

Rating Object	Rating Information	
<b>FEDERAL REPUBLIC OF GERMANY</b>  Long-term sovereign rating Foreign currency senior unsecured long-term debt Local currency senior unsecured long-term debt	Assigned Ratings/Outlook: <b>AAA /stable</b>	Type: Monitoring, Unsolicited
	Initial Rating Publication Date: Rating Renewal: Rating Methodologies:	29-07-2016 22-03-2024 "Sovereign Ratings" "Rating Criteria and Definitions"

## Rating Action

Neuss, 22 March 2024

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.

## Key Rating Drivers

1. Large, wealthy and diversified economy with a strong innovation ecosystem, as well as a well-performing and resilient labor market; after assumed near-stagnation in 2024, we expect real GDP to see some acceleration in 2025 amid recovering private consumption and fading effects from previous monetary policy tightening
2. Investment to drive the twin transition should foster underlying growth over the medium-term; some efforts are underway to address skill shortages and adverse demographic trends otherwise causing headwinds to medium-to-longer term growth
3. Exceptionally strong institutional quality, augmented by significant benefits associated with the deep integration into EU/EMU; track record of a high level of policy predictability, effective crisis response and political stability on the back of traditionally consensus-seeking policy-making, notwithstanding a greater fragmentation of the political landscape
4. A protracted phase of fiscal discipline prior to the onset of the Covid-19 pandemic created ample leeway to respond to shocks; amid high priority of fiscal consolidation, we expect a slight decrease of the public debt ratio; fiscal sustainability risks linked to sizeable contingent liabilities and age-related costs are balanced by the sovereign's safe haven status, sound debt management and high - albeit deteriorating - debt affordability
5. High and recurrent current account surpluses also during the successive crises have contributed to the build-up of a large external creditor position, offering substantial buffers to economic shocks;

## Contents

Rating Action .....	1
Key Rating Drivers .....	1
Reasons for the Rating Decision and Latest Developments .....	1
Macroeconomic Performance .....	2
Institutional Structure .....	4
Fiscal Sustainability .....	5
Foreign Exposure .....	5
Rating Outlook and Sensitivity .....	7
Ratings* .....	8
ESG Factors .....	8
Economic Data .....	10
Appendix .....	10

## Reasons for the Rating Decision and Latest Developments<sup>1</sup>

### Macroeconomic Performance

*Our credit rating is underpinned by the sovereign's exceptionally strong macroeconomic profile, which features a prosperous, large, and competitive economy and benefits from pronounced innovative capacities. Having withstood the polycrisis well, the robust labor market adds to underlying economic resilience and supports our expectation for an accelerating economic pace following a prolonged weak phase on the back of subdued domestic and foreign demand. Retreating inflation and fading adverse effects from monetary policy tightening should enable economic activity to gain moderate momentum in 2025, notwithstanding remaining downside risks due to geopolitical tensions, including renewed spikes in commodity prices and/or disruptions to trade flows. Unfavorable demographic developments continue to pose downside risks to longer-term growth prospects, whilst initiatives and sizable investment to drive digitalization and greening the economy, also related to the national Resilience and Recovery Plan (RRP), should bolster underlying growth. Commitment to cut red tape partly hampering the implementation of investment projects will have to be monitored against a somewhat mixed track record especially regarding large-scale investment projects over recent years.*

The German economy contracted by 0.3% in 2023 on the back of a widespread decline in domestic and foreign demand. More specifically, households reduced spending in response to still high energy prices and the unfavorable interest rate environment, while government consumption fell as well, following the phasing-out of Covid-19 measures. Gross fixed capital formation decreased, with declining construction investment playing a pivotal role. Net exports added to growth, as falling imports outpaced the decline in exports.

Sentiment indicators do not point towards a swift economic recovery. Although the ifo business climate index and the GfK's consumer climate in February showed a slight improvement compared to the previous month, the overall picture of business and consumer sentiment remains relatively subdued. The weekly activity index for the German economy by Bundesbank seems to corroborate this perception, suggesting that implied GDP growth for the 13 weeks up to 4 March was -0.1% compared to the preceding 13 weeks. Repeated strike actions in various sectors add to the impression of a very muted pace of the economy at the beginning of 2024. Looking at manufacturing orders until Jan-24, at least there are tentative signs that the downward trend may have come to halt.

