## RatingsDirect®

Research Update:

S&P Global

Ratings

## Germany 'AAA/A-1+' Ratings Affirmed; Outlook Stable

January 31, 2025

## **Overview**

- We forecast a modest recovery for Germany: GDP growth will be 0.5% for 2025 and 1.0% in 2026, as elevated savings rates begin to decline and investment activity (including construction) rises--although possible U.S. tariffs pose a risk to the export-oriented economy.
- We expect political fragmentation amid self-imposed constraints on fiscal flexibility under Germany's constitutionally mandated structural deficit cap will remain a challenge for the country's new government following the elections Feb. 23.
- Despite the tenuous growth outlook, key strengths of Germany's credit profile remain, namely moderate levels of general government debt, a wealthy economy, and the strongest external balance sheet of any major economy globally.
- We affirmed our unsolicited 'AAA/A-1+' sovereign credit ratings on Germany. The outlook is stable.

## **Rating Action**

On Jan. 31, 2025, S&P Global Ratings affirmed its unsolicited 'AAA/A-1+' long- and short-term foreign and local currency sovereign credit ratings on Germany. The outlook is stable.

## Outlook

The stable outlook reflects our opinion that Germany's external and fiscal strengths, diversified and wealthy economy, and institutional effectiveness will continue to underpin its creditworthiness. These strengths should sufficiently cushion near-term issues, in our view, including weak productivity and an aging population.

### Downside scenario

We could lower our ratings if Germany's sluggish economic performance were to persist beyond

#### PRIMARY CREDIT ANALYST

#### Niklas Steinert

Frankfurt + 49 693 399 9248 niklas.steinert @spglobal.com

#### SECONDARY CONTACT

#### Michelle Keferstein

Frankfurt (49) 69-33-999-104 michelle.keferstein @spglobal.com

#### ADDITIONAL CONTACTS

#### Rahul Ranjan

Pune rahul.ranjan2 @spglobal.com

## Sovereign and IPF EMEA

@spglobal.com

our expectations or deteriorated further in the context of mounting structural challenges. This could result in pressure on the country's fiscal position and debt levels, and might lead us to revise our long-term economic assessment.

## Rationale

Germany's economic growth over the past five years has been lackluster, with 2024 real GDP only marginally exceeding 2019 levels. The prolonged stagnation has been aggravated by a series of economic shocks in the wake of the pandemic, including technological shifts, increased international competition for the country's large manufacturing sector, and higher energy prices following Russia's invasion of Ukraine. We expect several structural factors--aging demographics, weak productivity growth, and persistently high energy prices--will continue to weigh on growth. The outlook beyond this year remains uncertain, considering heightened geopolitical risks and potential disruptions of international trade flows, which could disproportionally affect Germany's export-oriented economy.

Despite the challenging economic outlook, we generally view Germany's economy as diversified and resilient, and its institutions and policymaking as effective and stable. Further rating strengths include the country's external balance sheet--the strongest among major economies globally--its eurozone membership, and the European Central Bank's (ECB's) credible and flexible monetary policy. In addition, Germany's conservative fiscal rules--the "debt-brake rule"--have kept deficits relatively contained in recent years. We expect general government deficits will not exceed 2% of GDP on average through 2028, thereby helping to stabilize net general government debt as a share of GDP.

# Institutional and economic profile: Germany's economic slump will spill into 2025 and the outlook for real growth from 2026 remains uncertain

- We have lowered our forecast for real growth to 0.5% in 2025 against the backdrop of a sluggish recovery of domestic demand.
- We expect growth will pick up from 2026, but potential disruptions to international trade flows could impair Germany's export-oriented economy.
- Political fragmentation and limited policy flexibility under the country's fiscal deficit rules will remain a key challenge for policymakers after the upcoming general election.

The German economy contracted for the second consecutive year in 2024, reflecting competitive and cost pressures on key sectors including auto production and chemicals, as well as the drag on construction from still-relatively high interest rates. Growth has lagged that of major economies globally for several years, and real GDP remains only marginally above 2019 levels, compared with an estimated rise of 5% in the overall euro area (including Germany), 12% in the U.S., and 25% in China. Since the pandemic, structural challenges from higher energy costs, technology transitioning in the key auto sector, a correction in the commercial real estate market, and softer demand in several key export markets (including China) have weighed on activity.

We expect this economic weakness will spill into 2025, prompting us to lower our growth projections to 0.5%. This would be tantamount to a mild recovery as private consumption recovers further on a slight increase in real wages and stabilizing consumer confidence translating into a slight drop in household savings rates, which at over 20% in 2024 are among the highest in Europe.

