Creditreform Sovereign Rating

Creditreform Rating

Rating Object	Rating Information	
FEDERAL REPUBLIC OF GERMANY	Assigned Ratings/Outlook: **AAA /stable**	Type: Monitoring, unsolicited
Long-term sovereign rating Foreign currency senior unsecured long-term debt Local currency senior unsecured long-term debt	Initial Rating Publication Date: Rating Renewal: Rating Methodologies:	29-07-2016 08-04-2022 "Sovereign Ratings" "Rating Criteria and Definitions"

Rating Action

Neuss, 08 April 2022

Creditreform Rating has affirmed the unsolicited long-term sovereign rating of "AAA" for the Federal Republic of Germany. Creditreform Rating has also affirmed Germany's unsolicited ratings for foreign and local currency senior unsecured long-term debt of "AAA". The outlook is stable.

Contents

Key Rating Drivers

1. Large, wealthy and diversified economy boasting a high level of competitiveness and strong innovation capabilities; Germany's well-performing labor market has proved resilient during the pandemic, and its ongoing strength should cushion private consumption to an extent, despite mounting headwinds from higher energy and other commodity prices
2. At least the near-term economic outlook is markedly dampened by adverse effects from the war in Eastern Europe, with Germany's relatively high dependency on Russian energy imports and its sensitivity to renewed material shortages presenting challenges; still favorable medium-term outlook backed by the prospect of strengthening potential growth amid the reinforced digital and green transformation; the unfavorable demographic outlook will likely hamper longer-term growth to some extent if unaddressed
3. High-quality institutional framework including advantages from the sovereign's profound integration into EU/EMU; speedy formation of the first 'traffic light' coalition strongly committed to delivering on the twin transition points to continued high degree of political stability, notwithstanding a more fragmented political environment
4. Very sound fiscal policy-making has provided room to deal with the pandemic and drive the twin transition; the recent accumulation of crises and some resulting reorientation of policies has raised fiscal needs, mirrored in a number of supplementary budgets and/or special funds, likely leading to a slower pace of debt reduction over the medium term; the sovereign's safe haven status as well as sound debt management and high debt affordability continue to mitigate fiscal sustainability risks, also with a view to sizeable public guarantees and age-related spending
5. Strong position as a large net external creditor continues to be buttressed by high and persistent current account surpluses recently somewhat distorted by pandemic-related

developments; current account surplus should prospectively narrow somewhat, but remain comparatively high

Reasons for the Rating Decision and Latest Developments[1]

Macroeconomic Performance

The sovereign's credit rating continues to be underpinned by its large, wealthy, competitive and diversified economy, as well as by robust labor market conditions. Having shown resilience throughout the pandemic, also thanks to targeted support, Germany's labor market has continued to perform strongly amid the recent recovery. The short-term growth outlook is becoming increasingly clouded by the Eastern European conflict and related commodity price increases. While the medium-term growth outlook remains favorable in our view, in light of ramped-up investment in greening the economy and driving forward digitalization along with the related skillsets, we think that prospects remain subject to significant uncertainties. These concern in particular the speed of the implementation of announced initiatives, also recalling somewhat mixed results when it comes to delivering on large investment projects involving the public sector over the last decade. Episodes of supply-side bottlenecks related to materials and persisting shortages of skilled labor may cause some distractions on the way to realizing Germany's twin transition and its high-tech strategy, as could the now pressing need to diversify the origins of its energy imports while pursuing a path toward renewables. Unfavorable demographic prospects add to downside risks regarding the longer-term growth outlook.

Following GDP growth to the tune of 2.9% in 2021 on the heels of a decline by 4.6% in 2020, German economic output remained 1.1% below its pre-pandemic level (Q4-19) in the final quarter of 2021, lagging somewhat behind the euro area (EA) in this respect (Q4-21 vs. Q4-19: 0.0%). In light of this partial recovery, GDP per capita rose by 6.6% to an estimated USD 58,150 (IMF, PPP terms) last year, remaining one of the highest in the EU. GDP growth in 2021 was carried both by domestic demand, primarily by government consumption (+0.7 p.p.) - and by net exports amid rebounds of both exports and imports (+0.8 p.p.). Private consumption added only 0.1 p.p. to the growth performance owing to a weak start into the year on account of restrictions to suppress the spread of the coronavirus and due to the expiry of the temporary VAT rate cut.

Economic activity in Q4-21 fell by a revised 0.3% q-o-q, again weighed down by shrinking private consumption in the face of containment measures to suppress the fourth wave of corona infections. We expect economic output to have been affected by the Omicron wave in the first quarter of 2022 as well, also due to temporary staff shortages linked to infections and precautionary quarantine, adding to cautious behavior by many consumers as far as contact-intensive services are concerned. Negative effects from Russia's assault on Ukraine will mainly be felt from March 2022, with the steep fall in the ifo business climate indicator in March (from 98.5 to 90.8 points) highlighting current downside risks. Bundesbank's weekly activity index (WAI) even implies a GDP growth rate of -1.1% for the thirteen weeks to 27-Mar-22 compared to the preceding thirteen-week period.

