Sovereign Report: Germany

Scope considers Germany one of the strongest sovereign debt issuers in Europe and worldwide. Its strong features include a wealthy and well-diversified economy, which is the biggest in the euro area (EA) and fourth in the world. The country is a net creditor with one of the highest current account surpluses in the EU, indicating its relative independence from external financing and therefore from market sentiment. After negative budgetary balances, which exceeded the Maastricht 3% of GDP threshold in 2009 and 2010, it has adhered to a prudent fiscal policy since 2011, which resulted in a substantial decline in public debt. The German sovereign is a primary benchmark issuer for the EA, benefiting from an exceptionally low cost of funding. The sovereign has a rock-solid reputation in honouring debt obligations.

At the same time, Germany's demographic profile poses structural challenges, which may burden competitiveness, economic growth and public finances in the long term. Its demographic challenges are the most acute in the EA. According to the latest UN population forecast, the total population in Germany will decrease by almost 8% in 35 years' time, in spite of expectations of a strong inflow of migrants.

The demographic profile could weaken potential economic growth, due to the shrinking labour force and weak investment growth. Slower GDP growth is likely to weaken budgetary revenue, which, combined with growing age-related budgetary expenses, could pose challenges for balancing budgets in the future. The government's efforts to combat a diminishing labour force, by boosting female labour participation, could be problematic due to discouraging second-earners tax and insurance policies, insufficient all-day facilities for children, and the low efficiency of the female labour force. Germany's global competitiveness could be undermined by its tight labour market arising from its demographic profile.

In the short term, domestically driven economic growth, which offsets sluggish external demand, could be constrained by households' high propensity to save. Germany benefits from strong tailwinds, in particular, the low energy prices, the beneficial cost of credit for both private and public sectors, and a relatively weak euro. However, the shelf life of these factors is not indefinite.

Strengths

- One of the largest and wealthiest economies in the world, with a diversified economy as well as strong and effective public sector institutions
- A moderate debt level and a track record of prudent fiscal policy aimed at further reducing debt
- Net external creditor with a competitive manufacturing sector
- Exceptionally low cost of funding

Weaknesses

- Declining population trend is the most acute in the euro area
- A demographic profile which adds to low potential economic growth and rising age-related budgetary expenditure
- International competitiveness could be undermined by a tight labour market arising from its demographic profile
- The open, export-driven economy is vulnerable to weak external demand

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Macroeconomic outlook

Following the GDP expansion by 1.4[1]% in 2015, we expect Germany's economy to grow by 1.5% in 2016, and around 1.4% in 2017 and 2018 (Figure 1).

Figure 1: Selected economic indicators and forecasts

	2009	2010	2011	2012	2013	2014	2015f	2016e	2017f	2018f
Real GDP growth, %	-5.6	3.9	3.7	0.6	0.4	1.6	1.4	1.5	1.4	1.4
Nominal GDP (EURbn)	2,534.9	2,633.2	2,722.1	2,764.9	2,825.2	2,919.8	3,023.0	3,117.3	3,200.9	3,292.5
Nominal GDP (USDbn)	3,524.5	3,486.7	3,786.6	3,551.2	3,751.0	3,875.0	3,404.3	3,510.5	3,604.7	3,707.8
GDP per capita (USD)	43,772.1	43,348.0	47,083.1	44,126.4	46,558.8	48,049.7	42,190.9	43,510.6	44,703.3	46,024.7
Population (year-end, m)	80.5	80.4	80.4	80.5	80.6	80.6	80.7	80.7	80.6	80.6
C/A balance, % GDP	5.6	5.6	6.0	7.1	6.7	7.5	8.5	8.2	8.0	8.0
Inflation, annual avg, %	0.2	1.2	2.5	2.1	1.6	0.8	0.1	0.1	1.5	1.7
Govt balance, % GDP	-3.1	-4.1	-1.0	-0.1	-0.1	0.3	0.7	0.0	0.0	0.0
GG gross budgetary debt, % GDP	70.4%	78.8%	77.2%	78.8%	76.7%	74.3%	71.2%	69.1%	67.3%	65.4%
Unemployment %	7.7	6.9	5.9	5.4	5.3	5.0	4.6	4.4	4.2	4.1

Source: Eurostat, Scope estimations

Unlike 2010-2012, when GDP growth was driven mainly by net exports, we expect private consumption to remain the main driver; thus continuing the trend started in 2014. Strong private consumption should be supported by good job prospects and low unemployment (both pushing up earnings), with low interest rates and low energy prices boosting real households' disposable income and cutting costs for businesses. However, the propensity of German households to save, which has remained strong in spite of a prolonged period of low interest rates, could temper an expansion of domestic demand.

We expect Germany's current account, after reaching a historical high in 2015, to soften slightly in 2016 and beyond, on the back of sluggish demand among Germany's trading partners and strengthening domestic consumption, which pushes up imports. The public sector is likely to support economic growth, due to higher expenses for migrants and expanding public-sector investment during the forecasted period; though this might not be enough to compensate for weak business investment, influenced by sluggish external demand. A pickup in inflation is expected only in 2017, as weak oil prices are likely to persist in 2016. The combination of a reversal in oil prices, buoyant domestic demand and the large share of (expensive) alternative energy to total energy production is likely to accelerate inflation in 2017, in our view.

The main risk for the forecasts is the shelf life of favourable economic factors, in particular, low oil prices and the ECB's ultra-accommodative policy. According to the IMF[2], oil prices could soften further in 2016, but to a lesser extent than in 2015, and will likely bottom out before rising gradually again in 2017. As for the ECB's asset purchase programme (APP), launched in March 2015 and extended and topped up in March 2016, its duration is not indefinite, and it is difficult to predict how long it will last. If and when these temporary factors ease off, Germany's GDP growth and public finance balances could fall under the influence of structural factors, especially with regards to its demographic profile.

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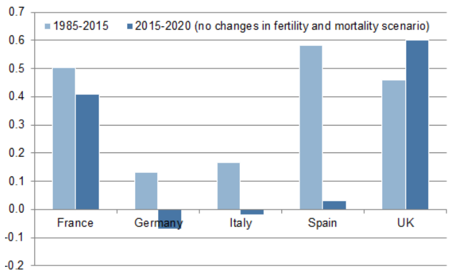
1 On seasonally and calendar-adjusted basis.
2 World Economic Outlook, April 2016.

Demographical challenges are biggest among peers

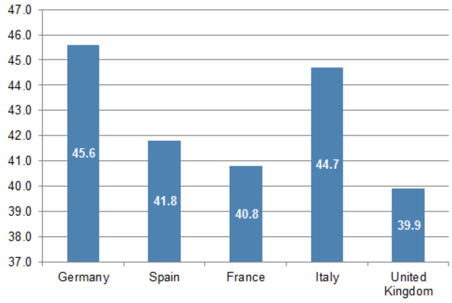
In the last 30 years, the population in major EU countries grew marginally, with Germany having the slowest growth rate among peers (Figure 2). As a result, its median age became the highest at 46.3 years (Figure 3). The ageing share of the population has risen gradually in Germany, and migration rates, despite being one of the highest among major EU countries (Figure 4), still cannot offset the large, negative natural growth rate.

Figure 2: Average annual population growth, %



Source: Eurostat

Figure 3: Median age in EA countries in 2014



Source: Eurostat

According to the UN, the negative natural growth rate in Germany is likely to persist for the next five years as migration is still insufficient to curb de-population (Figure 4). Even despite the surge of asylum seekers in Germany (the number of first-time applications in 2015 almost tripled from 2014), migrants are unlikely to become a swing factor in the population's growth trajectory.

