable funding structure, supported by an excess of customer deposits over loans (see "Banking Industry Country Risk Assessment: Luxembourg," published May 30, 2023).

### Luxembourg--Selected Indicators

	2018	2019	2020	2021	2022	2023	2024bc	2025bc	2026bc	2027bc
Economic indicators (%)										
Nominal GDP (bil. EUR)	60.1	62.4	64.5	72.4	77.5	80.2	83.9	87.4	90.5	93.9
Nominal GDP (bil. \$)	71.0	69.9	73.7	85.6	81.6	86.7	91.7	99.5	105.5	109.5
GDP per capita (000s \$)	117.9	113.9	117.7	134.8	126.5	131.6	136.6	145.2	151.0	153.6
Real GDP growth	1.2	2.9	(0.9)	7.2	1.4	(0.6)	2.0	2.1	2.1	2.0
Real GDP per capita growth	(0.7)	0.9	(2.8)	5.7	(0.3)	(2.6)	0.0	0.1	0.1	0.0
Real investment growth	(7.3)	13.5	(6.7)	16.9	(7.8)	0.0	2.0	5.0	1.0	5.2
Investment/GDP	17.0	18.7	17.4	18.8	17.8	17.7	17.6	18.1	18.0	18.3
Savings/GDP	23.5	27.6	25.9	26.7	25.4	21.9	22.2	22.5	22.8	22.8
Exports/GDP	197.5	206.4	203.1	213.2	211.3	214.5	213.5	213.5	213.2	213.5
Real exports growth	3.6	6.0	0.6	10.3	(0.6)	(0.5)	2.0	2.1	2.4	2.0
Unemployment rate	5.6	5.6	6.8	5.3	4.6	5.2	6.0	5.8	5.8	5.8
External indicators (%)										
Current account balance/GDP	6.5	8.9	8.6	7.9	7.7	4.2	4.6	4.5	4.8	4.5
Current account balance/CARs	0.9	1.2	1.3	1.3	1.3	0.8	0.9	0.9	1.0	0.9