The critical issue for the German economy is the outlook for investment spending, which has declined for the past three years. We project a moderate rebound, including stronger developments in the construction sector, following further expected rate cuts from the ECB and a nascent turnaround in the housing market. We expect growth rates will pick up from 2026 but consider that Germany's open and export-oriented economy--with exports constituting 43% of GDP and the U.S. constituting its biggest export market--would quickly be affected by disruptions to international trade flows, should the Trump administration impose tariffs.

Other structural challenges for the economy persist and could impede productivity growth, leading us to see the country's medium-term growth outlook as more uncertain than for most other European countries. Similar to them, Germany has an adverse demographic profile, aggravated by the country's disproportionally high number of new retirees over the next 10-15 years. Counteracting this, the recent increase of immigration, mainly from Ukraine, lifted population growth to 1.4% over 2022-2023, with net migration hitting its all-time high of 1.45 million in 2022. However, it is uncertain whether these levels can be sustained.

We also see challenges to the country's competitiveness as a manufacturing hub in Europe. Auto production constitutes almost 4% of Germany's gross value added, and cars and vehicle parts usually account for just under 20% of exports. German vehicles and components are up against major structural and regulatory hurdles, particularly due to tightening emissions standards, technological changes, and uncertainty around trade policy. Productivity-enhancing investment in Germany has lagged that in other developed economies for several years, and we think this could ultimately become a drag on growth. Nevertheless, the outlook for the auto sector remains fluid, and German companies' global market share have not fallen dramatically so far, although the U.S.'s relative importance as a destination for exports has grown, while China's role market has subsided.

The previous federal government--a coalition between the Social Democrats, Greens, and the Liberal Party--fell apart in late 2024 over rows on how to reconcile diverging policy priorities under the country's stringent fiscal rules. Snap elections have been scheduled for February 2025. Regardless of the outcome, we think policymaking will remain an issue for any new government, given the economic challenges over the next few years. In addition, Germany's constitutionally enshrined fiscal rules effectively limit public deficits to low levels, which constrains fiscal policy space and therefore complicates political consensus-building (see "Germany Brief: Debt Brake Could Continue To Complicate Policymaking After Snap Elections," published Nov. 12, 2024, on RatingsDirect). Furthermore, political fragmentation has increased over several years--primarily benefiting populist parties as seen in 2024's state-level elections--and we expect this will complicate political decision-making.

## Flexibility and performance profile: Narrow fiscal deficits over the next few years will help stabilize the debt burden

- Fiscal deficits, including those from lower-tier governments, exceeded over 2% of GDP in 2024; we expect deficits will average about 1.4% through 2028, in line with the debt-brake rule.
- We expect general government debt net of liquid government assets will trend down marginally to near 58% in 2028, and its cost will remain at a low 2% of government revenue.
- Germany's external accounts have recovered after a significant terms-of-trade shock in 2022; we expect the current account will remain in surplus, at about 4.4% of GDP on average through 2028, as the country's savings rate remains among the highest in the G7.

Although the debt-brake rule was reinstated in 2024, the general government fiscal deficit exceeded 2% of GDP that year due to lower economic growth, higher expenditure pressure for social welfare and wages, and larger deficits at lower tiers of government--namely states, municipalities, and social security funds. In contrast, the central government lowered its deficit to below 1.4% of GDP in 2025, compared with 2.9% and 2.6% of GDP in 2023 and 2024, respectively, which was mainly because of discontinued energy subsidies. This was only partially offset by rising defense spending and some energy investments.

Germany's debt-brake rule prevents deficits from exceeding 0.35% of GDP (plus an economic adjustment component) at the federal level and forbids net new borrowing at the state level except for specific government spending programs, such as €100 billion in additional military spending over several years. This is why we think overall government deficits will likely remain at 1%-2% of GDP on average through 2028.

We expect moderate deficits over the next few years will result in a stabilization of general government debt, net of liquid assets, at about 59% of GDP. Germany's interest burden will be stable over the next few years, at below 2.0% of general government revenue throughout our forecast, versus 5.6% in 2011. In our calculations of government debt, we exclude liabilities from the multilateral financial support mechanisms, namely the European Financial Stability Facility (EFSF) and European Stability Mechanism in the eurozone (see "S&P Clarifies Its Approach To Accounting For EFSF Liabilities When Rating The Sovereign Guarantors," published Nov. 2, 2011). These liabilities amount to about 1.3% of estimated GDP in 2025.