In 2015, the share of refugees to the total population was negligible 0.5%[3]. In 2016 the refugee inflow could add almost 1% to the country's total population, should it stay at the level of Q1 2016, which was almost double that in Q1 2015, for the entire year. However, even this does not represent the ultimate increase in population, owing to the low retention rate, i.e. approved applications versus the total number of asylum seekers. Based on Eurostat data for 2015, the retention rate was 65%[4]. Also, the mixed attitudes towards refugees among the German public, with anti-migration parties gaining ground[5], gives reason to believe the retention rate is likely to be contained.

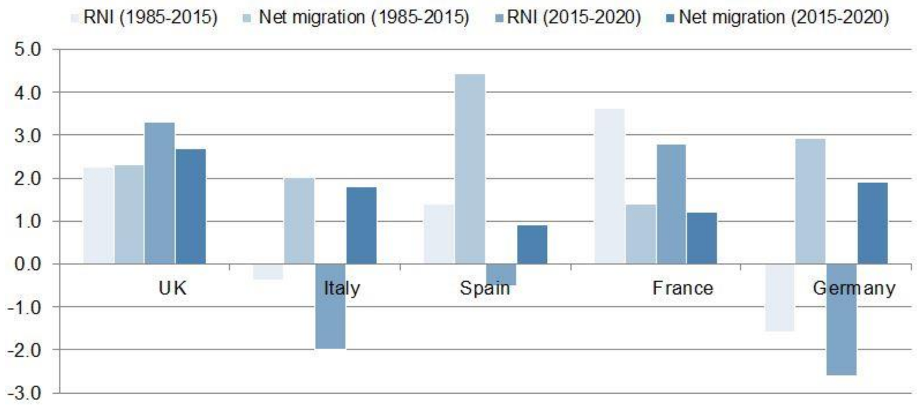
The UN's 2015 revision to its population forecast for the medium to long term was slightly better for Germany than in the previous report. However, the new report still suggests that in 35 years the total population in Germany will be almost 8% less, and in 55 years it will decrease by almost 14%. (Figure 5).

[3] Record number of over 1.2 million first-time asylum seekers registered in 2015, Eurostat press release, 44/2016 – 4 March 2016.

[4] The same.

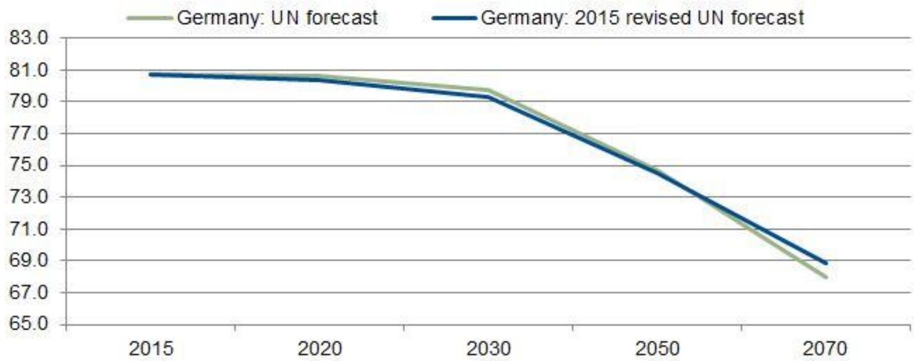
[5] Founded in 2013 AfD (Alternative for Germany), a right-wing eurosceptic and anti-immigration party, gained representation in eight state parliaments as of March 2016.

Figure 4: Population-growth drivers



Source: United Nations 2015 revised population forecast, RNI – rate of natural increase

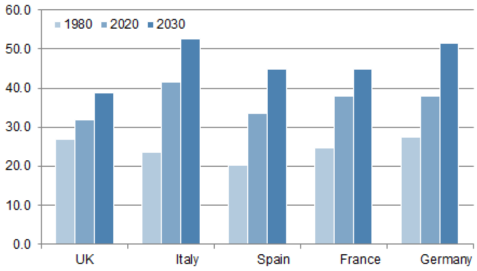
Figure 5: UN population-growth forecast



Source: United Nations 2015 revised population forecast

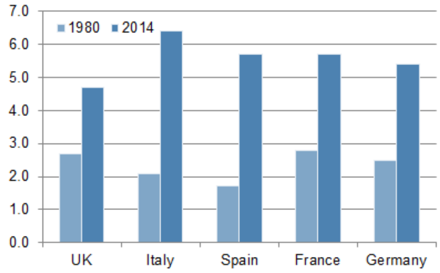
The population decline will be accompanied by a rising share of older people, triggering significant demographical shifts. The most important is the decline of the labour force and the rise in the number of pensioners – in both absolute and relative terms as a share of the total population. In 1980, one pensioner was supported by roughly two working-age people; in 2030 this ratio could be almost one to one (Figure 6). When comparing old-age dependency ratios, Germany was the highest in 1980, but may only be slightly behind Italy in 2020 and 2030 (Figure 6). Lastly, the share of people older than 80 years is rising, as standards of living and health care continue to improve (Figure 7).

Figure 6: Old-age dependency ratio (ratio of population aged 65+ per 100 aged 20-64)



Source: Eurostat

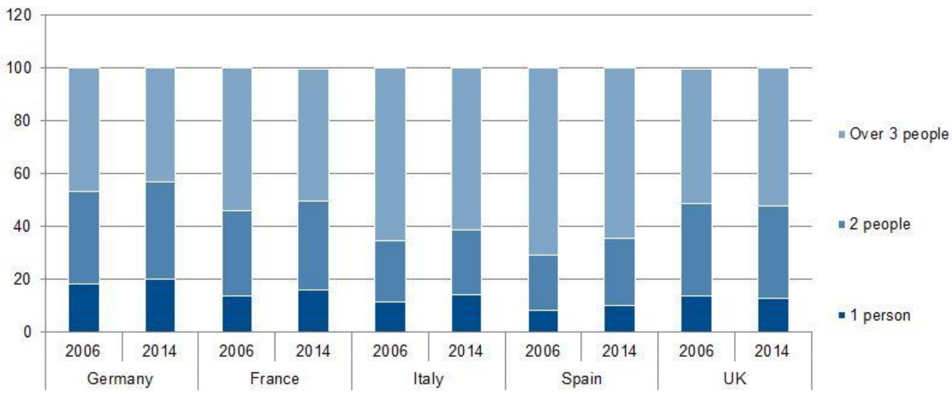
Figure 7: Proportion of people aged 80+, % of total population



Source: Eurostat

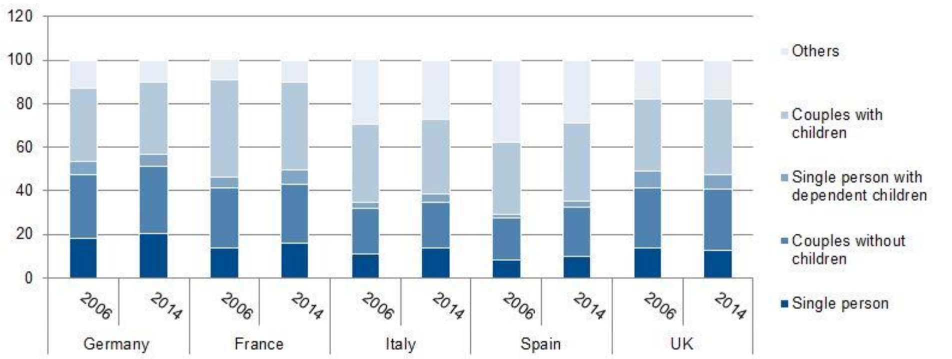
Another remarkable feature of German demographics is the significant share of small families and families without children. In 2014 almost 57% of German households had one or two members – compared to almost 50% in France or 36% in Spain (Figure 8). About 51% of households represented families without children, versus the 43% in France and 32% in Spain (Figure 9).

Figure 8: Households by size



Source: Eurostat

Figure 9: Households by type



Source: Eurostat

Demographical implications in the long to medium term

Demographics have important implications on Germany's economic outlook and public finances in the medium to long term, which, however, does not exclude that strong counter-cyclical factors could mitigate the pace of the trend.

