2 November 2018

Public Finance

Federal Republic of Germany Rating Report

SCOPE AAA STABLE OUTLOOK

Credit strengths

- Wealthy, large and diversified economy
- Strong fiscal framework
- High external competitiveness

Credit weaknesses

- Future pension liabilities
- Low domestic investment
- Adverse demographics

Rating rationale and Outlook:

The AAA rating is supported by Germany's wealthy, large and diversified economy, solid fiscal framework, constantly decreasing public debt levels and highly competitive external sector. Increasing pension liabilities, low domestic investment in the private and public sector, labour shortages due to adverse demographics and a lack of skilled labour remain challenges to the rating. The Stable Outlook reflects our assessment that the risks Germany faces remain broadly balanced.

Figure 1: Sovereign scorecard results

Scope's sovereign risk categories	Germany	Peer comparison: Average	Peer comparison: Netherlands	Peer comparison: Sweden
Domestic economic risk				
Public finance risk				
External economic risk				
Financial risk				
Political and institutional risk				
Qualitative adjustment (notches)	-		-	-
Final rating	AAA		AAA	AAA

AAA AA A BBB BB B CCC CC C

Source: Scope Ratings GmbH

Note: The comparison is based on Scope's Core Variable Scorecard (CVS), which is determined by the relative rankings of key sovereign credit fundamentals. The CVS peer group average is shown together with two selected countries chosen from the entire CVS peer group. The CVS rating can be adjusted by up to three notches depending on the size of relative credit strengths or weaknesses.

Positive rating-change drivers

- Not applicable

Negative rating-change drivers

- Reversal of fiscal consolidation
- Reversal of structural reforms
- Sharp deterioration of sovereign risk in the euro area

Ratings and Outlook

Foreign currency

Long-term issuer rating	AAA/Stable
Senior unsecured debt	AAA/Stable
Short-term issuer rating	S-1+/Stable

Local currency

Long-term issuer rating	AAA/Stable
Senior unsecured debt	AAA/Stable
Short-term issuer rating	S-1+/Stable

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Bloomberg: SCOP

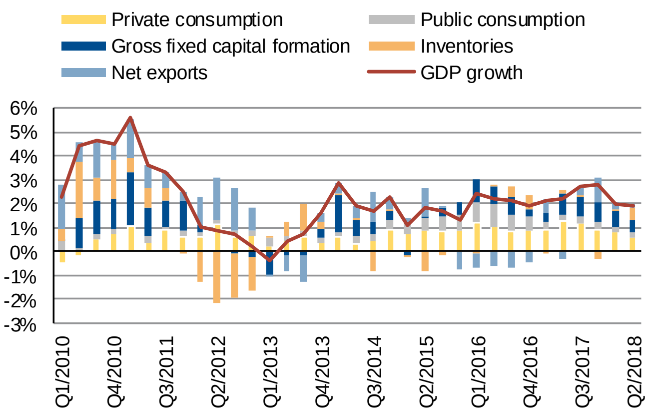
Domestic economic risk

Growth potential of the economy

Strong expansion and record employment

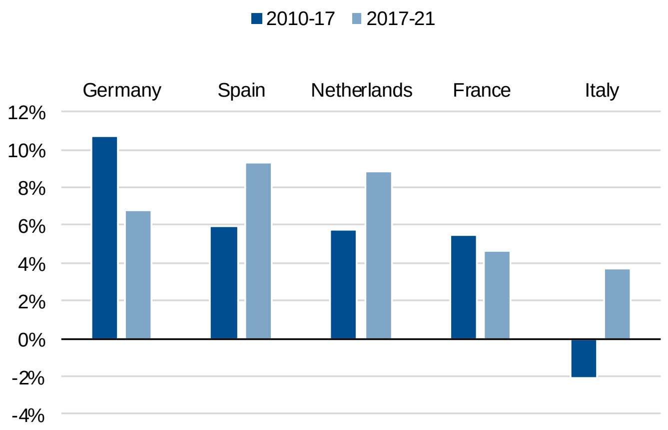
Germany has experienced strong growth since the Great Financial Crisis, averaging 2.2% between 2010-2017. The economy is close to full employment, with the unemployment rate at a new record-low of 3.8% in 2017, robust domestic demand and high net exports. The strong and lasting recovery after the financial crisis has been driven by the country's exceptionally competitive industry and the European Central Bank's (ECB) ongoing monetary expansion. The country's GDP per capita has increased by 11% since 2010, more than twice the increase achieved by other large euro-area countries including France, Italy and Spain.

Figure 2: Real GDP growth (YoY, %)



Source: Eurostat, European Central Bank

Figure 3: GDP per capita (change in %)



Source: IMF, World Economic Outlook

Adverse demographics constrain growth potential

For 2018, we expect a softening of the economy following weaker consumption growth of 0.7% year-on-year during the first two quarters. In October, the government lowered its forecast for real economic growth from 2.1 to 1.8% in line with other institutions. Going forward, Germany's potential growth rate will be negatively affected by a labour shortage resulting from population ageing with many of the baby-boomer generation leaving the workforce. The unfavourable demographics, weak investment, declining entrepreneurship, and limited progress on digital transformation restrict the country's productive capacity, which is unlikely to be widened without major reforms to the supply side. The country's growth potential is estimated to be around 1.3%, which is one of the lowest in the euro area.

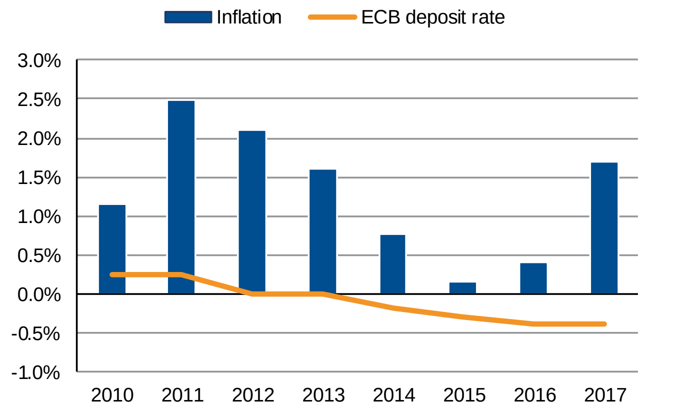
Economic policy framework

Low inflation thanks to moderate wage growth

Despite Germany's economic strength, the ECB's expansionary monetary policy stance has not led to increasing inflationary pressures. A considerable part of this puzzling observation can be explained by nominal wages and unit labour costs, which have increased less than overall growth. In addition, the fiscal policy stance remained neutral during the boom period. Accordingly, domestic demand has only supported growth moderately. However, the low interest environment has induced spikes in asset prices, particularly on the housing market in urban areas and on stock markets.