We expect the drastic price increases for energy and other commodities to pose a significant drag on the economy, as these will hamper private consumption. In order to ease the burden

[1] This rating update takes into account information available until 01 April 2022.

on private households, the government announced a second relief package on 23-Mar-22, including a one-off bonus and lower energy tax on fuel for three months. An eventual rise of the minimum wage to EUR 12 per hour from Oct-22, which will come on top of staged increases to EUR 10.45 by Jul-22, should also help to lessen the pain for consumers.

Importantly, the German labor market has continued its strong performance, remaining a key credit support. Germany continues to display one of the lowest unemployment rates in the euro area. The monthly rate (LFS-adj.) has dropped to pre-crisis lows, reaching 3.1% as of Feb-22 (Feb-21: 3.9%, Jan-20: 3.4%, Eurostat), while easier conditions for access to short-time work were extended to the end of Jun-22 and the maximum period of entitlement was increased to 28 months. Notwithstanding upward pressure on wages occurring now on a broader base, the highest inflation rates since the reunification will weigh on households' real disposable income. In March 2022, the HICP inflation rate reached 7.6% (preliminary, Eurostat). Already in 2021, real wages almost stagnated (-0.1%, Destatis), despite relatively strong nominal wage growth (+3.1%) as more employees were able to exit short-term schemes. This said, the saving rate, at 12.5% as of Q4-21 still comparatively high (average 2019: 10.8%), hints at remaining room for pent-up demand to be released. We thus expect overall private consumption to grow markedly stronger than in 2021, when it nearly stagnated, despite the abovementioned price pressures.

Whilst the threat of Covid-19 seems to be abating against the backdrop of vaccination progress and more effective treatment, some risk of economic setback remains given a vaccination rate that is considered insufficiently high and the possibility of emerging virus variants able to evade vaccines. Despite rising infection numbers, hospitalizations have seemed limited recently, leading the government to ease or even drop many restrictions from 20 March 2022. While federal states may impose tighter containment measures if needed, adverse effects should be more limited than in the initial phases of the pandemic.

Prior to the war in Ukraine, business indicators as well as indicators such as manufacturing new orders and industrial production had pointed to a brightening picture amid tentative signs of ebbing supply bottlenecks. The range of the monthly stock of unfilled orders in manufacturing decreased for the first time since May 2020 in January 2022, still covering about 7.8 months (Destatis data) and bolstering a positive outlook for industrial production. Manufacturing orders increased for a third consecutive time in that month, moving 7.4% above their level in Jan-21 and exceeding the Jan-20 level by 8.8%. While industrial production rose for a fourth consecutive month in Jan-22, it remains 2.2% below the level observed in Jan-20.

The planned investments in greening the economy and enhancing the use of digital technologies continue to underpin the positive outlook for gross fixed capital formation, alongside the government's intention to build 400 thousand dwellings per year. Moreover, financing conditions should remain favorable, even though monetary policy looks set to become less accommodative going forward (see below). Government spending should again contribute positively to growth amid efforts to cushion negative spillover effects from the war in Ukraine. Spending linked to accommodating refugees from Ukraine will add to that to some extent.

With domestic demand thus likely to remain relatively strong, we think net exports will exert a negative contribution on GDP growth this year, although exports should see some expansion as well. Demand from important EU trading partners should be supported to some degree by investments boosted by the Recovery and Resilience Plan (RRP), and key non-EU trading partners such as China and the US are likely to see resilient economic growth this year.

Having said this, we expect negative repercussions to external trade from the events in Eastern Europe and the related sanctions, leading us to expect a markedly lower GDP expansion for 2022 than previously, whereas we would still pencil in some acceleration for 2023, notwithstanding heightened uncertainty over potential further escalation of geopolitical tensions. In Germany's crucial automotive industry, where the transformation to electric mobility is in full flow, renewed supply shortages could cause further delays in production. Energy-intensive production could well be impacted more severely as well, despite the government's efforts to soften the blow by diversifying away from Russia in terms of energy commodity imports as fast as possible (see below) and by preparing added financial support to companies. At present, we forecast real GDP to expand by about 2.0% this year, followed by an acceleration to 3.3% in 2023.

A conceivable embargo on Russian energy supplies and/or Russia actively curbing its energy supply to Western countries could hit German households and businesses hard, given that Russia is Germany's biggest energy supplier. In 2020, more than half of Germany's gas imports (65.2%, volume terms), close to half of Germany's coal imports (2020: 45.9%), and almost 30% of oil and petroleum product imports stemmed from Russia, making Germany thus comparatively vulnerable by European comparison. We note that reliably shifting to other sources may take time. While already about to reduce the energy dependency on the Russian Federation, the Ministry for Economics has suggested that it might take until 2024 for Germany to become fully independent of Russian gas imports. An LNG terminal is envisaged to be ready for business only from 2026.