#### Luxembourg--Selected Indicators

LuxembourgSelected mulcator	5									
CARs/GDP	737.5	721.6	648.3	611.9	576.2	556.3	541.2	520.1	506.6	500.1
Trade balance/GDP	2.8	2.6	2.3	1.2	0.1	(0.1)	(0.1)	(0.4)	(0.4)	(0.4)
Net FDI/GDP	135.9	(91.9)	(9.4)	(191.0)	(104.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Net portfolio equity inflow/GDP	181.3	414.5	268.3	469.7	29.9	50.0	50.0	50.0	50.0	50.0
Gross external financing needs/CARs plus usable reserves	414.7	411.3	440.2	423.2	472.9	422.3	437.1	441.3	448.5	456.9
Narrow net external debt/CARs	243.4	255.6	212.0	189.3	188.9	162.5	178.4	190.3	213.8	238.7
Narrow net external debt/CAPs	245.6	258.8	214.8	191.8	191.5	163.7	180.0	191.9	215.8	240.9
Net external liabilities/CARs	(7.2)	(6.5)	(1.4)	(0.3)	0.9	(0.0)	(1.1)	(2.1)	(3.1)	(4.1)
Net external liabilities/CAPs	(7.3)	(6.6)	(1.4)	(0.3)	0.9	(0.0)	(1.1)	(2.1)	(3.2)	(4.2)
Short-term external debt by remaining maturity/CARs	316.2	313.3	342.5	325.4	377.1	325.6	340.5	344.8	352.1	360.6
Usable reserves/CAPs (months)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Usable reserves (Mil. \$)	940.6	1,057.8	1,121.9	2,921.9	2,884.6	2,971.2	3,062.9	3,162.4	3,267.9	3,377.3
Fiscal indicators (general government %)										
Balance/GDP	3.0	2.2	(3.4)	0.6	(0.3)	(1.6)	(2.3)	(1.8)	(1.2)	(0.5)
Change in net debt/GDP	0.8	(2.8)	2.7	(1.2)	2.8	(0.3)	1.3	0.8	0.2	(0.5)
Primary balance/GDP	3.3	2.6	(3.2)	0.7	(0.1)	(1.4)	(1.9)	(1.4)	(0.7)	(0.0)
Revenue/GDP	45.3	45.3	43.5	43.4	43.6	43.5	43.6	44.0	44.0	44.0
Expenditures/GDP	42.3	43.1	47.0	42.9	43.9	45.1	45.9	45.8	45.2	44.5
Interest/revenues	0.8	0.7	0.5	0.4	0.4	0.4	0.8	1.0	1.1	1.1
Debt/GDP	20.0	21.5	23.8	23.8	24.1	25.5	27.3	28.6	29.3	29.3
Debt/revenues	44.2	47.4	54.7	54.8	55.2	58.6	62.6	64.9	66.6	66.6
Net debt/GDP	(16.0)	(18.3)	(15.0)	(14.5)	(10.7)	(10.7)	(8.9)	(7.8)	(7.3)	(7.5)
Liquid assets/GDP	36.0	39.8	38.7	38.3	34.8	36.2	36.2	36.3	36.6	36.8
Monetary indicators (%)										
CPI growth	2.0	1.7	0.0	3.5	8.2	2.9	2.3	2.0	1.8	1.8
GDP deflator growth	2.1	0.9	4.3	4.6	5.7	4.0	2.6	2.0	1.5	1.7
Exchange rate, year-end (EUR/\$)	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Banks' claims on resident non-gov't sector	8.5	7.2	5.0	5.3	4.4	3.0	3.0	4.0	4.0	4.0
growth Banks' claims on resident non-gov't sector/GDP	102.4	105.7	107.3	100.8	98.2	97.9	96.3	96.2	96.5	96.8
Foreign currency share of claims by banks on residents	8.0	7.1	6.7	7.5	12.3	7.0	7	7	7	7
Foreign currency share of residents' bank deposits	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Real effective exchange rate growth	3.6	(13.8)	(3.5)	4.2	9.0	N/A	N/A	N/A	N/A	N/A

Sources: Eurostat (Economic Indicators), Banque centrale du Luxembourg (External Indicators), Eurostat (Fiscal Indicators), and Banque centrale du Luxembourg, International Monetary Fund (Monetary Indicators).

Adjustments: Government debt adjusted by excluding guarantees on debt issued by EFSF.

Definitions: Savings is defined as investment plus the current account surplus (deficit). Investment is defined as expenditure on capital goods, including plant, equipment, and housing, plus the change in inventories. Banks are other depository corporations other than the central bank, whose liabilities are included in the national definition of broad money. Gross external financing needs are defined as current account payments plus short-term external debt at the end of the prior year plus nonresident deposits at the end of the prior year plus long-term external debt maturing within the year. Narrow net external debt is defined as the stock of foreign and local currency public- and private- sector borrowings from nonresidents minus official reserves minus public-sector liquid claims on nonresidents minus financial-sector loans to, deposits with, or investments in nonresident entities. A negative number indicates net external lending. N/A- Not applicable. EUR-euro. CARs--Current account receipts. FDI--Foreign direct investment. CAPs--Current account payments. The data and ratios above result from S&P Global Ratings' own calculations, drawing on national as well as international sources, reflecting S&P Global Ratings' independent view on the timeliness, coverage, accuracy, credibility, and usability of available information.