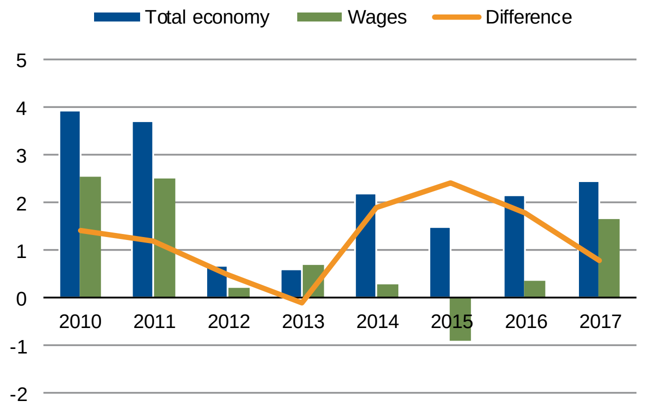
Germany benefits from the stable architecture of the European institutional framework, which is expected to be further strengthened by the completion of the Banking and Capital Markets Union. The country has benefited greatly from growing stability in the past, with a constantly increasing trade surplus for German exporters. As the largest euro-area economy, Germany plays a major role in preserving and strengthening the European framework.

Figure 4: Monetary policy rates and annual inflation (in %)



Sources: European Central Bank, IMF

Figure 5: Real growth and wages (% change, YoY)

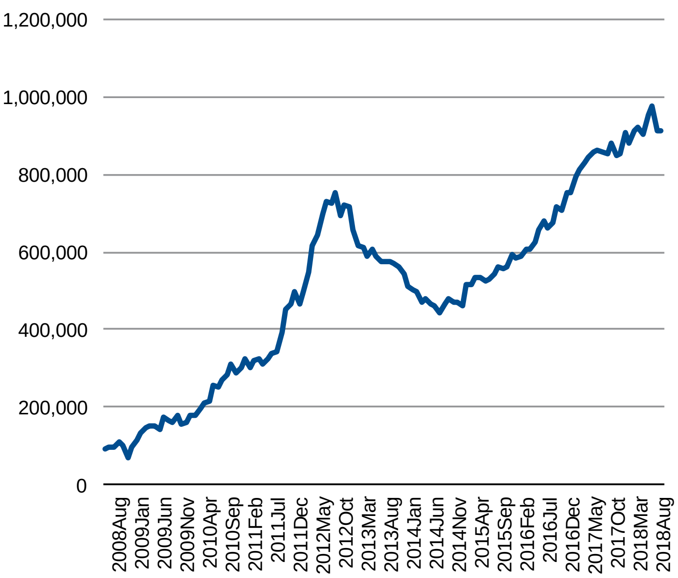


Sources: German Federal Statistical Office, IMF

Outstanding TARGET2 claims reach EUR 1bn

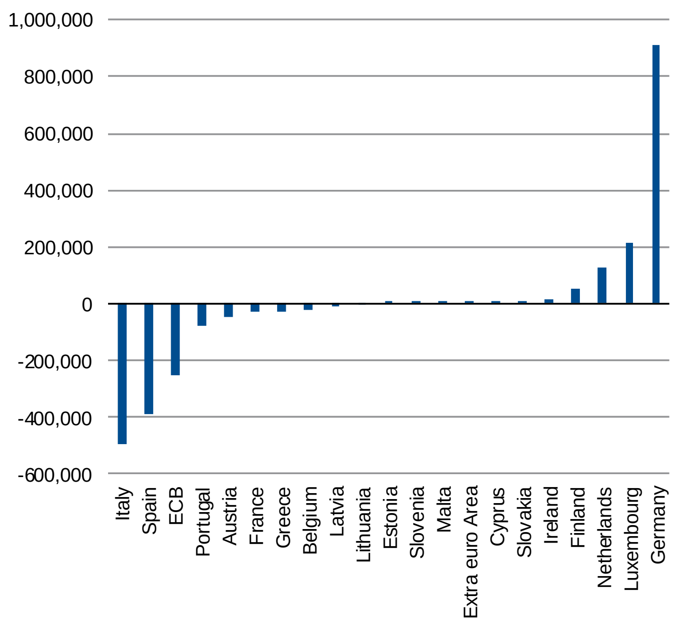
Germany is the largest euro area holder of TARGET assets, which represent claims accumulated by the German Bundesbank via other euro area central banks on cross-border payment flows. At present, we see no major risk to German creditworthiness unless the euro area breaks up, which would result in a general re-assessment of credit risk. Moreover, the current development of TARGET balances reflects two features of the German economy: i) the current account surpluses accumulated compared to euro area trading partners; and ii) Germany's re-emerging status as a safe haven. The latter could lead to a rapid reversal of flows as seen between 2012 and 2014 (see **Figure 6**).

Figure 6: Germany's TARGET balances, Eur bn.



Source: European Central Bank, August 2018

Figure 7: TARGET balances in the euro area, Eur bn.



Source: European Central Bank, August 2018

Macroeconomic stability and sustainability

Low investment in physical and human capital

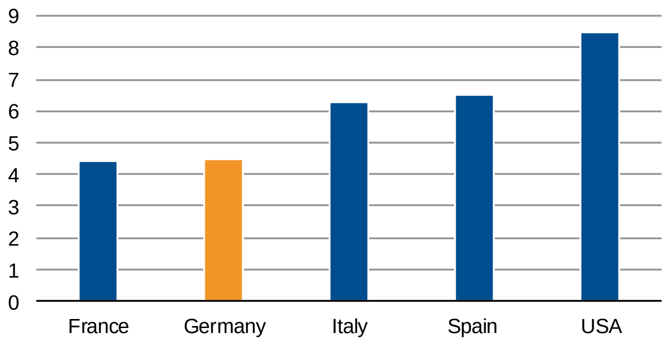
Germany remains among the least attractive countries for investment within the OECD and European Union, both for residents and foreign capital owners. The combination of a lack of investment and an ageing population points to an emerging imbalance between younger and older generations, which will have a lasting impact on the economy. On the one hand, future employees represent no more than 50% of the population whereas the number of pensioners has increased by 10 pp to almost one third of the population. On the other hand, net investment in physical assets (infrastructure, education, research and development) has remained weak. Both together contribute to declining growth potential in the long run with employees required to finance an increasing share of the inactive population in a weakening infrastructure environment.

Increasing income inequality due to skills gap and low house ownership

Germany has medium income inequality levels compared to international standards, ranking between the Scandinavian countries and Eastern European economies. Highly aggregated income inequality indices are well-suited to cross-sectional comparisons across countries as they hardly change over time. They are, however, less informative when it comes to the internal analysis of a particular country. A microeconomic perspective allows a more detailed assessment of German inequality dynamics. The decomposition of employee earnings by level of education shows that the relative participation of workers in the recent boom period differs substantially across groups: whereas high-income earners benefited greatly between 2010-2017 by achieving up to 30% higher salaries, low qualified labour benefited less in both nominal and percentage terms. The pay gap can be explained by an increasing technology-driven skill mismatch, which results in an excess supply of workers with low or medium skills and a shortage of high-skilled labour.