Going forward, private consumption will, in our view, be supported by easing inflation, strong nominal wage growth, and a relatively stable labor market. That said, tempering expectations regarding the strength of expenditure growth, consumer confidence has remained downbeat lately, possibly indicating that households may increase precautionary savings. HICP inflation averaged 6.0% in 2023 and fell to 2.7% in Feb-24 (Eurostat). We expect disinflationary trends to continue, although core inflation could prove stickier. Whilst the 6% rise in nominal wages in 2023 (Destatis) was virtually eaten up by inflation, subsiding inflation combined with ongoing strong wage growth looks set to translate into increasing real wages this year. The lifting of the mini-job income limit as well as an increase of the minimum wage by a total of 18.8% within a year and a half should benefit marginally employed persons.

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<sup>1</sup> This rating update takes into account information available until 15 March 2024.

Germany's labor market continues to prove robust. The unemployment rate held stable at 3.1% in recent months (Sep-23-Jan-24, LFS adj., Eurostat), the lowest level in our AAA-rated universe. At the same time, employment growth has slowed down of late, but remained positive, and businesses seem less inclined to hire, as underpinned by a decline in the ifo employment barometer in January and February. As regards structural factors, labor participation compares as high on a European scale (79.7% as of Q3-23, EA: 75.1%). Likewise, Germany demonstrates a strong performance regarding the European Social Scoreboard. Partly reflecting skills shortages, Germany's relatively high vacancy rate will likely prolong upward pressure on wages. That said, reducing barriers to entering the labor market with the EU Blue Card, the new Skilled Immigration Act could counter the lack of skilled labor to some extent.

High borrowing costs currently weigh on investment prospects, in particular in the construction sector, and will likely result in a negative contribution of gross fixed capital formation (GFCF) to real GDP growth in 2024. Looking ahead, the expected loosening monetary policy stance could bring some positive effects to construction investment in 2025, whilst we expect equipment investment to again add to GDP growth this year and next. Generally, investment should benefit financial means provided for the green and digital transformation. Towards the end of 2023, the European Commission disbursed the first tranche under the Recovery and Resilience Facility, amounting to EUR 4bn.

German net exports should make a moderately positive contribution to total output growth this year, on the back of an economic pick-up among major trade partners over the course of the year. Materializing rate cuts among key central banks would additionally brighten the export outlook for 2025.

On the whole, we forecast real GDP to grow by 0.1% in 2024 and 1.2% in 2025, with abating inflation and the dissipating impact of monetary policy tightening expected to give way to an accelerating economic pace. Uncertainty around the forecasts remains significant, and downside risks continue to relate to a possible further escalation of the wars in Ukraine and the Middle East, as well as disruptions in the Red Sea.

We continue to view medium-term prospects as supported by substantial investment dedicated to greening the economy and the digital transformation. Underscoring our favorable rating assessment, Germany generally maintained its highly competitive position, judging by its high global export market share of goods and services, notwithstanding a decline in 2022. Recent developments as regards Germany's real unit labor costs would still back the perception of a relatively favorable position when set against main European trading partners and the euro area as a whole, comparing 2022 vs. 2021 as well as vs. 2018.

To be sure, in the current context of risks around energy prices, we reiterate headwinds facing the energy-intensive industries such as the chemical and pharmaceutical industry. Moreover, growing competition as regards electric mobility, with China gaining more traction lately, highlights risks for the German automotive industry, another key exporter. We will continue to monitor further developments in this regard. Strong wage growth may, if continued and not offset by productivity growth, adversely affect Germany's cost competitiveness at some point. As regards potential growth, we note that current estimates of 0.8% p.a. in 2023-2025 for Germany (AMECO data) put it markedly below its average of 1.3% over 2010-2019, thus representing the lowest estimate among the large European economies.

