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

Industry Group: Public Finance – Sovereigns

DBRS Ratings GmbH (DBRS Morningstar) confirmed the Federal Republic of Germany's (Germany) Long-Term Foreign and Local Currency — Issuer Ratings at AAA. At the same time, DBRS Morningstar 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 DBRS Morningstar's view that Germany's credit fundamentals remain solid notwithstanding the economy's current weak growth dynamics and fiscal policy uncertainty. Real GDP contracted by 0.1% in Q3 2023 as consumer demand weakened and external demand from Germany's key trading partner countries softened. While private consumption is projected to strengthen gradually next year, driven by rising real wages, the economy's short-term growth outlook is exposed to downside risks. The lagged impact of monetary tightening might lead to lower-than-expected growth in Euro area economies next year. Furthermore, fiscal tightening following the November 2023 Constitutional Court ruling is likely to weigh on domestic demand. While budget deficits have narrowed over the past two years, the government's future fiscal space is constrained markedly by the recent Court ruling which strengthened the applicability of the country's debt brake. The government's debt affordability remains very strong. It benefits from a low interest burden, a moderate stock of public debt and the country's status as a safe haven.

Germany's AAA ratings are supported by its competitive and highly developed economy, high institutional quality and strong external finances. However, the country is exposed to unfavourable demographic trends which will likely lead to low potential real GDP growth rates over the next decade. Furthermore, the country's manufacturing sector faces important structural challenges such as high energy costs and the transformation of the global automotive industry towards electric vehicles. Furthermore, contingent liabilities, emanating from state guarantees for domestic companies and fiscal burden sharing within the currency union could eventually weigh on public finances.

CREDIT RATING DRIVERS

Germany is strongly placed within the AAA category. DBRS Morningstar 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

Cyclical Headwinds are Likely to Ease Gradually Over the Next Two Years But Outlook is Exposed to Downside Risks

Economic growth remained weak in previous months. Real GDP contracted by 0.1% in Q3 2023 on the back of weak private consumption. Furthermore, external demand from key trading partner economies softened whereas a moderate rebound in gross fixed capital formation supported growth. On an annual basis, the European Commission forecasts real GDP to contract by 0.3% in 2023. Looking ahead, cyclical headwinds are projected to fade gradually with real GDP forecast to expand by 0.8% in 2024 and 1.2% in 2025, driven by a gradual recovery of private consumption and external demand while construction investment is projected to recover only from 2025 onwards. Private consumption is likely to benefit from a rebound in households' purchase power related to a decrease in consumer price inflation and a catch-up in nominal wages. The European Commission forecasts real compensation per employee to increase by 2.5% in 2024 and 1.5% in 2025 following decrease of 2.6% in 2022 and 0.6% in 2023. A major risk factor to the economic growth outlook is weaker than-expected growth in trading partner economies. This relates particularly to the projected strengthening in economic growth dynamics within the euro area given the uncertainty over the lagged impact of monetary tightening next year. Moreover, the recent decision of the Federal Constitutional Court is likely to lead to a substantial fiscal tightening over the next years, likely weighing on domestic demand.



Germany's credit profile continues to be supported by its competitive and highly developed economy and its high level of labour productivity. Moreover, DBRS Morningstar notes that most, though not all, industries have demonstrated a strong resilience towards the energy price shock last year. Nevertheless, the economy faces significant structural challenges over the next years. Unfavourable demographic trends are projected to weigh on the economy's growth potential with the size of the domestic labour force expected to start shrinking from 2026 onwards. As a result, the Council of Economic Experts projects the potential real GDP growth rate to average a mere 0.4% over the next ten years compared to an average of 1.4% during the period 2010-2019. Furthermore, energy-intensive industries face the prospect of high-for-longer energy costs. In the long-term, the economy's large automotive industry faces the challenge of maintaining its strong market position amid the global industry's transformation towards electric vehicles.

The Recent Ruling of the Constitutional Court is Likely to Impact the Government's Future Fiscal Leeway Markedly

While budgetary pressures have decreased over the past two years, the government's future fiscal leeway is likely to be constrained by the recent Constitutional Court ruling. Forecasts by the Council of Economic Experts project the general government budget deficit (incl. the operations of central government off-budget funds) to narrow to 2.2% of GDP in 2023 from 2.5% in 2022 and 3.6% in 2021. Government finances in the current fiscal year benefitted from a lower-than-projected fiscal cost of the electricity and gas brakes and rising social security contributions on the back of a still strong labour market. Instead, tax revenue growth decelerated, driven by weakening economic activity and the adjustment of income tax brackets to last year's high inflation rate. Looking ahead, the general government budget deficit is forecast to narrow to 1.5% of GDP in 2024 on the back of accelerating tax revenue growth and the phase-out of electricity and gas brakes. DBRS Morningstar notes that the latter projections do not incorporate the impact of the Federal Constitutional Court which is likely to force the government to adopt a tighter fiscal stance over the next years.