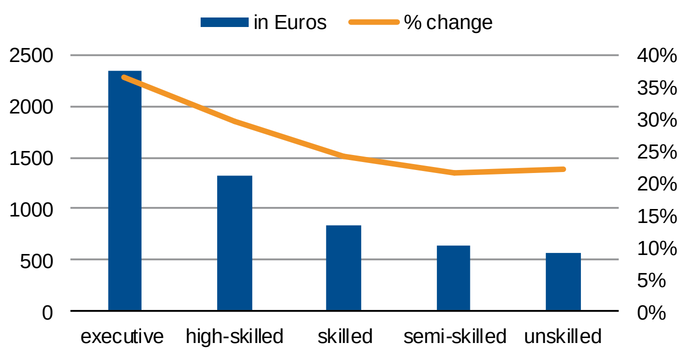
This trend is exacerbated by the low interest rate environment, which favours households which have invested in real estate or equity. In Germany, low-income households often pay rent (54.7% of all households compared to about 35% in Anglo-Saxon countries) and have little savings invested in equity. Instead, they rely on fixed income securities either directly or indirectly through pension funds or life insurance products. The current rise in house prices and record-low yields on fixed income securities have led to an increasing income and wealth gap. Moreover, recent trends show that households in the lowest income quintile are renting smaller homes and have moved to urban areas, both leading to higher rents as a share of their income (27%-39% between 1993-2013).[1]

Figure 8: Income inequality (20% highest / 20% lowest earners)



Source: World Bank

Figure 9: Monthly nominal net earnings (2010-2017)



Source: German Federal Statistical Office

[1] Dustmann, C, B Fitzenberger and M Zimmermann (2018), "Housing Expenditures and Income Inequality", CReAM Discussion Paper.

Public finance

Fiscal policy framework

Public debt brake and 'black zero' define fiscal prudence

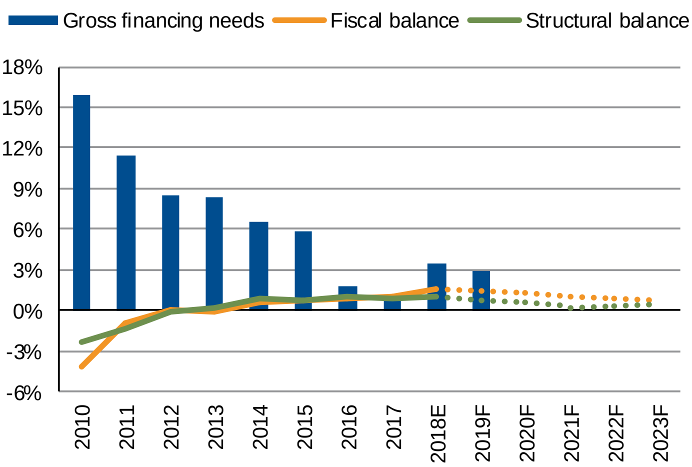
Germany's fiscal policy framework, designed to avoid budgetary risks, is credit positive. Fiscal discipline achieved constitutional status in 2009 and is clearly defined at both sovereign and sub-sovereign level. The 'debt brake' stipulates that the structural federal deficit cannot exceed 0.35% of GDP from 2016 and that the German Länder (federal states) are not allowed to generate any structural deficits from 2020. Moreover, the current and previous government agreed to achieve balanced budgets every year, known as 'black zero'. Following this rule, the government has not experienced a fiscal deficit since 2014. We expect that the ruling coalition under Chancellor Merkel will continue to adhere to this policy.

Yet, the introduction of the debt brake has resulted in less transparent fiscal budgets: The federal government has set up special funds for refugee-related expenditures (Eur 24bn) and military procurements (Eur 5 bn), which could be used for general spending to circumvent the debt brake during years of declining tax revenues. Also, the state governments have formed off-budget entities for unused budgetary revenues, which become increasingly important.[2]

Fiscal spending is biased towards families and health

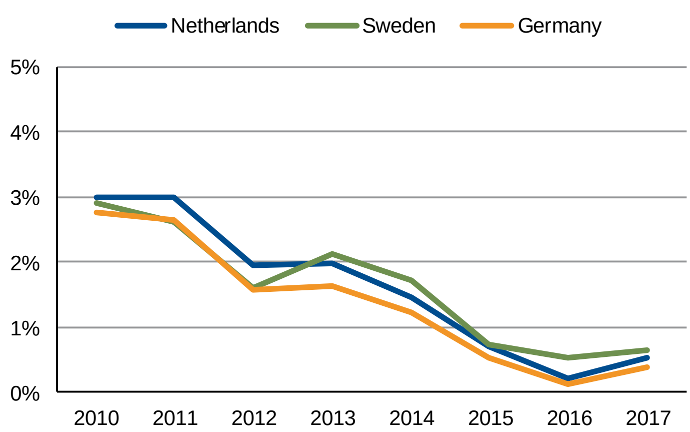
However, social transfers have outpaced savings from declining interest costs, causing a rise in current government expenditure. We expect social spending to remain constant whereas age-related spending on health and pensions is anticipated to increase sharply. Given stable revenues, the government's structural budget surplus is set to drop slightly but remain positive. The draft budgetary plan for 2019 shows higher spending for families, including tax relief (the 'Family Tax Burden Reduction Act') and housing subsidies. According to government calculations, tax cuts and social policy expenditures will come to 1.9% of GDP between 2018-2022. At the same time, additional investment in education, research and digital technologies will add 0.4% of GDP to budgetary expenditures.

Figure 10: Fiscal performance, % of GDP



Source: IMF, World Economic Outlook

Figure 11: 10-year government bond yields, in % p.a.



Source: FT, SRB, TPI/H

In our opinion, the budgetary plan falls short of expectations in view of the country's investment needs. Social expenditures are targeted at particular groups (families, pensioners, home owners) and contribute to a relatively low female employment rate.

[2] Source: Monthly report of the German Bundesbank, August 2018

This situation is aggravated by a tax policy with high marginal tax rates for second earners, while healthcare remains cost-free for non-working spouses. The government recently announced a 0.3% cut in the unemployment insurance contribution for employees which is, however, cancelled out by an equal increase in the healthcare contribution, leaving the country's tax wedge among the highest in OECD economies.

Debt sustainability analysis

Negative interest rates and fiscal prudence support sustainable debt levels

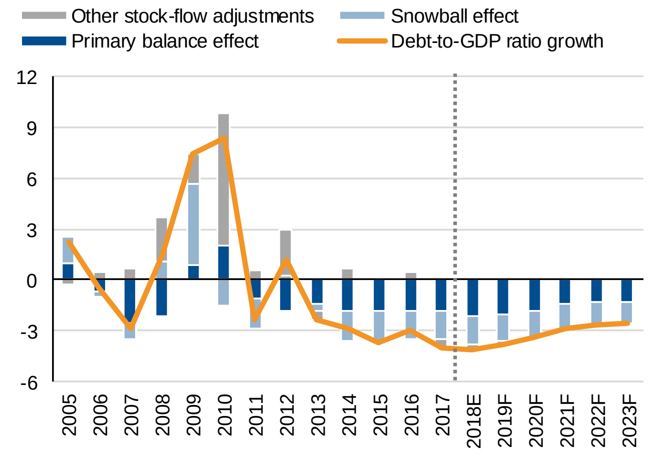
The share of general government debt to GDP has declined by nearly 20 percentage points over the past six years. Since the beginning of the European sovereign debt crisis, Germany has continued to benefit from flight to quality, resulting in refinancing costs reaching record lows (see **Figure 13**). With ongoing budget surpluses as well as favourable growth and financing prospects, we expect the debt-to-GDP ratio to further decrease from 63.8% in 2017 to around 56% in 2019. With this solid downward trajectory, the ratio could fall below 50% by 2021.

