

Date of Release: 29 November 2024

Morningstar DBRS Confirms Federal Republic of Germany at AAA, Stable Trend

Industry: Governments **Subindustry:** Sovereigns

Region: Europe

DBRS Ratings GmbH (Morningstar DBRS) confirmed the Federal Republic of Germany's (Germany) Long-Term Foreign and Local Currency — Issuer Ratings at AAA. At the same time, Morningstar DBRS confirmed Germany's Short-Term Foreign and Local Currency — Issuer Ratings at R-1 (high). The trend on all ratings is Stable.

KEY CREDIT RATING CONSIDERATIONS

The Stable trend reflects Morningstar DBRS' view that Germany's credit fundamentals remain solid notwithstanding weak economic growth dynamics. Economic growth remained weak in recent months, weighed down by cyclical headwinds and structural factors. The German Council of Economic Experts (GCEE) forecasts real GDP to contract by 0.1% in 2024. While cyclical headwinds are likely to ease gradually next year, the economic outlook is exposed to downside risks such as rising global trade tensions and an escalation of geopolitical tensions. Budgetary pressures are now larger than in pre-pandemic years but Germany's fiscal deficit is much smaller than in most other major advanced economies. The GCEE forecasts the general government budget deficit at 2.1% of GDP in 2024. Moreover, the government's debt service capacity remains very strong, underpinned by a low interest burden, a moderate stock of public debt and the country's status as a safe haven. Germany's future fiscal policy is to be determined by a yet-to-be elected government, following the break-up of the "traffic light" coalition government in early November 2024 and the scheduling of snap elections for February 2025. In Morningstar DBRS' view, the next government is set to face tough budgetary choices as the fiscal policy space under the constitutional debt brake is narrow and spending pressures particularly on defense and investment are likely to increase.

Germany's AAA ratings are supported by its competitive and highly developed economy and high institutional quality. Furthermore, external finances are strong and resilient to potential shocks. However, the economy faces large challenges such as population ageing and structural changes within important manufacturing industries. Furthermore, contingent liabilities, emanating from state quarantees for domestic companies and fiscal burden sharing within the currency union could eventually weigh on public finances.

CREDIT RATING DRIVERS

Morningstar DBRS could downgrade the ratings if the country's growth and fiscal prospects deteriorate severely enough to place the public debt-to-GDP ratio on a persistent upward trajectory. Moreover, a materialisation of substantial contingent liabilities could put negative pressure on the ratings.



CREDIT RATING RATIONALE

Economic Growth is Likely to Recover Only Gradually and the Outlook is Exposed to Substantial Downside Risks

Economic growth dynamics remained weak in recent months. After contracting by 0.3% in 2023, real GDP contracted by 0.2% on a year-on-year basis in the first three quarters of 2024. Investment declined markedly on the back of tight monetary conditions and weak business sentiment. Furthermore, export activity was weighed down by sluggish external demand and German exporters' declining global market shares in key industries such as automotives. Although households' purchasing power benefitted from a marked increase in real wages, private consumption remained sluggish not least as a result of still subdued consumer sentiment. The household saving rate increased moderately over the past year. Looking ahead, cyclical headwinds are projected to ease, albeit only in a gradual manner. The GCEE forecasts real GDP to expand by 0.4%, driven by a moderate strengthening in private consumption on the back of further, albeit moderating, real wage gains of households. Furthermore, investment in machinery and equipment is projected to recover modestly in 2025 from the large decline in the current year. The growth outlook is exposed to downside risks, including a potential increase in US tariffs on imports that would likely weaken Germany's export activity and weigh on domestic business sentiment. The US accounted for 10% of total German exports in 2023.

Over the medium-term, potential growth is projected to be dampened by unfavourable demographic trends. The size of the domestic labour force is expected to start shrinking over the next years, driven by the retirement of the large age cohorts of the baby boomer generation. Furthermore, important manufacturing industries face large structural challenges such as the global energy transition and the automotive industry's transformation towards electric vehicle production. Nevertheless, Germany's credit profile continues to be supported by its competitive and highly developed economy and its high level of labour productivity.

