

Rating Object	Rating Information	
FEDERAL REPUBLIC OF GERMANY Long-term sovereign rating Foreign currency senior unsecured long-term debt Local currency senior unsecured long-term debt	Assigned Ratings/Outlook: AAA /stable	Type: Monitoring, unsolicited
	Initial Rating Publication Date: Rating Renewal: Rating Methodologies:	29-07-2016 26-04-2019 "Sovereign Ratings" "Rating Criteria and Definitions"

Rating Action

Neuss, 26 April 2019

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.

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Key Rating Drivers

1. Very wealthy, diversified and competitive economy, displaying healthy GDP growth in recent years; expectation of notably lower but still solid growth in 2019/20; output growth should be supported by robust private consumption on the back of well-performing labor market
2. Germany enjoys a high degree of political stability and an institutional framework of exceptionally high quality, coupled with extensive economic benefits from its integration in the European Union and the euro area
3. Prudent budget execution, mirrored by repeated and rising headline surpluses since 2014; despite a more expansionary fiscal stance in 2019/20, debt-to-GDP ratio should remain on a downward trajectory
4. Medium- to long-term fiscal sustainability risks stemming from projected increase in age-related expenditures and sizeable contingent liabilities tempered by extraordinarily low refinancing costs
5. Very strong external performance puts economy in a favorable position to withstand external shocks; extraordinarily large and sustained current account surpluses have resulted in a high and further increasing net international investment position

Reasons for the Rating Decision

The Federal Republic of Germany's exceptionally high creditworthiness reflects its extraordinary strong institutional and macroeconomic performance profile, as well as generally strong fiscal and external metrics.

Macroeconomic Performance

The sovereign's credit rating continues to be supported by the economy's strong macroeconomic performance profile, backed by Germany's very large and prosperous economy and buoyed by an excellent business environment, a well-performing labor market and a high degree of diversification.

According to IMF estimates, Germany remains the fourth largest economy in the world (2018: USD 2.81tr) and the largest economy in the euro area, accounting for approx. a quarter of the EMU's total output alone. We believe that the significant size of its domestic market coupled with high levels of personal wealth enhances Germany's macroeconomic resilience. At the latest count, Germany exhibited a per capita income of USD 52,559 (PPP terms) in 2018, one of the highest readings in the world. As compared with its AAA-rated peers, German GDP p.c. was broadly on par with Denmark (USD 52,121) but there remains a significant gap towards the Netherlands (USD 56,383) and Luxembourg (USD 106,705).

High per capita income is buttressed by productivity levels well above the European average. Given a strong presence of high value-added industries, nominal labor productivity per hour worked stood 27.5% above the EU-28 average in 2017. While Germany is a diversified service economy (Q4-18: 61.4% of GDP), the share of ICT and professional services (14.0% in GDP) remains somewhat lower than in comparable countries such as France (17.6%) and the UK (17.5%). In this context, we note that high value-added manufacturing activities continue to play a pivotal role in Germany's economic model. As of Q4-18, manufacturing made up for 20.6 and 17.3% of GDP and employment, which compares high with the EU as a whole (14.5; 13.8%). In our view, the competitive manufacturing sector is key in explaining Germany's economic success over the last decade. Between 2009 and 2018, gross value added in manufacturing grew by 47.3% in real terms, outpacing the overall increase in gross value added (+20.0%) by a wide margin. The government is aware that preserving the strong industrial base is a prerequisite for sustaining the country's high living standards over the coming years. Presenting the "National Industrial Strategy 2030" this February, authorities announced their intention to gradually increase industrial value added to 25% of GDP 2030. As part of the strategy, the government also defined guidelines to prevent the systematic acquisition of companies in cutting-edge technologies by foreign competitors.

In the same vein, we regard the favorable business environment, which is conducive to the competitiveness of the corporate sector, as credit positive. Germany's high degree of competitiveness is illustrated by the World Economic Forum's (WEF) latest global competitiveness ranking, which confirmed the economy at rank 3 out of 140 economies. Thus, the country maintained the top spot among all EU-28 members and has consistently stood among the highest-ranking EU members over the last decade. We note that Germany performs exceptionally well across most dimensions the WEF considers. Most notably, the WEF attests Germany to be the global leader in innovation capability. Apart from that, infrastructure (rank 7), skills (rank 4) and business dynamism (rank 2) also stand out.

Germany has exhibited a track record of robust growth over the last decade. However, economic developments in 2018 suggest that the economic upswing has passed its peak.