Turning to non-cost factors, we observe that Germany continues to rank in the upper third among the EU members as regards the IMD World Competitiveness Ranking 2023 (22 out of 64), although slipping by seven places compared to the previous edition. Germany repeatedly excels through its innovative capacity, as illustrated by being classified as a strong innovator on the European Innovation Scoreboard 2023 and counting among the top ten performers in the UN's Global Innovation Index 2023 (8 out of 132). With regard to the latter, Germany stands out in the innovation pillar 'human capital and research', also paying testament to the considerable amount of funds flowing into R&D. Drawing on Eurostat data, R&D expenditure rose by 7.3% in 2022, to EUR 121.4bn, or about 3.1% of GDP, constituting one of the highest ratios in the EU.

This being said, there remains some room for improvement in terms of digitalization. As underscored by the Digital Decade Report 2023, the share of people with at least basic digital skills is below the EU average, and specific areas of connectivity such as fiber infrastructure are to be tackled.

#### Institutional Structure

*The sovereign's credit rating is buttressed by its exceptionally strong institutional set-up, as also reflected by the strong performance in the recent set of the Worldwide Governance Indicators (WGIs). Linked to its deep integration into the EU/EMU, Germany's inflation trends, as well as interest rates associated with lending to the private sector, are closely aligned with the euro area as a whole. We deem policy responsiveness as pronounced, and despite a higher degree of political fragmentation, a consensus-seeking attitude ultimately remains prevalent, including high commitment to structural policies fostering the green and digital transition. Further corroborating the high quality of the institutional framework, Germany is taking action to further enhance its anti-money laundering / countering the financing of terrorism (AML/CFT) framework, and new legislation on whistleblower protection is now in place.*

Judging by the four pillars of the WGIs on which we place the highest emphasis when assessing a sovereign's institutional quality, Germany ranks well above the euro area median in each of the four indicators (reference year 2022), as well as above the other large European economies, while being roughly in line or slightly behind our AAA-rated sovereigns.

Further buttressing the very strong institutional set-up, the quality, efficiency and perceived independence of Germany's justice system is high, as emphasized by the latest EC Rule of Law Report (Jul-23). When it comes to preventing corruption and promoting integrity with regard to central government level and law enforcement agencies, we note that, as per GRECO's Mar-23 compliance report (fifth evaluation round), only one out of fourteen recommendations has been implemented satisfactorily, five of the remaining thirteen recommendations have been partly implemented and the remainder have not been implemented. Scope for improvement also pertains to the legal obligation of members of the federal government to disclose assets. In the context of corruption, we understand that the overhaul of the strategic anti-corruption framework at the federal level is still pending. Meanwhile, the new German Whistleblower Protection Act entered into force in Jul-23.

In a bid to further enhance the effectiveness of its AML/CFT framework, Germany's Ministry of Finance (MoF) launched an initiative to establish a federal AML agency. The key three pillars of the organization, which is to become operational in 2025, are a center to investigate money

laundering, a financial intelligence unit, and a central office for supervision and administrative investigation.

As regards climate policy, we note that Germany demonstrates ongoing commitment towards reaching climate neutrality by 2045, as codified in the Climate Change Act. As part of the strategy, Germany aims to increase the share of renewable energy in power generation to 80% by 2030. This goal may be considered ambitious, given that 20.8% of Germany's overall gross energy consumption was generated through renewables in 2022.

At the same time, Germany counts among the leading European economies in terms of Eco-Innovation capabilities (Eco-Innovation Index rank 6/27, 2022). Further progress has been made in establishing a green yield curve, among others via issuing a 30-year green bond in Jun-23. In terms of legislative changes, the Buildings Energy Act entered into force on 1 January 2024, driving a switch to heating systems largely powered by renewable energy.