Snap Elections are Scheduled for February 2025

The 'traffic-light' coalition government (Social Democrats, Green Party, Free Democrats) broke up in November 2024 as the three parties failed to agree on a central government budget for 2025. Over the past year, the outgoing government's policymaking had been increasingly impeded by diverging policy priorities of the three coalition parties particularly on fiscal and economic policy. The snap elections are scheduled for 23 February 2025. The centre-right Christian Democratic Union is currently leading the election polls by a wide margin. While political polarization has increased in recent years, it continues to be less pronounced than in some other advanced economies. In terms of foreign affairs, policy continuity of the yet-to-be elected government is likely to remain high. Germany is a strong performer on the World Bank's Governance Indicators reflecting a high rule of law, low levels of corruption and stable political and economic institutions. Germany's high institutional quality is a key strength of its credit profile.

Government Budgetary Pressures are Moderate but the Next Government is Likely to Face Tough Fiscal Choices

Budgetary pressures are higher than in pre-pandemic years but still moderate. The GCEE forecasts the general government budget deficit to narrow to 2.1% of GDP in 2024 from 2.6% in 2023, driven by the phase-out of fiscal support measures such as the gas and price brakes by year-end 2023. While fiscal accounts in 2024 benefit from rising social security contributions and, to a lesser extent, personal income taxes on the back of high nominal wage growth, corporate income tax revenues have been weighed down by weak economic growth dynamics. Furthermore, budgetary pressures have been raised by a step-up in spending by the special fund for the military and rising investment in rail infrastructure. Total budgeted defence spending (core budget and special fund) amounts to 1.8%



of GDP in 2024, up from 1.3% in 2022. In 2025, the GCEE forecasts the budget deficit to narrow to 1.9% of GDP. General government revenues are likely to be bolstered by the increase in the national carbon price and higher social security contribution rates for health and long-term care insurances. Central government budgetary operations next year will be guided by the principles of interim budget management until a new central government passes a budget for 2025. These principles confine central government spending to the fulfillment of contractual obligations and the continuation of already adopted fiscal measures.

While the size of current and projected budget deficits is smaller than those in most other advanced economies, the government's fiscal space has been narrowed by the reinstatement of the constitutional debt brake in 2024. The debt brake limits net structural borrowing of the central government at 0.35%. The central government 2024 budget fully utilized permissible net borrowing under the debt brake. Over the medium-term, rising ageing-related expenditure is projected to reduce the government's fiscal space under current policy settings. The government's Ageing Report projects annual public pension expenditure to increase by 0.6% of GDP between 2022 and 2030. Morningstar DBRS takes the view that the future government is set to face tough budgetary choices as the country faces large investment needs and defence spending pressures have risen markedly given the geopolitical uncertainties after the US election. Making room for a potential step-up in investment and defence spending would require some flexibility around the debt brake, tax increases or cuts in other types of public spending. An alteration of debt brake regulations would require a two-thirds majority in the German parliament.

Debt Affordability Is High

Morningstar DBRS regards Germany's debt affordability as high due to moderate government debt levels, a low interest burden and Germany's status as a safe haven. General government gross debt declined to 61.9% of GDP in June 2024 from 65.0% in December 2022 underpinned by high, albeit decelerating, nominal GDP growth. Looking ahead, the debt-to-GDP ratio — under current policy settings — is likely to stabilize over the next year as nominal GDP growth is projected to continue to decelerate on the back of lower inflationary pressures and the general government budget deficit is likely to remain moderate. Risks to public finances emanate from a materialization of implicit or explicit contingent liabilities. This has been illustrated by support measures to the energy company Uniper and Siemens Energy in recent years. Nevertheless, while the increase in interest rates is projected to raise the government's interest burden moderately, it remains low and continues to compare favourably with European peers and in a historical perspective. The European Commission forecasts the general government's interest burden to rise to 1.1% of GDP in 2025 from 0.9% in 2023 compared to an average of 2.0% for Euro area countries in 2025 and an average annual interest burden of 1.6% for Germany during the years 2010-2019. Government financing benefits from the government's role as a benchmark issuer for the euro area. Germany's safe-haven status supports the "Debt and Liquidity" building block assessment.

