Federal Republic of Germany

Ratings

Federal Republic of Germany	
Action: **Affirmed**	08 Apr 22
Foreign Currency LT	AAA
Local Currency LT	AAA
Action: **Affirmed**	08 Apr 22
Foreign Currency ST	K1+
Local Currency ST	K1+

Ratings are based on KBRA's Sovereigns Rating Methodology, published 20 December 2021 and utilise the ESG Global Rating Methodology published 16 June 2021. KBRA's rating scales and definitions are found here.

Outlook/Watch

Federal Republic of Germany	
Long-Term Ratings	Stable

Economic Snapshot

	2021
Per Capita Income (US$, PPP)	58,150
Real GDP Growth (% Change)	2.8
Inflation Rate (Average %)	3.2
Budget Balance (% GDP)	-4.3
Current Account Balance (% GDP)	6.8
External Debt (Net, % GDP)	54.5
Level of Economic Development	High
Default History	None recent

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Executive Summary

Kroll Bond Rating Agency (KBRA) affirms the Federal Republic of Germany long-term issuer ratings. KBRA also affirms the short-term issuer ratings of the sovereign.

Ratings Outlook: Germany's long-term ratings carry a Stable Outlook. KBRA's affirmation of the ratings reflects Germany's large, diversified and globally important economy, high degree of economic resiliency, strong governance and institutional framework, prudent policy environment, and healthy public finance position. Germany's considerable fiscal space and high degree of financial flexibility allow the government to respond to undesirable economic shocks.

Key Credit Considerations

The ratings were affirmed because of the following key credit considerations:

- Germany's large, advanced, high income, and globally important economy. Germany's economic resiliency is underpinned by its highly diversified economy, its status as a leading global exporter, and its position as the largest European economy.
- Germany's balanced growth model generates stable growth and employment and is characterised by a moderate dependence on debt financing as compared to many peer countries.
- Germany's robust institutional profile is backed by a pragmatic and consensus-based policymaking environment, strong governance metrics, long-standing political stability, its central role in the European Union (EU), and significant global geopolitical importance.
- Germany's strong public finance position is backed by a robust fiscal framework that includes a debt brake rule and commitment to balanced budgets. Although the national fiscal rules have been temporarily suspended in the wake of the COVID-19 crisis, a high degree of fiscal flexibility have allowed Germany to enact a substantial policy response to support the economy through the crisis.
- The Bund's status as Europe's benchmark fixed income instrument affords Germany a high degree of financing flexibility. Germany's deep and liquid capital markets, the Bund's safe haven characteristics, low average funding costs assisted by the European Central Bank's (ECB) accommodative monetary policy stance, and robust investor demand ensures that Germany's debt burden is highly affordable.
- Germany's large structural current account surplus and positive net international investment position (net creditor position) highlight robust external account metrics driven by persistent trade account surpluses and large returns on its stock of overseas investments.

Rating Sensitivities	
There is no upward pressure on Germany's ratings at the highest rating level.	+
Negative rating pressure could arise if commitment to post-pandemic fiscal consolidation wanes, leading to persistent budget deficits and a sustained increase in the government debt-to-GDP burden. The crystallisation of contingent liabilities on the government's balance sheet from pandemic-era support measures could also heighten negative rating pressure.	−

ESG Management

KBRA typically analyses Environmental, Social, and Governance (ESG) factors through the lens of how the sovereign plans for and manages relevant ESG risks and opportunities. More information on KBRA's approach to ESG risk management in sovereign ratings can be found here. Over the medium-term, governments will need to prioritise ESG risk management and disclosure with the likelihood of expansions in global ESG-related regulations, including adherence to the commitments of the Paris Agreement, and rising investor focus on ESG issues.

Environmental Factors

Germany is a world leader on climate action and is one of the few advanced economies globally that has legislated to be Co2 neutral by 2045. Germany has reduced its GHG emissions by 41% compared to the levels in 1990, and in June last year passed a new climate legislation, setting higher emission reduction targets for 2030 of at least 65%. Building on from this, Germany aims to phase out nuclear power this year and coal reliance by 2028, while the government's plan is for renewable energy to generate 65% of the power by 2030. That being said, the phase out of coal could be delayed due to the conflict in Ukraine, and subsequent sanctions on Russia, which impacts German energy supply, as there could be a greater dependence on the fossil fuel for electricity. Aside from industry power, the government aims to advance the energy efficiency of its housing, offering tax incentives for upgrades. Elsewhere, the transport sector is set to undergo massive change, with investment in railways, expanding cycle routes and the electrification of the vehicles, both in public and private use.

