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Research Report on Germany

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Responsible Expert:

Gustavo Angel
Rating Associate

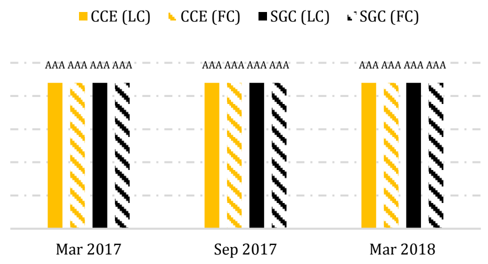
For further information contact:
Rating-Agentur Expert RA GmbH
Walter-Kolb-Strasse 9-11,
60594 Frankfurt am Main, Germany
+49 (69) 3085-45-00
E-mail: info@raexpert.eu
www.raexpert.eu

Ratings

Sovereign Government Credit (LC)	AAA
Sovereign Government Credit (FC)	AAA
Country Credit Environment (LC)	AAA
Country Credit Environment (FC)	AAA

* These ratings are unsolicited

Ratings dynamics



Main Economic Indicators of Germany

Macro indicators	2015	2016	2017
Gross gov. debt, EUR bn	2159	2140	2105*
Nominal GDP, EUR bn	3044	3144	3263
Real GDP growth, %	1,5	1,9	2,0
Gross gov. debt/GDP, %	70,9	68,1	64,5
Deficit (surplus)/GDP, %	0,6	0,8	0,7
Inflation rate, %	0,2	1,7	1,6
Current Account Balance/GDP, %	-	-	7,9
External debt, USD bn	-	-	-

Development indicators	2017
Inequality adj. HDI	0,86*
GDP per capita, USD th	50,2

Default indicator	09.03.2018
5-Year CDS spread, Bp	9,4
10Y Gov Bond Yield, %	0,6

Source: RAEX-Europe calculations based on data from IMF, Destatis. *Forecast for 2017

Summary

The ratings of Germany at 'AAA' mainly reflect the outstanding macroeconomic position, strong and persistent twin surpluses, resilience to external shocks and the healthy stance of the country's banking system.

The downward tendency of the government debt metrics remained in place in 2017 as the government debt load declined during the year. Despite the constantly high increase of fiscal expenses, the fiscal position of Germany is set to remain comfortable as revenues continue to grow at a strong pace.

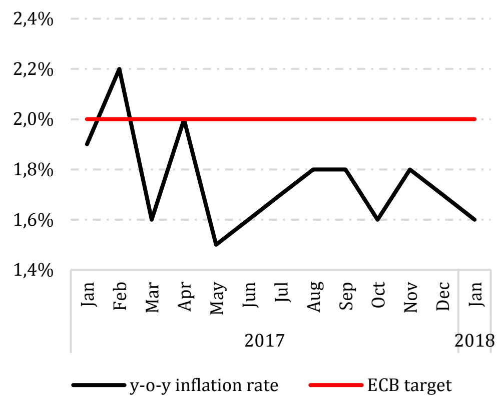
The country remains posting encouraging macroeconomic figures with surplus in the current account, positive GDP growth and low unemployment rate. While the demographic risks remain in place, the political risks arising from the latest election results in 2017 dissipated as the government managed to create a grand coalition.

Outstanding external and macroeconomic position. Germany's macroeconomic indicators remain favorable with surplus in the current account, positive growth rates and low unemployment figures. Despite dropping slightly by 4p.p. from a year before, the current account recorded a positive balance of 7,9% of GDP in 2017, reflecting the strong resilience of the German economy to the EUR appreciation. Also, given the nature of the products Germany exports (mainly high-tech), the international demand for these products has little sensitivity to FX movements.

In 2017 the German macroeconomic indicators replicated the favorable trend they showed in previous years as the country keeps benefiting from a strong and increasing real GDP growth rate at 2,9% in 2017 (from 1,8% in 2016), a stable inflation rate at 1,6% (see graph 1) and a low unemployment rate down by 0,6p.p. to 3,6% in the same year.