Financial Condition of the Banking Sector Is Sound but Pockets of Vulnerability Might Emerge from Commercial Real Estate Exposure

Financial stability is supported by the banking sector's good capital buffers. The average Tier 1 capital adequacy ratio rose to 18.1% in June 2024 from 17.2% in December 2022, driven by a temporary increase in profitability related to higher net interest income. Moreover, banks have so far weathered potential asset quality risks such as weak economic growth dynamics and the sharp increase in interest rates for corporate borrowers reasonably well. The average NPL ratio rose to a still low 1.6% in June 2024, up from 1.2% in December 2022. Pockets of vulnerability might arise from banks' exposure to the commercial real estate sector (15.5% of total domestic private loans in September 2024) and, to a lesser extent, to the manufacturing (4.5%) and the construction (3.3%) sectors. Commercial real estate borrowers face repricing risks over the next years and segments such as retail and office are exposed to structural



challenges such as a rising importance of remote work and e-commerce. While commercial real estate prices have stabilized over recent months, transaction volumes continue to be low. In terms of household mortgages (37.4% of total domestic private loans in September 2024), the pass-through of higher interest rates has been contained by long interest rate fixation periods of most mortgages. Furthermore, households' repayment capacity is supported by the comparatively low level of household debt (51% of GDP in Q1 2024) and still low, albeit rising, unemployment.

External Finances Resilient to Potential Global Trade and Financial Shocks

Germany's external finances are strong and resilient to potential shocks. The economy commands over a structural current account surplus which amounted to 5.9% of GDP in 2023. The GCEE forecasts the current account surplus to widen to 6.7% in 2024 on the back of a modest increase in nominal exports and as weak domestic demand weighed on imports of goods and services. In 2025, the current account surplus in forecast to narrow to 6.4% of GDP as a moderate strengthening in domestic demand is projected to raise imports. Furthermore, Morningstar DBRS assesses the economy's external vulnerability to potential global trade and financial shocks as low given Germany's status as a safe haven and its large net external asset position. In Q2 2024, Germany's net international investment position amounted to a large 76% of GDP owing to substantial foreign assets held particularly by non-depository financial institutions and, to a lesser extent, the central bank. This strong net external creditor position supports the "Balance of Payments" building block assessment.

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE CONSIDERATIONS

There were no Environmental, Social or Governance factors that had a significant or relevant effect on the credit analysis.

A description of how Morningstar DBRS considers ESG factors within the Morningstar DBRS analytical framework can be found in the Morningstar DBRS Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings (13 August, 2024) https://dbrs.morningstar.com/research/437781.

For more information on the Rating Committee decision, please see the Scorecard Indicators and Building Block Assessments.

FURO AREA RISK CATEGORY: LOW

Notes:

All figures are in euros unless otherwise noted. Public finance statistics reported on a general government basis unless specified.

The principal methodology is the Global Methodology for Rating Sovereign Governments (15 July, 2024) https://dbrs.morningstar.com/research/436000. In addition Morningstar DBRS uses the Morningstar DBRS Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings https://dbrs.morningstar.com/research/437781 in its consideration of ESG factors.

The credit rating methodologies used in the analysis of this transaction can be found at: https://dbrs.morningstar.com/about/methodologies.