Despite the above uncertainties, we view the medium-term growth outlook as constructive. Germany can expect EUR 25.6bn (about 0.7% of 2021 GDP) in grants via the EU's Recovery and Resilience Facility, comparing as moderate to many other EU countries. Its RRP amounts to EUR 27.9bn and does not include a request for loans. Of these funds, 42% are allocated to reforms and investments around climate objectives and 52% for digital objectives, with the digitalization of public services among the major goals. To this end, a priority in the coalition agreement is to render the administration more agile and digital, speeding up administrative, planning and approval procedures to increase efficiency with regard to private and public investment. While constituting a good basis to start from, Germany's 11th rank among the 27 EU members as far as the Digital Economy and Society Index (DESI, 2021) is concerned points to some catch-up potential vis-a-vis the AAA-peers in our rating universe.

Fostering education and strengthening healthcare are also part of the RRP. What is more, intended close cooperation with France, in particular regarding 'Important projects of Common European Interest (IPCEI)', is to drive hydrogen technologies, microelectronics and cloud computing. With regard to the latter, Germany has lagged behind the EU as a whole, according to recent surveys.

Along with these initiatives, ongoing high R&D spending should be conducive to strengthening potential growth, estimated to be at 1.3% in 2022 and 1.4% in 2023 (AMECO). Already well above the euro area level, averaging 3.1% of GDP over the period 2016-20 (EA: 2.2%, Eurostat), R&D spending has been trending upwards, and as mentioned in the High-Tech Strategy 2025, the government has set a national target of 3.5% of GDP by 2025.

Our credit assessment of the sovereign remains backed by its high level of economic diversification, among others reflected in a relatively balanced ratio of gross value added share of services to industry of 2.4 as of Q4-21 (EA: 2.9), as well as by its very strong competitiveness and innovation potential. Germany's global export market share climbed to 7.6% in 2020 (2019: 7.4%) – by far the highest among the EU countries. Primarily driven by services in light of income from patents for vaccines, underpinning Germany's high export sophistication and competitive edge in this respect, the global market share of services exports thus leaped from 5.8% in 2019 to 6.3% in 2020. Apart from that, the fact that two major US companies (Tesla and Intel) have chosen to establish manufacturing sites in the Eastern part of Germany seems to pay testament to the presence of a well-trained workforce and a favorable business environment. Germany's position as a strong innovator is also underscored by its 6th rank among the EU-27 in the European Commission's (EC) innovation scoreboard (Jun-21).

Looking at indicators linked to cost competitiveness, Germany's real unit labor costs have developed less favorably compared to its major European trading partners and the euro area over a longer-term period (2021 vs. 2012). Given more signs of increased upward pressure on wages lately, we would monitor developments in this respect. For the time being, productivity per employee is recovering following the pandemic-distorted strong decline in 2020. Judging by nominal labor productivity per hour worked, Germany remains one of the most productive economies in the EU, standing 22.6% above the EU level in 2021.

Backed by various support schemes including the so-called 'Überbrückungshilfen', as well as by special regulation with a view to insolvencies between March 2020 and May 2021, the number of business insolvencies has remained relatively low throughout the corona crisis. Following the expiry of most of this special regulation at the end of May 2021, the number of actual business bankruptcies has tended to decline since then. In 2021 as a whole, the number of corporate insolvencies fell to 13,993 (-11.7%), a new low since records started in 1999. Extended support such as 'Überbrückungshilfe IV', for which applications are accepted until end of June 2022, continue to back a benign scenario in terms of business insolvencies.

Meanwhile, non-financial corporate (NFC) debt has been on the rise prior to the outbreak of Covid-19 and has since further increased, reaching its highest level since the reunification at 73.9% of GDP in Q1-21. While suggesting a smaller buffer to absorb economic shocks, at 71.9% of GDP (Q3-21) it moves in the middle-range among the EU countries. Household debt set against disposable income, which increased to 91.6% in Q3-21 (Q3-20: 88.6%), equally does not appear excessive. However, especially against the backdrop of mortgage loan dynamics, we would continue to monitor developments in this respect. The outstanding loan amount to households for house purchases has been climbing for a prolonged period, by now exceeding 7% y-o-y (Jan-22: 7.1%; avg. 2019: 5.2%, avg. 2017: 4.1%).

Risks around the medium-term outlook to our mind concern a timely delivery on the RRP initiatives and investment plans, with potential further escalation or longer duration of the war in Ukraine adding to downside risks. Episodes of shortages regarding various materials and/or equipment and more persistent skills shortages could also prove to be obstacles in the medium term. In this vein, some possible reprioritization of fiscal funds may have to take place in support of sectors experiencing stronger headwinds from the current geopolitical situation. Similarly, the envisaged accelerated phase-out of coal-fired power generation by 2030 and the exit from nuclear power may have to be reassessed, while there are efforts underway to further diversify origins of natural/liquefied gas. We also follow risks linked to adverse demographic developments, as net immigration will likely be insufficient to compensate for negative effects from a declining labor force.

