

Date of Release: June 2, 2023

## 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 RATING CONSIDERATIONS**

The Stable trend reflects DBRS Morningstar's view that Germany's credit fundamentals remain solid. The economy weathered the energy shock last year reasonably well. At the same time, economic growth dynamics have weakened in recent months as the strong increase in inflationary pressures and the accompanying tightening of monetary conditions have weighed on private consumption and particularly housing investment. Also, external demand from important trading partner economies has softened. Looking ahead, DBRS Morningstar takes the view that domestic and external demand will remain subdued over the next few months. Economic growth is projected to recover gradually from late 2023 onwards, driven by private consumption which will likely be supported by a gradual catch-up of real wages on the back of still strong labour markets. The fiscal outlook has improved in recent months as the sharp decrease of energy prices from their record highs has lowered the fiscal cost of the gas and electricity price brakes markedly. As a result, DBRS Morningstar now takes the view that the government's moderate budget deficit will continue to narrow gradually in 2023 and 2024. Taking into account the latter fiscal projections and still high, albeit decelerating, nominal GDP growth, DBRS Morningstar foresees debt dynamics to remain favourable. Around half of the COVID-19-related increase in the government debt-to-GDP ratio is projected to be reduced until 2024.

Germany's AAA ratings are supported by its competitive and highly developed economy, its moderate public debt burden, high institutional quality and strong external finances. Furthermore, debt affordability continues to benefit from a low interest burden. However, the country is exposed to unfavourable demographic trends and large structural challenges in important manufacturing industries. Energy prices are unlikely to return to their pre-crisis levels, notwithstanding their recent decrease, which is likely to weaken the international competitiveness of energy-intensive industries. The economy's large automotive industry is exposed to the long-term challenge of maintaining a strong market position amid the industry's global transformation 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.

### **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.



### **RATING RATIONALE**

The Economy Weathered the Energy Price Shock Reasonably Well but Tightening of Financial Conditions Has Raised Headwinds

The German economy weathered the energy shock reasonably well as downside risks such as a gas shortage did not materialize and growth dynamics still benefitted from a gradual rebound from the COVID-19 shock during much of the past year. Real GDP expanded by 1.8% in 2022, driven by a rebound in services. While the strong increase in energy prices led to substantial cutbacks of production in certain energy-intensive industries such as chemicals, other important manufacturing industries such as automotives and electrical equipment expanded production, partly aided by a high order backlog. At the same time, economic headwinds increased and the economy entered a mild recession in Q4 2022 and Q1 2023 as the strong increase in inflationary pressures and the accompanying tightening in monetary policy started to weigh on private consumption and particularly housing investment. External demand from key trading partner economies also softened. Looking ahead, DBRS Morningstar envisages housing investment to remain weak whereas private consumption is likely to recover moderately in particular next year on the back a gradual catch-up of real wages amid still tight labour markets. The European Commission (EC) forecasts real GDP growth at a mere 0.2% in 2023 before accelerating to 1.4% in 2024. A potential gas shortage remains an important downside risk for the next heating season particularly in case recent gas savings by households and industries are not maintained.

Germany's credit profile continues to be supported by its competitive and highly developed economy and its high level of labour productivity. Moreover, underlying growth dynamics in the economy's labour market have been resilient over the past several years as exemplified by strong employment growth across several service industries. 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 2025 onwards. Furthermore, notwithstanding their recent decrease, domestic energy prices are unlikely to return to their pre-crisis levels. Therefore, DBRS Morningstar views the planned strong expansion of renewable electricity production as crucial for lowering domestic electricity prices over the next years and, hence, minimizing potential scarring effects for energy-intensive manufacturing industries. 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. While this global long-term transformation is at an early stage, DBRS Morningstar notes that production levels in the German automotive industry have decreased noticeably since 2017, which can largely be attributed to lower exports. Despite a partial rebound last year, average production volumes of the German automotive industry in 2022 stood only at 75% of its 2017 levels.