The sources of information used for these credit ratings include Germany's Federal Ministry of Finance (German Draft Budgetary Plan 2025, October 2024; Monthly Reports), German Finance Agency (Deutsche Finanzagentur), Deutsche Bundesbank (Monthly Reports; Financial Stability Review 2024, November 2024), Federal Ministry for Economic Affairs and Climate Action, Federal Statistical Office, Federal Financial Supervisory Authority (BaFin), European Banking Authority, German Council of Economic Experts (Annual Report 2024-25, November 2024), Ifo Institute, European Commission (European Economic Forecast Autumn 2024, November 2024), Statistical Office of the European Communities, European Central Bank (ECB), IMF (World Economic Outlook October 2024; International Financial Statistics; Germany: 2024 Article IV Consultation July 2024), OECD, BulwienGesa AG (Housing Price Index), European Environment Agency, German Environment Agency, Social Progress Index, World Bank, Bank for International Settlements, Macrobond and Haver Analytics. Morningstar DBRS considers the information available to it for the purposes of providing these credit ratings to be of satisfactory quality.

With respect to FCA and ESMA regulations in the United Kingdom and European Union, respectively, these are unsolicited credit ratings. These credit ratings were not initiated at the request of the issuer.

With Rated Entity or Related Third Party Participation: YES With Access to Internal Documents: NO With Access to Management: NO

Morningstar DBRS does not audit the information it receives in connection with the rating process, and it does not and cannot independently verify that information in every instance.

The conditions that lead to the assignment of a Negative or Positive trend are generally resolved within a 12-month period. Morningstar DBRS' outlooks and ratings are under regular surveillance.

For further information on Morningstar DBRS historical default rates published by the European Securities and Markets Authority (ESMA) in a central repository, see: https://registers.esma.europa.eu/cerep-publication. For further information on Morningstar DBRS historical default rates published by the Financial Conduct Authority (FCA) in a central repository, see https://data.fca.org.uk/#/ceres/craStats.

The sensitivity analysis of the relevant key credit rating assumptions can be found at: https://dbrs.morningstar.com/research/443636.

These credit ratings are endorsed by DBRS Ratings Limited for use in the United Kingdom.

Lead Analyst: Yesenn El-Radhi, Vice President, Global Sovereign Ratings

Rating Committee Chair: Nichola James, Managing Director, Global Sovereign Ratings

Initial Rating Date: 16 June 2011 Last Rating Date: 31 May 2024



DBRS Ratings GmbH Neue Mainzer Straße 75 60311 Frankfurt am Main Deutschland Tel. +49 (69) 8088 3500 Geschäftsführer: Detlef Scholz Amtsgericht Frankfurt am Main, HRB 110259

For more information on this credit or on this industry, visit dbrs.morningstar.com.

Issuer	Debt Rated	Credit Rating Action	Credit Rating	Trend
Germany, Federal	Long-Term Foreign Currency -	Confirmed	AAA	Stable
Republic of	Issuer Rating			
Germany, Federal	Long-Term Local Currency -	Confirmed	AAA	Stable
Republic of	Issuer Rating			
Germany, Federal	Short-Term Foreign Currency -	Confirmed	R-1 (high)	Stable
Republic of	Issuer Rating			
Germany, Federal	Short-Term Local Currency -	Confirmed	R-1 (high)	Stable
Republic of	Issuer Rating			

Contacts

Yesenn El-Radhi Vice President, Global Sovereign Ratings +(49) 69 8088 3517 Yesenn.El-Radhi@morningstar.com

Nichola James Managing Director, Global Sovereign Ratings +(49) 69 8088 3689 nichola.james@morningstar.com