The introduction of the Sustainable Finance Strategy was the landmark announcement last year in Germany. As major investment and financing is needed in order for the sovereign to transition to carbon neutrality, this new strategy will help allocate capital towards the green conversion. The government hopes to use a "traffic light" system that makes it easier to recognise green and sustainable investment opportunities. This is an innovative and leading approach to green financing which many other sovereigns might soon adopt.

The German industry progressively invests in climate action. According to the Federal Statistics Office (Destatis), industry enterprises (excluding construction) spent a total of EUR3.5 billion in 2019 on systems which prevent emissions or enable resources to be used more carefully. The government is actively gearing German industry towards energy efficient production processes. With this in mind, Germany has set out a National Hydrogen Strategy in order to become a global leader in the space. The government wants to establish a green hydrogen market and establish related value chains, as the economy shifts towards operating from renewable energy.

In the aftermath of the conflict in Ukraine, KBRA expects the German government to scale up plans towards renewable energies and sustainability as it looks to wean itself off the reliance on fossil fuels.

Social Factors

KBRA focuses on social factor risk in terms of stakeholder preferences. Over the last 18 months, there has been a surge in demand across Europe for green bonds and Germany is very much at the forefront of this market, building out a green sovereign curve. Germany has four green bonds in issue: a 5yr, two 10yr's and a 30yr. The proceeds of the green issuance are allocated towards climate change migration and adaption, protection of marine resources, pollution control and protection of biodiversity, amongst other areas. Safeguarding Germany as the benchmark standard in capital markets and with stakeholder interest in mind, the Finance Agency works to ensure transparency for investors with regard to green spending. In conjunction with this, the Finance Agency acts prudently with its issuance in order to foster reliable, liquid markets for investors of green bonds. Transparency of this issuance can be followed under the Treasury's Green Bond Allocation Report. Furthermore, the German Finance Agency highlights on its website that Germany was awarded "Most Impressive Government Green/SRI Bond Issuer" in the Global Capital Bond Awards 2021 for its outstanding performance in the field of Green Government securities.

Governance Factors

In May of last year, the government passed the Information Technology Security Act 2.0. This looks to build on initial legislation by increasing information security controls around cyberattacks. It features heightened security obligations and increased penalties. For operators of critical infrastructures, there is additional oversight such as an obligation to register with the Federal Office for Information Security (BSI), while critical operators must also enable attack detection systems. The BSI published an IT security report this year highlighting that IT-related threats to Germany had never been higher. The report illustrated the extent of the threats, citing a serious increase in new variants of malware, software designed to disrupt, impair, or gain unauthorised access to a computer system.

Although Germany has long held its own national Sustainability Strategy, with its own targets, the decision was made in 2017 to align this strategy with the United Nations 2030 Agenda and the associated 17 Sustainable Development Goals. Following on from this in March last year, the government adopted the German Sustainable Development Strategy (DNS) 2021. In order to track its progress, the government will lean on the Federal Statistical Office for sustainability reporting. Last year, the government achieved four of its twelve sustainability goals.

Last year the German legislator passed a new Supply Chain Act, which is scheduled to come into force from January 2023. It will apply to larger companies with more than 3,000 employees and targets supply chain due diligence obligations with regards to human rights and the environment. This represents a significant step forward for human rights and sustainability, given that Germany is the 3rd most important economy to global trade, and even more meaningful when considering the economy's very large dependence on tradeable goods.

K-Sov and Rating Methodology Steps

Germany Sovereign Credit Rating K-Sov	
Rating Determinant	**Equivalent Rating Range**
Macroeconomic Performance	AA
Government Financial Strength	AAA
External Vulnerability	AAA
Structural Robustness	AAA/AA
K-Sov Germany	**AAA range**

Determining the K-Sov is the first step of KBRA's Sovereign Ratings Methodology. Germany's K-Sov stands at the top end of the rating scale across all four rating determinants. This strong performance reflects the large size and global importance of the German economy, stable macroeconomic environment, healthy public finance position, high degree of financing flexibility, and robust external account position. Germany's access to liquidity is overweighted in the K-Sov. Germany's structural robustness indicators are characterised by a centrist and consensus-based policy framework, central role in the EU, and global geostrategic importance. The second step considers trend analysis, peer comparisons, additional metrics and factors influencing credit risk that may not be included in the K-Sov analytics, as well as willingness to pay. These items are highlighted within each section. Finally, the alignment of foreign currency and local currency sovereign ratings is determined.