Fiscal Accounts Benefit From Lower-Than-Expected Costs of Gas and Electricity Price Brakes

The government's budget deficit is expected to continue to narrow gradually over the next years. In 2022, the general government budget deficit declined to a moderate 2.6% of GDP from 3.7% in 2021 as high inflationary pressures contributed to a marked increase in nominal tax revenues. Furthermore, the gradual phasing-out of COVID-19 support measures offset the fiscal cost of new energy support measures. Looking ahead, budgetary pressures are expected to continue to ease moderately. While the government in late 2022 has appropriated EUR 200 billion (5.2% of nominal GDP 2022) in the Energy Stabilisation Fund for energy support measures in 2023 and 2024, the actual fiscal cost of the newly adopted gas and electricity price brakes is likely to be much lower than expected at the end of last year owing to the strong decrease of energy prices since then. On the revenue side, nominal tax revenue growth is



projected to decelerate as a result of weaker nominal GDP growth and the recent adjustment of tax income brackets. The European Commission forecasts the general government budget deficit to narrow to 2.3% of GDP in 2023 and 1.2% in 2024.

Apart from temporary energy support measures, the government has agreed to step up annual public spending on climate transition and defense by around 1% of GDP between 2023-2025. In DBRS Morningstar's view, Germany has sufficient fiscal space to accommodate this increase in spending. This applies particularly for those types of public spending which aim to strengthen the resilience of the economy. However, the central government's increased reliance on off-budget funds (e.g. Economic Stabilisation Fund, Climate and Transformation Fund, Special Fund for the Bundeswehr) for financing these expenditures diminishes the transparency of the debt brake, the national fiscal rule. While the operations of these special funds are captured by general government accounts (prepared according to the European System of Accounts), they are not reflected in central government accounts set up in line with the stipulations of the debt brake. In a similar vein, the central government's cash-based accounting approach for interest expenditure weakens the explanatory power of the debt brake as laid out in DBRS Morningstar's recent commentary, Germany: Don't Get Confused by the Sharp Increase in Central Government Interest Expenditure | DBRS Morningstar.

Fiscal Space is Large due to Moderate Debt Levels and a Low Interest Burden

DBRS Morningstar regards Germany's fiscal space as large due to moderate government debt levels, a low interest burden and Germany's status as a safe haven. The COVID-19 shock led to a marked increase in government debt but debt dynamics have started to reverse over the past year underpinned by high nominal GDP growth with the government debt-to-GDP ratio declining to 66.3% from 69.3% in 2021. Taking into account a projected narrowing in the primary deficit and still elevated, albeit decelerating, nominal GDP growth, the EC forecasts a further modest decrease in the debt-to-GDP ratio to 64.1% in 2024 compared to a debt ratio of 59.6% in 2019. Risks for public finances emanate from a materialization of implicit or explicit contingent liabilities. This was illustrated by recent support measures for the energy company Uniper. Debt affordability continues to benefit from a low interest burden. The EC forecasts Germany's general government interest expenditures at a low 0.8% of GDP in 2023 compared to a euro area average of 1.7%. 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 the Strong Increase in Interest Rates Has Raised Risks

DBRS Morningstar assesses the current financial condition of the banking sector as sound. While the banking sector continues to be hampered by structural problems such as low profitability, banks benefit from sound capital and liquidity buffers. Furthermore, the current stock of non-performing loans is low. Looking ahead, DBRS Morningstar expects asset quality risks to rise as the increase in interest rates will likely strain the repayment capacity particularly of those borrowers facing economic headwinds from high-for-longer energy prices and lower residential investment activity. DBRS Morningstar, however, notes that the size of banks' total loan exposure towards the manufacturing sector (4.8% of loans to the non-financial private sector in March 2023) and construction (3.3%) is moderate. Taking into account the recent downturn in the domestic real estate market, risks to asset quality are also likely to emerge from the banking sector's sizeable stock of household mortgages (37.3%) and commercial real estate loans (15.1%). 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 (56% of GDP in Q3 2022), the strong condition of the labour market and long interest rate fixation periods of most mortgages.

External Finances Robust 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 4.0% of GDP in 2022 from 7.4% in 2021 as the strong increase in energy prices increased the economy's energy import bill and pent-up demand led to a strong increase in service imports (e.g. tourism). Looking ahead, the EC forecasts the current account surplus to increase to 5.8% of GDP in 2023 as the recent deterioration of the economy's terms of trade is projected to be 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. At end 2022, Germany's net international investment position amounted to a large 71.1% 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. That said, DBRS Morningstar notes that policymaking in the current 'traffic-light' coalition government has partly been complicated by programmatic differences between the three coalition parties particularly with regard to energy policies. The current coalition government was formed after the federal election in September 2021 and comprises centre-left and centre-right parties (Social Democrats, Green Party, Free Democrats). While policy continuity is high with regard to fiscal and foreign affairs, the coalition agreement of the current government has put a greater emphasis on immigration reform and the green and the digital transitions of the economy than preceding governments.