Germany

Scorecard Indicators Source Current Scorecard Input

Fiscal Management and Policy	2018	2019	2020	2021	2022	2023	2024	2025	2026			
Overall Fiscal Balance (% of GDP)	1.9%	1.3%	-4.4%	-3.2%	-2.1%	-2.6%	-2.0%	-1.7%	-1.0%	IMF WEO	13 year average	-0.7%
Government Effectiveness (Percentile Rank)	91.4	91.9	88.1	87.1	88.2	85.4	-	-	-	World Bank	5 year average	88.1
Debt and Liquidity	2018	2019	2020	2021	2022	2023	2024	2025	2026			
General Government Gross Debt (% of GDP)	60.7%	58.6%	67.9%	67.9%	64.8%	62.7%	62.7%	62.1%	60.9%	IMF WEO	5 year projection	59.0%
Interest Costs (% of GDP)	0.7%	0.6%	0.5%	0.5%	0.6%	0.6%	0.7%	0.8%	1.0%	IMF WEO	5 year average	0.7%
Economic Structure and Performance	2018	2019	2020	2021	2022	2023	2024	2025	2026			
GDP per Capita (USD thousands)	48.9	47.6	47.3	52.3	49.7	53.6	55.5	57.9	60.1	IMF WEO	10 year average	47.9
Output Volatility (%)	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.2%	IMF WEO	Latest	2.3%
Economic Size (USD billions)	4,054	3,958	3,937	4,351	4,167	4,527	4,710	4,922	5,117	IMF WEO	5 year average	4,188
Monetary Policy and Financial Stability	2018	2019	2020	2021	2022	2023	2024	2025	2026			
Rate of Inflation (%, EOP)	1.8%	1.3%	-0.5%	5.4%	10.8%	3.0%	2.0%	2.1%	2.0%	IMF WEO	13 year average	2.4%
Total Domestic Savings (% of GDP)	218%	228%	253%	254%	230%	230%	-	-	-	ECB/IMF	Latest ¹	230%
Change in Domestic Credit (% of GDP)	2.3%	2.7%	9.2%	-1.2%	-2.7%	-5.3%	-	-	-	BIS/IMF	7 year average ¹	0.7%
Net Non-Performing Loans (% of Capital)	-	7.4%	7.9%	6.9%	13.3%	16.1%	-	-	-	Bundesbank	Latest ¹	16.1%
Change in Property Price/GDP Index (%)	3.8%	2.6%	7.8%	-0.7%	-2.1%	-4.6%	-	-	-	BulwienGesa/IMF	7 year average ¹	1.5%
Balance of Payments	2018	2019	2020	2021	2022	2023	2024	2025	2026			
Current Account Balance (% of GDP)	7.8%	8.0%	6.5%	7.2%	4.2%	6.2%	6.6%	6.4%	6.0%	IMF WEO	8 year average	6.4%
International Investment Position (% of GDP)	52.5%	58.5%	64.2%	69.8%	69.7%	70.8%	-	-	-	IMF	5 year average ¹	66.6%
Share of Global Foreign Exchange Turnover (Ratio)	198.0%	205.2%	206.4%	209.7%	203.9%	206.8%	-	-	-	BIS/IMF	Latest	206.8%
Exchange Rate Classification (see footnote)	5	5	5	5	5	5	-	-	-	IMF	Latest	5
Political Environment	2018	2019	2020	2021	2022	2023	2024	2025	2026			
Voice and Accountability (Percentile Rank)	95.1	95.2	94.2	95.7	94.7	94.6	-	-	-	World Bank	5 year average	94.9
Rule of Law (Percentile Rank)	91.4	92.4	91.0	91.4	92.0	92.9	-	-	-	World Bank	5 year average	91.9

See Morningstar DBRS' Global Methodology for Rating Sovereign Governments for additional details on the methodology behind the scorecard indicators and associated scoring thresholds. Exchange Rate Classifications: Freely floating exchange rate = 1; Float = 2; Crawls, banded pegs, and other managed = 3; Stabilized = 4; Pegs, currency unions and dollarized arrangements = 5.

Rating Committee Date:

27-Nov-2024

¹ Scores for 2023 have been computed using the most recent data when year-end data is not available.