On 15 November 2023, the Constitutional Court ruled that the use of borrowing authorizations by funds which operate outside the central government's core budget (e.g. Climate and Transformation Fund, Economic Stabilisation Fund) need to be reflected in central government debt brake calculations for those years in which the utilization takes place and not, as has been the case since early 2022, in the years during which the borrowing authorizations have been transferred to these vehicles. The debt brake limits structural net borrowing by the central government to 0.35% of GDP. In response to the court ruling, the central government has delayed the adoption of its final budget for 2024. While there is still substantial uncertainty about the full scope of necessary budgetary booking adjustments, preliminary estimates by the Bundesbank point to large central government fiscal tightening needs for complying with the strengthened scope of the debt brake in 2024. Taking into account the 2024 draft budget and the initially planned use of borrowing authorizations by funds, the Bundesbank estimates that the central government would exceed permissible net borrowing by around EUR 52 billion (1.3% of GDP 2023). The debt brake can only be suspended in case of a natural catastrophe or an unusual emergency situation such as the COVID-19 pandemic. In DBRS Morningstar view, changes to the debt brake stipulations are unlikely in the short-term as this would require a two-thirds majority in the parliament. Over the medium-to long-term, the government's fiscal leeway under the current debt brake is likely to decrease further as the repayment of COVID-funds which had been drawn while debt brake was suspended will commence in 2028 and population ageing is set to drive up government pension and health expenditure. DBRS Morningstar notes that the recent Court ruling does not impact the general government figures reported in the context of EU fiscal rules as these figures have been prepared according to the European System of Accounts which reflect the operations of the above mentioned funds in those years in which the actual use of borrowing authorizations takes place.

Debt Affordability Continues to Benefit from Low Interest Burden and Favourable Government Financing Conditions

DBRS Morningstar 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. The Council of Economic Advisers forecasts general government debt to decrease to 63.7% of GDP in 2024 from 66.1% in 2022 on the back of a narrowing budget deficit and still favourable debt dynamics. Moreover, despite the recent increase in interest rates, the government's interest burden is projected to remain low both when compared to European peers and from a historical perspective. The European Commission forecasts the general government's interest burden to average 0.9% of GDP in 2024 and 2025 compared to an EU



average of 1.9% and an average annual interest burden of 1.6% for Germany during the years 2010-2019. Risks to public finances emanate from a materialization of implicit or explicit contingent liabilities. This has been illustrated by support measures for the energy company Uniper and, more recently, Siemens Energy. In general, government financing benefits from the government's role as a benchmark issuer for the euro area. Germany's safe-haven status has a positive impact on the "Debt and Liquidity" building block assessment.

Current Financial Condition of the Banking Sector Is Sound but Asset Quality Risks Are Skewed to the Downside

DBRS Morningstar assesses the current financial condition of the banking sector as sound. Banks benefit from sound capital and liquidity buffers as well as from a temporary increase in profitability related to higher net interest income. Furthermore the current stock of non-performing loans is low. Looking ahead, DBRS Morningstar expects asset quality risks to rise, driven by the increase in interest rates and the accompanying downturn in the domestic real estate market. The increase in interest rates will likely strain the repayment capacity particularly of those borrowers facing economic headwinds from high-for-longer energy costs and lower residential investment activity. DBRS Morningstar, however, notes that the size of banks' total loan exposure towards the manufacturing sector (4.7% of loans to the non-financial private sector in September 2023) and construction (3.3%) is moderate. The downturn in real estate prices is likely to raise asset quality risks for the banking sector's sizeable stock of household mortgages (37.3%) and commercial real estate loans (15.4%). In DBRS Morningstar's view, a potential prolonged decline in real estate valuations and transactions volumes constitutes an important risk factor particularly for commercial real estate borrowers. Asset quality risks from household mortgages are partly mitigated by the comparatively low level of household debt (54% of GDP in Q1 2023), the still strong condition of the labour market and long interest rate fixation periods of most mortgages.

External Finances Resilient to Potential Global Trade and Financial Shocks

Germany's external finances are strong and robust to potential shocks. The economy commands over a structural current account surplus which has mitigated the impact of the energy price shock on external finances. The current account surplus narrowed to 4.4% of GDP in 2022 but the European Comission forecasts it to rebound to 6.0% of GDP in 2023 and to 6.5% in 2024 as the terms of trade shock has partially reversed. Furthermore, DBRS Morningstar assesses the economy's vulnerability to potential global financial shocks as low given Germany's status as a safe haven and its large net external asset position. In Q2 2023, Germany's net international investment position amounted to a large 68.6% 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.