Macroeconomic Credit Metrics

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022e	2023f
Gross Domestic Product USD bn	3733.9	3890.1	3357.9	3468.9	3689.6	3979.1	3888.8	3843.3	4230.2	4557.4	4774.1
Real GDP Growth	0.4	2.2	1.5	2.2	2.7	1.1	1.1	-4.9	2.8	1.8	3.6
Population mns	80.6	81.0	81.7	82.3	82.7	82.9	83.1	83.2	83.3	83.4	83.5
Total Credit/GDP	193.4	190.2	186.5	192.3	186.9	185.5	185.6	206.8	205.5	-	
to Government	78.6	75.6	72.2	69.4	64.9	61.5	59.1	69.2	69.5	-	
to Households	55.6	54.1	53.6	53.4	52.9	53.2	53.9	58.3	57.6	-	
to Private Corp.	54.8	53.1	53.9	63.9	64.5	66.1	67.0	72.5	73.1	-	
Savings/GDP	26.6	27.6	28.3	28.5	28.8	29.7	29.6	28.1	29.1	29.1	29.3
Investment/GDP	20.1	20.4	19.7	20.0	21.0	21.9	22.1	21.1	22.3	22.2	22.1
Current Account Balance/GDP	6.6	7.2	8.6	8.5	7.8	7.8	7.4	6.9	6.8	6.9	7.2
Net International Investment Position/GDP	34.7	40.8	46.5	51.4	56.3	62.5	71.2	76.3	66.0	-	
Inflation (HICP) YoY	1.6	0.8	0.7	0.4	1.7	1.9	1.4	0.4	3.2	6.1	3.4
Unemployment Rate	5.2	5.0	4.6	4.1	3.8	3.4	3.2	4.2	5.7	5.0	4.9
ECB Refinancing Rate - Year-end	0.25	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	-	
10-Year Bonds % - Year-end	1.9	0.5	0.6	0.2	0.4	0.2	-0.2	-0.6	-0.2	-	
General Government Revenues/GDP	45.0	44.9	45.1	45.5	45.5	46.2	46.5	46.5	46.3	46.4	46.6
General Government Expenditures/GDP	44.9	44.3	44.1	44.4	44.2	44.3	45.0	50.8	53.2	48.2	47.0
Fiscal Interest/Revenues	3.2	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.7	0.7
General Government Balance/GDP	0.0	0.6	1.0	1.2	1.3	1.9	1.5	-4.3	-4.3	-2.3	-1.3
General Government Structural Balance/Potential GDP	0.6	1.2	1.2	1.2	1.1	1.6	1.3	-3.1	-5.7	-1.6	-0.3
General Government Cyclically Adjusted Balance/Potential GDP	0.5	0.8	1.1	1.1	0.8	1.5	1.2	-3.1	-5.7	-1.6	-0.3
Primary Balance/GDP	1.5	1.8	2.0	2.1	2.2	2.6	2.0	-3.9	-6.5	-1.5	0.0
Gross Government Debt/GDP	78.8	75.7	72.3	69.3	65.0	61.6	59.2	69.1	72.5	72.0	72.0
Gross Government Debt/Revenues	175.1	168.7	160.4	152.3	142.8	133.2	127.5	148.4	156.5	150.3	145.8

Sources: Federal Ministry of Finance, Federal Ministry for Economic Affairs and Energy, Deutsche Finanzagentur, Bundesbank, Destatis, EC, Eurost

Step I: K-Sov Scorecard Analysis

Macroeconomic Performance

Germany's large, advanced, and highly diversified economy, status as a leading global exporter, globally important industrial sector, and its status as Europe's largest economy underpin its macroeconomic strength. A high reliance on exports to drive growth leaves Germany exposed to global trade developments as reflected in the softening of economic growth in the run-up to the coronavirus pandemic. Pre-pandemic real GDP growth averaged 1.6% (2015-19), which was slower than the US (2.5%), largely stemming from structural issues common across the euro area, such as labour market slack and low productivity and wage growth. Germany's solid macroeconomic performance rating determinant also reflects a stable inflationary environment and low pre-pandemic unemployment rate. Notably, Germany's growth performance is underpinned by only a moderate amount of leverage economy wide, underscoring efficiencies in addition to reduced credit risk.