Germany



Building Block Assessments and Rating Committee Summary

27-Nov-2024

Building Blocks	Scorecard Result	Quantitative Assessment	Net Impact of Qualitative Factors	Building Block Assessment
Fiscal Management and Policy	19.07	Very Strong	N/A	Very Strong
Debt and Liquidity	15.61	Strong/Good	+ 1 Category	Strong
Economic Structure and Performance	17.90	Strong	N/A	Strong
Monetary Policy and Financial Stability	18.85	Strong	N/A	Strong
Balance of Payments	16.28	Strong/Good	+ 1 Category	Strong
Political Environment	20.00	Very Strong	N/A	Very Strong
Overall Assessment	Composite Scorecard Result	Scorecard Rating Range	Composite Building Block Assessment	Indicative Rating Range
	89.8	AAA - AA (high)	93.1	AAA - AA (high)
Germany's Long-Term Foreign Curre	ncy - Issuer Rating		ААА	

Main topics discussed in the Rating Committee include: Macroeconomic developments and outlook, cyclical and structural factors for the economy's weak growth dynamics in recent years, the impact of a potential increase in global trade tensions on the economy, fiscal developments and outlook, public debt trajectory, contingent liabilities, recent political developments and the February 2025 snap elections, external finances and financial sector stability. For additional details on Morningstar DBRS analysis and opinions, please see the accompanying rating report.

Morningstar DBRS Scorecard: Scoring Ranges and Associated Assessment Categories

Lower Bound	0.00	1.00	3.00	5.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00
Upper Bound	0.99	2.99	4.99	6.99	8.99	10.99	12.99	14.99	16.99	18.99	20.00
Assessment Category	Very Weak	Weak	Weak/ Poor	Poor	Poor/ Moderate	Moderate	Good/ Moderate	Good	Strong/ Good	Strong	Very Strong

Germany, Federal Republic of

ESG Checklist

tor		ESG Credit Consideration Applicable to the Credit Analysis: Y/N		ESG Factor on the Crec Analysis: Relevant (R) Significant (S)*
mont		0	N.	
ımenta	ll .	Overall: Do the costs or risks result in changes to a government's financial standing or	N	N
Er	missions, Effluents, and	relationship with other governments, and does this affect the assessment of		
W	Vaste	credit risk?	N	N
		Does a government face coordinated pressure from a higher-tier government		
		or from numerous foreign governments as a result of its GHG emissions		
C	arbon and GHG Costs	policies, and does this affect the assessment of credit risk?	N	N
		Will recent regulatory changes have an impact on economic resilience or		
		public finances?	N	N
ъ	and Franci	Carbon and GHG Costs	N	N
	esource and Energy Nanagement	Does the scarcity of key resources impose high costs on the public sector or make the private sector less competitive?	N	N
IV	ialiayellielit	Is the economy reliant on industries that are vulnerable to import or export	N	IV.
		price shocks?	N	N
		Resource and Energy Management	N	N
		Is there a risk to a government's economic or tax base for failing to effectively		
<u>L</u> a	and Impact and Biodiversity	regulate land impact and biodiversity activities?	N	N
		Under key IPCC climate scenarios will climate change and adverse weather events potentially destroy a material portion of national wealth, weaken the		
C	limate and Weather Risks	financial system, or disrupt the economy?	N	N
	mate and Frontier mone	Does this rating depend to a large extent on the creditworthiness of another		
	assed-through Environmental	rated issuer which is impacted by environmental factors (see respective ESG		
CI	redit considerations	checklist for such issuer)?	N	N
П	uman Capital and Human	Overall: Compared with regional or global peers, is the domestic labour force more or	N	N N
	Rights	less competitive, flexible and productive?	N	N
		Are labour or social conflicts a key source of economic volatility?	N	N
		Are individual and human rights insufficiently respected or failing to meet		
		the population's expectations?	N	N
		Is the government exposed to heavy, coordinated international pressure as a		
		result of its respect for fundamental human rights?	N	N
_		Human Capital and Human Rights Does a failure to provide adequate basic services deter investment,	N	N
A	ccess to Basic Services	migration, and income growth within the economy?	N	N
_		Does this rating depend to a large extent on the creditworthiness of another		
	assed-through Social credit	rated issuer which is impacted by social factors (see respective ESG checklist		
CO	onsiderations	for such issuer)?	N	N
nce		Overall:	N	N
IIUU		Overum.	•	
	ribery, Corruption, and	Does widespread evidence of official corruption and other weaknesses in the		
<u>P</u>	olitical Risks	rule of law deter investment and contribute to fiscal or financial challenges?	N	N
lr	nstitutional Strength,	Compared with other governments, do institutional arrangements provide a		
	overnance, and Transparency	higher or lesser degree of accountability, transparency, and effectiveness?	N	N
	7	Are regulatory and oversight bodies insufficiently protected from		-
		inappropriate political influence?	N	N
		Are government officials insufficiently exposed to public scrutiny or held to	R:	R.I
		insufficiently high ethical standards of conduct?	N	N
_		Institutional Strength, Governance, and Transparency Is the government likely to initiate or respond to hostilities with neighbouring	N	N
P	eace and Security	governments?	N	N
	•	Is the government's authority over certain regions contested by domestic or	-	
		foreign militias?	N	N
		Is the risk of terrorism or violence sufficient to deter investment or to create		
		contingent liabilities for the government?	N	N
_		Peace and Security Does this rating depend to a large extent on the creditworthiness of another	N	N
P	assed-through Governance	rated issuer which is impacted by governance factors (see respective ESG		
	redit considerations	checklist for such issuer)?	N	N
13	i cuit consiuci ations			