1. Increasing labour force shortages could constrain potential economic growth. To maintain the current GDP growth rate (around 1.1% on average since 2001), let alone expand potential growth, the country has to invest more internally to accelerate labour productivity. So far, the share of investment in GDP has been fairly static, indicating investment is growing in line with GDP (Figure 21).
2. Germany's current account surplus is likely to be influenced by a mix of factors:
    a. The ageing population pushes up the domestic saving ratio, which, combined with flat investment growth, drives up the current account surplus.
    b. However, at some point, the increase in the number and proportion of pensioners could lead to the country's saving ratio deteriorating (as the drawdown of savings could eventually exceed new savings), and thus to a narrowing of its high current account surplus.
    c. The shrinking labour force has already put upward pressure on wages and salaries, eroding Germany's cost-competiveness advantage. This could eventually contribute to slowing growth in exports.
3. A slower GDP growth rate, on the one hand, and rising old-age-related expenditure, on the other, could eventually cause a deterioration in government budget balances and an increase in public debt.

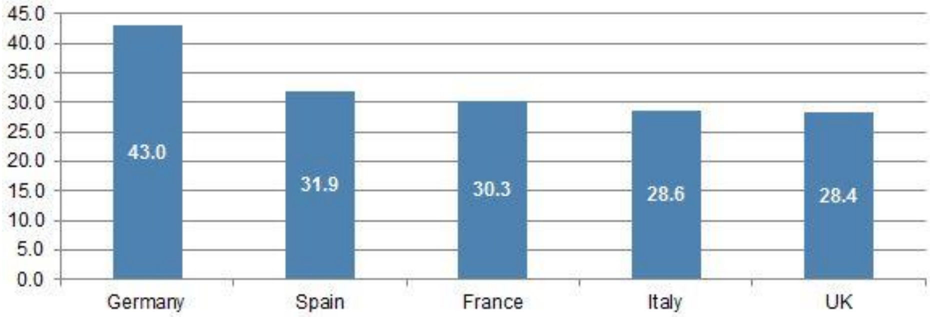
Export-oriented economy is diversified, but prone to volatility

At almost EUR 37,000[6], German GDP per capita was 20% higher than the EA average. The country's economy accounts for almost 29% of EA countries' output, which makes it the biggest economy in the monetary union and fourth in the world. The size of the economy makes it easier for the sovereign to absorb external and internal challenges, such as contingent liabilities related to the banking sector or the influx of refugees, while the level of wealth helps mitigate shocks by offering various options for generating tax revenue.

Over the last 15 years, the composition of Germany's economic activities has been quite stable. The country has a well-diversified economy, which is tilted towards industrial production and manufacturing (Figure 11). German manufacturing encapsulates a significant proportion of export-oriented industries and activities[7]. The openness of the economy distinguishes it from other major EA economies. In 2015, the share of exports and imports to GDP stood at 43%, compared to just 30.3% in France or 28.6% in Italy (Figure 10).

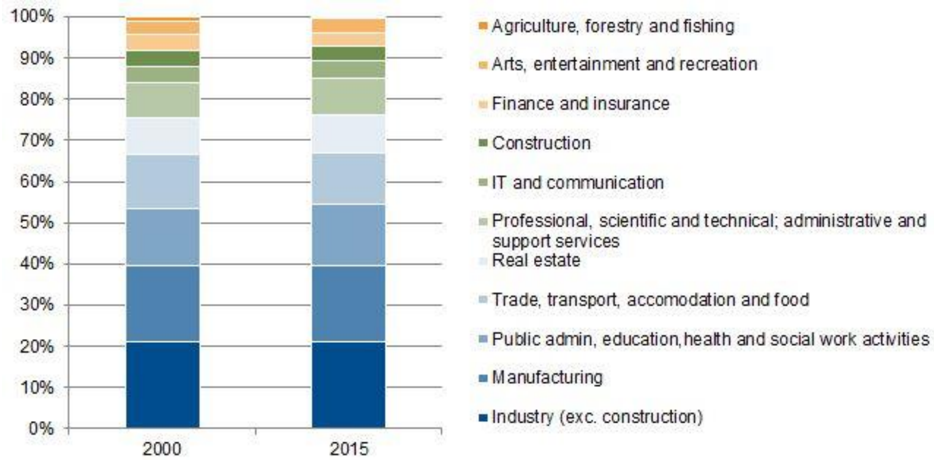
[6] In 2015 at market prices
[7] The manufacturing sector has averaged 80% of the annual value of total German exports since the early 2000s – Country Report Germany 2015, including an in-depth review on preventing and correcting of macroeconomic imbalances. Brussels, 18 March 2015.

Figure 10: Openness of the economy (average of exports and imports) in 2015, % of GDP



Source: Eurostat

Figure 11: Composition of Germany's GDP (% of gross value added)



Source: Eurostat

This high level of openness implies GDP has a relatively high volatility, as the German economy benefits more than other countries from an uptick in global trade, but is much more vulnerable to a downturn. In 2009 – a crisis year – the 5.6% contraction in GDP was induced by an 18% slump in exports. In the same vein, a strong economic rebound – at 3.9% next year – was driven by the almost 19% rise in exports, supported by strong growth in emerging markets, which became an important destination for German goods.

GDP volatility could translate into volatile budgetary revenue. Troughs in budgetary revenue, combined with a higher cost of social support programmes during the protracted economic slump, could have negative impact on the budgetary balance and therefore government debt.

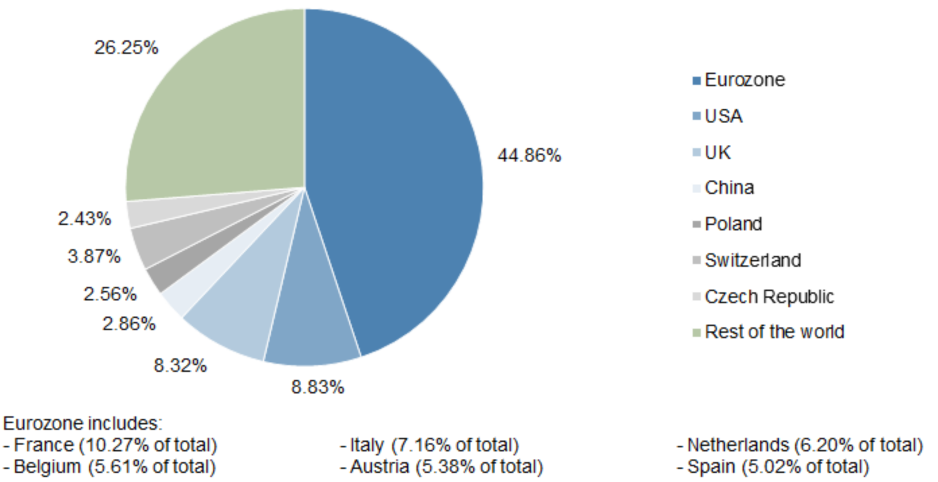
Export markets split between advanced and emerging countries

Though diminished in the last 10 years, Germany's share of exports to the EA remains high at almost one-third. On the other hand, the share of emerging markets grew from 14% in 2004 to 19% in 2015, with China being the most important (Figures 12 and 13). Other large single markets are the US, the UK, Poland, the Czech Republic and Switzerland.

The slowing economy in China, an important market for German exports in the past, was only partially compensated by the sluggish economic rebound in Germany's main European markets, meaning the contribution of exports to economic growth is now less pronounced.