Germany's public debt ratio is on a solid downward trend due to robust economic growth, strong government revenues and expenditure control, as well as the country's extremely low financing costs. However, we anticipate risks in the medium to long term, particularly in relation to population trends.

Low investment despite record-low refinancing costs

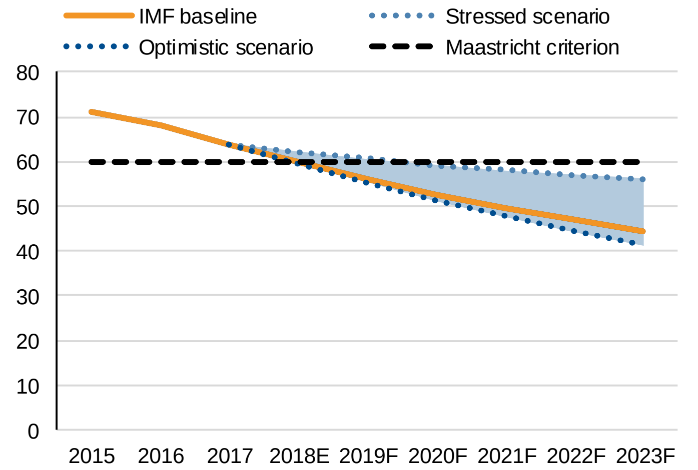
Several advanced countries' governments have exploited windfall revenues in order to increase domestic investment or build up state funds. Given Germany's safe haven status and solid public finances, the government could benefit from the high investor demand by issuing more debt to finance public investment projects as long as real refinancing costs remain negative even for long-term bonds.

Figure 12: Contribution to gov't debt changes, % of GDP



Source: IMF, Scope Ratings GmbH

Figure 13: General government debt, % of GDP



Source: IMF, Scope Ratings GmbH
NB. These projections exclude the risk of banking sector-related contingent liabilities materialising on the government's balance sheet.

Scenario	Period	Real GDP growth (%)	Primary bal. (% of GDP)	Real eff. int. rate (%)	Debt, end period (% of GDP)
History	2013-17	1.8	1.8	-0.2	63.9
IMF baseline	2018-23	1.5	1.7	-1.1	44.6
Optimistic scenario		2.0	1.9	-1.1	41.3
Stressed scenario		0.5	0.7	-0.4	56.2

Major risk to public finances through pension liabilities

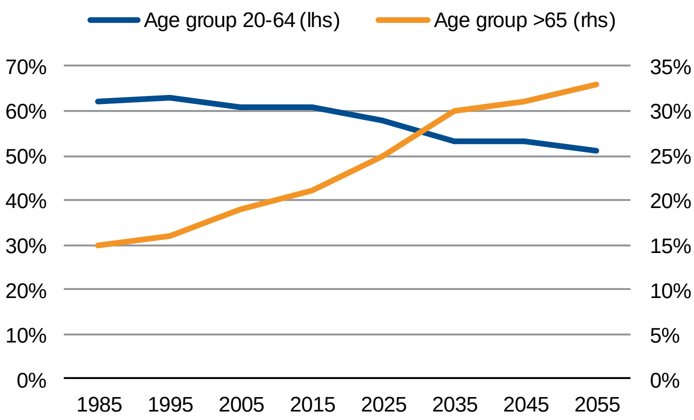
The ageing of German society is causing a meaningful decline in the working-age population, creating uncertainties around the country's economic growth potential over the medium to long term. Together with rising unfunded pension liabilities this may impact the long-term sustainability of public finances. The demographic change is likely to increase age-related spending and dampen government revenue generation on the back of weaker economic growth. To help mitigate this, further adjustments to the social security and pension systems are needed. Even so, we believe the government will face challenges in addressing these issues, including achieving a consensus with the ageing electorate when it comes to reforms. If no action is taken, the debt ratio, including future liabilities from health and pension expenditure will bring Germany back into the realm of highly indebted countries in the euro area (see **Figure 15**) [3].

Market access and funding sources

Benchmark issuer with negative real yields

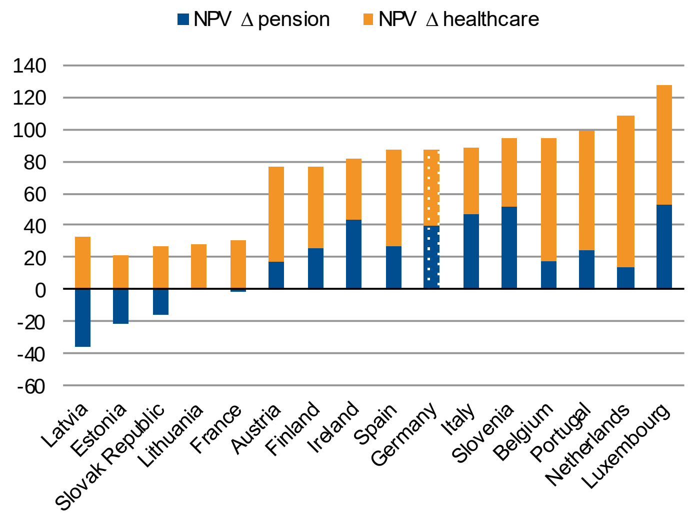
Germany benefits from the euro as a reserve currency. Its securities are among the most actively traded and most liquid sovereign debt instruments worldwide. Their low risk and wide range of maturities, from six months up to thirty years, are unique for investors. The continuous asset purchases of German bonds by the ECB to refinance its portfolio contributes to the current real negative yields on 10-year German bonds.

Figure 14: Demographic change, % of population



Source: German Federal Statistical Office

Figure 15: Contingent liabilities, % of GDP



Source: IMF Fiscal Monitor, October 2018

External economic risk

Current account vulnerability

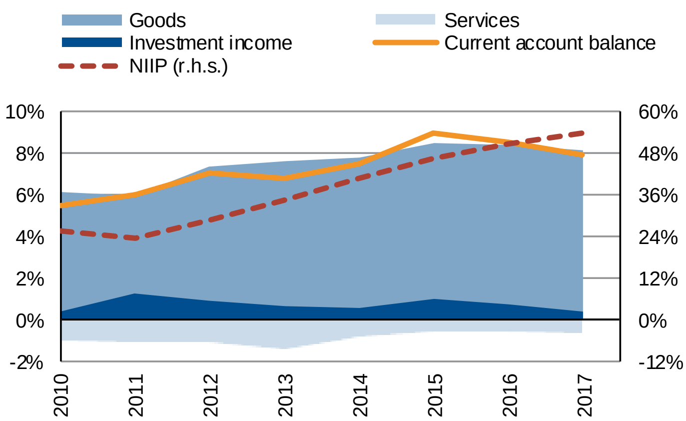
The world's largest current account surplus

In dollar terms, Germany accumulated the world's largest current account surplus in 2017, primarily driven by goods exports. External risks in terms of capital account vulnerabilities are low, given the country's sound net international investment position. This stood at 54% of GDP at end-2017 compared to 46.4% at the end of 2015, driven by the high current account surplus, which reached almost 8% of GDP in 2017. Germany's net creditor position has also been supported by the steady increase in current account surpluses since 2002. The high current account surplus is derived from the country's

[3] According to the IMF's Fiscal Monitor, Germany's implicit and explicit debt add up to 150% of GDP in present value terms. Using data from the "Stiftung Marktwirtschaft", the ratio stands at 200% in non-discounted nominal terms (Eur 6.3tn).

strong merchandise balance and growing primary income balance and can be explained by a mix of cyclical and structural factors.

