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GERMANY

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2017 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR GERMANY

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2017 Article IV consultation with Germany, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 28, 2017 consideration of the staff report that concluded the Article IV consultation with Germany.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 28, 2017, following discussions that ended on May 15, 2017, with the officials of Germany on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 13, 2017.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Germany.

The documents listed below have been or will be separately released.

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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July 7, 2017

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IMF Executive Board Concludes the 2017 Article IV Consultation with Germany

On June 28, 2017, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Germany.

Germany's growth momentum has remained solid, underpinned by robust domestic demand. In 2016, strong employment growth continued to support private consumption, while public consumption and investment in construction accelerated further. Following a soft patch for most of the year, exports and investments in equipment have rebounded in the most recent quarters. Despite high and rising capacity utilization, record low unemployment and high job vacancy rates, wage growth has remained stable and core inflation steady and low at around 1 percent. The large current account surplus declined slightly, from 8.6 percent of GDP in 2015 to 8.3 percent in 2016, due to the deterioration of the income and services balance. The fiscal policy stance was neutral, as the general government posted its third consecutive yearly surplus.

Housing prices have kept trending up especially in urban areas, against the backdrop of rising immigration, continuing urbanization, an inelastic housing supply, and easy financing conditions. Loans to non-financial corporations have accelerated as firms take advantage of low interest rates. In the banking sector, while regulatory capital is adequate, profitability continues to be weak, reflecting structural factors, some crisis legacies, and the low interest rate environment. Low interest rates, if prolonged, would also negatively affect life insurers given their extensive reliance on guaranteed products.

The cyclical upswing is expected to persist in the near term. Rising employment, some fiscal expansion and continued monetary accommodation will support domestic demand, but higher energy costs should curb consumption growth. Exports growth is expected to gradually recover from the 2016 slowdown, bringing about a pickup in business investment and imports. In all, real GDP is expected to grow by 1.8 percent in 2017 and 1.6 percent in 2018, increasing the already positive output gap and pushing up core inflation. Over the medium term, population aging and slow progress on structural reforms is expected to weigh on growth.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Executive Board Assessment[2]

Executive Directors commended the authorities for fostering Germany's stable macroeconomic performance, being an engine of growth in the euro area. Directors welcomed the economy's prospects for sustained growth in the near term, amid robust domestic demand—underpinned by rising employment, and accommodative monetary policy—and strengthening global conditions. They noted that risks to the outlook are broadly balanced in the short term, but predominantly negative in the longer term, as anti-globalization policies worldwide could harm growth prospects, while insufficient reform progress inside the euro area could rekindle stress.

Directors agreed that Germany's policies should focus on bolstering potential growth while accelerating external rebalancing, including within the euro area, to help address the large current account surplus. To this end, Directors recommended using leeway available within the fiscal rules to further expand public investment in infrastructure, widen the provision of childcare services, foster refugee integration, and reduce the tax burden on labor. In this regard, they welcomed the authorities' indication that further measures are under active consideration. Directors commended efforts to overcome administrative barriers to the expansion of public investment. Noting continued fiscal overperformance in recent years, Directors suggested that the authorities continue to reexamine their projection methodology with a view to improve fiscal planning.

Considering the rapidly aging population, Directors stressed that reforms to raise the effective retirement age would increase potential growth, reduce the need to save for retirement—and hence reduce the current account surplus—and strengthen the fiscal position.

Directors emphasized that a sustained rise in wage and price inflation in Germany, consistent with the tight labor market, would help lift euro area inflation, facilitate the normalization of monetary policy, and promote the realignment of competitiveness within the monetary union. In this regard, most Directors considered that, at the current juncture, the authorities could usefully emphasize the importance of robust wage and price growth in their public communication, while respecting the autonomy of social partners in wage setting, although a number of Directors questioned the efficacy and merits of such a move.

Directors renewed calls for accelerating competition-enhancing reforms in parts of the services sector to strengthen productivity growth. They also welcomed the broad measures underway to speed up digitalization and enhance venture capital investment.

Directors observed that Germany's strong employment gains and well-developed redistributive system have kept disposable income inequality stable, but that relative poverty risk has been rising. In this regard, the effectiveness of recent social cohesion policies needed to be kept under review. Directors also noted that anti-poverty measures should seek to preserve the achievements of past labor market reforms.