We consider the country's external balance sheet a key rating strength. Despite external issues, Germany's current account surplus remained resilient in 2024, amounting to about 5.8% of GDP on weak imports--reflecting low domestic demand, in the form of flat investment and rising private savings--and high net primary income inflows. We expect the current account surpluses will remain at near 4.4% of GDP on average, representing high goods trade surpluses and strong annual investment incomes from assets held abroad, although outcomes will be sensitive to economic and political developments in key export destinations including China, the U.S, and the rest of Europe. Although these surpluses are high in a global comparison, they are lower than the 7%-9% of GDP before the pandemic, which we partially attribute to a loss of Germany's export share as a percent of global trade flows over the past few years.

Germany's current account position reflects the country's still-high export competitiveness, its previously lower investment rate than the eurozone average, and the tighter fiscal stance than its trading partners. It also is the consequence of German consumers' high propensity to save: At over 20% of disposable income, German household savings rates are among the highest in the euro area--reflecting structural factors, including the country's aging population.

Germany's repeated current account surpluses will contribute to an average net asset position close to 150% of current account receipts (CARs) until 2028. In that period, we project that narrow net external debt will decline to about 66% of CARs. Consequently, we forecast that gross external financing needs will fall to about 200% of CARs and usable reserves. The size of external assets also reflects movements in Germany's high Target 2 claims on the Eurosystem, still remain at slightly above €1 trillion in December 2024.

As elsewhere, inflation in Germany increased slightly by the end of 2024, standing at 2.8% in December and 2.5% for the entire year. Although headline inflation is much lower than its peak of 11.6% in October 2022, price increases have edged up over the past few months, primarily owing to services prices, on a robust labor market and rising wages. We expect core inflation will also outpace headline inflation in 2025, which partially explains why we think price increases will marginally exceed the ECB's target annual inflation rate until at least mid-2025.

The current moderate inflation levels are already close to the ECB's target rate of "close to but below 2%," and the ECB reduced its policy rates four times in 2024. Its deposit facility stands at 3.0%, compared with 4.0% at the beginning of 2024. The pace of monetary policy normalization will critically depend on the inflation outlook across the European Monetary Union, which we expect will remain slightly elevated over the next year. Accordingly, we expect the rate hikes will take several quarters to reverse. In our view, Germany's eurozone membership reduces its individual monetary flexibility. However, the country has also benefited from the euro with regard to its export-oriented economy and lower interest costs, previously supported by the ECB's large-scale asset-purchase programs.

We expect German banks' earnings will remain robust in 2025 following a rebound in 2024, but it could continue to lag that of peers. We think inefficient cost bases, overcapacity, and intense competition make it difficult for many banks to earn their cost of capital. Positively, we anticipate only a modest increase in credit losses from low levels. This reflects our expectation that households and the corporate sector will prove resilient despite the economic underperformance. However, a potential deterioration in banks' asset quality could happen if another economic downturn significantly reduces the creditworthiness of German small and midsize enterprises, especially in sectors such as auto, machinery, real estate, or other energy-intensive sectors. We also think potential for further market corrections in German commercial real estate remains substantial. Corrections could materialize if liquidity issues force counterparties to sell larger volumes at significant discounts. Overall, we forecast that rated German banks will maintain strong funding and liquidity metrics, benefiting from a robust domestic deposit market. High savings rates continue to spur deposit growth and keep funding costs low.

### **Key Statistics**

Table 1

#### Germany--Selected indicators

(Mil. €)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Economic indicators	s (%)									
Nominal GDP (bil. LC)	3,535	3,450	3,676	3,954	4,186	4,306	4,419	4,556	4,695	4,838
Nominal GDP (bil. \$)	3,957	3,940	4,348	4,163	4,526	4,661	4,849	5,163	5,396	5,561
GDP per capita (000s \$)	47.7	47.4	52.3	50.0	53.6	55.1	57.3	60.8	63.5	65.3
Real GDP growth	1.0	(4.1)	3.7	1.4	(0.3)	(0.2)	0.5	1.0	1.0	1.0
Real GDP per capita growth	0.7	(4.3)	3.7	1.3	(1.6)	(0.4)	0.3	0.8	0.8	0.8
Real investment growth	2.0	(3.0)	0.6	(0.2)	(1.2)	(2.8)	1.0	1.9	2.3	2.3
Investment/GDP	21.3	21.7	22.5	23.0	21.7	21.1	21.1	21.2	21.4	21.7
Savings/GDP	29.2	28.0	29.4	27.4	27.5	26.8	25.9	25.7	25.7	25.7
Exports/GDP	42.4	39.2	42.7	45.8	43.4	42.2	42.5	43.0	43.7	44.3
Real exports growth	1.9	(9.5)	10.0	3.1	(0.3)	(0.8)	1.2	2.4	2.5	2.5
Unemployment rate	3.0	3.7	3.7	3.2	3.1	3.4	3.5	3.4	3.3	3.3