#### Fiscal Sustainability

*The recent succession of crises and related spending to mitigate negative effects on the economy held Germany's public debt ratio above its pre-pandemic level, however, Germany still has ample room to address shocks. We expect the debt-to-GDP ratio to move closer towards the 60% Maastricht value over the medium term, also supported by commitment to comply with the national debt brake and budgetary reprioritization required as a result of a recent decision by the Constitutional Court concerning the use of special funds. Notwithstanding a less favorable interest rate environment, Germany's debt remains highly affordable. Sound debt management and credible emphasis on fiscal discipline mitigate fiscal risks stemming from pronounced government guarantees and cost pressure from age-related expenditure.*

Having exhibited a deficit since the onset of the Covid-19 pandemic, the general government balance again displayed a negative position in 2023. However, at 2.1% of GDP (Destatis, preliminary data), the deficit turned out slightly lower than in the preceding year (2022: -2.5% of GDP). The shrinking headline deficit came on the back of phased-out Covid-19 measures, whilst energy support constituted a larger burden for public finances compared to 2022.

General government revenue rose by 4.4% (Destatis), with social security contributions growing noticeably against the backdrop of the solid labor market, whereas the outcome for tax revenue was only marginally higher than in 2022 in light of the adoption of several tax relief measures. On the other hand, general government expenditure saw an increase by 3.7%, boosted by social benefits other than social transfers in kind, compensation of employees and interest payments. As mentioned above, subsidies were down y-o-y.

A ruling by the German Federal Constitutional Court in Nov-23, ultimately limiting the use of special funds such as the Climate and Transformation Fund resulted in lower budgetary scope than initially envisaged for 2024. As a direct consequence of the decision, the government closed the Economic Stabilization Fund at the end of last year, implying that the electricity and gas price caps no longer apply in 2024. The budget 2024 was finally approved by the parliament in Feb-24, nevertheless suspending the national debt brake rule for a fourth consecutive time in 2023, while committing to it from 2024. The debt brake does not apply to the special fund for the armed forces of EUR 100bn until 2027. Defense expenditure is envisaged to be stepped up to roughly 2% of GDP in 2024.

Against the background of expiring energy support measures, and the government's commitment to comply with the constitutional debt brake, we expect the headline deficit to narrow further to 1.7% of GDP in 2024. Assuming moderate real GDP growth in 2025, we project the fiscal deficit to shrink to 1.0% of GDP in 2025. Germany's debt-to-GDP ratio declined from 66.1% at the end of 2022 to 64.8% in Q3-23, standing well below the euro area level (EA Q3-23: 89.9% of GDP, Eurostat, preliminary data). We expect the debt-to-GDP ratio to edge down to 64.1% in 2024 and 63.4% in 2025.

Risks to fiscal sustainability emanate from the relatively high level of contingent liabilities. Drawing on the DBP24, guarantees totaled 51.3% of GDP as of end of 2022, 11.3 p.p. of which were linked to the Covid-19 response. The overall take-up was estimated to come to 19.4% of GDP, in particular including domestic and export guarantees.

While the aggressive monetary policy tightening cycle was accompanied by rising refinancing costs on the capital market, retreating inflation rates and market expectations over easing monetary policy have caused bond yields to trend down somewhat. The yield on 10-year German Bunds stood at 2.27% as of 08-Mar-24 (weekly data, Refinitiv), roughly 23 bp below the reading recorded approximately one year earlier. Germany's interest payments saw a sharp increase by 36.2% in 2023 (Destatis data), among others spurred by provisions for redemptions of inflation-indexed debt instruments. Notwithstanding an increase from 1.5% in 2022 to 1.9% in 2023, Germany's interest-to-revenue ratio is still relatively low, suggesting ongoing high debt affordability. In terms of GDP, interest expenditure climbed to 0.9% in 2023 (2022: 0.7%).

The ECB decided to maintain policy rates in its March monetary policy meeting. At this stage, we expect a first cut in the policy rates to take place in June, with the main refinancing rate likely to stand at 3.75% at the end of the current year. In connection with the latest monetary policy meeting, the ECB again confirmed its intention to cease reinvesting maturing government bonds under the PEPP at the end of 2024. The APP portfolio is declining at a measured and predictable pace, as respective reinvestments had been discontinued as of July 2023.

Drawing on financial soundness metrics, the German banking continues to give a solid impression. As of Q3-23, the banking sector's CET1-ratio stood at 16.4%, slightly above the EU average and well above readings recorded prior to the pandemic. A low NPL ratio of 1.1% in Q3-23 (EU: 1.8%) hints at a high asset quality and the overall healthy state of the German banking sector. While macroprudential levers had been activated to mitigate risks associated with the real estate market and the wider financial sector, the Federal Financial Supervisory Authority (BaFin) did not make any changes to the countercyclical capital buffer (0.75%) since our last review (Mar-23).