^{*} A Relevant Effect means that the impact of the applicable ESG Factors has not changed the rating or rating trend on the issuer.

A Significant Effect means that the impact of the applicable ESG Factors has changed the rating or trend on the issuer.



Germany, Federal Republic of: ESG Considerations

29 November 2024

Environmental

There were no Environmental factors that had a significant or relevant effect on the credit analysis. Germany faces physical risks from climate change, particularly droughts and floodings, but Morningstar DBRS does not expect this to weigh on the credit ratings in the medium-term. From a credit perspective, environmental policies are generally sound. Similar to other EU countries, Germany has stepped up its GHG emission reduction target for the non-ETS sectors (e.g. transport, buildings, agriculture). It seeks to reduce its GHG emissions from non ETS-sectors by 50% until 2030 compared with 2005, up from the previous reduction target of 38%. The European Environment Agency estimates that Germany's total GHG emissions from non-ETS sectors declined by just 18.3% between 2005 and 2023. Hence, meeting the legally binding 2030 target will likely require an acceleration in the pace of GHG emission reductions over the next few years. Morningstar DBRS will continue to assess the credit impact of new regulatory and policy measures.

Social

There were no Social factors that had a significant or relevant effect on the credit analysis. Germany's respect for human rights is high, and access to quality healthcare and other basic services is widespread. Germany ranks 10 among the 170 countries assessed in the 2024 Social Progress Index. Germany's economy is highly productive and competitive. GDP per capita amounted to a very high USD 53,565 in 2023. Income inequality is lower than in other advanced economies.

Governance

There were no Governance factors that had a significant or relevant effect on the credit analysis. Germany has independent and transparent institutions. Demonstrating a high degree of transparency and accountability, German institutions perform well in the World Bank's Worldwide Governance Indicators (WGI). Germany's 2023 percentile rank scores of 94.6 for Voice and Accountability and 92.9 for Rule of Law are very strong.



The Morningstar DBRS group of companies consists of DBRS, Inc. (Delaware, U.S.)(NRSRO, DRO affiliate); DBRS Limited (Ontario, Canada)(DRO, NRSRO affiliate); DBRS Ratings GmbH (Frankfurt, Germany)(EU CRA, NRSRO affiliate, DRO affiliate); and DBRS Ratings Limited (England and Wales)(UK CRA, NRSRO affiliate, DRO affiliate). Morningstar DBRS does not hold an Australian financial services license. Morningstar DBRS credit ratings, and other types of credit opinions and reports, are not intended for Australian residents or entities. Morningstar DBRS does not authorize their distribution to Australian resident individuals or entities, and accepts no responsibility or liability whatsoever for the actions of third parties in this respect. For more information on regulatory registrations, recognitions and approvals of the Morningstar DBRS group of companies, please see: https://www.dbrsmorningstar.com/research/225752/highlights.pdf.