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[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Despite rapidly rising prices, Directors judged that housing remained affordable in the aggregate, but growing regional differences and some hot spots deserved close monitoring. Policies to ease supply restrictions in areas under pressure were also warranted. They welcomed new legislation introducing additional macroprudential instruments for the real estate market, and encouraged a further strengthening of the authorities' toolkit. Directors recommended enhancing the supervisory database on real estate credit.

Directors noted that profitability in the bank and life insurance sectors was low, and the sectors needed to continue their restructuring efforts to durably strengthen their resilience. In light of the low interest rate environment, Directors also welcomed recent supervisory attention to interest rate risk.

Germany: Selected Economic Indicators, 2015–18

	2015	2016	*Projections* 2017	2018
Output				
Real GDP growth (%)	1.5	1.8	1.8	1.6
Total domestic demand growth (%)	1.5	2.2	1.6	1.7
Output gap (% of potential GDP)	0.0	0.3	0.7	0.8
Employment				
Unemployment rate (%, ILO)	4.6	4.2	3.9	3.9
Employment growth (%)	0.8	2.7	1.1	0.6
Prices				
Inflation (%)	0.1	0.4	1.7	1.6
General government finances				
Fiscal balance (% of GDP)	0.7	0.8	0.4	0.5
Revenue (% of GDP)	44.7	45.1	45.2	45.2
Expenditure (% of GDP)	44.0	44.3	44.8	44.7
Public debt (% of GDP)	71.2	68.3	65.8	63.2
Money and credit				
Broad money (M3) (end of year, % change) 1/	9.2	5.7		
Credit to private sector (% change)	2.4	3.5		
10-year government bond yield (%)	0.6	0.2		
Balance of payments				
Current account balance (% of GDP)	8.6	8.3	8.4	8.1
Trade balance (% of GDP)	8.0	7.9	7.8	7.6
Exports of goods (% of GDP)	38.9	38.1	39.5	40.1
Volume (% change)	5.0	2.5	5.1	4.0
Imports of goods (% of GDP)	30.3	29.5	31.0	31.7
Volume (% change)	5.6	3.9	5.1	4.6
FDI balance (% of GDP)	1.8	0.7	1.7	1.4
Reserves minus gold (billions of US$)	58.5	59.6		
External Debt (% of GDP)	147.3	148.1		
Exchange rate				
REER (% change)	-5.3	0.6		
NEER (% change)	-4.8	1.7		
Real effective rate (2005=100) 2/	90.8	91.3		
Nominal effective rate (2005=100) 3/	97.0	98.6		

Sources: Deutsche Bundesbank, Eurostat, Federal Statistical Office, Haver Analytics, and IMF staff calculations.

1/ Reflects Germany's contribution to M3 of the euro area.

2/ Real effective exchange rate, CPI based, all countries.

3/ Nominal effective exchange rate, all countries.

GERMANY

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

June 13, 2017

KEY ISSUES

Context

Germany's open economy has been performing well, underpinned by prudent economic management, past structural reforms, and a well-developed social safety net. Employment growth is strong, the unemployment rate is at a record low, output growth is above potential, and the fiscal position keeps strengthening. However, despite high and rising capacity utilization and job vacancy rates, wage growth and core inflation so far remain too low and business investment lacks momentum, while adverse demographics weigh on long-term growth prospects. The large and persistent current account surplus in part reflects these imbalances, which result in high domestic savings and better investment opportunities abroad, though external factors also play a role. Germany should embrace a set of coordinated fiscal and structural policies to safeguard its strengths and address remaining challenges, including reducing external imbalances.

Key policy recommendations

- The available fiscal space should be used for initiatives that enhance the growth potential of the economy, such as investment in physical and digital infrastructure, childcare, refugee integration, and relief of the tax burden on labor.
- Pension reforms that make it attractive to work longer would increase old-age income, boost potential output, improve the fiscal outlook, and reduce the need to save for retirement.
- These policies, as well as a sustained rise in wage and price inflation, would facilitate needed external rebalancing. The authorities could usefully encourage robust wage and price growth in their public communication.
- Productivity growth and business investment would benefit from a faster pace of competition-enhancing reforms in some network industries and professional services, as well as continued policy focus on innovation and the digital economy.
- While disposable income inequality has been broadly stable, relative poverty risk merits continued attention. Anti-poverty policies should not jeopardize the achievements of past labor market reforms.
- As housing prices accelerate, regional developments in the mortgage market warrant close monitoring, which requires addressing important data gaps.