Meanwhile, house prices have undergone a marked downward reassessment, falling by 10.2% y-o-y as of Q3-23 (Eurostat data). In a similar vein, OECD affordability indicators point towards decreasing price misalignments, as, e.g., underlined by the price-to-income ratio. The latter exceeded its long-term average (1995:Q1-2023:Q3) by 5.4% as of Q3-23, down from 22.5% in the third quarter of 2022. Risks for a more abrupt correction on the property market cannot be discarded, as also echoed by BaFin's latest Risk Report (Jan-24). We note that lending to the private sector has decelerated considerably over the past year. While the tighter financing conditions add to potential challenges linked to housing market corrections, they seem ultimately mitigated by the relatively long fixation periods for interest rates on housing loans.

Unfavorable demographics continue to weigh on Germany's medium-to-longer term fiscal sustainability. In a bid to address rising pressure associated with the pay-as-you go pension system, and as the government aims to hold the pension level stable at 48% until 2039, the government has proposed an additional pension pillar, consisting of a debt-financed capital stock of EUR 200bn by the mid-2030s, which is to be invested in global stock markets. A draft law is to be brought before parliament before the summer.

#### Foreign Exposure

*Persistent current account surpluses over a long period, also attesting to the economy's robust export competitiveness, have bolstered a large net external creditor position, compensating for vulnerabilities arising from the sovereign's high degree of trade openness and a higher degree of geo-economic fragmentation. Following the recent energy price shock, which dragged on the goods balance, Germany's current account balance is recovering. Whilst we expect significant external surpluses to prevail over the medium term, prospective structurally higher import demand may prevent a return to the highs registered in the middle of last decade.*

Germany's current account surplus in 2023 amounted to EUR 280.3bn or 6.8% of GDP, up from 4.4% of GDP in 2022 (Bundesbank, preliminary data). The widening surplus came chiefly on the back of a partial reversal in energy prices. Assuming that import demand will increase in light of the digital and ecological transformation of the economy, the current account surplus may not reach pre-pandemic levels over the medium term (average 2010-19: 7.4% of GDP, 2019: 8.2% of GDP), but should continue to display high readings.

Supported by the persistent current account surpluses, Germany traditionally boasts one of the EU's highest positive NIIPs. At 70.2% of GDP in 2022, the NIIP rose again compared to the preceding year, largely due to more pronounced positive net positions regarding direct investment and financial derivatives. More recent data up to Q3-23 show the NIIP at 68.6% of GDP, representing the second largest position among the EU members.

#### Rating Outlook and Sensitivity

Our rating outlook for the Federal Republic of Germany's long-term credit ratings is stable. We consider downside risks to the macroeconomic and fiscal performance, currently amplified by tight financing conditions and uncertainty over geopolitical events, as broadly balanced by the sovereign's shock-absorbing capacity, thanks to its exceptional governance framework, diversified economy, track record of fiscal prudence, as well as its fiscal and external buffers.

Downward pressure on our rating or on the outlook could arise if medium-term growth prospects weaken significantly, possibly due to an escalation of geopolitical tensions, and/or a marked and sustained deterioration of fiscal metrics, with the latter being possibly compounded by materializing 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