Institutional Structure

The sovereign's credit rating remains buttressed by its extraordinarily strong institutional framework, including benefits from its deep integration into the EU/EMU, as well as sound monetary policy governance and financial supervision performed by the ECB and national authorities. Inflation trends in Germany and the euro area are closely aligned, as are, by and large, interest rate movements concerning lending to the private sector, pointing towards an effective monetary policy framework. Despite a more fragmented political landscape, we expect German politics to continue on a consensus-seeking path. In terms of its formation, the new three-way German governing coalition of SPD, Green party and FDP was off to a smooth start following the election in September 2021 and remains highly committed to delivering on the structural challenges regarding sustainable growth and digitalization. Swift and decisive action with regard to the war in Eastern Europe points towards a high level of domestic political cohesion at this stage.

The major shift in Germany's defense policy in reaction to the events in Ukraine, including the Chancellor's announcement to ramp up spending on defense to above 2% of GDP going forward, can be seen as a higher degree of responsiveness to commitments agreed among NATO members. We expect the envisaged EUR 100bn special fund dedicated to strengthen the armed services to draw the necessary two-thirds majority in the Bundestag, as the largest opposition party (Christian Union) has generally signaled support.

Our assessment of Germany's institutional strength is broadly supported by the World Bank's latest set of Worldwide Governance Indicators, despite some deterioration relating to 2020. Judging by its relative ranks concerning the four governance dimensions on which we place the highest emphasis, Germany continues to clearly outperform the euro area median, while there remains some potential to catch up with our other AAA-rated sovereigns.

As far as government effectiveness is concerned, Germany saw a more marked worsening, dropping from relative rank 16 to 24 out of 209 economies (EA median: 24), whereas there were only minor deteriorations regarding its relative ranking in terms of voice and accountability (13 out of 208, EA median: 33) and concerning rule of law (19 out of 209, EA median: 32). When it comes to the extent to which public power is exercised for private gain (control of corruption), Germany maintained its 11th rank out of 209 economies (EA-median: 43).

As highlighted by the GRECO interim compliance report (May-21), some steps remain to be taken with respect to corruption prevention in respect of members of parliament, judges and prosecutors. The report concluded that three of the eight recommendation in the Fourth Evaluation Report (2014) were implemented or dealt with in a satisfactory manner, while implementation of one recommendation remains outstanding. The latter concerns ad hoc disclosure in cases of conflict of private interests of individual MPs in relation to a matter under consideration in parliamentary proceedings.

The most recent EC Rule of law report (Jul-21) attests to Germany's well-functioning justice system while recalling remaining room to improve regarding digitalization and challenges concerning human resources. The report also assesses as positive further progress with regard to corruption prevention and the entering into force of a new lobby register from January 2022. Improvements are also on the way when it comes to regulating secondary activities and asset disclosures of MPs.

As far as further strengthening the framework for investigating and prosecuting money laundering cases, both domestically and internationally, and its effective implementation is concerned, we note that due to the corona crisis the schedule for the Financial Action Task Force's (FATF) final mutual evaluation report was postponed to mid-2022.

In terms of greening the economy, the government remains highly committed to pursuing climate protection objectives. Looking at the EC's ECO innovation index, Germany maintained its ranking of 6th among the EU-27, underscoring its status as one of the most advanced EU countries in this regard. Its overall share of energy from renewable sources has increased further to 19.3% in 2020, roughly in line with France and Italy, and below the EU average (2020: 22.1%, Eurostat). While well ahead of the EU overall in terms of its renewable energy share in gross electricity consumption (2020: 44.7% vs. EU-27 37.5%), it lags behind when it comes to the use of renewables in heating/cooling (14.8% vs. EU-27 23.1%). The level of Germany's greenhouse gas emissions per capita compares unfavorably against e.g. France and Italy, but continues to decline, standing at 10.1 tons of CO2 equivalent in 2019 (EU-27: 8.4 tons, Eurostat).

Fiscal Sustainability

Notwithstanding the pandemic-induced setback, we continue to view Germany's public finances and its favorable fiscal track record as credit positive, offering space to further manage the coronavirus, the fallout from the current geopolitical tensions, and to drive the twin transition. In light of higher fiscal needs due to these developments, including higher intended priority on defense spending, we expect a reduction of the public debt ratio to be only gradual over the medium term, remaining subject to high uncertainty for the time being. Ongoing sound debt management and a high degree of debt affordability continue to mitigate fiscal risks linked to sizeable public guarantees and prospectively higher age-related spending.

Following six consecutive years of general government surpluses averaging 1.3% of GDP (2019: 1.5% of GDP, EA: -0.6%), the pandemic turned Germany's headline balance into a deficit of 4.3% of GDP in 2020, comparing as moderate against the euro area deficit of 7.2% of GDP in the same year. Still heavily affected by the global health crisis, last year saw the negative balance shrink to 3.7% of GDP (Destatis, preliminary data), amid the economic recovery and scaling back of fiscal support measures.