Rating Determinant 1: Macroeconomic Performance (20%)	Equivalent Rating Range
Nominal GDP ($B)	AAA/AA
Nominal GDP Growth (%)	AA/A
Real GDP Growth (%)	A/BBB
Inflation (%)	AAA/AA
Unemployment (%)	AAA/AA
K-Sov Macroeconomic Performance	**AA**

Conflict in Ukraine Weighs On Growth Outlook, Inflation Rampant

Following a ten-year growth period, the German economy was hit by a recession in 2020 owing to the outbreak of the COVID-19 pandemic. The German economy contracted by -4.9% in 2020, a milder contraction than some of its European neighbours. Last year, private consumption drove an economic recovery as mobility restrictions eased. Germany grew by 2.8% for 2021, which was markedly lower than France (7%) and the Netherlands (4.9%). Many sectors lagged demand, like construction for example, as COVID-19 continued to weigh on the economic recovery, with Germany's vaccination rate relatively lower than some European peers. Towards the end of the year, hospitality, services and retail struggled as the Omicron variant rose to prominence. German industry, traditionally an economic driver, struggled somewhat amidst the global supply chain disruption, particularly in the automotive sector, normally a strong contributor to growth. Although goods exports, factory orders and industrial production indicators showed encouraging signs prior to the invasion of Ukraine, the conflict will weigh on sentiment readings and congested supply issues will persist, hampering industry. Sanctions on Russia will also impact German industry with regard to production and exports. Russia accounted for 2.3% of total German trade last year.

Annual inflation continues to rise well above target in Germany, as is the case for many economies globally, with the March preliminary year over year reading increasing to 7.3%, the highest level since 1974. The conflict in Ukraine will place upward pressure on energy prices and further inhibit supply chains, propelling inflation. Although Germany has an energy dependence on Russia (particularly gas), which in the short-term will create adverse inflationary pressure, the government has made efforts to diversify away towards other suppliers, like Qatar for example. This is discussed further in Step II. Being part of a monetary union, Germany's autonomy to react to inflation is limited and the policy environment is subject to ECB control. This is important to bear in mind with regard to how various eurozone economies can recover at a different pace, especially when considering the composition of their economy with regard to energy importation. There will be increases to the minimum wage through 2022, but these are not likely to materially impact inflation or GDP growth. Wage growth in the euro area runs well below the UK and US levels, although some increases from collective bargaining negotiations are expected this year. The Bundesbank note that increasing labour market shortages and high inflation rates could place upward pressure for higher wage agreements relative to the recent past. The German government economic advisory council forecast inflation to reach 6.1% in 2022 before easing to 3.4% next year. Unemployment held steady at 5% in March. Employment has remained strong in Germany over recent months, with levels rising sharply in the last few months of 2021. For Q4, the seasonally adjusted number of persons in work increased by nearly 160,000. While these figures are positive for the economy, the number of persons in employment is still lower than at the beginning of 2020. The Bundesbank anticipate unemployment to reach 4.9% in 2023. The ifo Institute also expects the immigration of roughly one million refugees from Ukraine, which will likely impact the labour market in time.

KBRA would note the economic outlook remains clouded for euro area sovereigns owing to the conflict in Ukraine and as such, forecasts are uncertain. In late March, the German government's council of economic advisors cut their 2022 economic growth forecast to 1.8% from 4.6%. GDP will grow by 3.6% next year, according to the advisors. The ifo Institute also released an economic forecast towards the end of March, identifying growth of 3.1% for 2022 and 3.3%

for 2023. Investor uncertainty and dipping consumer confidence will impact economic activity, while inflation will erode incomes. In KBRA's view however, consumption and demand will still drive the economy to achieve growth that is higher than its pre-pandemic average.

Government Financial Strength

Germany's long-standing prudent budgetary stance is underpinned by a robust fiscal framework that includes a constitutionally mandated debt brake rule and commitment to a balanced budget position. Germany has suspended its national fiscal rules in response to the COVID-19 pandemic but aims to return to these judicious measures in 2023. Germany's solid budget surpluses and falling government debt burden pre-pandemic left the public finances in a strong position to respond to the exogenous shock of COVID-19. The benchmark fixed income status of the German Bund, strong investor demand, and high degree of financing flexibility further underscores Germany's robust government financial strength.