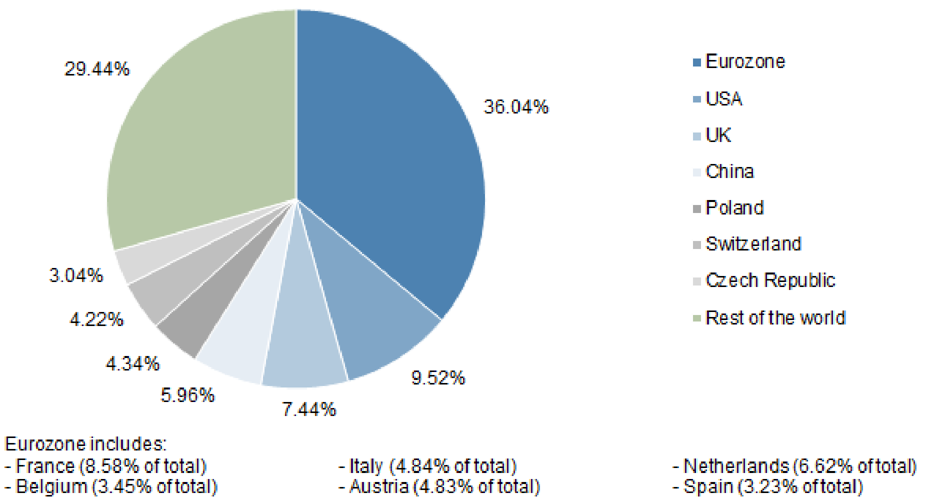
Moreover, Germany's export-oriented economy makes it susceptible to geopolitical risks, which impacts not only developed markets but emerging ones, in addition to the viability and durability of the EA monetary union. Less-buoyant external demand, coupled with the susceptibility to geopolitical risks, has knocked business confidence, and therefore investment in most sectors of the German economy – the tradeable sector.

Figure 12: Germany's exports by trading partners in 2004



Source: International Trade Centre

Figure 13: Germany's exports by trading partners in 2015



Source: International Trade Centre

Low vulnerability to external risks

External risks – in terms of capital account vulnerabilities – are low, given the country's positive net international investment position (NIIP). This stood at 46% of GDP at end-2015 compared to 36.4% at the end of 2014 driven by the high current account (CA) surplus (Figure 14). At end-2015, Germany's current account surplus was at its highest since 2000 – 8.5% of GDP. Germany's net creditor position has been pushed up by increasingly strong CA surpluses since 2002. The country's high CA surplus derives from strong merchandise balance and growing primary income balance (Figure 15). This high CA surplus could be explained by a mix of cyclical and structural factors.

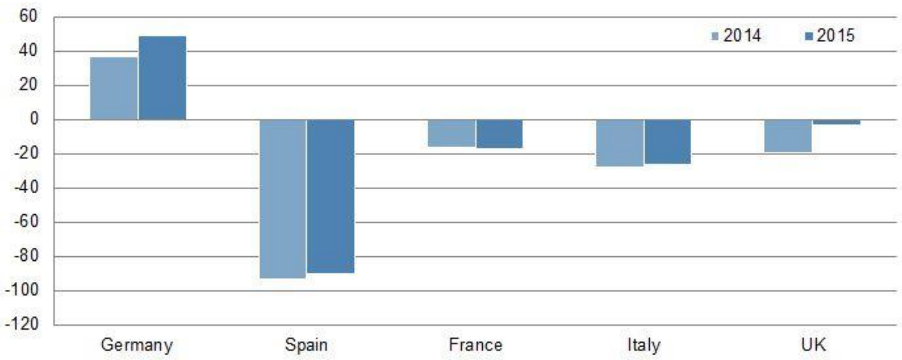
Cyclical factors include favourable terms of trade: the positive difference between export and import prices. This was particularly supportive in 2015, largely due to the more pronounced decline in oil prices compared to 2014, from which Germany benefits greatly as it imports almost 60%[8] of its fuel. Another factor – ultra-low interest rates – has reduced substantially the investment income of non-residents in Germany compared to the investment revenue of German businesses operating abroad. Finally, a weaker euro in 2015 made highly competitive German goods even more attractive.

Among structural factors, we note the high saving rate – pushed up to a large extent by the ageing population – which has not been absorbed by domestic investment (Figure 21). High international competitiveness is another factor, mostly from the manufacturing and chemical industries that offer complex and high-tech products.

In the near term, in our opinion, most cyclical factors will continue to be supportive, albeit to a lesser extent than before. The case in point is oil prices, which seem to be bottoming out. As a result, we expect the CA surplus to decline slightly in 2016 and beyond, which, however, will continue to boost NIIP. In the longer run, we cannot exclude a reversal in CA, driven by demographics, as explained earlier.

Germany is one of the few net external creditors in the euro area. While this makes it immune from sudden disruptions to external credit flow, it exposes it to a potential deterioration in its foreign assets, similar to what occurred in 2009-2010 in the German banking sector. As of Q4 2015, compared with Q2 2008, the exposure to weaker EA countries (Italy, Spain, Ireland, Greece and Portugal) almost halved[9]; some of them, particularly Spain and Ireland, strongly recovered.

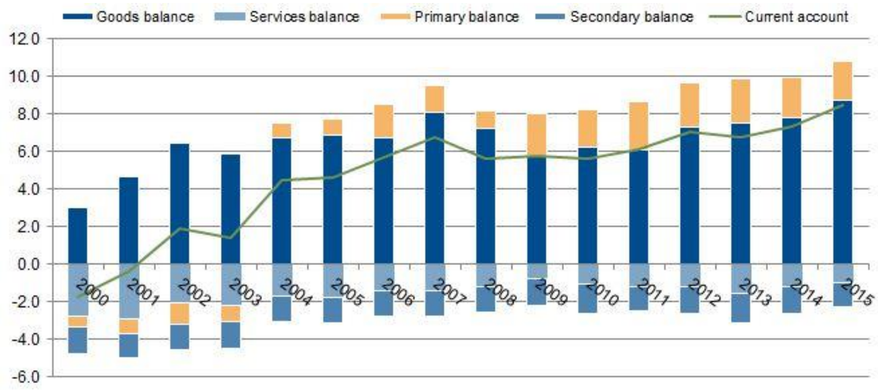
Figure 14: International investment position in 2014 and 2015, % of GDP



Source: Eurostat

8 EU energy in figures, statistical pocketbook, 2015, p.185.
9 Bank of International Settlements.

Figure 15: Germany's CA composition, % of GDP



Source: Eurostat

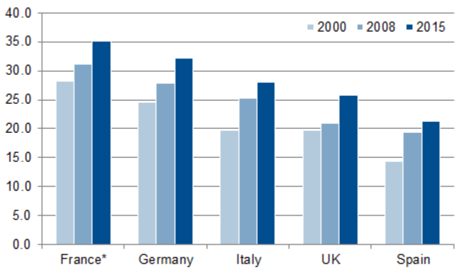
Growth in salaries and wages could erode competitiveness, but…

Despite having one of the highest private-sector labour costs (Figure 16), Germany used to stand out among major EA economies in efficiently using its labour. Indeed, in pre-crisis years, the high and growing labour cost still lagged behind labour productivity growth. However, this trend reversed in post-crisis years (Figure 17).

Wage growth was especially pronounced after 2013. In 2014 German employees saw wages rise by almost 3%, enjoying the highest collectively bargained wage growth since 1993. The introduction of a minimum wage in 2015, aimed at tackling in-work poverty and income inequality, pushed up wages again and resulted in an average wage increase of around 2.5%. Historically low and falling unemployment (4.8% in 2015), as well as the growing number of job vacancies, suggests a further rise of wages in 2016 is possible.

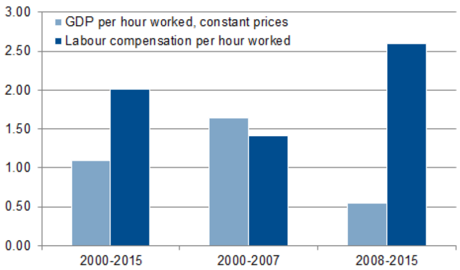
As elaborated on earlier, we attribute this trend to the significant demographic challenges the German economy is facing, and we think the rising labour costs are likely to continue. It should be noted, however, that rising domestic labour costs could be mitigated by Germany's further integration into global value chains, which has allowed companies to cut production costs through the cheap labour and resources from abroad. However, further outsourcing could increase the exposure to geopolitical risks and amplify the volatility of GDP growth.