Total government revenue increased by 8.9% last year (2020: -2.9%) on the back of strongly recovering tax revenue (+12.9%, 2020: -6.5%) and rising social security contributions (+4.2%). At the same time, total government expenditure saw another pronounced increase by 7.4% (2020: 9.6%), in particular driven by strong increases in subsidies (+130.2%) and social benefits (+8.9%).

Looking ahead, the recent events in Ukraine and the related international reaction to Russia's aggression have considerably added to uncertainty over fiscal developments still related to Covid-19, at least in the short term. Not only has the government committed to increase defense spending to above 2% of GDP, but announced a second relief package for households in light of soaring energy prices, expected to cost about EUR 17bn this year. This comes on top of tax relief measures for households and businesses announced in February 2022, estimated to amount to roughly EUR 11bn, among other things by bringing forward the abolition of the Renewable Energy Act levy to July 2022.

Prior to the shift in spending priorities, defense spending as a share of total government expenditure has nearly halved, from 3.9% in 1991 to 2.1% in 2021, showing the second-weakest increase of all government functions over this period, with a nominal (not price-adjusted) increase of 35.8% (Destatis). As part of the now-stronger emphasis on defense spending, the Chancellor also announced special funding for the military in the amount of EUR 100bn. Apart from defense, the current budget draft entails increased funding to the areas of climate protection and health.

The Government expects net borrowing in the amount of EUR 99.7bn for 2022, down from an approved EUR 215.4bn in 2021, with the latter including the EUR 60bn conversion of funds originally earmarked to combat the pandemic into a fund dedicated to climate objectives (EKF), introduced by a second supplementary budget adopted by the Bundestag in Feb-22. Approved net borrowing in 2021 was thus at a new record high, with parliament giving its consent to once again overrule the debt brake enshrined in the German Basic Law. The government envisages to comply with these rules from 2023.

However, we see challenges to align this with the abovementioned dedicated funding for Germany's armed services, although this spending is likely to be spread over several years. Further detail is pending, and a two-thirds majority in the Bundestag is required, as mentioned above. We also recall that the abovementioned net borrowing target does not yet include the second relief package – the latter is to be presented in the form of another supplementary budget.

With uncertainty around public finances thus considerable, we currently expect a deficit of about 2.7% of GDP this year and of 1.4% of GDP next year. Net borrowing is envisaged to drop substantially compared to 2022, averaging about EUR 10.9bn over the years 2023 to 2026. We note that this also represents some shift away from the previously preferred 'black zero' policy. Nevertheless, authorities remain firmly committed to sound public finances, as also stated in the coalition agreement. As a side note, the introduction of the global effective minimum corporate tax rate of 15% agreed on the international level in 2021 could have a positive effect on Germany's annual tax revenue. The German ifo institute reckons that additional revenues could add up to approx. EUR 6.2bn per year.

Germany's debt-to-GDP ratio, which in 2019 for the first time since 2002 fell below the 60% Maastricht threshold (58.9%), leapt to 68.7% in light of the pandemic, still well below the level reached in the aftermath of the global financial crisis (2010: 82.0%). In the face of economic recovery, the higher price level and scaling back on government support, the public debt ratio edged up to 69.3% of GDP in 2021 (Bundesbank data), remaining significantly below the euro area level (Q3-21: 97.7% of GDP, Eurostat), and corroborating Germany's relative strength in terms of fiscal sustainability. At this stage, we expect the debt level to decline to about 68.8% of GDP this year and to 65.9% in 2023.

Germany's track record of prudent debt management, high debt affordability and the strong emphasis on fiscal sustainability in policymaking continue to constitute key mitigating factors regarding fiscal risks. Interest rate payments fell by another 2.8% in 2021, having plummeted by 22.7% in 2020 and continuing to benefit from the ECB's asset purchase program. Set against total revenue, interest payments accounted for a mere 0.4% last year.

Cumulative net asset purchases amounted to about EUR 640.6bn (17.9% of 2021 GDP) as of Feb-22 under the ECB's PSPP and to EUR 392.6bn under the PEPP as of Jan-22. While the ECB will likely pursue a less accommodative monetary policy path going forward, we expect refinancing conditions to remain relatively benign for the sovereign by historical standards, also due to the

Bunds' continued status as a safe haven. Nevertheless, the yield on 10-year Bunds has left negative territory, climbing to 0.57% as of 25 Mar-22 (weekly data), marking the highest level since May 2018.

In light of the significantly heightened uncertainty, the ECB may only gradually start to tighten monetary policy, maintaining a high degree of flexibility at this stage. As announced, the PEPP was terminated at the end of Mar-22. While the tapering of the monthly net asset purchases (APP) is envisaged to occur faster than anticipated by us in Feb-22 and might be concluded as soon as Q3-22, the Governing Council also signaled readiness to delay such a decision if deemed necessary. We consider a first rate hike towards the end of the current year the most likely outcome, but acknowledge that the probability of this happening is heavily dependent on the events around the war Ukraine.