Having enjoyed a strong expansion of 2.2% in 2016 and 2017 respectively, real GDP growth eased to 1.4% last year. Hence, Germany not only recorded its lowest growth rate since 2013 (0.5%), but also lagged behind the euro area as a whole (+1.8%). A sharp deceleration in economic activity towards the end of the year particularly weighed on growth in 2018. After healthy quarterly growth rates of 0.4 and 0.5% had been achieved in Q1 and Q2 respectively, the German economy escaped a technical recession in the second half of the year, when q-o-q growth rates plummeted to -0.2 and 0.0% in the third and fourth quarter.

Last year's slowdown in GDP growth was a result of both weaker domestic demand and net exports. Although household spending remained the key driver of real GDP growth, contributing 0.7 p.p. to the economic expansion (2017: 1.2 p.p.), growth in private consumption decelerated notably from 1.8 (2017) to 1.0%, the slowest expansion in four years. To be sure, comparatively soft private consumption was driven more by weakening consumer sentiment than deteriorating labor market fundamentals. Employment and real wages continued to post solid growth. An increase in HICP inflation from 1.7 (2017) to 1.9% (2018) mainly due to higher energy prices was more than compensated by vividly rising nominal wages, which were up by 3.1% (2017: +2.5%). Accordingly, real wage growth clocked in at 1.3% in 2018, slightly higher than in the previous year (2017: +1.0%). However, consumption was facing headwinds from households' decision to save a larger share of their disposable income amidst a gradually weakening macro outlook. The household savings rate, which had hovered around the 10% mark in 2016/17, increased considerably in the second half of 2018. The savings ratio edged up from 10.2% in Q2 to 10.9% in the fourth quarter of 2018 (Q4-17: 10.1%).

Alongside consumption, investment activity shifted into a lower gear. While spending on machinery and equipment and other assets held up relatively well, retaining its growth rate of 2.9% in the past year (2017: 2.9%), we observed some moderation in construction investment (Destatis data). Following growth of 2.9% in 2017, construction investment expanded by 2.4% last year. Demand for housing remained robust, but spending on building activity was limited by fully utilized capacities in the construction sector. Latest data on price developments in residential construction underpins our view that supply side constraints weighed on construction activity in 2018. Climbing by 4.8%, construction prices rose well in excess of inflation and hit an eleven-year high.

Turning to external demand, we note that weakly performing net exports were the main reason behind last year's economic slowdown. Contrary to 2017, when net exports contributed 0.3 p.p. to the increase in total output, its growth contribution turned negative in 2018 (-0.2 p.p.). While import growth decelerated from 4.8 to 3.3%, backed by still solid domestic demand, the slowdown in export dynamics was more pronounced. In real terms, export growth more than halved from 4.6 (2017) to a modest 2.0%. Given its high degree of trade openness (trade-to-GDP ratio 2018: 87.2%) the German economy, which is specialized in capital goods, suffered disproportionately from a weaker macroeconomic backdrop in the global economy, intensifying trade tensions and fears of an unorderly Brexit. Furthermore, sector-specific issues dented Germany's export performance. Production interruptions in the pivotal automotive sector due to the adoption to the new WLTP standard were mirrored by sharply declining car exports in the third quarter of 2018, in which production and

export volumes plummeted by 23.2% and 20.9% q-o-q respectively. As the modest recovery in export volumes at the end of the year was not enough to offset the steep fall in Q3, total car exports came in 8.8% below 2017 levels last year.

As regards Germany's near-term economic prospects, we expect output growth to decelerate to 0.9% this year. At this stage, leading indicators suggest that weakness in the industrial sector persisted at the beginning of 2019. Recently, the manufacturing PMI fell to an 80-month low of 44.1 points in March, down from 47.6 in February. Hence, manufacturing output contracted for the third consecutive month. Thus, the latest PMI confirmed the soft patch of new industrial orders in the previous months. On a monthly base, industrial orders declined by 2.1 and 4.2% (s.a.) in January and February. Orders from abroad experienced an even steeper decline (-2.6, -6.0%), underpinning our expectation that economic growth in Germany's key trading partners (euro area, US, and China) has peaked. Regarding the automotive sector, we note that latest data points to an ongoing recovery in car exports. Still, exported car volumes were 10% below 2018 levels after the first two months of the year. In general, we anticipate net exports to drag on growth as multiple issues weighing on trade (i.e. Brexit and US trade policies) are likely to stay for the time being.