Rating Determinant 2: Government Financial Performance (50%)	Equivalent Rating Range
General Government Revenues % GDP	AAA/AA
General Government Balance % GDP	AAA/AA
General Government Cyclically Adjusted Balance % Potential GDP	AAA/AA
General Government Debt % GDP	AA/A
General Government Debt % Revenue	AAA/AA
General Government Interest % Revenue	AAA/AA
Access to Liquidity/Vulnerability to Sell-off	AAA
Contingent Liabilities	AAA/AA
Fiscal Arrears	AAA/AA
K-Sov Government Financial Performance	**AAA**

Budgetary and Financing Flexibility Allows For Response to Crisis

Germany has generated a balanced fiscal position since 2012 and gross government debt-to-GDP declined to 59.6% in 2019, down more than 22 percentage points since its peak during the global financial crisis. Germany's healthy public finances afford it tremendous flexibility to respond to external shocks, for example enabling a significant fiscal support package in response to the pandemic. The budget deficit for 2021 was 4.3%. Although government revenues recovered somewhat with taxes outperforming expectations, pandemic related supports pushed expenditure higher. Year over year growth in tax revenue was very positive last year, up over 11%, with profit related taxes the main driver. However, large government transfers for businesses and higher spending on health protection ensure there was little change in the budget deficit from 2020. In the Finance Ministry's Stability Programme report, it states the government's medium-term objective is to ensure that its general government structural deficit does not exceed 0.5% of GDP. Narrowing the structural balance might prove difficult with transfers supporting climate action sustainability elevating expenditure, while social care spending and pensions will sustain this increase. Separately, legislative changes to certain taxes might hamper revenue, for example the solidarity surcharge, which was redesigned last year. Looking ahead, the OECD anticipates the budget deficit to contract to 2.3% this year and 1.3% next year. The economic spillover effects from the conflict in Ukraine could sustain the German budget deficit for longer than initially expected, while fresh budget commitments, such as military spending, also make balancing the books difficult. Recently the government announced EUR100 billion, in addition to the 2022 budget, would be used for military investments. By contrast, the German defence budget last year was less than half that amount. However, despite this increase in spending, the government remains committed to returning to its fiscal rules next year. Slight changes made to the debt brake, including allowances for reserves of special funds and delayed repayment schedules of debt, afford more budgetary flexibility to the government. KRBA would highlight that while expenditure will increase and fiscal metrics could remain stretched, Germany's low debt, ease of funding and budgetary flexibility afford it the capability to deal with unforeseen and undesirable circumstances.

Gross government debt rose to reach 69.8% in 2020 as increased borrowing financed pandemic related spending costs, and also reflected the economic contraction. As mentioned, government expenditure is scheduled to rise substantially, and as such, borrowing will also sharply increase. The German Finance Ministry initially forecasted debt-to-GDP to hover around 72% over the short-term and it remains to be seen when debt will move back towards the Maastricht level. KBRA would note, even at its current elevated level, German debt is low by comparison to both its eurozone peers and to similarly rated sovereigns.

Although elevated relative to its recent past, German public debt stands at the lower end of the sovereign's European and major advanced economy peers. Furthermore, Germany can comfortably meet its higher borrowing requirement due to its very strong access to liquidity. Germany's flight to quality dynamics reflect the Bund's European benchmark fixed income status as well as the very sound management and performance of the economy. Germany has very low net government debt, which was 41% pre-pandemic, and while the IMF estimates it will rise to 53% this year, this remains low by comparison to peers.

The German government benefits from extremely low financing rates relative to its peers, which reflects both the market confidence in the sovereign, its economic resilience, and a very supportive ECB policy environment. Being a euro area member, Germany avails of ECB policies that safeguard liquidity and maintain credit provision. ECB support for the economy during periods of stress provides euro area sovereigns with a substantial safety net. For example, the extensive asset purchase program in operation throughout the pandemic allowed euro area governments to borrow and spend in order to combat a potential economic downturn, while maintaining market confidence. Although many euro area sovereign curves have shifted significantly higher in recent months, German cost of issuance remains relatively low. German interest costs are roughly 0.55% on average for outstanding Federal debt, while near term issuance is still negative yielding. In real terms, the curve is negative. This helps illustrate the ease and flexibility of funding the sovereign has on the capital markets. The average maturity on German government debt is 7 years, which helps to minimise refinancing risks. Despite being on a path to policy normalisation, ECB asset purchase programme reinvestments will continue until 2024, cementing long-lasting support for the sovereign bond market.