We continue to consider fiscal risks associated with the banking sector as limited, judging by financial stability metrics pertaining to capitalization and asset quality, and considering macroprudential measures addressing potential risks to the wider financial system. Capital buffers (CET1 ratio) have gone up somewhat in the course of the pandemic, standing at 15.2% as of Q4-21, marginally below the EU level (EBA data). The NPL ratio remains well below the EU average (Q4-21: 1.1%, EU: 2.0%, EBA). At the same time, the share of loans and advances with non-expired moratoria deemed to be subject to increased credit risk (i.e. stage 2 loans), dropped significantly to 12.7% as of Q4-21, as compared to 30.3% in the EU (Q4-20: 36.7% vs. EU: 57.9%).

Risks for the sector itself mainly relate to the ongoing low interest rate environment, but also to increasing signs of overvaluation concerning the residential real estate market in combination with dynamically rising mortgage lending. As the commercial real estate market has been on a similar trajectory over recent years, the Federal Financial Supervisory Authority (BaFin) lifted the countercyclical capital buffer from 0.0 to 0.75% of risk-weighted assets on domestic risk exposures as of Feb-22. Moreover, it has introduced a sectoral systemic risk buffer of 2.0% of risk-weighted assets on residential real estate loans. Vulnerabilities from direct financial interlinkages with Russia, drawing e.g. on BIS data on claims by international banks on residents of Russia, appear limited at this stage.

We see some risks to fiscal sustainability arising from a relatively high level of contingent liabilities in the form of government guarantees, which in 2020 increased to 17.5% of GDP (2019: 13.1%, Eurostat), one of the highest levels in the EU. Drawing on data available until Jul-21, the maximum amount of Covid-19-related contingent liabilities was at 23.8% of GDP, against a rather low take-up of 0.2% of GDP (EC).

Over the medium-to-longer term, costs related to demographic changes are set to increasingly exert pressure on public finances, which we will continue to monitor. While age-related costs as a percentage of GDP were even slightly below the EU level as of 2019, coming to 23.3% (EU: 24.0%), the projected increase by 2030 compares unfavorably against the EU, becoming even less favorable when taking the period until 2040 into account. At 34.2 in 2021, Germany's old-age dependency ratio is already in the higher range in the EU (2021: 32.5) and is projected to rise markedly stronger than that of the EU by 2030. What is more, the forthcoming rise in pensions from July 2022 (+5.35% in the Western part of Germany, +6.12% in the Eastern part, Ministry of Labor and Social Affairs) will likely add to pressure. An envisaged capital-based pension pillar in addition to the current pay-as-you-go system could bring relief, but details will have to be fleshed out.

Foreign Exposure

Germany's favorable external position as a large net creditor featuring persistent current account surpluses thanks to its competitive export industry continue to underpin our positive credit assessment, although its sensitivity to global growth and trade dynamics including its dependency on international value chains constitute vulnerabilities. We expect the most recent exceptional developments with regard to the services balance to be a temporary phenomenon.

The German current account surplus increased by 0.3 p.p. to 7.4% of GDP in 2021 (Bundesbank data), more or less returning to the level seen before the pandemic and following a decline in 2020 on the back of collapsing exports and imports.

While the respective balances of trade in goods, services and regarding the secondary income were only little changed compared to 2020, the primary income surplus saw a more marked increase (+0.6 p.p. to 3.5% of GDP), partly as a reversal of developments in 2020. Higher income from German direct investment abroad due to the economic upswing in most of the host countries thus proved to be a main driver for the increasing current account balance.

By contrast, while German exporters benefited from higher foreign demand, increases in import prices in connection with pandemic-related supply bottlenecks ultimately reduced the surplus in goods trade over the course of last year (-0.3 p.p. to 5.4% of GDP). In addition, despite some steps towards normalization, a still low level of German travel expenditure combined with unusually high income from patents for vaccines resulted once more in a mildly positive balance in services trade, which otherwise typically exhibits a deficit.

Looking ahead, we expect the current account balance to narrow this year on the back of weaker export growth than previously assumed due to negative spillover effects from the war in Ukraine and sanctions against Russia, whereas domestic demand, stabilized by government consumption, should support import growth.

The persistent current account surpluses continue to bolster the very large and positive NIIP, which counts among the highest in the EU. The NIIP rose from 61.7% of GDP in 2020 to 65.5% of GDP as of Q3-21 (Bundesbank), also bearing in mind a methodological change increasing the net international investment position by around EUR 120bn.

Rating Outlook and Sensitivity

Our rating outlook for Germany's long-term credit ratings is stable. We consider downside risks related to the macroeconomic and fiscal performance, currently added to by the geopolitical tensions and pandemic-related uncertainty, to be broadly balanced by its economic diversification, favorable prospects regarding medium-term growth, a convincing fiscal track record and remaining fiscal leeway as well as its high-quality institutional set-up. We emphasize that the assessment and interpretation of economic developments remains subject to considerable uncertainty in light of the recent accumulation of crises.