Figure 16: Total hourly labour cost, euros



Source: Eurostat,* 2004 data instead of 2000

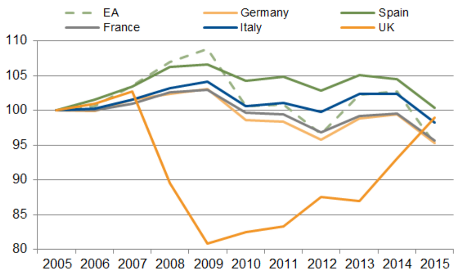
Figure 17: Labour productivity versus compensation per hour, average annual growth



Source: OECD

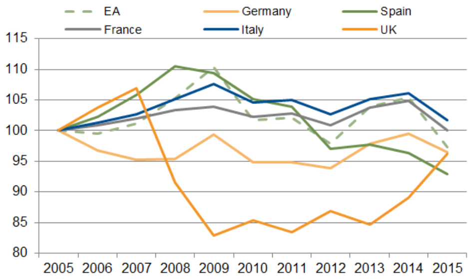
Another important factor mitigating the growing labour cost is a favourable exchange rate, which German producers enjoy as part of the European monetary union. Measured by the real effective exchange rate (the average of bilateral real exchange rates between a country and each trading partner, weighted by the respective trade shares of each partner), Germany still looks competitive compared to averages in the EA and major European trading partners (Figure 18 and 19). The measures for price and labour cost competitiveness show that Germany was much better than the EA in the past and, though the gap has decreased, in 2015 it still had not outpaced the EA average.

Figure 18: Real effective exchange rate (deflator: CPI – 37 trading partners)



Source: Eurostat, REER – real effective exchange rate

Figure 19: Real effective exchange rate (deflator: ULC – 37 trading partners)



Source: Eurostat, ULC – unit labour cost

…Supports domestic consumption, albeit partially

The growth in wages and salaries, though eroding Germany's competitiveness, has recently become an important driver for GDP growth. The increase in labour compensation, driven by the demographic factors discussed earlier, could further expand domestic consumption and, therefore, support GDP growth. However, this correlation is not as straightforward as it seems.

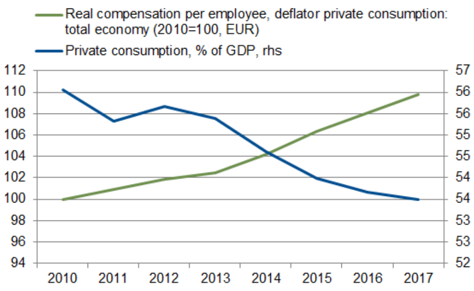
Figure 20 shows that the surge in real compensation per employee since 2013 has not led to higher private consumption so far; on the contrary, it has coincided with a depression in consumption as measured as a proportion of GDP. Moreover, the EC expects this trend to continue in the near future. The extra earnings seemed to have been channelled into savings instead (Figure 21). The rising propensity to save is especially puzzling given the exceptionally low interest rates in Germany since 2010.

In our view, one of the most plausible reasons is the very low public-pension replacement rate, which shows to what extent pension substitutes pre-pension income (Figure 22). The low level raises the need for private savings, thereby pushing up households' saving rate. The need for private savings among the working population was further raised by the pension reform in 2014, which improved pension benefits and early retirement conditions for certain groups of people, but implied higher pension contributions and a lower average replacement rate for the active labour force[10].

The constrained ability of rising wages and salaries to support private consumption could weaken Germany's current GDP growth driver – domestic demand.

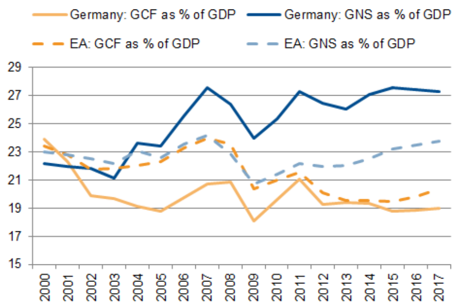
[10] Country Report Germany 2016, EC staff working document, 26.02.2016, p.31.

Figure 20: Real wages and private consumption



Source: AMECO, EC

Figure 21: Savings versus investment, % of GDP



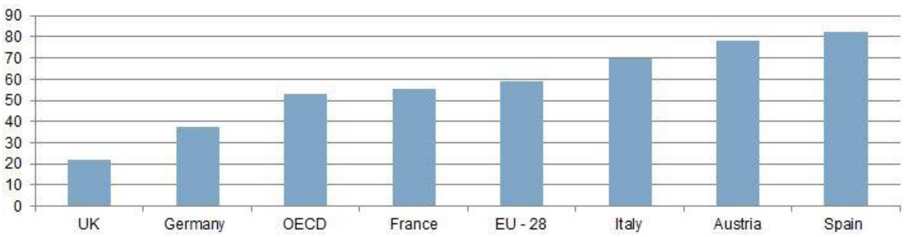
Source: AMECO, EC

Note: GCF – gross capital formation, GNS – gross national savings

High savings have not translated into higher investment

Germany's saving ratio is high and exceeds the eurozone average (Figure 21). This normally means that resources available for investment are ample for future growth. In Germany, however, a significant and rising portion of these savings is channelled abroad or invested outside the private corporate sector[11], keeping the investment element in GDP fairly constant. Given Germany's demographic challenges, a constant share of investment may not be enough to maintain current output, let alone increase it.

Figure 22: Public pension gross replacement rate (based on a male with 100% of the average wage)



Source: OECD

House prices are rising, but no sign of a bubble

Despite low interest rates and an increased demand for mortgages, there is no evidence of a housing bubble in Germany.

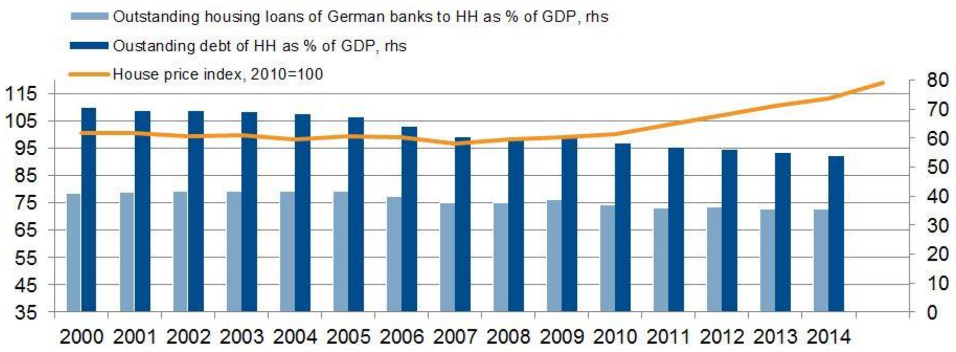
House prices went up by almost 19% in Germany from 2010 to 2015 (Figure 23). We believe this trend will continue, given the low interest rates, rising household earnings and still relatively cheap residential properties. In the long run, in our opinion, the potential appreciation could be limited by the country's demographics. An increasing share of small households and households without children means a rising share of people with little incentive to buy.

Importantly, rising house prices do not coincide with increasing household debt; on the contrary, households seem to be deleveraging while house prices pick up (Figure 23). This suggests the non-credit-driven nature of the German housing boom, which is hardly

[11] Country Report Germany 2015, including an in-depth review on preventing and correcting macroeconomic imbalances, p.32, Brussels, 18 March 2015.

compatible with an emerging housing bubble. Moreover, a housing bubble requires a combination of rising prices and a deterioration of mortgage lending standards – which is not currently the case in Germany[12].