Germany's Rating Is Underpinned by High Institutional Quality

Germany's high institutional quality is a key strength of its credit profile. 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. Moreover, political polarization is less pronounced than in some other advanced economies. The current 'traffic-light' coalition government (Social Democrats, Green Party, Free Democrats) places a greater emphasis on fostering the green transition of the economy than the previous government whereas policy continuity is very high for other areas, most notably foreign affairs. At the same time, DBRS Morningstar notes that policymaking in the current coalition government has been complicated by programmatic differences between the three coalition parties particularly with regard to energy and fiscal policies. Looking ahead, cohesion within the coalition might be further strained by the tough budgetary choices the government faces following the recent Court decision. Fiscal policy priorities among the three coalition parties are likely to differ on whether the required fiscal tightening should largely be achieved through cutting investment spending, decreases in other types of spending or by raising taxes.



ENVIRONMENTAL, SOCIAL, GOVERNANCE CONSIDERATIONS

Environmental (E) Factors

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

Social (S) Factors

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

Governance (G) Factors

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

A description of how DBRS Morningstar considers ESG factors within the DBRS Morningstar analytical framework can be found in the DBRS Morningstar Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings (04 July 2023) https://www.dbrsmorningstar.com/research/416784/dbrs-morningstar-criteria:-approach-to-environmental,-social,-and-governance-risk-factors-in-credit-ratings

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

EURO 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 (06 October 2023) https://www.dbrsmorningstar.com/research/421590/global-methodology-for-rating-sovereign-governments. In addition DBRS Morningstar uses the DBRS Morningstar Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings https://www.dbrsmorningstar.com/research/416784/dbrs-morningstar-criteria:-approach-to-environmental,-social,-and-governance-risk-factors-in-credit-ratings in its consideration of ESG factors.

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

The sources of information used for these credit ratings include Germany's Federal Ministry of Finance (Stability Programme 2023; Draft Budgetary Plan 2024; Monthly Report November 2023), German Finance Agency (Deutsche Finanzagentur), Deutsche Bundesbank (Monthly Report November 2023; Financial Stability Review 2023), Federal Ministry for Economic Affairs and Climate Action, Federal Statistical Office, Federal Financial Supervisory Authority (BaFin), Federal Constitutional Court (Second Supplementary Budget Act 2021 is Void, 15 November 2023), European Banking Authority, German Council of Economic Experts (Annual Report 2023-24), Ifo Institute, European Commission (Autumn 2023 Economic Forecast, November 2023), Statistical Office of the European Communities, European Central Bank (ECB), IMF (World Economic Outlook October 2023; International Financial Statistics; Germany: 2023 Article IV Consultation July 2023), OECD, BulwienGesa AG (Housing Price Index), European Environment Agency, German Environment Agency, Social Progress Index, World Bank, Bank for International Settlements, Haver Analytics. DBRS Morningstar 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

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For further information on DBRS Morningstar 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 DBRS Morningstar 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://www.dbrsmorningstar.com/research/424774.

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

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Initial Rating Date: June 16, 2011 Last Rating Date: June 02, 2023

For more information on this credit or on this industry, visit www.dbrsmorningstar.com.