Figure 16: Current account and NIIP, % of GDP



Source: German Federal Statistical Office

Figure 17: International competitiveness, price index[4]

Sources: Bundesbank, European Central Bank

Continuous gains in competitiveness versus euro area trading partners

Cyclical factors include favourable terms of trade: the positive difference between export and import prices. This was particularly supportive during 2014-2016, largely due the pronounced decline in low energy prices, which is of particular benefit because Germany imports almost 60% of its fuel. Another factor is the ultra-low interest rates, which have substantially reduced the investment income of non-residents in Germany versus the investment revenue of German businesses operating abroad. In 2017, the real effective exchange rate appreciated by 1.4% versus non-euro industrial countries based on higher energy and raw material prices and a nominal appreciation of the euro against the US dollar. This loss was compensated for by Germany's persistent competitive advantage versus euro area trading partners as depicted by the development of the real effective exchange rate (see **Figure 17**). Among structural factors, we note a high saving rate – driven largely by the ageing population – that has not been absorbed by domestic investment. Another factor is high international competitiveness, mostly from the manufacturing and chemical industries which offer complex, high-tech products.

Going forward, we view the substantial external balances versus euro area trading partners as a potential risk to the stability of the common currency area. More domestic investment in human and physical capital as well as greater employee participation in corporate profits could help rebalance the external accounts over the medium term.

External debt sustainability

External debt composition has changed based on ECB asset purchase programmes

Despite large stock figures (145% of GDP in 2017), the changing composition of external debt has lessened associated risks. Asset purchase programmes have led to a large volume of German bonds held by the ECB. At the same time, the share of foreign government debt has decreased from close to 50% of GDP in 2012 to 34% of GDP in 2017. The private sector has only moderate debt levels, which are backed by high asset positions, especially in the non-financial sector. Debt-to-equity ratios among corporates have declined to a low of 50% (domestic and foreign debt), driven by the firms' decision to reduce reliance on the financial sector and weak investment in general, which contributes to a boost in liquidity.

[4] The real effective exchange rate calculation is based on unit labour costs.

In our view, Germany's external debt risks remain broadly balanced, reflecting a high level of assets as shown by its net international investment position. Although the debt ratio remains high compared to peers, its composition is balanced across sectors and moderately declining. Going forward, we expect external debt to remain on a favourable path, reflecting continued deleveraging among financial and non-financial corporates.

Vulnerability to short-term shocks

Trade conflicts may hurt German exporters

The current rise of global protectionism and a possible hard Brexit are major risks for the export-oriented economy. Although Germany's export structure is highly diversified with a broad customer basis, especially within Europe, German manufacturers could be hurt by import tolls and repercussions on global demand with a potential disruption of supply chains.

However, we expect risks to remain broadly balanced over the short term, with Germany benefiting from the relatively weak euro and high demand for skill-intensive manufactured merchandise products.

Financial stability risk

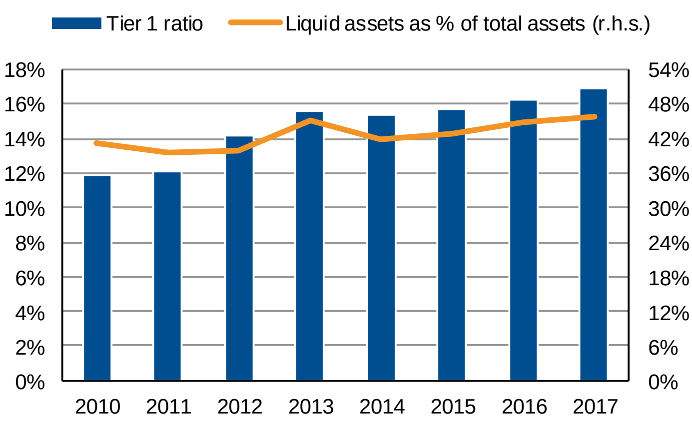
Banking sector performance

Weak profitability in the banking sector

Germany's banking sector is medium-sized and well capitalised relative to peers. Tier 1 capital reached 16.9% of risk-weighted assets in 2017, up from 12% in 2012. Financial market stress remains low and capital buffers are sufficient according to the latest EU stress tests. However, some institutions remain sensitive to the low interest rate environment, especially life insurers with a large stock of old high-yield contracts on their liability side.

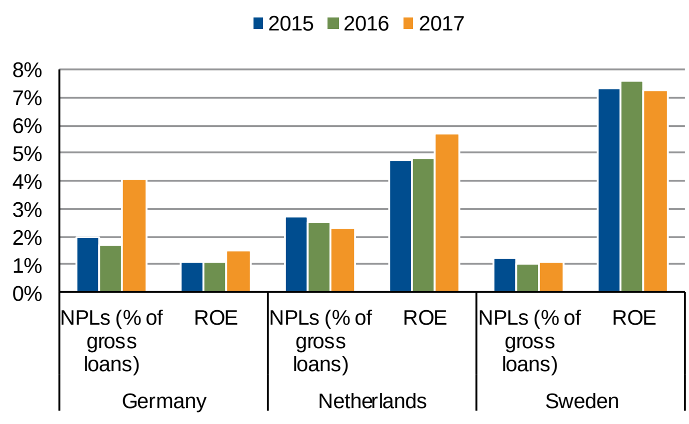
The profitability of German banks continues to be weak compared to peers (see **Figure 19**). Record-low interest rates, intense competition, crisis legacy issues, and a high cost base contribute to weak profits. Margins have gradually eroded, especially in smaller retail banks which mainly depend on mortgage financing. For the most exposed banks, regular stress tests and simulations by supervisors have also led to additional capital requirements. The low share of non-performing loans partially obscures large German banks' lack of a sustainable business model. The institutions are also facing higher regulatory compliance costs caused by new regulations (Solvency II and MifiD II) which may further impair their profitability.

Figure 18: Bank capitalisation



Source: International Monetary Fund

Figure 19: Bank profitability



Source: ECB, World Bank

The consolidation of financial institutions and restructuring of business lines was rather subdued during and following the financial crisis and now appears more urgent in the light of diminishing profitability and increased capital requirements. This may undermine banks' competitiveness somewhat with international peers and will continue to weigh on profitability.

Unresolved legacy issues, particularly stemming from the recent financial crisis, may erupt at some point and place further strains on the system, not only from a financial, but also from a political and logistical viewpoint. In addition, German banks are exposed to debt from other euro area issuers, which could adversely affect their balance sheets in the event of a euro area recession.

Going forward, we believe that German public finances could absorb potential adverse economic and financial shocks without having to compromise on medium-term control of the debt trajectory.

Banking sector oversight and governance

Increasing reluctance to complete the Banking Union

Germany's financial sector is deeply integrated in the European financial architecture. As Europe's largest economy, the German political stance on timely progress towards a full-fledged Banking Union is of crucial importance. The two pillars of the banking union are vital complements to the capital markets union and will shield economies from cross-border spill-overs. With its interconnected banks and strong foreign economic integration, Germany is especially vulnerable to risk spillovers.