Figure 23: Residential house prices versus household debt



Source: Destatis, prices for 2013-2015 are preliminary

Strong institutions assist growth and are known for honouring debt

Germany's strong institutions facilitate economic growth. For the last 11 years (since 2003), Germany has held the highest percentile among 189 countries on the rule of law, control of corruption, and government effectiveness – components of the World Bank's World Governance Indicators. Since World War Two, Germany has demonstrated a very strong willingness and commitment to honour its obligations, both in full and on time.

Germany is a member of the European monetary union, whose policy towards price stability, undertaken by the ECB, has been efficient and credible. This is demonstrated by Germany's very low inflation volatility over the last 10 years as well as the rebound in CPI rate from the deflationary level in 2015, triggered by the ECB's very accommodative policy. We expect the inflation rate to stay slightly above zero in 2016.

Adherence to balanced budgets is strong…

In 2015 German public finances performed exceptionally well: all government levels (federal, state, local budgets and the social security fund) posted a surplus of 0.7% of GDP combined, the second year in a row since the German reunification. The lowest surplus of 0.1% of GDP has been realised by state (Länder) budgets, whereas the federal budget achieved 0.3% of GDP. Local governments and the German social security fund have also been posting surpluses for several years. The budget surplus has allowed the German government to continue reducing public debt, which had fallen to 71.4% of GDP by end-2015 from 78.8% in 2010.

The German government is strongly committed to further reducing debt to comply with the Maastricht criteria – 60% of GDP. According to the April 2016 Stability Programme (the April 2016 SP), the government anticipates balanced budgets in 2016-2020, which could allow it to bring down its debt-to-GDP ratio to 59.5% by end-2020.

In coming years, enforcing a balanced budget at all government levels will be ensured by the balanced-budget rule – both in the federal constitution and in constitutions or budget

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12 According to the April 2016 Bundesbank lending survey, lending standards to households for house purchases tightened in Q1 2016 compared to Q4 2015, when the survey participants indicated that credit standards had remained unchanged compared to the previous quarter; Eurosystem bank lending survey, results for Germany, Bundesbank.

laws in most state governments[13]. The balanced-budget rule (the 'debt brake' principle) restricts the structural federal budget deficit[14] to 0.35% of GDP as of 2016, while the structural budget balances of the state governments have to be balanced by 2020. There are two exceptions: new debt can be taken to fight counter-cyclical economic problems and natural disasters. The former type has to be repaid during an economic boom, while the latter could be cleared "within a reasonable time"[15]. The social security fund is not permitted to raise debt on its own, while local governments can only borrow to invest, preventing the historically low debt levels from accumulating.

… As well as a reliance on temporary factors

To achieve a balanced budget, the April 2016 SP does not entail measures to increase revenue or cut expenditure, relying instead on some temporary factors.

First, there is reliance on above-potential GDP growth, which implies cyclically high revenues and lower expenditures. On the revenue side, in particular, the SP benefits from the consumption-driven GDP growth, which generates more income-tax revenue than that driven by net exports. On the expenditure side, the SP offsets the increase in age-related expenditure (healthcare, first of all) by reducing unemployment and child benefits, with education and childcare reflecting the strong labour market and demographical shifts.

Second, a significant decrease in interest payments – Germany saved around EUR 4.8bn in the cost of government debt in 2015 compared to 2014 – will be offset by an increase in the investment programme to finance public transport, as well as efforts among municipalities to increase energy efficiency and infrastructure.

Third, the extra costs for refugees, currently estimated at 0.5% of GDP a year (in 2016 and 2017), will be covered by federal government reserves. Should the costs exceed these projections and go beyond 2018, the current balanced budget could be challenged.

Demographics could challenge fiscal prudency in the long run

Impact of demographics on the country's budget is twofold.

First, a relatively stable share of age-related expenditure in the last decade is likely to increase in the coming years. Indeed, in 2014 the share of age-related expenses was largely unchanged compared to 2004 (Figure 24). This reflects, on the one hand, a drop in a number of retirees in the post-war years (associated with low birth rates) and, on the other, lower pension benefits compared to peers (Figure 22). Beyond 2020 the temporary decline in the number of retirees will reverse, as 'baby boomers' begin to retire, putting much more pressure on the pension system.

Also, a relatively low replacement rate of public pensions has put an increasing number of pensioners at the risk of old-age poverty, which, according to the EC[16], will increase in future. Given the public pension is the main source of income for most retirees (Figure 25), rising impoverishment could prove unsustainable in the long run. In our opinion, the 2014 pension reform (which improved pension benefits and early-retirement conditions for those having children before 1992 and those who have added to a pension pot for 45 years) demonstrates an increasing pressure to improve pension conditions.

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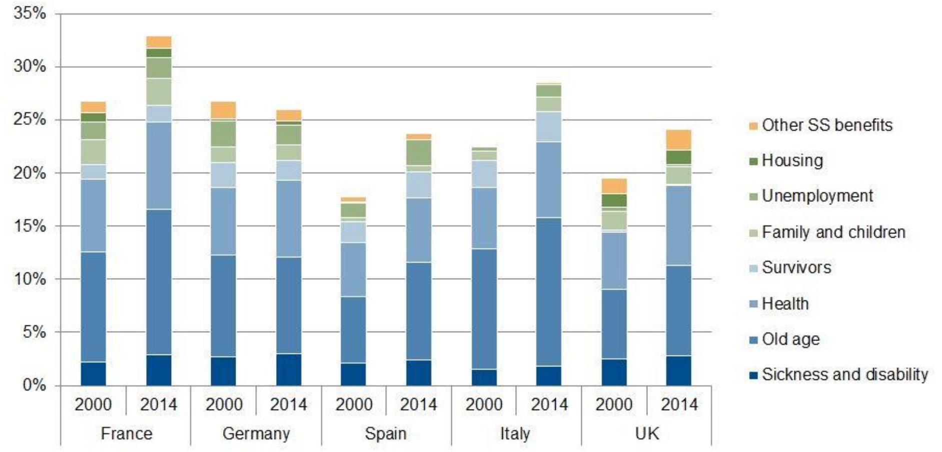
13 Berlin, Brandenburg, North Rhine-Westphalia and Saarland have not adopted balanced-budget rules in their legislation, which, however, will not exclude them from the need to run a balanced budget from 2020. From 2020 a ban on new borrowing will become binding in the national constitution.

14 The structural budget balance is determined by the actual budget balance, which is adjusted by cyclical effects; for instance, automatic stabilisers during the economic downturn – unemployment benefits – and one-off effects such as the transfer of a central bank's profits to the central government budget.

15 Art. 115 Abs. 2 Sätze 6 – 8 GG

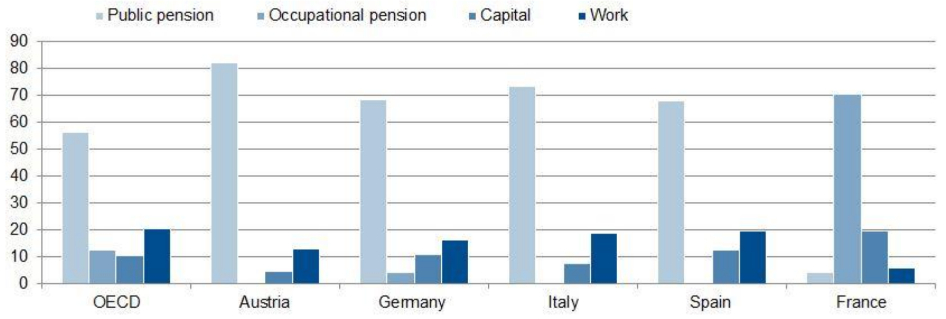
16 Commission staff working document, Country Report Germany 2016, Brussels, 26.02.2016, p.74.

Figure 24: Composition of social protection expenditure, % of GDP



Source: Eurostat

Figure 25: Income sources for older people, % of disposable income



Source: OECD

Second, the government seems to rely on the increasing labour participation rate to compensate for a shrinking labour force and, therefore, GDP growth. However, certain policy hurdles could temper expectations as well as add to budgetary costs.