External Vulnerability

KBRA views Germany's external vulnerabilities as low, underpinned by structurally large surpluses on the current account and a large positive net international investment position (NIIP). Germany enjoys one of the strongest external positions globally, which is expected to be maintained in the years ahead. The persistent current account surplus, averaging 7.2% of GDP from 2010 to 2020, reflects several features of the German economy. In the first instance, Germany's large, competitive, and globally important industrial sector and status as one of the leading global exporters is reflected in significant surpluses on the merchandise trade account. A high domestic savings rate amongst the household and the public sectors, alongside investment income from significant foreign investment holdings, produce consistently large surpluses on the primary income account that reflect a net international investment position of 66% of GDP in Q3 2021. The merchandise trade and primary income account surpluses comfortably outweigh structural deficits on the services and secondary income accounts. German trade is sufficiently robust to withstand external shocks. However, the short-term outlook for Germany's current account surplus is somewhat uncertain and contingent on the rebound in external demand amid the post-pandemic global recovery, while the conflict in Ukraine could weigh on trade through this year. A shift towards deglobalisation, which could impact Germany's vibrant export sectors, could pose challenges to Germany's current account dynamics.

Rating Determinant 3: External Vulnerability (10%)	Equivalent Rating Range
Current Account Balance % GDP	AAA
K-Sov External Vulnerability	**AAA**

Structural Robustness

Germany's structural characteristics are important factors underpinning its sovereign rating. A robust institutional framework, high degree of government effectiveness, consensus-based policymaking environment, the country's central role in the EU and euro area, as well as its significant geopolitical influence substantiate Germany's structural robustness, in KBRA's view. Germany's advanced and globally competitive economy, coupled with its status as Europe's largest economy and one of the leading global exporters, underscores its economic resiliency. Germany's significant and timely financial and public health response to the coronavirus pandemic highlights robust institutional capacity.

Rating Determinant 4: Structural Robustness (20%)	Equivalent Rating Range
Socio-Political Risk	AAA/AA
Security Risk	AAA/AA
Geostrategic Importance	AAA/AA
Systemic and Economic Risk	AAA/AA
Per Capita GDP (PPP Basis)	AAA/AA
Institutional Indicators	AAA/AA
K-Sov Structural Robustness	**AAA/AA**

A New Era For German Politics

After over a decade in office, Angela Merkel made way for a three-party coalition last year comprised of the Social Democrats, the Greens and the Free Democratic Party. Former finance minister Olaf Scholz is Germany's new Chancellor, while Christian Lindner is the new finance minister. The formation of this government means a return to fiscally prudent measures, such as the debt brake, is likely. It will also push for a greener, more digital future, edging Germany even more firmly to the global forefront on climate action, which is especially meaningful given its leadership role in the EU. Changes to taxation are likely over the medium-term, with higher income taxes on individuals, possibly in anticipation of pension pressures. Wider EU themes, such as a common EU investment policy or common debt could be encouraged under this government.

Structural Challenges of Banking Sector Amplified by Macro Uncertainty

In KBRA's view, the German banking sector is in a position of relative strength at this juncture but faces headwinds related to the Russian invasion on Ukraine as well as the pandemic. The banks have a resilient capital position, with average CET1 ratio of 15.2% at end- 2021, and strong liquidity. However, the ultra-low interest rate environment and the German banking model itself, with high costs and strong competition, drags on the sector's profitability. These structural challenges constrain the ability of domestic banks to absorb significant increases in credit costs. KBRA expects asset quality to deteriorate over the coming quarters as the implications of inflationary pressure and further supply chain disruption as well as the full withdrawal of fiscal-support measures feed through to the economy and customers' affordability. The German banks' direct Russian exposure, of $8.1 billion at end-September 2021 according to the Bank of International Settlements, appears broadly manageable and is mainly held through large banks' corporate and investment banking operations and their investment portfolios.

Step II: Peer Comparatives, Trends, Willingness to Pay

In Step II of the sovereign rating approach, KBRA evaluates peer comparisons, recent trends and outlook, and its evaluation of willingness to pay.