## ENVIRONMENTAL, SOCIAL, 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 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 (17 May 2022) at <a href="https://www.dbrsmorningstar.com/research/396929/dbrs-morningstar-criteria-approach-to-environmental-social-and-governance-risk-factors-in-credit-ratings">https://www.dbrsmorningstar.com/research/396929/dbrs-morningstar-criteria-approach-to-environmental-social-and-governance-risk-factors-in-credit-ratings</a>

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 (EUR) 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 (29 August 2022), <a href="https://www.dbrsmorningstar.com/research/401817/global-methodology-for-rating-sovereign-governments">https://www.dbrsmorningstar.com/research/401817/global-methodology-for-rating-sovereign-governments</a>. In addition, DBRS Morningstar uses the DBRS Morningstar Criteria: Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings, <a href="https://www.dbrsmorningstar.com/research/396929/dbrs-morningstar-criteria-approach-to-environmental-social-and-governance-risk-factors-in-credit-ratings">https://www.dbrsmorningstar.com/research/396929/dbrs-morningstar-criteria-approach-to-environmental-social-and-governance-risk-factors-in-credit-ratings</a> in its consideration of ESG factors.

The credit rating methodologies used in the analysis of this transaction can be found at: <a href="https://www.dbrsmorningstar.com/about/methodologies.">https://www.dbrsmorningstar.com/about/methodologies.</a>

The sources of information used for this rating include Germany's Federal Ministry of Finance (Stability Programme 2023; Draft Budgetary Plan 2023; Monthly Report May 2023), German Finance Agency (Deutsche Finanzagentur), Deutsche Bundesbank (Monthly Report May 2023; Financial Stability Review 2022), Federal Ministry for Economic Affairs and Climate Action (Joint Economic Forecast, Spring 2023), Federal Statistical Office, Federal Financial Supervisory Authority (BaFin), European Banking Authority, Ifo Institute, European Commission (Spring 2023 Economic Forecast, May 2023), Statistical Office of the European Communities, European Central Bank (ECB), IMF (Germany: Staff Concluding Statement of the 2023 Article IV Mission, 16 May 2023; World Economic Outlook April 2023; International Financial Statistics), OECD (Housing Prices), BulwienGesa AG (Housing Price Index), Germany Climate Action Plan, German Environment Agency, German Council of Experts on Climate Change (Biennial Report 2022), Social Progress Index, World Bank, Bank for International Settlements, Haver Analytics. DBRS Morningstar considers the information available to it for the purposes of providing this rating to be of satisfactory quality.

With respect to FCA and ESMA regulations in the United Kingdom and European Union, respectively, this is an unsolicited credit rating. This credit rating was 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

DBRS Morningstar 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. DBRS Morningstar's outlooks and ratings are under regular surveillance.

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



The sensitivity analysis of the relevant key rating assumptions can be found at: https://www.dbrsmorningstar.com/research/415291.

This rating is endorsed by DBRS Ratings Limited for use in the United Kingdom.

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Initial Rating Date: 16 June 2011 Last Rating Date: 2 December 2022