Indeed, the April 2016 SP envisaged that the female participation rate[17] will jump from 74.6% in 2010 to 78-79% by 2020, and will continue to rise to 86.0-86.5% by 2030. However, there are a number of factors that could make this jump less imminent.

First, a higher participation rate among women could be discouraged by the joint taxation of income for married couples and free health insurance for non-working spouses. Second, an increase of full-time female workers would require more full-time childcare facilities and all-day schools, the expansion of which involves extra budgetary costs. The SP keeps the childcare costs relatively stable as a proportion of GDP for the whole forecasted period. Third, the efficient use of a female labour force is questionable. Though the female participation rate is high in Germany compared to peers, the female employment rate for full-time equivalents is much lower. In 2014 the latter was only 56.6% due to a high share of part-time jobs[18]. Those jobs are largely concentrated in the non-tradeable sector, in which productivity has stagnated since 2009[19]. Should the female participation rate extend through more part-time work and so-called ‘mini jobs’ (low wage, part-time work), productivity gains could become limited, resulting in sluggish growth in GDP and budgetary revenues.

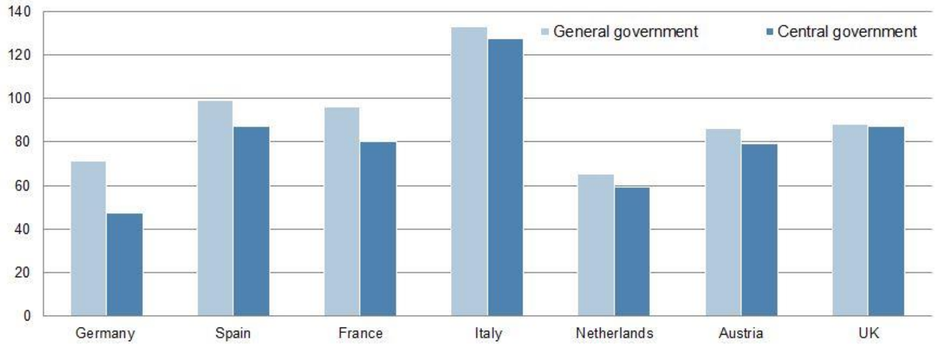
17 In 2015 women made up 46.9% of total number of workers (from 20 to 64 years) in Germany.
18 Commission staff working document, Country Report Germany 2016,Brussels, 26.02.2016, p.70.
19 Commission staff working document, Country Report Germany 2016,Brussels, 26.02.2016, p.26.

Germany's debt burden is moderate

At 71.2% of GDP, Germany has the least indebted public sector among the major euro area economies, with the Netherlands as the exception (Figure 26). It should be noted that the outstanding debt includes portfolios of defeasance structures[20] and obligations related to European Financial Stability Facility (EFSF) –a fund set up to support weaker sovereigns during the European sovereign crisis. Excluding these components, Germany's debt was almost 60% of GDP, a Maastricht debt ratio benchmark, according to the 2016 SP[21].

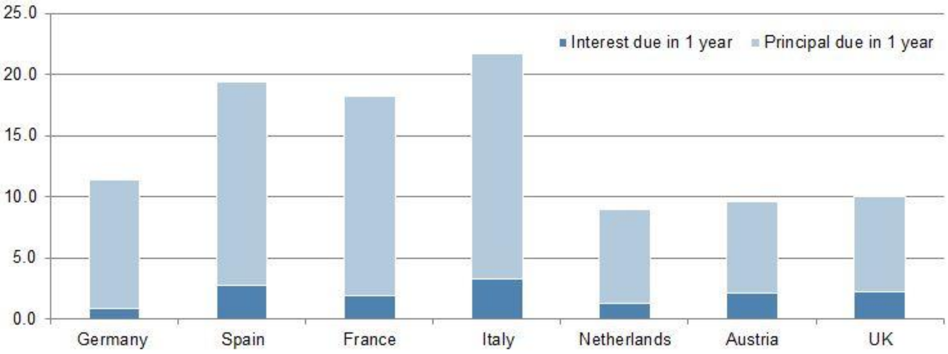
Public debt is mostly concentrated at federal government level (67% of the total public debt at YE 2015), with state governments accounting for almost a third of the total. The bulk of German general government debt is market debt (debt securities account for almost 73% of the total at YE 2015) with the rest made up of loans.

Figure 26: Debt of general and central government, % of GDP, YE 2015



Source: Eurostat

Figure 27: Market debt interest and principal due in one year, YE 2015



Source: ECB

Though non-residents hold just over half of general government debt (about 53% by the end of 2015[22]), exposing the German sovereign to market sentiment, the government's refinancing needs are low. Interest and principal payments due in 2016 on market debt account for 11.4% of GDP, the lowest among major EA economies, reflecting the significant proportion of long-term debt in Germany's debt portfolio (91.2% at end 2015).

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[20] Defeasance structures are 'bad' banks that took over the assets of troubled German banks that did overcome post-crisis problems. The structures are gradually winding down the assets.

[21] German Stability Programme, 2016 update, p.30.

[22] ECB database.

Interest payments as a share of budgetary revenues have been falling over the last years and stood at 3.6% in 2015, indicating the high affordability of debt. Interest payments continue on a downward trend, supported by the ECB's quantitative easing.

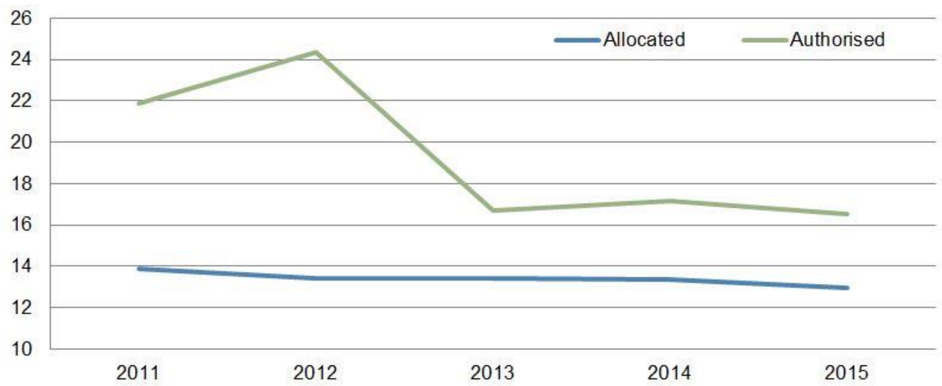
Contingent-liability risk is manageable and will likely stay contained

Germany's contingent liabilities can be divided into three categories:

1. Longstanding guarantee facilities, regularly replenished by the finance ministry;
2. Contingent liabilities related to EU facilities set up to support weaker EA countries hit by the sovereign crisis in 2009-2012; and
3. Contingent liabilities related to the domestic banking system, which the sovereign still carries on its balance sheet as a legacy of the global financial crisis.

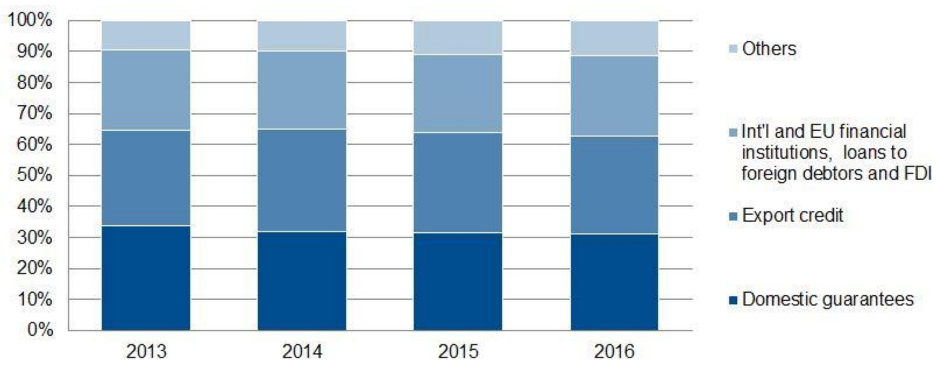
By end-2015 contingent liabilities in the first category made up 17% of GDP, if accounted for as a maximum authorised amount, or 13% if accounted for as an actual use. This is manageable given the quite stable level of actually used guarantees since 2010 (Figure 27). The bulk of guarantees are issued to exporters and local entities operating in transport, agriculture and other industries (Figure 28); the second biggest portion relates to the German share in EU and international financial institutions such as the European Investment Bank (EIB), the European Investment Fund (EIF), the World Bank, and the European Bank for Reconstruction and Development (EBRD).