The conflict in Ukraine, and subsequent economic sanctions against Russia, have dented the economic outlook for Germany, while also highlighting energy as a particular sore point for the sovereign. Germany has a significant reliance on Russia for energy. A third of Germany's oil and over a quarter of its coal is supplied by Russia, while over half of the country's gas requirement last year was supplied by Russia. By comparison, Spain for example is also a big gas importer, but a very small portion of it comes from Russia. As a result of geographic location, suppliers and the nuances of how certain energies, like gas, can be stored and transported, the economic recovery from the pandemic, and this current energy crisis, could likely differ across euro area sovereigns. For Germany, a contraction of GDP is likely as inflation erodes incomes, consumer spending dips and costs rise, however the degree of this contraction remains unclear. Trade deals with regard to supply of energy will mitigate some risks here, while the aforementioned fiscal space and financing flexibility also offer a soft landing to any potential downturn. In a more extreme scenario, a 3% hit to GDP is the general consensus amongst economists currently evaluating the impact of a sudden gas supply shock to the German economy, which would be a smaller economic contraction than caused by the pandemic in 2020.

Looking past this near-term disruption, Germany's economic recovery will also be supported by EU's EUR750 billion Recovery and Resilience Facility, to be funded via debt issuance from the official European institutions. Germany's large-scale domestic budgetary response to the pandemic, alongside its support of EU-wide initiatives to support the economic bloc throughout the crisis, signify a notable shift in its policy stance to fiscal support from fiscal prudence—a move that could have positive spill-over effects for the rest of the EU, and being self-reinforcing for German growth through the conduit of intra-EU trade. Moreover, improved health of EU member countries is a net positive for benefactor countries, such as Germany. Stemming from the low-rate environment, the sovereign opted not partake in loans through the RRF, although it is entitled to receive grants totalling EUR23.6 billion by 2026. The grants will be utilised under the German Recovery and Resilience Plan, which strategises six priority areas, although clearly focuses on a greener and digital future. The plan will allocate funds to transition the economy towards decarbonisation and renewable energy, such as electric mobility, building refurbishment and hydrogen technology. Germany will expand its digital infrastructure, emphasising investment in education and the public administration. There are also pan-European projects afoot, teaming up with France for technology ventures for example.

A cornerstone of the sovereign's economic model is manufacturing sector competitiveness. The challenges of the pandemic caused German exports to decline and was a large contributor to the poor performance in growth for 2020. Furthermore, the trade surplus has been shrinking since 2017. Over the medium-term horizon however, risks could emerge for German trade. A shift towards deglobalisation or structural changes in China towards a tertiary model could exert pressure on export performance outside of the EU. However, in terms of intra-EU competitiveness, Germany's industrial sector is deeply embedded into global and European supply chains. An overarching challenge related to the global evolution towards both a greener, more sustainable future and digitalization. German industry has been adaptive in the past to such challenges.

Pension Problems

Looking further ahead, demographic pressure could challenge growth in Germany in the coming decades. This theme was highlighted in the German Stability Programme this year and is a common theme across many sovereigns. Low birth rates and an aging society has caused a reliance on immigration to support growth. Destatis forecasts that there will be considerably more people entering retirement in Germany by 2035. The number of people aged 67 or over is expected to rise by 22% from 16 million to 20 million, rising further to 21.4 million by 2040. The aging of the population is likely to increase healthcare and pension costs for the state and weigh on public finances.

Overall, expectations are that the workforce will shrink and the country's ability to achieve the same level of output from a reduced labour force may prove difficult. There are also knock on effects from an aging population on innovation and investment. According to government estimates, the annual growth rate is forecast to drop to 1.2% over the medium-term to 2025, much lower than say 1.8% expected for the US or Canada. KBRA notes that Germany's position and ability to withstand its demographic challenges is supported by its relatively low gross and net debt and its relative substantial funding of its public pension system. Moreover, reform of the system is likely over time to address the shortfalls of the country's public pension schemes, in KBRA's view.