#### Table 1

## Germany--Selected indicators (cont.)

(Mil. €)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
External indicators	(%)									
Current account balance/GDP	7.9	6.3	6.9	4.4	5.8	5.8	4.9	4.5	4.2	4.0
Current account balance/CARs	15.2	13.4	13.3	7.8	10.5	11.0	9.2	8.6	7.9	7.3
CARs/GDP	51.8	47.1	52.0	56.4	55.2	52.5	52.7	53.0	53.6	54.4
Trade balance/GDP	6.0	5.2	5.1	3.4	5.4	5.3	4.7	4.5	4.4	4.2
Net FDI/GDP	(2.4)	0.8	(2.2)	(2.8)	(1.6)	(1.5)	(1.8)	(1.8)	(1.7)	(1.8)
Net portfolio equity inflow/GDP	(2.3)	(3.2)	(4.8)	(0.7)	(0.9)	(2.3)	(2.3)	(2.3)	(2)	(2)
Gross external financing needs/CARs plus usable reserves	205.7	216.9	219.6	226.6	218.3	216.0	213.5	208.3	204.1	201.2
Narrow net external debt/CARs	66.0	92.8	88.2	73.6	81.6	83.9	81.3	75.0	70.0	66.1
Narrow net external debt/CAPs	77.8	107.2	101.8	79.9	91.1	94.3	89.6	82.0	76.0	71.4
Net external liabilities/CARs	(114.2)	(147.8)	(130.0)	(126.6)	(132.8)	(145.4)	(148.0)	(146.4)	(145.9)	(146.3)
Net external liabilities/CAPs	(134.7)	(170.8)	(150.0)	(137.4)	(148.4)	(163.4)	(163.0)	(160.1)	(158.5)	(157.8)
Short-term external debt by remaining maturity/CARs	140.6	156.4	159.0	163.0	154.6	155.5	149.8	141.5	134.9	130.2
Usable reserves/CAPs (months)	1.4	1.7	1.6	1.6	1.6	1.8	1.7	1.6	1.5	1.4
Usable reserves (mil. \$)	222,356	268,330	295,967	294,770	322,911	323,446	323,946	324,446	324,946	325,446
Fiscal indicators (ge	eneral gove	ernment; %	6)							
Balance/GDP	1.3	(4.4)	(3.2)	(2.1)	(2.6)	(2.6)	(1.6)	(1.3)	(1.3)	(1.1)
Change in net debt/GDP	0.0	3.8	3.9	3.5	3.1	3.0	1.9	1.3	1.3	1.1
Primary balance/GDP	2.1	(3.7)	(2.6)	(1.4)	(1.7)	(1.8)	(0.7)	(0.4)	(0.3)	(0.2)
Revenue/GDP	46.9	46.7	47.5	46.9	45.8	46.5	46.5	46.5	46.5	46.5
Expenditures/GDP	45.6	51.1	50.7	49.0	48.4	49.1	48.1	47.8	47.8	47.6
Interest/revenues	1.7	1.4	1.2	1.5	1.9	1.9	2.0	2.0	2.0	2.0
Debt/GDP	57.0	66.6	66.6	63.6	61.6	62.8	63.1	62.5	61.9	61.2
Debt/revenues	121.7	142.4	140.1	135.7	134.4	135.0	135.7	134.4	133.2	131.5
Net debt/GDP	53.8	59.0	59.2	58.5	58.4	59.7	60.1	59.6	59.1	58.4

#### Table 1

#### Germany--Selected indicators (cont.)

(Mil. €)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Liquid assets/GDP	3.2	7.6	7.4	5.0	3.2	3.1	3.0	2.9	2.8	2.7
Monetary indicators	(%)									
CPI growth	1.4	0.3	3.2	8.7	6.1	2.5	2.3	1.9	1.9	1.9
GDP deflator growth	2.0	1.8	2.8	6.1	6.1	3.1	2.1	2.1	2.1	2.1
Exchange rate, year-end (LC/\$)	0.89	0.81	0.88	0.94	0.90	0.96	0.89	0.87	0.87	0.87
Banks' claims on resident non-gov't sector growth	4.9	4.1	5.3	6.8	2.5	2.5	3.5	3.5	3.5	3.5
Banks' claims on resident non-gov't sector/GDP	87.9	93.8	92.7	92.1	89.1	88.8	89.6	89.9	90.3	90.7
Foreign currency share of claims by banks on residents	2.7	2.5	2.6	2.2	1.8	2.3	2.3	2.3	2.3	2.3
Foreign currency share of residents' bank deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real effective exchange rate growth	0.6	0.6	(4.2)	(2.6)	1.9	N/A	N/A	N/A	N/A	N/A

Sources: Eurostat (economic indicators), Deutsche Bundesbank (external indicators), Eurostat (fiscal indicators), and Deutsche Bundesbank and IMF (monetary indicators).