Figure 28: Central government guarantees, % of GDP



Source: German Ministry of Finance

Figure 29: Breakdown of central government guarantees, %



Source: German Ministry of Finance

The second category includes Germany's guarantees and callable capital in EA rescue funds, in particular, the European Financial Stability Facility (EFSF), European Stability Mechanism (ESM) and European Financial Stability Mechanism (EFSM). It should be noted that the EFSF is included in the Germany's sovereign debt, whereas the ESM and EFSM are not.

When measured by drawdown or disbursed loans through all three facilities, at the end of Q1 2016 Germany's total exposure to weaker EA economies was at a manageable 2.0% of GDP. The Greek exposure alone accounts for 1.2% of GDP (or 63% of the total), with the rest distributed among Spain, Cyprus, Portugal and Ireland. The economic rebound, especially strong in Spain and Ireland, has eased concerns about the credit risk of the rescued countries.

As for Greece, though the country could find it hard to meet the conditions over its donors' lending, its first payment is scheduled from 2023. This is the first time when donors' guarantees, including those for Germany, could be potentially called if there is a default. The Greek government's donors, including the IMF, appeared open to further extend Greek official debt, which will strength Greece's ability to honour debt obligations.

As for the third category, the German banking system has improved its capitalisation and asset quality, as revealed by review and stress tests conducted by the EBA and ECB for 2015. This improvement followed one of the biggest aid packages (9% of GDP) in post-crisis years by the German state to banking group Hypo Real Estate (HRE), as well as the bail-out of WestLB by North Rhine-Westphalia and two savings associations. Even Landesbanken passed the test, with their high operating costs, traditionally low capitalisation and weak business models. However, sustaining profitability remains the biggest challenge for German banks.[23]

Importantly, the EU Bank Recovery and Resolution Directive (BRRD), which the German government passed into national law in November 2014 and which took effect on 1 January 2015, limits taxpayers' liabilities for distressed banks by sharing the potential costs with creditors and owners. All this is likely to limit potential contingent liabilities from the banking sector in future.

23 Commission staff working document, Germany Country Report 2016,Brussels, 26.02.2016, p.84.

I. Appendix

Germany: Fiscal accounts and debt, % GDP

	2009	2010	2011	2012	2013	2014	2015	2016
General government *								
Revenue	44.3	43.0	43.6	44.2	44.3	44.4	44.4	44.5
o/w social security contribution	16.9	16.5	16.4	16.5	16.5	16.5	16.4	16.4
Expenditure	47.4	47.0	44.5	44.1	44.2	43.7	43.5	43.9
o/w interest payments	2.6	2.4	2.5	2.3	2.0	1.7	1.5	1.4
o/w social transfers other than in kind	17.4	16.7	15.7	15.6	15.6	15.5	15.4	15.5
Primary balance	-0.4	-1.6	1.6	2.4	2.1	2.4	2.4	1.9
Overall balance	**-3.0**	**-4.0**	**-0.9**	**0.1**	**0.1**	**0.7**	**0.9**	**0.5**
General government gross debt	72.5	80.4	77.8	79.1	76.8	74.4	71.2	69.1
% of general government revenue	163.5	186.8	178.3	179.0	173.4	167.7	160.4	155.4
Central government **								
Revenue	13.2	12.8	13.2	13.2	13.1	13.2	13.0	n.a.
Expenditure	14.8	16.0	14.2	13.8	13.3	12.7	12.7	n.a.
o/w interest payment	1.6	1.4	1.5	1.4	1.2	1.0	1.0	n.a.
Primary balance	0.0	-1.8	0.5	0.8	1.0	1.4	1.3	n.a.
Overall balance	**-1.5**	**-3.2**	**-1.0**	**-0.5**	**-0.2**	**0.4**	**0.3**	**n.a.**
Central government gross debt	n.a.	n.a.	49.1	49.8	48.8	47.5	45.3	n.a.
% of central government revenue	n.a.	n.a.	371.5	376.3	372.5	360.5	348.3	n.a.
Memo								
Nominal GDP, EUR bn	*2460.3*	*2580.1*	*2703.1*	*2754.9*	*2820.8*	*2915.7*	*3025.9*	*3117.3*

Sources: Ministry of Finance, EC, Eurostat, Central Bank, Scope estimates

* including central, state and local governments and social security fund

** excluding social security fund

II. Appendix

	2009	2010	2011	2012	2013	2014	2015
Economy and institution							
Real GDP growth, %	-5.6	4.1	3.7	0.4	0.3	1.6	1.7
Total population, td	80,483.0	80,284.0	80,275.0	80,426.0	80,646.0	80,983.0	81,563.0
CPI, % y/y	0.2	1.2	2.5	2.1	1.6	0.8	0.1
GDP per capita at the market rate, EUR	30,600.0	32,100.0	33,700.0	34,300.0	35,000.0	36,000.0	37,100.0
Unemployment rate, %	7.6	7.0	5.8	5.4	5.2	5.0	4.6
GDP per capita on PPP basis, USD	38,072.7	40,080.2	43,156.4	44,079.9	44,697.0	45,888.4	46,893.2
Size of the economy, share in the world's GDP	3.8	3.7	3.7	3.6	3.5	3.4	3.4
Openness of the economy, % GDP	35.3	39.7	42.4	42.9	42.5	42.4	43.0
Domestic savings ratio, % GDP	24.1	24.6	25.2	26.3	25.8	26.8	27.8
Gross national savings ratio, % GDP	22.5	23.7	24.5	24.3	24.5	n.a.	n.a.
Real GDP volatility, %	2.5	2.7	2.8	2.8	2.7	2.7	2.8
Control of corruption index	1.7	1.7	1.7	1.8	1.8	1.8	n.a.
Rule of law index	1.6	1.6	1.6	1.6	1.6	1.9	n.a.
Government effectiveness	1.6	1.6	1.5	1.6	1.5	1.7	n.a.
Real labour productivity (2010=100)	96.4	100.0	102.2	101.5	101.0	101.9	102.8
Nominal labour unit cost (2010=100)	101.2	100.0	100.6	103.9	106.4	108.3	110.2
Real effective exchange rate*	101.9	96.6	95.9	92.8	94.8	95.5	91.4
Banking sector							
Banking sector size (assets, %GDP)	362.73	308.22	275.07	279.63	245.47	215.60	234.40
Bank loans % of deposits	300.7	232.7	257.9	202.7	198.2	228.8	224.1
External vulnerability							
Current account, % GDP	5.7	5.6	6.1	6.8	6.8	7.3	8.5
Gross external debt, % GDP	148.0	155.8	157.1	170.0	154.2	157.9	149.2
Net external debt, % GDP	0.9	3.3	6.6	2.9	-4.1	-6.7	-9.6
International investment position, % GDP	25.1	25.8	23.4	28.8	34.9	42.3	49.2

*Based on CPI against 42 trading partners

GDP per capita on PPP basis, USD and size of the economy, share in the world's GDP in 2015 are based on IMF estimates

Real GDP data is unadjusted for seasonality and calendar effect

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