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



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Germany

Scorecard Indicators Source Current Scorecard Input

| Fiscal Management and Policy | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
|---|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------------|-----------------------------|--------|--|
| Overall Fiscal Balance (% of GDP) | 1.3% | 1.9% | 1.5% | -4.3% | -3.6% | -2.5% | -2.9% | -1.7% | -0.9% | IMF WEO | 13 year average | -0.6% | |
| Government Effectiveness (Percentile Rank) | 93.3 | 91.4 | 91.9 | 88.1 | 87.1 | 88.2 | - | - | - | World Bank | 5 year average | 89.4 | |
| Debt and Liquidity | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
| General Government Gross Debt (% of GDP) | 65.2% | 61.9% | 59.5% | 68.7% | 69.0% | 66.1% | 65.9% | 64.0% | 61.8% | IMF WEO | 5 year projection | 58.6% | |
| Interest Costs (% of GDP) | 0.8% | 0.7% | 0.6% | 0.5% | 0.4% | 0.6% | 0.8% | 0.8% | 0.9% | IMF WEO | 5 year average | 0.6% | |
| Economic Structure and Performance | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
| GDP per Capita (USD thousands) | 44.6 | 48.0 | 46.8 | 46.7 | 51.5 | 48.8 | 52.8 | 56.0 | 59.1 | IMF WEO | 10 year average | 46.4 | |
| Output Volatility (%) | 2.3% | 2.3% | 2.3% | 2.3% | 2.3% | 2.3% | 2.3% | 2.3% | 2.3% | IMF WEO | Latest | 2.3% | |
| Economic Size (USD billions) | 3,690 | 3,976 | 3,890 | 3,885 | 4,281 | 4,086 | 4,430 | 4,701 | 4,960 | IMF WEO | 5 year average | 4,024 | |
| Monetary Policy and Financial Stability | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
| Rate of Inflation (%, EOP) | 1.6% | 1.8% | 1.7% | -0.6% | 5.8% | 9.8% | 4.1% | 2.8% | 2.4% | IMF WEO | 13 year average | 2.5% | |
| Total Domestic Savings (% of GDP) | 205% | 203% | 211% | 232% | 236% | 212% | - | - | | ECB/IMF | Latest ¹ | 212% | |
| Change in Domestic Credit (% of GDP) | 0.3% | 2.3% | 2.0% | 8.6% | -0.9% | -2.3% | - | - | - | BIS/IMF | 7 year average ¹ | 1.4% | |
| Net Non-Performing Loans (% of Capital) | 11.9% | 9.1% | 6.8% | 6.2% | 5.4% | 7.9% | - | - | - | IMF IFS | Latest ¹ | 7.9% | |
| Change in Property Price/GDP Index (%) | 3.9% | 3.8% | 2.4% | 7.4% | -0.4% | -2.0% | - | - | - | Bulwien/IMF | 7 year average ¹ | 2.6% | |
| Balance of Payments | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
| Current Account Balance (% of GDP) | 7.8% | 8.0% | 8.2% | 7.1% | 7.7% | 4.2% | 6.0% | 6.6% | 6.5% | IMF WEO | 8 year average | 6.8% | |
| International Investment Position (% of GDP) | 44.6% | 52.3% | 58.5% | 63.7% | 68.0% | 70.2% | - | - | - | IMF | 5 year average ¹ | 62.5% | |
| Share of Global Foreign Exchange Turnover (Ratio) | 199.9% | 198.4% | 205.7% | 206.7% | 210.1% | 204.4% | - | - | - | BIS/IMF | Latest | 204.4% | |
| Exchange Rate Classification (see footnote) | 5 | 5 | 5 | 5 | 5 | 5 | - | - | - | IMF | Latest | 5 | |
| Political Environment | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | | | | |
| Voice and Accountability (Percentile Rank) | 95.6 | 95.1 | 95.2 | 94.2 | 95.7 | 94.7 | - | - | - | World Bank | 5 year average | 95.0 | |
| Rule of Law (Percentile Rank) | 91.4 | 91.4 | 92.4 | 91.0 | 91.4 | 92.0 | - | - | - | World Bank | 5 year average | 91.6 | |

See DBRS Morningstar's 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:

28-Nov-2023

¹ Scores for 2022 have been computed using the most recent data when year-end data is not available.

Germany



Building Block Assessments and Rating Committee Summary

28-Nov-2023

| Building Blocks | Scorecard Result | Quantitative Assessment | Net Impact of Qualitative Factors | Building Block Assessment |
|--|-------------------------------|----------------------------|--|------------------------------|
| Fiscal Management and Policy | 19.20 | Very Strong | N/A | Very Strong |
| Debt and Liquidity | 15.48 | Strong/Good | + 1 Category | Strong |
| Economic Structure and Performance | 17.65 | Strong | N/A | Strong |
| Monetary Policy and Financial Stability | 17.99 | Strong | N/A | Strong |
| Balance of Payments | 16.23 | 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 |
| | 88.8 | AAA - AA (high) | 92.1 | 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, public finances, the November 2023 Constitutional Court ruling and fiscal policy uncertainty, economic policy, structural challenges of the German economy and financial sector stability. For additional details on DBRS Morningstar analysis and opinions, please see the accompanying rating report.