Alongside softer export expectations, the outlook for investment has gradually deteriorated over the recent months. In particular, we believe that NFCs will be rather hesitant to invest in new equipment in view of significant economic uncertainty. With external demand losing steam, capacity utilization decreased somewhat from 88.2 to 86.3% in the year to Q1-19. At current levels, however, capacity utilization is still running above its long-term average (1980-2018: 83.6%). In addition, sizeable investment plans of German carmakers related to electric vehicles and autonomous driving, as well as benign financing conditions should provide some support to corporate investment. Reflecting a more cautious economic outlook, the ECB decided to put monetary policy normalization on hold. At its March meeting, the governing council decided to keep the refinancing rate at its present level (0.0%) at least through the end of 2019. This should in particular bode well for sustained growth in residential construction. Yet, a significant pick-up of activity appears unlikely given the lack of building land in larger cities and persisting staff shortages in the construction sector.

Against the background of increasing uncertainties surrounding near-term prospects for external demand and investment, private consumption is set to play an even more important role in 2019 than in previous years. Retail sales as well as car registrations were off to a strong start into the year, suggesting a recovery of consumer spending from the rather lackluster performance at the end of 2018. This year, household spending should be supported by enduring employment growth and rising real disposable incomes, with the tightening labor market and collective wage agreements pushing up wages. Also, the implementation of some tax relief (see below), a pension and minimum wage hike, and further easing inflationary pressures should bolster consumers' purchasing power in 2019.

Looking into 2020, GDP growth should be lifted to 1.5%. Private consumption and residential construction are likely to stay solid, aided by strong labor markets and the implementation of further tax relief measures (see below). At the same time, investment and export

growth should be bolstered by a resilient euro area outlook and gradually dissipating external headwinds.

Further out, Germany's growth prospects are challenged by multiple factors. Most importantly, Germany is facing a sharp decline in its working-age population as unfavorable demographic trends are expected to put a lid on future labor supply. According to the EU 2018 Ageing Report, the German working-age population is forecast to experience one of the steepest declines in Europe over 2016-30, falling by 5.7 p.p. As evidenced by a high and rising vacancy ratio, Germany's thriving labor market should continue to tighten. In Q4-18, job vacancies stood at 1.45m, an increase of 275,000 since Q4-17. Against this backdrop, we assume continuing, albeit decelerating, job growth over the next two years. Last year, employment grew by 1.3%, broadly at the same pace as in 2016 (1.3%) and 2017 (1.4%). Concurrently, 2018 witnessed a further decline in unemployment. Down from 3.8% (2017), the unemployment rate fell to 3.4% – a new post-reunification low. In the EU-28, only the Czech Republic (2.2%) posted lower levels of unemployment last year.

In order to address intensifying labor shortages, German authorities have taken measures to expand childcare and facilitate labor migration. In Dec-18, the government adopted new immigration rules, making it easier to engage workers from third countries. Any non-EU citizen with an employment contract and qualified vocational training or degree is now permitted to work in Germany. In addition, companies in every sector are now able to recruit foreign workers. To increase the participation rate of women, low-income families were exempted from childcare fees under the "Good Childcare Act", which came into force at the beginning of the year. Also effective from 2019, the government strengthened incentives to work by cutting social security contributions of employees (see below). This should lower Germany's high labor tax wedge, which at 49.5% stood more than 10 p.p. above the OECD average in 2018.

In view of a declining working-age population and subdued labor productivity growth, TFP growth and capital accumulation are crucial to sustain GDP growth over the coming years. However, Germany's public sector consistently exhibited one of the lowest investment-to-GDP ratios in the EU over the last decade. We note that public investment saw its fourth consecutive year of positive growth in 2018, reaching 2.3% of GDP (2013: 2.1%). It is particularly noteworthy that investment of municipalities surged by 15.6% y-o-y. It thus appears that higher investment budgets are beginning to translate into higher investment levels. In previous years, investment was reported to be restrained by a lack of planning capacities on the local level, as well as by capacity constraints in the construction sector. Notwithstanding the positive trend in public investment, we note that it remained well below EU-28 levels (2.9% of GDP) in 2018.

Higher government spending could also have positive knock-on effects on the private sector's propensity to invest. Despite a strong economic upturn, private investment in machinery and equipment remained flat at 6.2% of GDP in 2014-2018 and well below its pre-crisis average (2000-07: 7.1% of GDP). Apart from economic uncertainties, structural issues such as high corporate tax rates (29.9%, OECD data), as well as physical and digital infrastructure

bottlenecks, continue to weigh on investment activities. Above all, Germany is lagging behind in building up a high-speed broadband network, Germany's fiber optic coverage was one of the lowest among OECD members (2.6% vs. OECD avg. 24.8%).