Adjustments: Government debt adjusted by excluding guarantees on debt issued by the European Financial Stability Facility. 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. Economic indicators and CPI growth for 2024-2027 are S&P Global Ratings' preliminary forecast.

## **Ratings Score Snapshot**

Table 2

#### Germany--Ratings score snapshot

Key rating factors	Score	Explanation
Institutional assessment	2	Germany has strong institutions and a proven track record of crisis management and long-term economic growth, but coordination requirements at the EU or euro area level might hinder timely policy response. Germany benefits from generally effective checks and balances and free flow of information.
Economic assessment	1	Based on GDP per capita (\$) as per the Selected indicators table above

#### Table 2

#### Germany--Ratings score snapshot (cont.)

Key rating factors	Score	Explanation
External assessment	1	Based on narrow net external debt as per Selected Indicators in Table 1. In the context of our external assessment, we consider Germany, a member of the Economic and Monetary Union, as if the currency was actively traded. The sovereign has external short-term debt by remaining maturity that generally exceeds 100% of current account receipts (CARs), 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 CARs, as per Selected indicators in Table 1
Fiscal assessment: flexibility and performance	2	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.
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 policy independence with clear objectives and a wide array of policy instruments, including targeted and broad asset purchase .programs. Germany 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	0	
Final rating		
Foreign currency	AAA	
Notches of uplift	0	Default risks do not apply differently to foreign- and local-currency debt.
Local currency	AAA	

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**

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- 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
- General Criteria: Methodology: Criteria For Determining Transfer And Convertibility Assessments, May 18, 2009

### **Related Research**

- Sovereign Ratings List, Jan. 13, 2025
- Sovereign Ratings History, Jan. 13, 2025
- Sovereign Ratings Score Snapshot, Jan. 7, 2025
- Sovereign Risk Indicators, Dec. 9, 2024. Interactive version available at http://www.spratings.com/sri
- Sovereign Debt: Is The Austerity Versus Growth Dilemma Back?, Dec. 4, 2024
- Germany Brief: Debt Brake Could Continue To Complicate Policymaking After Snap Elections, Nov. 12, 2024
- Banking Industry Country Risk Assessment: Germany, Aug. 7, 2024
- Default, Transition, and Recovery: 2023 Annual Global Sovereign Default And Rating Transition Study, March 27, 2024

In accordance with our relevant policies and procedures, the Rating Committee was composed of analysts that are qualified to vote in the committee, with sufficient experience to convey the appropriate level of knowledge and understanding of the methodology applicable (see 'Related Criteria And Research'). At the onset of the committee, the chair confirmed that the information provided to the Rating Committee by the primary analyst had been distributed in a timely manner and was sufficient for Committee members to make an informed decision.

After the primary analyst gave opening remarks and explained the recommendation, the Committee discussed key rating factors and critical issues in accordance with the relevant criteria. Qualitative and quantitative risk factors were considered and discussed, looking at track-record and forecasts.

The committee's assessment of the key rating factors is reflected in the Ratings Score Snapshot above.

The chair ensured every voting member was given the opportunity to articulate his/her opinion. The chair or designee reviewed the draft report to ensure consistency with the Committee decision. The views and the decision of the rating committee are summarized in the above rationale and outlook. The weighting of all rating factors is described in the methodology used in this rating action (see 'Related Criteria And Research').

## **Ratings List**

#### **Ratings Affirmed**

Germany	
Sovereign Credit Rating  U^	AAA/Stable/A-1+
Transfer & Convertibility Assessment  U^	ААА

|U^ Unsolicited ratings with issuer participation, access to internal documents and access to management.

This unsolicited rating(s) was initiated by a party other than the Issuer (as defined in S&P Global Ratings' policies). It may be based solely on publicly available information and may or may not involve the participation of the Issuer

and/or access to the Issuer's internal documents and/or access to management. S&P Global Ratings has used information from sources believed to be reliable based on standards established in our policies and procedures, but does not guarantee the accuracy, adequacy, or completeness of any information used.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.spglobal.com/ratings for further information. A description of each of S&P Global Ratings' rating categories is contained in "S&P Global Ratings Definitions" at https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/sourceld/504352. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.spglobal.com/ratings. Alternatively, call S&P Global Ratings' Global Client Support line (44) 20-7176-7176.

Copyright © 2025 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.