We note that the current government is increasingly reluctant to lead the way towards the completion of the banking union, which we see as an inevitable necessity to complement the capital market unions and mitigate financial shocks.

Financial imbalances and financial fragility

High share of fixed rate mortgages poses risks

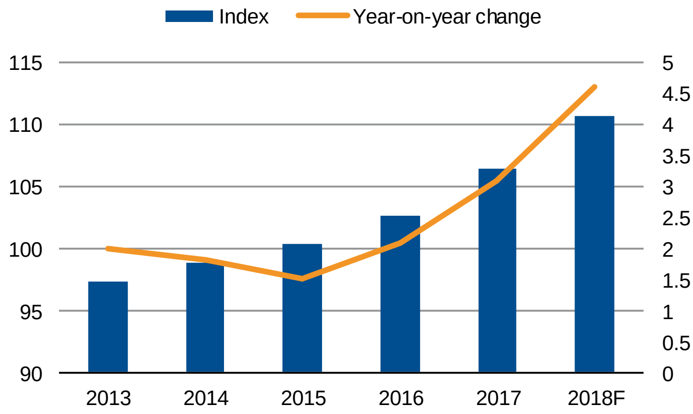
The German housing market appears to be robust on an aggregate level despite a sharp increase in housing prices in recent years based on higher incomes, low interest rates and immigration. Compared to international levels, price-to-rent and price-to-income ratios are moderate, and mortgages have largely increased in line with economic growth. The share of long-term mortgages with interest rates fixed for more than 10 years has increased markedly by more than 10% since 2005. In 2017, 40% of new contracts with banks entailed such long-term maturities with a fixed rate for up to 30 years.[5] The high share of fixed rate mortgages poses risks to financial stability despite the increase in house prices and construction costs. However, current government policies have further fuelled the mortgage boom by creating tax incentives for families with children who build or buy property. This policy could result in private bankruptcies, especially among lower-income households over the medium term, when interest rates go up and mortgages have to be refinanced at higher rates.

Double-digit price increases in major cities

Prices have increased at double-digit rates in major cities with price-to-rent ratios at 30% compared to 25% on average. Although prices appear to be clearly overvalued, most of Germany's large cities face a limited capacity to build on unused land and a shortage of labour in the construction sector. We expect the real estate market in urban regions to remain tight.

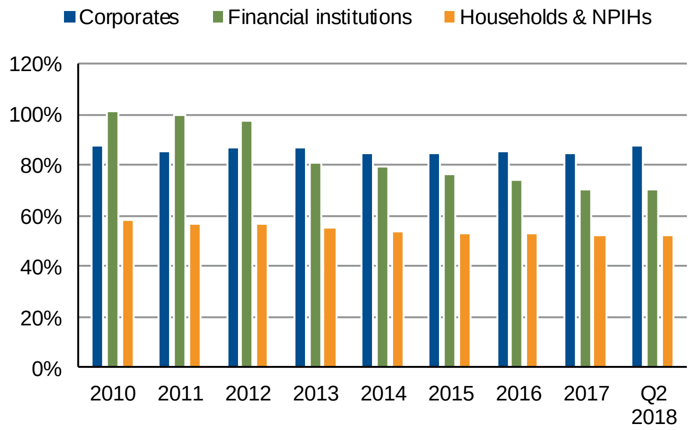
[5] https://www.bundesbank.de/resource/blob/622676/e916da23ac18976079cc513820c0566e/mL/11-zinszahlungen-fuer-wohnungsbaukredite-data.pdf

Figure 20: Residential property prices



Source: German Federal Statistical Office

Figure 21: Residential debt, % of GDP



Source: German Bundesbank

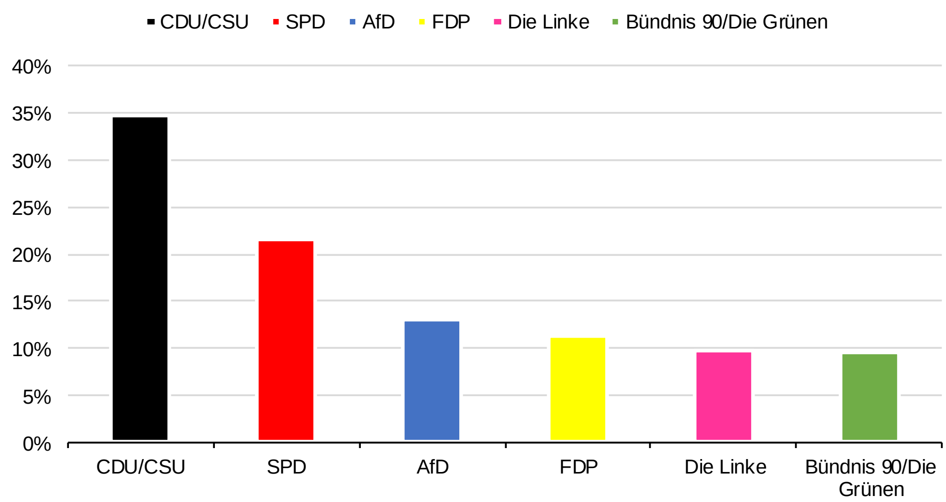
Institutional and political risk

Political stability ensured despite populist success

The latest federal elections in Germany resulted in a greater number of parliamentary groups with a new populist party entering the Bundestag. Following long discussions among the parties including the failure to set up a coalition between the CDU/CSU, Greens and the Liberals, another Grand Coalition was formed.

Despite the emergence of anti-establishment and populist political forces in Germany, we expect political and economic consensus policies to be maintained, even if the existing coalition government resigns.

Figure 22: Bundestag election results (October 2017)



Source: Deutscher Bundestag, October 2017

Grand coalition lost majority in the polls

Popular support for Chancellor Angela Merkel's Christian Democrats (CDU) and its Bavarian sister party the CSU has shrunk sharply this year, though its coalition partner, the Social Democrats (SPD), has been hit even harder. Given that the next regular elections are scheduled for autumn 2021, it seems unlikely that the government will be able to govern for another three years based on continuously fading public support. On the federal level, support for the coalition government has fallen from 53.4% to about 40% within one year. On this basis, we expect the current coalition to remain inherently unstable in view of forthcoming elections to the European Parliament in May 2019. However, Angela Merkel's announced step-down from the CDU has limited implications since she will stay on as Chancellor for now. While a split of the current coalition could trigger early elections, this is unlikely as the three parties would risk losing seats in the Bundestag.

Methodology

The methodology applicable for this rating and/or rating outlook 'Public Finance Sovereign Ratings' is available on www.scoperatings.com. Historical default rates of the entities rated by Scope Ratings can be viewed in the rating performance report on https://www.scoperatings.com/governance-and-policies/regulatory/esma. Please also refer to the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml.

A comprehensive clarification of Scope's definition of default as well as definitions of rating notations can be found in Scope's public credit rating methodologies on www.scoperatings.com. The rating Outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months.

Rating history

	Rating action	Outlook
2 November 2018	Affirmation at AAA	Stable
30 June 2017	Affirmation at AAA	Stable
05 May 2017	Under review	Developing

Source: Scope Ratings GmbH

Outlook and rating-change drivers

The Stable Outlook reflects our assessment that the risks faced by Germany remain balanced at this stage.