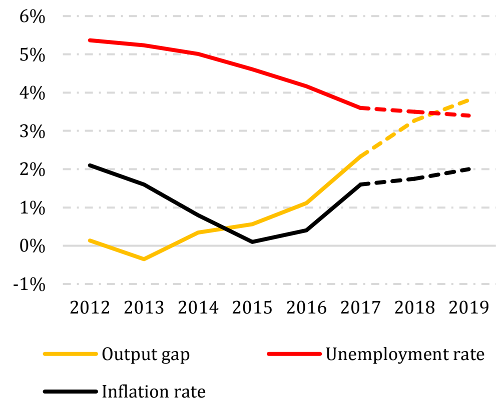
In our view, the higher inflation rates observed in recent years resulted from the strong demand for goods and services, which ultimately derived in a positive output gap since 2014. This, in turn drove the consistent decline of the unemployment rate to a level which can be considered to be around the natural rate of unemployment (see graph 2). Going forward, we expect the output gap trend to remain upward, fueling further increases of the inflation rate and supporting the stability of the unemployment rate.

Graph 1: Inflation rate in Germany



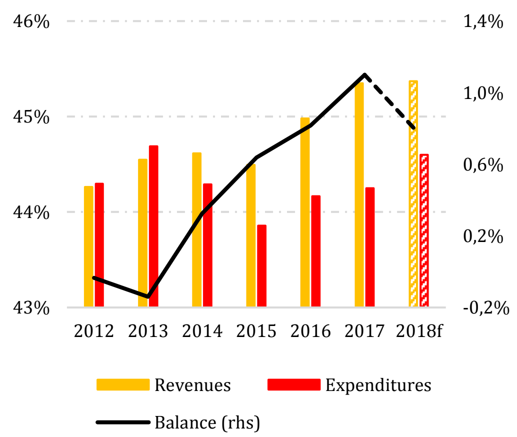
Source: RAEX-Europe calculations based on data from ECB and Destatis

Graph 2: Unemployment rate and inflation vs. output gap



Source: RAEX-Europe calculations based on data from OECD and Destatis

Graph 3: Fiscal balance, % GDP



Source: RAEX-Europe calculations based on data from IMF and Destatis

Strong fiscal stance coupled with declining debt metrics. Despite the constantly high increase of fiscal expenses (especially for social security), the fiscal position of Germany is set to remain comfortable as revenues continue to grow at a strong pace. Even though the German constitutional rule on federal indebtedness[1] allows the Federal government to run a maximum deficit equal to 0,35% of GDP, the country's fiscal balance has recorded a surplus since 2014, which stood at 1,1% of GDP in 2017 (see graph 3). The German fiscal figures also comply with the European Stability and Growth Pact (SGP) which states that the general government deficit may not exceed 3% of GDP. For these reasons, we consider the fiscal policy to have performed optimally, thus influencing positively the creditworthiness of the country.

The supportive fiscal conditions alongside the country's buoyant growth allowed the Federal government to reduce its financing needs and therefore contributed to the steady decline of the government debt load, which equaled 64,5% of GDP and 143,3% of budget revenues in 2017. This government also benefited from the still low interest rate environment, which translated into lower interest payments and ultimately reduced the fiscal pressure.

We do not see risks on the public finances in the short term as the country's short-term debt stands at around 15% of GDP and 33% of budget revenues. Furthermore, the reduced long-term risks are evidenced by the low and declining yield on the 10Y government bond at around 0,6% as of March 2018. In the long run, however, we expect the general fiscal position of Germany to deteriorate if the current demographic trend remains in place and the potential hike of interest rates materialize.

Reduced risks in the banking sector. The German financial sector remains healthy with strong figures in the banking sector and the stock market. German banks are well positioned with assets and loans to the private sector at 236% and 129% of GDP respectively. Banks' profitability, despite positive, remains low as a result of the still low-interest-rate environment. However, we expect interest rates to increase in the mid to long term as inflation rate is set to replicate its upward trend observed in 2016-2017 and reach the 2% target by 2019.