Authorities appear to recognize that more efforts are needed and forged ahead with some initiatives to lift investment levels. In Aug-18, the cabinet agreed to establish a "Digital Infrastructure Fund" to roll out a countrywide fiber network. Initially the fund has EUR 2.4bn, which will later be topped up by proceeds from the ongoing 5G auction. What is more, federal and state governments agreed in Feb-19 on a constitutional reform. The new legislation allows the federal government to provide states with financial resources for education, construction and infrastructure. On the other hand, progress to stimulate higher corporate investment has been limited so far. Proposed R&D tax breaks for SMEs of at least EUR 1.5bn are subject to ongoing political negotiations, while the implementation of a comprehensive corporate tax reform is not on the government's agenda in the current term.

Institutional Structure

Germany's excellent institutional set-up together with its integration in the EU and EMU continues to represent a key credit strength. Monetary policy is conducted by the highly credible and accountable ECB. Since the adoption of the euro, we have not observed any sizeable interest rate differentials, and consumer prices have moved broadly in line with the EA-19 average. The lack of monetary flexibility is partly offset by the size of Germany's economy, in our view. Being the largest member of the currency union, economic developments in Germany have a significant bearing on the ECB's monetary policy stance.

Meanwhile, the World Bank's Worldwide Governance Indicators (WGIs) point to a very sound institutional framework, as the country ranks in the first percentile and well above the euro area average on most WGIs. Regarding the WGI 'voice and accountability', which captures the transparency of policymaking and citizens' participation rights, the country was placed at rank 10 out of 209 economies – standing broadly par with the median of our AAA-rated sovereigns. The same holds true for Germany's performance on WGIs 'control of corruption' and 'government effectiveness', where the sovereign is ranked 10th and 12th respectively.

Although, as in many European countries, government formation and cohesive policy-making has become more complicated due to increasing political fragmentation, Germany continues to benefit from a high degree of political stability. In our view, political stability is buttressed by consensus-oriented social partners, the country's deep integration in European institutions, and a longstanding track record of stable governments. In general, we expect these institutional strengths to persist even in the event of a snap election, which is not our baseline scenario but cannot be ruled out at the current junction. After chancellor Merkel's Christian Democrats (CDU) suffered major losses in the state elections in Bavaria and Hesse, she resigned from her party's chair and announced that she would not run for another legislative term in 2021. On 07 December 2018, Annegret Kramp-Karrenbauer, who can be expected to be the CDU's frontrunner in the next federal elections, succeeded Merkel as the party's leader. The Social Democrats, the CDU's coalition partner, have already signaled that they will not support a handover of the chancellor's office amidst the

current term. In addition, SPD leaders have promised to conduct a mid-term review of the coalition's work in order to decide whether to leave the coalition prematurely or not.

Fiscal Sustainability

Our assessment of the sovereign's fiscal sustainability balances strong and improving budgetary metrics and a track record of outperforming fiscal targets against risks stemming from elevated public guarantees and demographic spending pressures in the medium term.

The sovereign's budgetary position, which has been characterized by recurrent and rising surpluses since 2014, witnessed another improvement last year. In 2018, the headline surplus rose from 1.0 (2017) to a post-reunification high of 1.7% of GDP. Also, the budgetary outturn was significantly better than envisaged in the Stability Program 2018, which had targeted a stable surplus of 1.0% of GDP at the time of our last review. To be sure, this was partly due to the belated government formation, which prevented the adoption of notable fiscal policy measures in the first months of 2018.

Last year's budgetary overachievement was entirely a result of higher-than-anticipated-revenues. The revenue side of the budget ticked up from 45.0 to 45.6% of GDP, as strong nominal GDP growth translated into briskly growing revenues. Total government receipts expanded by 4.7% on the year, driven by higher tax and non-tax revenues. While tax receipts expanded by 4.5% (2017: 4.7%), net social security contributions were up 4.2% (2017: 4.7%), mirroring the strong labor market performance. Likewise, decreasing unemployment helped to contain spending on social benefits. Social benefits, by far the largest spending item of the government budget, rose by a moderate 2.8%. A further fall in interest expenses (-8.5%) also had a dampening effect on expenditure dynamics. As a result, total government outlays expanded by 3.2%, broadly in line with nominal GDP (+3.3%).