The rating could be downgraded if: i) there is a reversal of fiscal consolidation; ii) there is a reversal of structural reforms; and/or iii) sovereign risk in the euro area deteriorates strongly.

Foreign- versus local-currency ratings

Germany has almost no foreign-currency-denominated public debt. Consequently, we see no reason to believe that Germany would differentiate between any of its contractual debt obligations based on currency denomination. Furthermore, the recent history of sovereign defaults does not provide a strong justification for a rating bias in favour of either local-currency or foreign-currency debt.

Rating Committee

The main points discussed were: i) the fiscal budgetary programme, ii) growth potential, iii) pension liabilities, iv) external debt sustainability, v) international competitiveness, vi) housing market developments, vii) political developments and viii) peer comparisons.

Appendix: Environmental, social and governance (ESG) factors

We consider ESG sustainability issues during the rating process as reflected in our sovereign methodology. Governance-related factors are explicitly captured in our assessment of 'Institutional and Political Risk', for which Germany achieves a high score according to the World Bank's Worldwide Governance Indicators. Qualitative governance-related assessments in the 'geo-political risk' category of our Qualitative Scorecard are assessed as 'neutral' compared with Germany's sovereign peers. Socially related factors are captured in our Core Variable Scorecard in Germany's high GDP per capita (USD 44,769 in 2017) and record-low level of unemployment but increasing old-age dependency ratio. Qualitative assessments of social factors are reflected in 'macroeconomic stability and sustainability', for which we assess Germany as 'neutral'. Finally, environmental factors are considered during the rating process but did not have an impact on this rating action.

I. Appendix: CVS and QS results

Sovereign rating scorecards

Scope's Core Variable Scorecard (CVS), which is based on the relative rankings of key sovereign credit fundamentals, signals an indicative 'AAA' ('aaa') rating range for the Federal Republic of Germany. We affirm the indicative rating of 'aaa' for the Federal Republic of Germany. This indicative rating range can be adjusted by up to three notches on the Qualitative Scorecard (QS) depending on the size of relative credit strengths or weaknesses versus peers based on analysts' qualitative findings. For the Federal Republic of Germany, the following relative credit strength has been identified: i) fiscal policy framework; ii) market access and funding sources; iii) current account vulnerability; iv) external debt sustainability. Relative credit weaknesses are: i) growth potential of the economy; ii) recent events and policy decisions; iii) banking sector performance. The combined relative credit strengths and weaknesses signal a sovereign rating of AAA for the Federal Republic of Germany. A rating committee has discussed and confirmed these results.

CVS

Rating indicator	Category weight
Domestic economic risk	**35%**
Real GDP growth	
Real GDP volatility	
GDP per capita	
Nominal GDP	
Inflation rate	
Unemployment rate	
Old-age dependency ratio	
Public finance risk	**30%**
Primary balance	
Interest payments	
Gross debt	
Gross financing needs	
External economic risk	**15%**
External debt	
Currency turnover/reserves	
Net international investment position (NIIP)	
Current account balance	
Institutional and political risk	**10%**
World Bank Worldwide Governance Indicators	
Financial risk	**10%**
Non-performing loans (NPLs)	
Tier 1 ratio	
Credit to GDP gap (bubble)	
Credit to GDP gap (imbalance)	
Indicative rating range	**aaa**
QS adjustment	**AAA**
Final rating	**AAA**

QS

Maximum adjustment = 3 notches

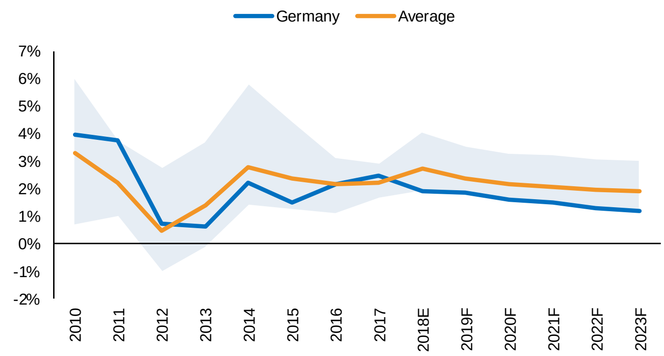
	+2 notch	+1 notch	0 notch	-1 notch	-2 notch
Growth potential of the economy	○ Excellent outlook, strong growth potential	○ Strong outlook, good growth potential	○ Neutral	● Weak outlook, growth potential under trend	○ Very weak outlook, growth potential well under trend or negativ
Economic policy framework	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate
Macro-economic stability and sustainability	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate
Fiscal policy framework	○ Exceptionally strong performance	● Strong performance	○ Neutral	○ Weak performance	○ Problematic performa
Debt sustainability	○ Exceptionally strong sustainability	○ Strong sustainability	● Neutral	○ Weak sustainability	○ Not sustainable
Market access and funding sources	● Excellent access	○ Very good access	○ Neutral	○ Poor access	○ Very weak access
Current account vulnerability	○ Excellent	● Good	○ Neutral	○ Poor	○ Inadequate
External debt sustainability	○ Excellent	● Good	○ Neutral	○ Poor	○ Inadequate
Vulnerability to short-term external shocks	○ Excellent resilience	○ Good resilience	● Neutral	○ Vulnerable to shock	○ Strongly vulnerable to shocks
Perceived willingness to pay	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate
Recent events and policy decisions	○ Excellent	○ Good	○ Neutral	● Poor	○ Inadequate
Geopolitical risk	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate
Banking sector performance	○ Excellent	○ Good	○ Neutral	● Poor	○ Inadequate
Banking sector oversight and governance	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate
Financial imbalances and financial fragility	○ Excellent	○ Good	● Neutral	○ Poor	○ Inadequate

*** Implied QS notch adjustment = (QS notch adjustment for domestic economic risk)*0.35 + (QS notch adjustment for public finance risk)*0.30 + (QS notch adjustment for external economic risk)*0.15 + (QS notch adjustment for institutional and political risk)*0.10 + (QS notch adjustment for financial stability risk)*0.10**

Source: Scope Ratings GmbH

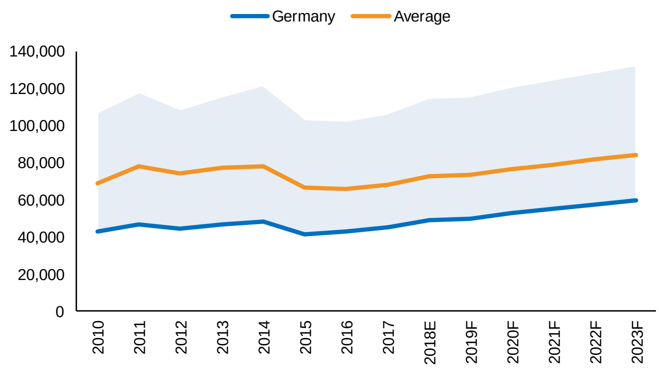
II. Appendix: Peer comparison

Figure 4: Real GDP growth



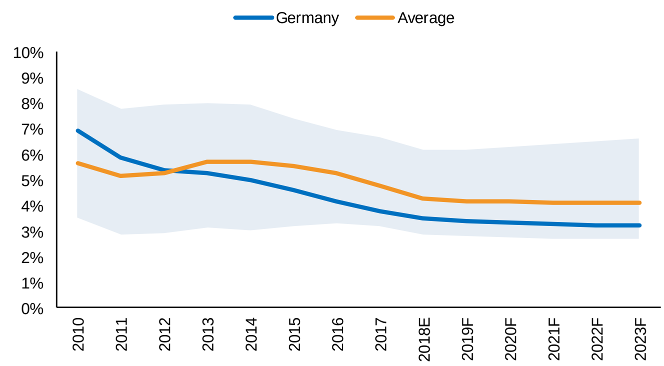
Source: IMF, calculations Scope Ratings GmbH