Non-performing loans to total loans ratio in Germany is forecast to be low at around 2% and below its Euro Area peers. Even though this figure does not introduce risks in the short run, even a slight increase of this metric could cause a decline in the already meager banks' profits. We

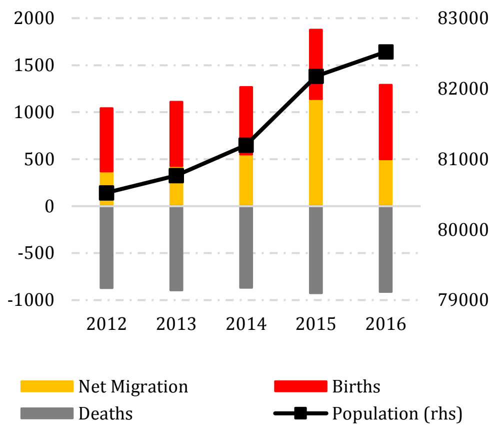
[1] Germany's constitutional rule on federal indebtedness is in practice since 2011. Known as the "debt brake", it replaced the "golden rule" that was contained until 2010 in the old version of Article 115 of Germany's constitution, the Basic Law.

expect; however, that the sustained economic growth in Germany will mitigate such a risk.

Demographic risks remain in place. Despite an increase of total population over the years, aging population remains Germany's main long-term risk factor for keeping the sustainable economic growth.

Total fertility rate (average number of children per woman) has been increasing over the years to reach 1,5 in 2015; however, it is still below the minimum sustainable level of 2,1. Furthermore, the difference between the birth rate and the death rate remains negative and wide averaging 150 th people since 2000. Considering this, immigration has been the only factor which has kept the population of Germany stable around 80 m over the last years (see graph 4).

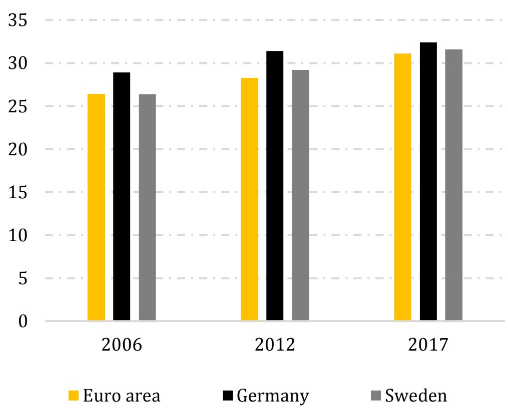
Graph 4: German demographic trend, th people



Source: RAEX-Europe calculations based on data from Destatis

Beside the social impact of these worrisome population trends, the economic risk emerges in the German pensions system. With constant aging population and shrinking share of work active people, the risk of the German pension system becoming unsustainable increases. This is shown by the hike of the old-age-dependence ratio[2], which stood at 32,4% in 2017, above the 31% average reported across the European Union (see graph 5). Also, in the last pension insurance report from the Federal Ministry of Labor and Social Affairs, the forecast for the 2018-2021 period shows that the pension expenditure will rise at faster pace than the pension revenues driving a EUR 4,5 bn deficit by 2021 (around 17x the 2017 deficit). Even though immigration and economic growth contributed to reduce pressure on the German pension system, the sustainability of the system will ultimately depend on long-term policies which could encourage more births and immigration (mainly skilled) into the country.

Graph 5: Old-age dependency ratio, %



Source: RAEX-Europe calculations based on data from Eurostat

Political uncertainty dissipates. After months of uncertainty regarding the formation of the new government after the September 2017 elections, the CDU/CSU and SPD agreed on making a grand collation on March 2018. Even though the new government should be a continuation of the previous one, considering it is composed of the same parties, we could anticipate fiscal policy changes aiming at reducing the fiscal space considering that the Ministry of Finance will be run by the SPD. Based on the 2018 coalition contract, we expect an increase in public spending for families, children and social help but also for investment in education, research and digitalization and security. However, a final impact on the public finances will be better assessed after the entire members of the new government are appointed and policies are disclosed.

[2] ratio between the number of persons aged 65 and over and the number of persons aged between 15 and 64

Important note for sovereign ratings

This Research Report shall be treated as a supplementary part of the published Press Release included in the following link:

http://www.raexpert.eu/reports/Press_release_Germany_09.03.2018.pdf

Both documents shall be treated as essential parts of each other.

For further information on the factors, their weights, methodologies, risks and limitations of these ratings, and other regulatory disclosures, please refer to the Press Release and the website of the Agency.