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

| Issuer         | Debt Rated   | <b>Rating Action</b> | Rating     | Trend  |
|----------------|--|----------------------|------------|--------|
| Germany, Feder | ral Republic of Long-Term Foreign Currency — Issuer Ratin  | ng Confirmed         | AAA        | Stable |
| Germany, Feder | ral Republic of Long-Term Local Currency — Issuer Rating   | Confirmed            | AAA        | Stable |
| Germany, Feder | ral Republic of Short-Term Foreign Currency — Issuer Ratio | ng Confirmed         | R-1 (high) | Stable |
| Germany, Feder | ral Republic of 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%  | -3.7%  | -2.6%  | -3.7% | -1.9% | -0.9% | IMF WEO     | 13 year average             | -0.7%  |
| Government Effectiveness (Percentile Rank)        | 93.8   | 92.3   | 92.8   | 88.9   | 88.0   | -      | -     | -     | -     | World Bank  | 5 year average              | 91.2   |
| Debt and Liquidity                                | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023  | 2024  | 2025  |             |                             |        |
| General Government Gross Debt (% of GDP)          | 64.6%  | 61.3%  | 58.9%  | 68.0%  | 68.6%  | 66.5%  | 67.2% | 66.5% | 64.4% | IMF WEO     | 5 year projection           | 60.9%  |
| Interest Costs (% of GDP)                         | 0.8%   | 0.7%   | 0.6%   | 0.4%   | 0.4%   | 0.6%   | 0.8%  | 0.9%  | 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   | 51.2   | 48.6   | 51.4  | 53.0  | 55.3  | IMF WEO     | 10 year average             | 46.4   |
| Output Volatility (%)                             | 2.3%   | 2.3%   | 2.3%   | 2.3%   | 2.3%   | 2.3%   | 2.2%  | 2.2%  | 2.2%  | IMF WEO     | Latest                      | 2.3%   |
| Economic Size (USD billions)                      | 3,690  | 3,976  | 3,889  | 3,887  | 4,263  | 4,075  | 4,309 | 4,446 | 4,635 | IMF WEO     | 5 year average              | 4,018  |
| 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%   | 3.6%  | 2.9%  | 2.2%  | IMF WEO     | 13 year average             | 2.5%   |
| Total Domestic Savings (% of GDP)                 | 205%   | 203%   | 211%   | 232%   | 237%   | 213%   | -     | -     | -     | ECB/IMF     | Latest <sup>1</sup>         | 213%   |
| Change in Domestic Credit (% of GDP)              | 0.9%   | 2.3%   | 2.0%   | 8.3%   | -1.1%  | -0.6%  | -     | -     | -     | BIS/IMF     | 7 year average <sup>1</sup> | 1.7%   |
| Net Non-Performing Loans (% of Capital)           | -      | -      | -      | -      | 6.2%   | 5.4%   | -     | -     | -     | IMF IFS     | Latest <sup>1</sup>         | 5.4%   |
| Change in Property Price/GDP Index (%)            | 3.9%   | 3.8%   | 2.5%   | 7.3%   | 0.0%   | -2.2%  | -     | -     | -     | Bulwien/IMF | 7 year average <sup>1</sup> | 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%   | 4.7%  | 5.1%  | 5.8%  | IMF WEO     | 8 year average              | 6.3%   |
| International Investment Position (% of GDP)      | 44.6%  | 52.3%  | 58.5%  | 63.8%  | 70.1%  | 71.1%  | -     | -     | -     | IMF         | 5 year average <sup>1</sup> | 63.2%  |
| Share of Global Foreign Exchange Turnover (Ratio) | 199.8% | 198.3% | 205.5% | 206.6% | 210.2% | 204.6% | -     | -     | -     | BIS/IMF     | Latest                      | 204.6% |
| 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   | 94.7   | 95.7   | 94.2   | 95.7   | -      | -     | -     | -     | World Bank  | 5 year average              | 95.2   |
| Rule of Law (Percentile Rank)                     | 91.3   | 91.3   | 92.3   | 91.3   | 91.8   | -      | -     | -     | -     | 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:

31-May-2023

<sup>&</sup>lt;sup>1</sup> Scores for 2022 have been computed using the most recent data when year-end data is not available.

## Germany



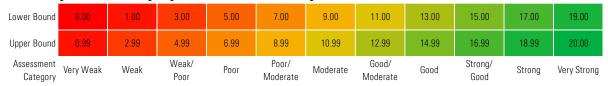
Building Block Assessments and Rating Committee Summary

31-May-2023

| Building Blocks                            | Scorecard Result              | Quantitative<br>Assessment | Net Impact of<br>Qualitative Factors   | Building Block<br>Assessment |
|--|-------------------------------|----------------------------|--|------------------------------|
| Fiscal Management and Policy               | 19.08                         | Very Strong                | N/A                                    | Very Strong                  |
| Debt and Liquidity                         | 15.28                         | Strong/Good                | + 1 Category                           | Strong                       |
| Economic Structure and Performance         | 17.70                         | Strong                     | N/A                                    | Strong                       |
| Monetary Policy and<br>Financial Stability | 17.85                         | Strong                     | N/A                                    | Strong                       |
| Balance of Payments                        | 16.18                         | Strong/Good                | + 1 Category                           | Strong                       |
| Political Environment                      | 20.00                         | Very Strong                | N/A                                    | Very Strong                  |
| Overall Assessment                         | Composite Scorecard<br>Result | Scorecard Rating<br>Range  | Composite Building Block<br>Assessment | Indicative Rating Range      |
|  | 88.4                          | AAA - AA (high)            | 91.7                                   | AAA - AA (high)              |
| Germany's Long-Term Foreign Curre          | ncy - Issuer Rating           |                            | AAA                                    |                              |

Main topics discussed in the Rating Committee include: Macroeconomic developments and outlook, fiscal developments and outlook, the impact of higher interest rates on the financial sector, recent developments and outlook for energy prices and structural challenges of the German economy. For additional details on DBRS Morningstar analysis and opinions, please see the accompanying rating report.