DBRS Morningstar 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

| Factor | | ESG Credit Consideration Applicable to the Credit Analysis: Y/N | | Extent of the Effect on t ESG Factor on the Credi Analysis: Relevant (R) o Significant (S)* |
|--------|-----------------------------------|---|----|--|
| ronmon | tol | Overall: | N. | N |
| ronmen | lai | Do the costs or risks result in changes to a government's financial standing or | N | N |
| | Emissions, Effluents, and | relationship with other governments, and does this affect the assessment of | | |
| | Waste | credit risk? | N | N |
| | | | | |
| | | Does a government face coordinated pressure from a higher-tier government | | |
| | Carbon and GHG Costs | or from numerous foreign governments as a result of its GHG emissions policies, and does this affect the assessment of credit risk? | N | N |
| | Carbon and Grid Costs | Will recent regulatory changes have an impact on economic resilience or | IN | IN . |
| | | public finances? | N | N |
| | | Carbon and GHG Costs | N | N |
| | Resource and Energy | Does the scarcity of key resources impose high costs on the public sector or | | |
| | Management | make the private sector less competitive? | N | N |
| | | Is the economy reliant on industries that are vulnerable to import or export | | |
| | | price shocks? | N | N |
| | | Resource and Energy Management | N | N |
| | Land Impact and Diadinors's | Is there a risk to a government's economic or tax base for failing to effectively | p. | N |
| | Land Impact and Biodiversity | regulate land impact and biodiversity activities? Under key IPCC climate scenarios up to a 2°C rise in temperature by 2050, | N | IV |
| | | will climate change and adverse weather events potentially destroy a | | |
| | | material portion of national wealth, weaken the financial system, or disrupt | | |
| | Climate and Weather Risks | the economy? | N | N |
| | | Does this rating depend to a large extent on the creditworthiness of another | | |
| | Passed-through Environmental | rated issuer which is impacted by environmental factors (see respective ESG | | |
| | credit considerations | checklist for such issuer)? | N | N |
| | | | | |
| | Human Canital and Human | Overall: | N | N . |
| | Human Capital and Human Rights | Compared with regional or global peers, is the domestic labour force more or less competitive, flexible, and productive? | N | N |
| | nigitta | Are labour or social conflicts a key source of economic volatility? | N | N N |
| | | Are individual and human rights insufficiently respected or failing to meet the | IV | in in |
| | | 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 | N | N |
| | A . D . O . | Does a failure to provide adequate basic services deter investment, | | ., |
| | Access to Basic Services | migration, and income growth within the economy? Does this rating depend to a large extent on the creditworthiness of another | N | N |
| | Passed-through Social credit | rated issuer which is impacted by social factors (see respective ESG checklist | | |
| | considerations | for such issuer)? | N | N |
| | | | | |
| iance | | Overall: | N | N |
| | | | | |
| | Bribery, Corruption, and | Does widespread evidence of official corruption and other weaknesses in the | | N |
| | Political Risks | rule of law deter investment and contribute to fiscal or financial challenges? | N | N |
| | Institutional Strength, | Compared with other governments, do institutional arrangements provide a | | |
| | | higher or lesser degree of accountability, transparency, and effectiveness? | N | N |
| | | Are regulatory and oversight bodies insufficiently protected from | | |
| | | inappropriate political influence? | N | N |
| | | Are government officials insufficiently exposed to public scrutiny or held to | | |
| | | insufficiently high ethical standards of conduct? | N | N |
| | | Institutional Strength, Governance, and Transparency | N | N |
| | Peace and Security | Is the government likely to initiate or respond to hostilities with neighboring governments? | N | N |
| | i out and occurry | Is the government's authority over certain regions contested by domestic or | ı¥ | IV. |
| | | 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 | N | N |
| | | Does this rating depend to a large extent on the creditworthiness of another | | |
| | Passed-through Governance | rated issuer which is impacted by governance factors (see respective ESG | | |
| | credit considerations | checklist for such issuer)? | N | N |

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

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



Germany, Federal Republic of: ESG Considerations

December 1, 2023

Environmental

This factor does not affect the credit ratings assigned to Germany. From a credit perspective, environmental policies are generally sound. Germany faces physical risks from climate change, particularly droughts and floodings, but DBRS Morningstar does not expect this to weigh on the credit ratings in the medium-term. Similar to other EU countries, Germany has recently stepped up its GHG emission reduction target for the non-ETS sectors (e.g. transport, buildings, agriculture). It now 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 16.8% between 2005 and 2022. Hence, meeting the legally binding 2030 target will require a marked acceleration in the pace of GHG emission reductions over the next few years. DBRS Morningstar will continue to assess the credit impact of new regulatory and policy measures.

Social

This factor does not affect the credit ratings. Germany's respect for human rights is high, and access to quality healthcare and other basic services is widespread. Germany ranks 8 among the 169 countries assessed in the 2022 Social Progress Index. Germany's economy is highly productive and competitive. GDP per capita amounted to a very high USD 48,756 in 2022. Income inequality is lower than in other advanced economies.

Governance

This factor does not affect the credit ratings. 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 2022 percentile rank scores of 94.7 for Voice and Accountability and 92.0 for Rule of Law are very strong.