Going forward, Germany's fiscal policy stance is set to become more expansionary. According to the Stability Program 2019, the implementation of measures agreed on in the coalition agreement supplemented by several discretionary items, is expected to lower the headline balance to 0.75% of GDP in 2019 and 2020, respectively. Even if economic growth may come in somewhat weaker than predicted in the current Stability Program, we believe that the government should largely achieve its fiscal targets. We expect the surplus to narrow to 0.9 and 0.8% of GDP in this and next year. In our view, significant budgetary outperformance in the past indicates rather cautious fiscal forecasting of German authorities.

Above all, the implementation of new social policy measures remains among the government's top priorities. Major legislative changes in the area of pensions, health and childcare are expected to exert upward pressure on expenditure growth. Among others, the coalition decided to hike wages of long-term care staff and to ease eligibility requirements for maternal pensions. In addition, families will benefit from higher child benefits effective from this July, and the adoption of the "Good Childcare Act" passed at the end of last year. Under the new legislation, 1.2m children living in low-income families will enjoy free childcare. Overall, the government plans to spend EUR 5.5bn in 2019-22 to improve the provision and

quality of childcare. What is more, the government intends to further ramp up capital expenditures, with infrastructure and social housing being the main spending priorities.

Turning to the revenue side of the budget, we anticipate growth in tax receipts and social security contributions to moderate somewhat, mirroring slowing economic activity and the adoption of tax relief measures. At the beginning of 2019, equal pay for health insurance contributions for employers and employees was reintroduced, unemployment insurance contributions were cut from 3 to 2.5%, and the annual income tax allowance was increased.

The steadily improving budget balance coupled with relatively strong GDP growth has contributed to a significant reduction in government debt in recent years. Falling from 64.5 (2017) to 60.9% in 2018, the government's debt-to-GDP ratio posted 20 p.p. below 2010 levels (81.8% of GDP). As public debt should fall below 60% of GDP this year, Germany will presumably comply with the Maastricht debt criterion for the first time in 16 years. In the absence of a major fiscal policy shift, we expect a further decrease in the sovereign's debt-to-GDP ratio in the years beyond 2019, supported by extraordinarily favorable refinancing conditions. Thanks to the deep and liquid government bond market and the country's safe haven status, German debt securities are typically among the lowest yielding in the world. More recently, ECB announcements to postpone monetary policy normalization have squeezed Bund yields even further. Down from an already low 0.6% in October, the 10y-yield fell to 0.2% at the end of 2018 before it entered negative territory in March (-0.1%) for the first time since 2016.

Notwithstanding healthy and improving public finances, we continue to see some fiscal sustainability risks. Firstly, demographic developments imply a notable increase in age-related expenditures over the medium to long term. As highlighted by the EU 2018 Ageing Report, age-related expenditures at 23.5% of GDP (2016) could rise by 2.3 p.p. by 2030, corresponding to the third strongest increase in the EU-28. To be sure, these projections did not incorporate additional pension commitments made by the current administration. In Aug-18, the governing coalition endorsed a pension deal, according to which the pension replacement ratio will not drop below 48% by 2025, while pension contributions shall be capped at 20%. As pension contributions are already insufficient to cover the current level of benefits, transfers from the federal budget, which already amounted to EUR 96.8bn in 2018, are expected to increase to EUR 114bn by 2023. Should ongoing political discussions eventually result in the introduction of a minimum pension for low-income earners, this could boost spending even more.

Secondly, Germany's ambitious transition to green energies will require significant financial resources, e.g. for upgrading electricity grids and to compensate the most affected regions. In Mar-19, the government announced the phasing out of lignite-fired power generation by 2038. In order to support structural change, four German states with heavy lignite exposure will receive federal transfers of at least EUR 40.0bn over the next twenty years.

Finally, the state's contingent liabilities remain on elevated levels. With a capital subscription of EUR 190bn, Germany is the largest guarantor of the European Stability Mechanism by far. Taking into account additional guarantees issued to NFCs and financials (2017: 13.3% of GDP), contingent liabilities amount to almost 20% of GDP.

On the other hand, budgetary risks related to the banking sector seem limited at present. Germany's moderately-sized banking sector with assets of 205.5% of GDP in Q3-18 is characterized by sound asset quality and sufficient capital buffers. Drawing on EBA data, the CET 1 ratio was reported at 15.4% (Q4-18), which compares favorably with an EU-28 average of 14.7%, and the NPL-ratio dropped from 1.9 to 1.3% between Q4-17 and Q4-18. However, banks' profitability is hampered by persistently low interest rates and a competitive domestic market. Although the number of MFIs residing in Germany has decreased by 10% over the last three years, the number of banks in Q1-19 was still more than twice as high as in France and three times as high as in Italy. As a result, the German banking sectors' cost-to-income ratio of 81.1% (Q4-18) was by far the highest in the EU-28.