The Morningstar DBRS group of companies are wholly-owned subsidiaries of Morningstar, Inc.

© 2024 Morningstar DBRS. All Rights Reserved. The information upon which Morningstar DBRS credit ratings and other types of credit opinions and reports are based is obtained by Morningstar DBRS from sources Morningstar DBRS believes to be reliable. Morningstar DBRS does not audit the information it receives in connection with the analytical process, and it does not and cannot independently verify that information in every instance. The extent of any factual investigation or independent verification depends on facts and circumstances. Morningstar DBRS credit ratings, other types of credit opinions, reports and any other information provided by Morningstar DBRS are provided "as is" and without representation or warranty of any kind and Morningstar DBRS assumes no obligation to update any such credit ratings, opinions, reports or other information. Morningstar DBRS hereby disclaims any representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, fitness for any particular purpose or non-infringement of any of such information. In no event shall Morningstar DBRS or its directors, officers, employees, independent contractors, agents, affiliates and representatives (collectively, Morningstar DBRS Representatives) be liable (1) for any inaccuracy, delay, loss of data, interruption in service, error or omission or for any damages resulting therefrom, or (2) for any direct, indirect, incidental, special, compensatory or consequential damages arising from any use of credit ratings, other types of credit opinions and reports or arising from any error (negligent or otherwise) or other circumstance or contingency within or outside the control of Morningstar DBRS or any Morningstar DBRS Representative, in connection with or related to obtaining, collecting, compiling, analyzing, interpreting, communicating, publishing or delivering any such information. IN ANY EVENT, TO THE EXTENT PERMITTED BY LAW, THE AGGREGATE LIABILITY OF MORNINGSTAR DBRS AND THE MORNINGSTAR DBRS REPRESENTATIVES FOR ANY REASON WHATSOEVER SHALL NOT EXCEED THE GREATER OF (A) THE TOTAL AMOUNT PAID BY THE USER FOR SERVICES PROVIDED BY MORNINGSTAR DBRS DURING THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO LIABILITY, AND (B) U.S. \$100. Morningstar DBRS does not act as a fiduciary or an investment advisor. Morningstar DBRS does not provide investment, financial or other advice. Credit ratings, other types of credit opinions and other analysis and research issued by Morningstar DBRS (a) are, and must be construed solely as, statements of opinion and not statements of fact as to credit worthiness, investment, financial or other advice or recommendations to purchase, sell or hold any securities; (b) do not take into account your personal objectives, financial situations or needs; (c) should be weighed, if at all, solely as one factor in any investment or credit decision; (d) are not intended for use by retail investors; and (e) address only credit risk and do not address other investment risks, such as liquidity risk or market volatility risk. Accordingly, credit ratings, other types of credit opinions and other analysis and research issued by Morningstar DBRS are not a substitute for due care and the study and evaluation of each investment decision, security or credit that one may consider making, purchasing, holding, selling, or providing, as applicable. A report with respect to a Morningstar DBRS credit rating or other credit opinion is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Morningstar DBRS may receive compensation for its credit ratings and other credit opinions from, among others, issuers, insurers, quarantors and/or underwriters of debt securities. This publication may not be reproduced, retransmitted or distributed in any form without the prior written consent of Morningstar DBRS. ALL MORNINGSTAR DBRS CREDIT RATINGS AND OTHER TYPES OF CREDIT OPINIONS ARE SUBJECT TO DEFINITIONS, LIMITATIONS, POLICIES AND METHODOLOGIES THAT ARE AVAILABLE ON https://dbrs.morningstar.com. Users may, through hypertext or other computer links, gain access to or from websites operated by persons other than Morningstar DBRS. Such hyperlinks or other computer links are provided for convenience only. Morningstar DBRS does not endorse the content, the operator or operations of third party websites. Morningstar DBRS is not responsible for the content or operation of such third party websites and Morningstar DBRS shall have no liability to you or any other person or entity for the use of third party websites.