Figure 5: GDP per capita, USD



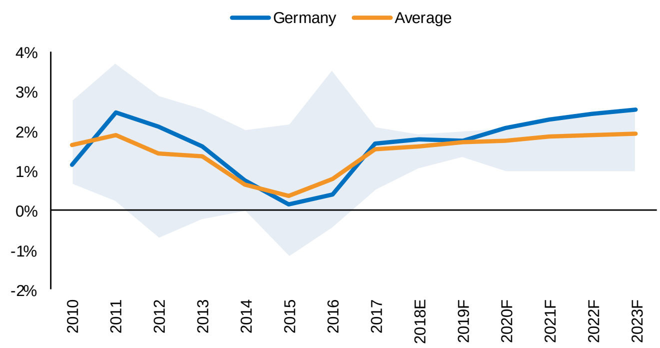
Source: IMF, calculations Scope Ratings GmbH

Figure 6: Unemployment rate, %



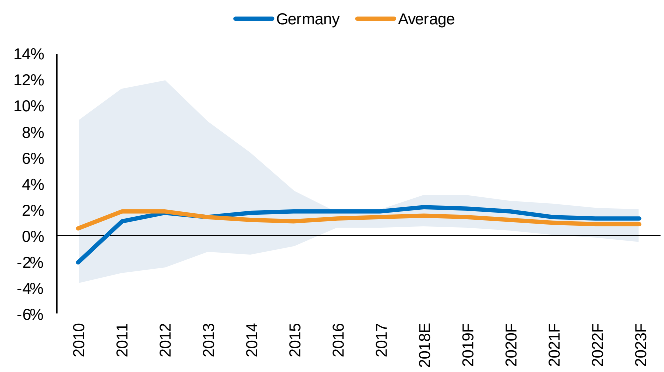
Source: IMF, Calculations Scope Ratings GmbH

Figure 7: Headline inflation, %



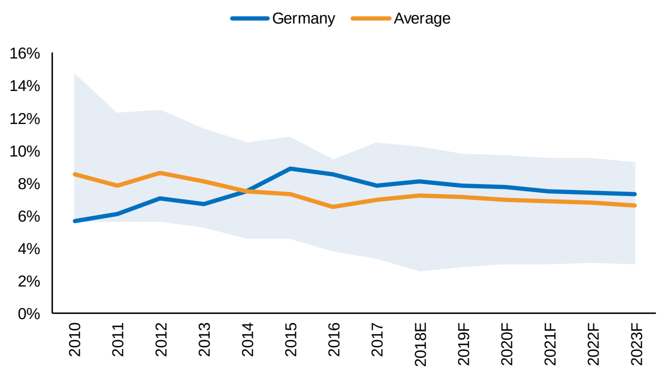
Source: IMF, Calculations Scope Ratings GmbH

Figure 8: General government primary balance, % of GDP



Source: IMF, Calculation Scope Ratings GmbH

Figure 9: Current account balance, % of GDP



Source: IMF, Calculation Scope Ratings GmbH

III. Appendix: Statistical tables

	2013	2014	2015	2016	2017	2018E	2019F
Economic performance							
Nominal GDP (EUR bn)	2,826.2	2,938.6	3,048.9	3,159.8	3,277.3	3,397.2	3,518.1
Population ('000s)	80,647.0	80,983.0	81,687.0	82,349.0	82,660.0	82,786.0	82,852.0
GDP per capita PPP (USD)	45,232.2	47,092.5	47,810.8	48,943.1	50,638.9	-	-
GDP per capita (EUR)	35,044.8	36,286.4	37,323.6	38,370.1	39,648.6	41,035.6	42,462.4
Real GDP, % change	0.6	2.2	1.5	2.2	2.5	1.9	1.9
GDP growth volatility (10-year rolling SD)	2.8	2.8	2.8	2.7	2.7	2.7	1.1
CPI, % change	1.6	0.8	0.1	0.4	1.7	1.8	1.8
Unemployment rate (%)	5.2	5.0	4.6	4.2	3.8	3.5	3.4
Investment (% of GDP)	19.5	19.6	19.2	19.7	20.1	20.4	20.8
Gross national savings (% of GDP)	26.2	27.1	28.1	28.2	28.0	28.5	28.7
Public finances							
Net lending/borrowing (% of GDP)	-0.1	0.6	0.8	0.9	1.0	1.5	1.5
Primary net lending/borrowing (% of GDP)	1.4	1.8	1.8	1.8	1.8	2.2	2.1
Revenue (% of GDP)	44.5	44.5	44.5	44.8	45.0	45.1	45.1
Expenditure (% of GDP)	44.7	44.0	43.7	43.9	43.9	43.6	43.6
Net interest payments (% of GDP)	1.6	1.2	1.1	0.9	0.8	0.7	0.6
Net interest payments (% of revenue)	3.6	2.8	2.4	2.0	1.8	1.5	1.4
Gross debt (% of GDP)	77.5	74.6	70.9	67.9	63.9	59.8	56.0
Net debt (% of GDP)	57.6	54.1	51.1	48.2	44.9	41.5	38.3
Gross debt (% of revenue)	174.0	167.5	159.4	151.6	142.0	132.6	124.2
External vulnerability							
Gross external debt (% of GDP)	150.0	153.0	147.9	147.3	139.9	-	-
Net external debt (% of GDP)	-3.9	-6.4	-8.7	-10.5	-13.0	-	-
Current account balance (% of GDP)	6.7	7.5	8.9	8.5	7.9	8.1	7.9
Trade balance (% of GDP)	-	7.8	8.6	8.7	8.2	8.2	7.9
Net direct investment (% of GDP)	0.7	2.4	2.2	1.0	1.3	-	-
Official forex reserves (EOP, EUR m)	28,080.0	30,646.0	33,423.0	34,993.0	31,215.0	-	-
REER, % change	2.1	0.9	-4.7	1.7	1.0	-	-
Nominal exchange rate (AVG, USD/EUR)	1.3	1.3	1.1	1.1	1.1	-	-
Financial stability							
Non-performing loans (% of total loans)	1.8	2.5	2.0	1.8	1.6	-	-
Tier 1 ratio (%)	15.2	14.8	15.4	15.6	16.4	-	-
Consolidated private debt (% of GDP)	102.7	98.6	98.2	98.5	100.1	-	-
Credit-to-GDP gap (%)	-7.6	-9.0	-7.3	-5.8	-3.6	-	-

Sources: IMF, European Commission, European Central Bank, Federal Statistical Office, Deutsche Bundesbank, World Bank, Haver Analytics, Scope Ratings GmbH

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