A negative rating action could be prompted by a considerable deterioration of medium-term growth prospects, possibly on the back of a further escalating geopolitical situation, and/or a material and more protracted deterioration of fiscal metrics, the latter possibly exacerbated by realization of contingent liabilities.

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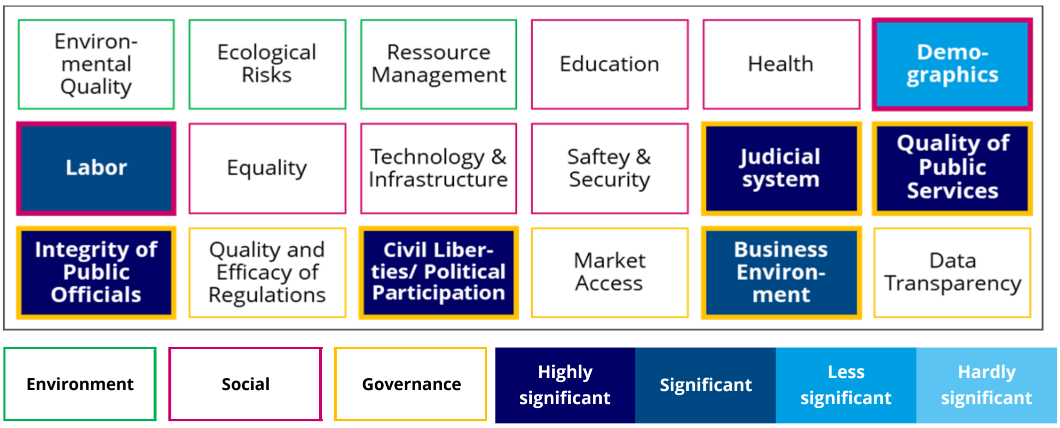
Ratings*

Long-term sovereign rating	AAA /stable
Foreign currency senior unsecured long-term debt	AAA /stable
Local currency senior unsecured long-term debt	AAA /stable

*) Unsolicited

ESG Factors

ESG Factor Box



Creditreform Rating has signed the ESG in credit risk and ratings statement formulated within the framework of the UN Principles for Responsible Investment (UN PRI). The rating agency is thus committed to taking environmental and social factors as well as aspects of corporate governance into account in a targeted manner when assessing creditworthiness.

While there is no universal and commonly agreed typology or definition of environment, social, and governance (ESG) criteria, Creditreform Rating views ESG factors as an essential yardstick for assessing the sustainability of a state. Creditreform Rating thus takes account of ESG factors in its decision-making process before arriving at a sovereign credit rating. In what follows, we explain how and to which degree any of the key drivers behind the credit rating or the related outlook is associated with what we understand to be an ESG factor and outline why these ESG factors were material to the credit rating or rating outlook.

For further information on the conceptual approach pertaining to ESG factors in public finance and the relevance of ESG factors to sovereign credit ratings and Creditreform Rating credit ratings more generally, we refer to the basic documentation, which lays down key principles of the impact of ESG factors on credit ratings.

The governance dimension plays a pivotal role in forming our opinion on the creditworthiness of the sovereign. As the World Bank's Worldwide Governance Indicators Rule of Law, Government Effectiveness, Voice and Accountability, and Control of corruption have a material impact on Creditreform Rating's assessment of the sovereign's institutional set-up, which we regard as a key rating driver, we consider the ESG factors 'Judicial System and Property Rights', 'Quality of Public Services and Policies', 'Civil Liberties and Political Participation', and 'Integrity of Public Officials' as highly significant to the credit rating.

Since indicators relating to the competitive stance of the sovereign such as the World Bank's Ease of Doing Business index and the World Economic Forum's Global Competitiveness Indicator add further input to our rating or adjustments thereof, we judge the ESG factor 'Business Environment' as significant.

The social dimension plays an important role in forming our opinion on the creditworthiness of the sovereign. Labor market metrics constitute crucial goalposts in Creditreform Rating's considerations on macroeconomic performance of the sovereign, and we regard the ESG factor 'Labor' as significant to the credit rating or adjustments thereof. Indicators or projections providing insight into likely demographic developments and related cost represent a social component affecting our rating or adjustments thereof. We regard the ESG factor 'Demographics' as less significant.

While Covid-19 may have significant adverse effects on several components in our ESG factor framework in the medium to long term, it has not been visible in the relevant metrics we consider in the context of ESG factors – though it has a significant bearing concerning economic prospects and public finances. To be sure, we will follow ESG dynamics closely in this regard.