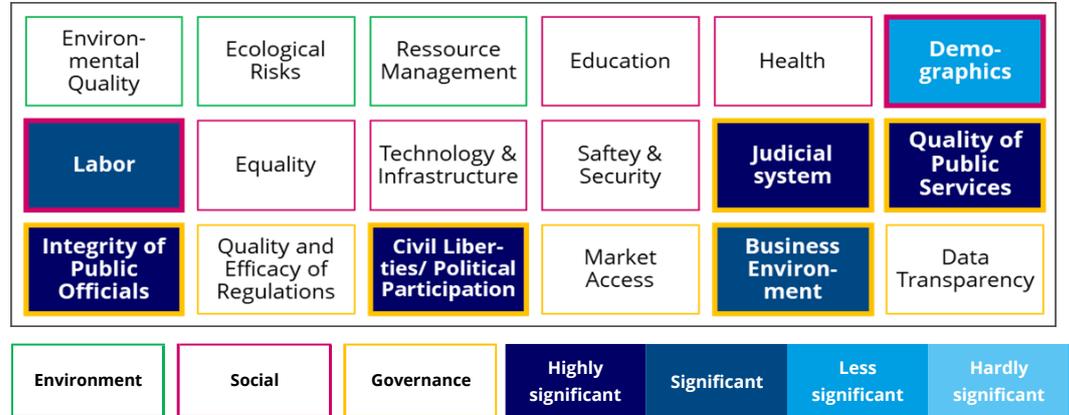
## ESG Factors

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 the following, we explain how and to what 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 to 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](#).

ESG Factor Box



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 assessment of an economy’s competitive stance by e.g. the World Bank, the World Economic Forum, the European Commission, and IMD Business School and the World Intellectual Property Organization (UN) 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 exert 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 on public finances. To be sure, we will follow ESG dynamics closely in this regard.

## Economic Data

[in %, otherwise noted]	2018	2019	2020	2021	2022	2023e	2024e
<b>Macroeconomic Performance</b>							
Real GDP growth	1.0	1.1	-3.8	3.2	1.8	-0.3	0.1
GDP per capita (PPP, USD)	55,029	56,488	54,989	59,255	64,086	66,038	68,129
Credit to the private sector/GDP	82.8	84.2	89.7	88.7	88.7	84.1	n/a
Unemployment rate	3.2	3.0	3.7	3.7	3.1	n/a	n/a
Real unit labor costs (index 2015=100)	101.1	102.2	103.8	100.9	99.1	99.3	101.0
World Competitiveness Ranking (rank)	15	17	17	15	15	22	n/a
Life expectancy at birth (years)	81.0	81.3	81.1	80.8	80.7	n/a	n/a
<b>Institutional Structure</b>							
WGI Rule of Law (score)	1.6	1.6	1.5	1.6	1.5	n/a	n/a
WGI Control of Corruption (score)	1.9	1.9	1.8	1.8	1.8	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)	1.5	1.5	1.3	1.3	1.3	n/a	n/a
HICP inflation rate, y-o-y change	1.9	1.4	0.4	3.2	8.7	6.0	2.3
GHG emissions (tons of CO2 equivalent p.c.)	10.6	9.9	9.0	9.4	n/a	n/a	n/a
Default history (years since default)	n/a						
<b>Fiscal Sustainability</b>							
Fiscal balance/GDP	1.9	1.5	-4.3	-3.6	-2.5	-2.1	-1.7
General government gross debt/GDP	61.9	59.6	68.8	69.0	66.1	64.4	64.1
Interest/revenue	2.0	1.7	1.4	1.2	1.5	n/a	n/a
Debt/revenue	133.8	128.1	149.1	145.7	140.7	n/a	n/a
Total residual maturity of debt securities (years)	6.2	6.6	6.7	7.2	7.5	7.9	n/a
<b>Foreign exposure</b>							
Current account balance/GDP	8.0	8.2	7.1	7.7	4.4	n/a	n/a
International reserves/imports	15.4	18.1	22.9	20.8	18.8	n/a	n/a
NIIP/GDP	52.3	58.5	63.7	68.0	70.2	n/a	n/a
External debt/GDP	147.6	147.4	164.2	170.2	155.8	n/a	n/a

Sources: IMF, World Bank, IMD, 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
Monitoring	24.03.2023	AAA /stable
Monitoring	22.03.2024	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, World Intellectual Property Organization (WIPO), IMD Business School, 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.

No ancillary services in the regulatory sense were carried out for this rating object. Creditreform Rating AG ensures that the provision of ancillary services does not present conflicts of interest

with its credit rating activities and discloses ancillary services provided for the rated entity or any related third party, if any, in its rating reports. For the complete list of provided rating and credit service ancillaries please refer to <https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html#non-core-business-activities>.

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.

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