Macroeconomic Forecasts

Macroeconomic Forecasts (2022-2026 average)					
Trends and Projections	**Germany**	**France**	**UK**	**Canada**	**US**
GDP Growth	2.0	1.9	2.3	2.3	2.3
Inflation	1.7	1.3	2.1	2.2	2.7
Current Account Balance % GDP	6.9	-1.0	-3.1	-1.0	-2.9
Government Revenues % GDP	46.5	50.7	37.1	41.6	32.4
Government Balance % GDP	-0.2	-3.8	-3.7	-0.4	-5.7
Government Primary Balance % GDP	0.1	-3.1	-2.7	-0.1	-4.0
Government Interest Payments % Revenues	0.7	1.4	2.7	0.8	5.3
Government Gross Debt % Revenues	141.1	227.4	296.3	232.9	406.9
Government Debt % GDP	65.6	115.3	110.0	96.8	131.9

Sources: IMF World Economic Outlook October 2021 and January 2022, IMF Fiscal Monitor October 2021

Comparative Statistics

Comparative Statistics					
2021 Data	**Germany**	**France**	**United Kingdom**	**Canada**	**United States**
Gross Domestic Product (USD bn)	4,230.2	2,940.4	3,108.4	2,016.0	22,939.6
Nominal GDP Growth (%)	5.2	6.9	5.9	14.4	9.8
Real GDP Growth (%)	2.7	6.7	7.2	4.7	5.6
Consumer Price Inflation (%)	2.9	2.0	2.2	3.2	4.3
Unemployment Rate - Latest Read	5.0	7.4	3.9	5.5	3.6
General Government Revenues % GDP	46.3	51.7	35.8	40.6	31.1
General Government Balance % GDP	-6.8	-8.9	-11.9	-7.5	-10.8
General Government Cyclically Adjusted Balance % Potential GDP	-5.7	-7.5	-9.6	-7.0	-8.8
General Government Debt % GDP	72.5	115.8	108.5	109.9	133.3
General Government Debt % Revenues	156.5	223.9	302.7	270.7	428.0
General Government Interest % Revenues	0.7	2.2	3.2	0.9	5.3
Current Account Balance % GDP	6.8	-1.7	-3.4	0.5	-3.5
Per Capita GDP (PPP) - USD (World Bank)	58,150	50,876	48,693	53,089	69,375
Average Institutional Indicators (KBRA Ranking)	AAA/AA	AA	AAA/AA	AAA/AA	AAA/AA
Human Development Index (Ranking)	6	26	13	16	17

Sources: IMF World Economic Outlook October 2021 and January 2022, IMF Fiscal Monitor October 2021

Finally, KBRA believes that Germany has a very high willingness to honour its debt obligations.

Step III: Local Currency vs. Foreign Currency Government Bond Ratings

KBRA has aligned the Federal Republic of Germany's foreign and local currency sovereign ratings based on its membership of the euro area and financing in euro, a reserve currency.

Conclusion

The impact of the pandemic on global supply chains and the surge in energy costs arising from the conflict in Ukraine will weigh on German growth through this year. Past this, KBRA expects a return to fiscal restraint in the post-pandemic years and a robust recovery, albeit dependent on global demand conditions. Public debt will likely remain elevated over the short-term horizon but Germany's benchmark status, financing flexibility, and highly affordable debt burden negate any material risks here. Germany's large and diversified economy, long-standing institutional robustness, central role in the EU, and moderate and affordable government debt burden are important factors underpinning its sovereign rating.

Federal Republic of Germany Rating History		
Date	**Action**	**Rating/Outlook/Watch Status**
13-Nov-20	Assigned	LT Ratings: AAA (Stable) ST Ratings K1+
07-May-21	Affirmed	LT Ratings: AAA (Stable) ST Ratings K1+
05-Nov-21	Affirmed	LT Ratings: AAA (Stable) ST Ratings K1+
08-Apr-22	Affirmed	LT Ratings: AAA (Stable) ST Ratings K1+

Disclosures (for EU Sovereigns)

Further disclosures relating to this rating action are available in the EU/UK Information Disclosure Form. Additional information regarding KBRA policies, methodologies, rating scales and disclosures are available at www.kbra.com.

The ratings of Germany are unsolicited ratings. The rated entity or related third party did participate in the rating process and KBRA did not have access to the accounts and other relevant internal documents.

Related Publications: (available at www.kbra.com)

- Russia's Invasion of Ukraine: Initial Contours of Credit Risk
- Global Inflation: More Thematic Impulses
- Sovereigns 2022 Outlook: New Challenges Ahead
- KBRA's Podcast: Old Themes Transition to New Themes in Sovereign Credit Risk in Europe
- KBRA's Sovereigns Framework for ESG Risk Management in Credit Ratings