Economic Data

[in %, otherwise noted]	2016	2017	2018	2019	2020	2021e	2022e
Macroeconomic Performance							
Real GDP growth	2.2	2.7	1.1	1.1	-4.6	2.9	2.0
GDP per capita (PPP, USD)	50,575	53,374	55,077	56,523	54,551	58,150	62,404
Credit to the private sector/GDP	82.0	81.8	82.8	84.3	90.7	89.9	n/a
Unemployment rate	3.9	3.6	3.2	3.0	3.7	n/a	n/a
Unit labor costs (index 2019=100)	100.0	99.8	101.0	102.2	104.9	n/a	n/a
Life expectancy at birth (years)	81.0	81.1	81.0	81.3	81.1	n/a	n/a
Institutional Structure							
WGI Rule of Law (score)	1.6	1.6	1.6	1.6	1.6	n/a	n/a
WGI Control of Corruption (score)	1.8	1.8	1.9	1.9	1.9	n/a	n/a
WGI Voice and Accountability (score)	1.4	1.4	1.4	1.4	1.4	n/a	n/a
WGI Government Effectiveness (score)	1.7	1.7	1.6	1.5	1.4	n/a	n/a
HICP inflation rate, y-o-y change	0.4	1.7	1.9	1.4	0.4	3.2	5.2
GHG emissions (tons of CO2 equivalent p.c.)	11.4	11.1	10.7	10.1	n/a	n/a	n/a
Default history (years since default)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fiscal Sustainability							
Fiscal balance/GDP	1.2	1.3	1.9	1.5	-4.3	-3.7	-2.7
General government gross debt/GDP	69.0	64.7	61.3	58.9	68.7	69.3	68.8
Interest/revenue	2.6	2.3	2.0	1.7	1.3	n/a	n/a
Debt/revenue	151.6	142.1	132.5	126.8	147.7	n/a	n/a
Total residual maturity of debt securities (years)	5.8	6.0	6.2	6.5	6.7	7.1	n/a
Foreign exposure							
Current account balance/GDP	8.5	7.8	7.8	7.4	7.0	7.4	n/a
International reserves/imports	0.2	0.2	0.2	0.2	0.2	n/a	n/a
NIIP/GDP	39.2	44.2	55.1	61.7	65.0	n/a	n/a
External debt/GDP	152.2	146.2	144.7	143.7	163.3	n/a	n/a

Sources: IMF, World Bank, Eurostat, AMECO, ECB, Destatis, own estimates

Appendix

Rating History

Event	Publication Date	Rating /Outlook
Initial Rating	29.07.2016	AAA/ stable
Monitoring	30.06.2017	AAA/ stable
Monitoring	27.04.2018	AAA/ stable
Monitoring	26.04.2019	AAA/ stable
Monitoring	24.04.2020	AAA/ stable
Monitoring	16.04.2021	AAA/ stable
Monitoring	08.04.2022	AAA /stable

Regulatory Requirements

In 2011 Creditreform Rating AG (CRAG) was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation. The rating was not endorsed by Creditreform Rating AG from a third country as defined in Article 4 (3) of the CRA-Regulation.

This sovereign rating is an unsolicited credit rating. Neither the rated sovereign nor a related third party participated in the credit rating process. Creditreform Rating AG had no access to the accounts, representatives or other relevant internal documents for the rated entity or a related third party. Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	NO
With Access to Internal Documents	NO
With Access to Management	NO

The rating was conducted on the basis of CRAG's "Sovereign Ratings" methodology (v1.2, July 2016) in conjunction with its basic document "Rating Criteria and Definitions" (v1.3, January 2018). CRAG ensures that methodologies, models and key rating assumptions for determining sovereign credit ratings are properly maintained, up-to-date, and subject to a comprehensive review on a periodic basis. A complete description of CRAG´s rating methodologies and basic document "Rating Criteria and Definitions" is published on our website.

To prepare this credit rating, CRAG has used the following substantially material sources: International Monetary Fund, World Bank, Organization for Economic Co-operation and Development, Eurostat, European Commission, European Banking Authority, European Central Bank, World Economic Forum, European Investment Bank, Blavatnik School of Government, ECDC, Destatis, Deutsche Bundesbank, Bundesministerium der Finanzen, Bundesagentur für Arbeit, Bundesanstalt für Finanzdienstleistungsaufsicht, Bundesministerium für Arbeit und Soziales.

A Rating Committee was called consisting of highly qualified analysts of CRAG. The quality and extent of information available on the rated entity was considered satisfactory. The analysts and committee members declared that the rules of the Code of Conduct were complied with. No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks. The analysts presented the results of the quantitative and qualitative analyses and provided the Committee with a recommendation for the rating decision. After the discussion of the relevant quantitative and qualitative risk factors, the Rating Committee arrived at a unanimous rating decision. The weighting of all risk factors is described in CRAG's "Sovereign Ratings" methodology. The main arguments that were raised in the discussion are summarized in the "Reasons for the Rating Decision".

As regards the rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the credit rating report. There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRAG website. In case of providing ancillary services to the rated entity, CRAG will disclose all ancillary services in the credit rating report.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks is indicated clearly and prominently in the rating report; the first release is indicated as “initial rating”; other updates are indicated as an “update”, “upgrade or downgrade”, “not rated”, “affirmed”, “selective default” or “default”.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available on the ESMA website: https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml.

An explanatory statement of the meaning of each rating category and the definition of default are available in the credit rating methodologies disclosed on the website.

Disclaimer

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