Meanwhile, house prices continued on their upward trajectory in 2018. Driven by positive net migration, favorable mortgage rates, and rising disposable incomes, residential real estate prices increased by 5.0% y-o-y, following growth rates of 6.0 (2016) and 4.5% (2017). However, apart from the country's largest cities, where the Bundesbank sees signs of overvaluation, price developments appear generally aligned with fundamentals. Recent developments in the mortgage market do not indicate a credit-fueled housing boom, as the outstanding volume of mortgage loans moved broadly in line with nominal GDP in 2018. Moreover, we have not observed a noticeable easing in mortgage credit standards so far, and household balance sheets are healthy. Private households' debt-to-disposable income ratio has remained broadly unchanged since 2014, hovering around the 85%-mark.

Foreign Exposure

Assessing Germany's external vulnerability, it has to be noted that the country's economy is more sensitive to global growth and trade dynamics than other large economies. As highlighted by OECD data, Germany is deeply integrated into global value chains. In 2015, the share of domestic value added embodied in foreign final demand stood at 30.4% – by far the highest reading among the G7 economies. That said, external risks stemming from the high degree of openness are largely tempered by the country's net external creditor position, fostered by persistently high current account surpluses.

Last year, Germany's current account surplus, which has averaged at 7.1% of GDP over the last decade, decreased from 8.0 to 7.3% of GDP. This decline was entirely explained by a weakening trade in goods balance. Owing to softer external demand in the context of slowing world economy, the trade in goods balance edged down from 8.2 to 6.6% of GDP. Looking ahead, fiscal policy loosening and slowing demand for German exports should contribute to a further reduction in the current account surplus. Still, we expect the German economy to continue running significant surpluses vis-à-vis the rest of the world. As a result, Germany's net international investment position (NIIP), already one of the strongest in the EU-28, should continue to strengthen. Having more than doubled since 2012 (28.5% of GDP), Germany's NIIP climbed to 60.6% of GDP last year (2017: 54.4% of GDP).

Rating Outlook and Sensitivity

Our Rating outlook on Germany's sovereign ratings is stable, as we assume that the risk situation underlying the key factors affecting sovereign credit risk – including macroeconomic performance, institutional structure, fiscal sustainability, and foreign exposure – will remain fundamentally unchanged in the next 12 months.

We could consider lowering our ratings if economic activity significantly falls short of our medium-term expectations. The high degree of trade openness leaves the German economy susceptible to a prolonged period of weak growth in the EU and the global economy, as well as to the implementation of protectionist policies. In particular, the important automotive sector, which accounted for almost one-fifth (18.2%) of Germany's exports alone in 2018, would likely be hit hard by higher tariffs or the introduction of non-tariff trade barriers.

Downward pressure could also arise if, contrary to our belief, key fiscal metrics show signs of a material deterioration. This could be the case if the government fails to keep age-related expenditures in check or if sizeable contingent liabilities – namely ESM guarantees – materialize as a result of renewed financial turbulences in the euro area.

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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

Economic Data

	2013	2014	2015	2016	2017	2018	2019e
Real GDP growth	0.5	2.2	1.7	2.2	2.2	1.4	0.9
GDP per capita (PPP, USD)	45,225	46,888	47,678	48,843	50,804	52,559	53,854
HICP inflation rate, y-o-y change	1.6	0.8	0.7	0.4	1.7	1.9	1.4
Default history (years since default)	n.a.						
Life expectancy at birth (years)	80.6	81.2	80.7	81.0	81.1	n.a.	n.a.
Fiscal balance/GDP	-0.1	0.6	0.8	0.9	1.0	1.7	0.9
Current account balance/GDP	6.5	7.2	8.5	8.4	8.0	7.3	n.a.
External debt/GDP	149.9	153.0	149.9	150.8	145.0	143.2	n.a.

Source: International Monetary Fund, Eurostat, 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

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.

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.

The rating was conducted on the basis of CRAG's "Sovereign Ratings" methodology in conjunction with its basic document "Rating Criteria and Definitions". 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 the following internet page: www.creditreform-rating.de/en/regulatory-requirements/.

To prepare this credit rating, CRAG has used 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, Destatis, Deutsche Bundesbank, Bundesministerium der Finanzen.

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 to 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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