## DBRS Morningstar Scorecard: Scoring Ranges and Associated Assessment Categories



## Germany, Federal Republic of

**ESG Checklist** 

| tor |   | ESG Credit Consideration Applicable to the Credit Analysis: Y/N  |        | Extent of the Effect on t<br>ESG Factor on the Cred<br>Analysis: Relevant (R) of<br>Significant (S)* |
|-----|---|--|--------|--|
|     | 0-1   |  |        |  |
| men | ital  | Overall:  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  |        | N.   |
|     | Cardon and GHG Costs                            | policies, and does this affect the assessment of credit risk?  Will recent regulatory changes have an impact on economic resilience or   | N      | N  |
|     |   | 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 Biodiversity                    | Is there a risk to a government's economic or tax base for failing to effectively regulate land impact and biodiversity activities?  | N      | N  |
|     | Land Impact and Divulversity                    | Will climate change and adverse weather events potentially destroy a   | W      | IN   |
|     |   | 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                    | · · · · · · · · · · · · · · · · · · ·  |        |  |
|     | credit considerations                           | checklist for such issuer)?  | N      | N  |
|     |   | - Oursell  | B1     |  |
|     | Human Capital and Human                         | Overall:  Compared with regional or global peers, is the domestic labour force more or   | N      | N i  |
|     | 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  |
|     | Access to Basic Services                        | migration, and income growth within the economy?   | N      | N  |
|     | Access to pasic services                        | Does this rating depend to a large extent on the creditworthiness of another   | IN     | IN .   |
|     | Passed-through Social credit                    | rated issuer which is impacted by social factors (see respective ESG checklist   |        |  |
|     | considerations                                  | for such issuer)?  | N      | N  |
|     |   |  |        |  |
| nce |   | Overall:   | N      | N  |
|     | Dallama Camandian and                           | Describerand with the fifth of the second state of the second stat |        |  |
|     | Bribery, Corruption, and<br>Political Risks     | Does widespread evidence of official corruption and other weaknesses in the rule of law deter investment and contribute to fiscal or financial challenges?   | N      | N  |
|     | ruillicai nisks                                 | Tule of law deter investment and continuate to listar of infantial challenges:   | N      | N N  |
|     | Institutional Strength,                         | Compared with other governments, do institutional arrangements provide a   |        |  |
|     | Governance, and Transparency                    | 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<br>N | N N  |
|     |   | Institutional Strength, Governance, and Transparency Is the government likely to initiate or respond to hostilities with neighboring   | IN     | IV   |
|     | Peace 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  |
|     |   |  |        |  |
|     | Passed-through Governance                       | rated issuer which is impacted by governance factors (see respective ESG   |        | :  |
|     | Passed-through Governance credit considerations | rated issuer which is impacted by governance factors (see respective ESG checklist for such issuer)?   | N      | N  |

<sup>\*</sup> 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**

June 2, 2023

## **Environmental**

This factor does not affect the ratings assigned to Germany. From a credit perspective, policies relating to each subfactor are generally sound, and the fiscal cost of new investments is managed effectively within the context of Germany's budgetary framework. In June 2021, the German parliament passed a new climate law which has made climate goals more ambitious. Compared to 1990 levels of greenhouse gas (GHG) emissions, Germany now targets a 65% reduction by 2030 and net zero emissions by 2045. The German Environment Agency estimates that total GHG emissions in Germany decreased by 40.4% between 1990 and 2022. Therefore, meeting the 2030 target requires a marked acceleration in the pace of GHG emission reductions over the next years. DBRS Morningstar will continue to assess the credit impact of new regulatory and policy measures.

## Social

This factor does not affect the 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 strong USD 48,636 in 2022. Low income inequality compared to most advanced economies, according to the OECD, reduces economically disruptive labour or social conflicts.

## Governance

This factor does not affect the ratings assigned. 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 2021 percentile rank scores of 95.7 for Voice and Accountability and 91.8 for Rule of Law are very strong.