Key rating factors	Score	Explanation
Institutional assessment	2	Luxembourg has strong institutions and a proven track record of policymaking, which generally fosters economic growth and stable public finances. However, coordination requirements at the eurozone level might hinder timely policy response. The country benefits from generally effective checks-and-balances and free flow of information.
Economic assessment	1	Based on GDP per capita (US\$) and growth trends as per Selected Indicators in Table 1.
External assessment	3	Based on narrow net external debt as per Selected Indicators in Table 1.
		In the context of our external assessment, we consider Luxembourg, a member of the Economic and Monetary Union, as if the currency was actively traded. The sovereign displays current account surpluses, on average, from 2024-2027, as per Selected Indicators in Table 1.
		The sovereign has external short-term debt by remaining maturity that generally exceeds 100% of current account receipts (CAR), as per Selected Indicators in Table 1.
		The sovereign's net international investment position is more favorable than the narrow net external debt position by over 100% of CAR, as per Selected Indicators in Table 1.
Fiscal assessment: flexibility and performance	1	Based on the change in net general government debt (% of GDP) as per Selected Indicators in Table 1.
Fiscal assessment: debt burden	2	Based on net general government debt (% of GDP) and general government interest expenditure (% of general government revenue) as per Selected Indicators in Table 1.
		Liquid assets/GDP as per Selected Indicators in Table 1.
		Contingent liabilities are moderate, with banks' assets more than 1,250% of GDP and a Banking Industry Country Risk Assessment score of '2' (indicating a system with our second-lowest risk assessment).
Monetary assessment	2	In the context of our monetary assessment, we consider the euro a reserve currency.
		The European Central Bank has an established track record in monetary authority independence with clear objectives and a wide array of policy instruments, including nonconventional tools. The consumer price index is low as per Selected Indicators in Table 1.
		Luxembourg is a member of the Economic and Monetary Union.
Indicative rating	aaa	As per Table 1 of "Sovereign Rating Methodology."
Notches of supplemental adjustments and flexibility		
Final rating		
Foreign currency	AAA	
Notches of uplift	AAA	Default risks do not apply differently to foreign- and local-currency debt.
Local currency		

### Luxembourg--Rating Component Scores

S&P Global Ratings' analysis of sovereign creditworthiness rests on its assessment and scoring of five key rating factors: (i) institutional assessment; (ii) economic assessment; (iii) external assessment; (iv) the average of fiscal flexibility and performance, and debt burden; and (v) monetary assessment. Each of the factors is assessed on a continuum spanning from 1 (strongest) to 6 (weakest). S&P Global Ratings' "Sovereign Rating Methodology," published on Dec. 18, 2017, details how we derive and combine the scores and then derive the sovereign foreign currency rating. In accordance with S&P Global Ratings' sovereign ratings methodology, a change in score does not in all cases lead to a change in the rating, nor is a change in the rating necessarily predicated on changes in one or more of the scores. In determining the final rating the committee can make use of the flexibility afforded by §15 and §§126-128 of the rating methodology.

# **Related** Criteria

- Criteria | Governments | Sovereigns: Sovereign Rating Methodology, Dec. 18, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

#### Luxembourg

• General Criteria: Methodology: Criteria For Determining Transfer And Convertibility Assessments, May 18, 2009

## **Related Research**

- Sovereign Risk Indicators, Dec. 11, 2023. Interactive version available at http://www.spratings.com/sri
- Sovereign Ratings List, Jan. 17, 2024
- Sovereign Ratings History, Jan. 17, 2024
- Banking Industry Country Risk Assessment: Luxembourg, May 30, 2023
- Default, Transition, and Recovery: 2022 Annual Global Sovereign Default And Rating Transition Study, April 28, 2023

### Ratings Detail (as of January 25, 2024)\*

Luxembourg							
Sovereign Credit Rating	AAA/Stable/A-1+						
Transfer & Convertibility Assessment	AAA						
Senior Unsecured	AAA						
Sovereign Credit Ratings History							
14-Jan-2013	Foreign Currency	AAA/Stable/A-1+					
13-Jan-2012		AAA/Negative/A-1+					
05-Dec-2011		AAA/Watch Neg/A-1+					
14-Jan-2013	Local Currency	AAA/Stable/A-1+					
13-Jan-2012		AAA/Negative/A-1+					
05-Dec-2011		AAA/Watch Neg/A-1+					

\*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings credit ratings on the global scale are comparable across countries. S&P Global Ratings credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.spglobal.com/ratings (free of charge), and www.ratingsdirect.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.spglobal.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.