Approved By
Mahmood Pradhan (EUR) and Tamim Bayoumi (SPR)

Discussions took place in Berlin, Bonn, Frankfurt, and Nuremberg during May 4–15. The staff team comprised Ms. Detragiache (head), Messrs. Natal and Vandenbussche, and Mses. Mineshima and Pereira (all EUR). Mr. Thomsen (EUR) and Ms. Kozack (STI) joined some of the meetings in Berlin. The team was supported from headquarters by Ms. Burova and Mr. Musayev (all EUR). Analytical support was provided by Messrs. Andrle and Jakab (both RES), and Mr. Xie (EUR). Mr. Meyer (OED) participated in the discussions. The mission met with Parliamentary State Secretary Meister, Bundesbank President Weidmann, officials from the Federal Chancellor's office, the Finance, Economic Affairs, Labor, and Environment Ministries, the Bundesbank, the Federal Office for Migration and Refugees, representatives from the social partners, the banking and insurance sectors, think tanks, and academics.

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CONTEXT: THE ECONOMY IN A POSITIVE MOMENTUM

1. **Domestic factors continue to lift growth.** Real GDP growth reached 1.8 percent last year, driven by another strong increase in private consumption, supported by low energy prices, and an acceleration in public consumption and construction investment. Employment creation remains strong, fueled by immigration from other European countries and increasing participation rates, especially among older cohorts. The unemployment rate has continued falling, and is at a post-reunification low of 3.9 percent since November 2016.[1] Exports and business investment were subdued in 2016, in the context of a clouded global outlook and trade slowdown, and despite a still weak euro and improving economic conditions in the euro area (Figure 1).

2. **Inflation rebounded along with energy prices, but core inflation has remained flat and wage pressures subdued.** Headline inflation averaged 0.5 percent in 2016 and rose rapidly at the beginning of 2017, temporarily peaking at 2.2 percent in February on the back of commodity and food price increases. Core inflation, however, has remained flat at 1.1 percent, notwithstanding a positive and increasing output gap. Despite the tightening labor market (Figure 2) and the introduction of a national minimum wage in 2015, nominal wage growth has remained moderate (2.3 percent in 2016), possibly reflecting reduced inflation expectations, as well as the continuing threat of offshoring of production.[2] In the first regular review after two years of implementation, the minimum wage was raised by 4 percent in January 2017.

3. **External imbalances remain high, while the current account surplus decreased marginally relative to GDP.** Germany's current account surplus was the world's largest in 2016, although its ratio to GDP edged down from 8.6 to 8.3 percent (Figure 3). The trade surplus in goods rose in line with GDP—with strong deceleration of both exports and imports—while the services and income balances ratios deteriorated. The surplus vis-à-vis the rest of the euro area was marginally higher due to a further decline in the deficit with the Netherlands. The sectoral composition of the savings-investment balance was virtually unchanged, with both corporate and government net savings at record high levels. The yearly average CPI-based real effective exchange rate (REER), the ULC-based REER, as well as the nominal effective exchange rate were all broadly unchanged relative to 2015. In the first quarter of 2017 the REER remained broadly stable, whereas the current account widened slightly with an acceleration of both exports and imports.

4. **Germany's Net International Investment Position (NIIP) approached 52 percent of GDP at end-2016.** Gross assets reached 251 percent of GDP. The net direct investment position stood close to 17 percent of GDP, while the stock of portfolio investments jumped from 4 to 9 percent of GDP, accounting for the full increase in the NIIP. Claims of German banks on non-residents continued to fall from their pre-crisis peak, declining from 63 to 61 percent of GDP in 2016. With the

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[1] This unemployment figure is based on the European Labor Force Survey and differs from that based on the national definition (see Table 1).

[2] Analysis of a rich cross-country dataset of large European non-financial firms' financial statements over the 2006–2014 period shows that the return on assets of large German-owned manufacturing firms producing abroad has systematically exceeded that of German firms producing in Germany (see "The Profitability of German Firms: Location versus Ownership", *Selected Issues Paper,* International Monetary Fund, 2017).

implementation of quantitative easing by the ECB, Germany's exposure to the Eurosystem has been widening since early 2015, and currently stands at 27 percent of GDP. Foreign assets remain well diversified by instrument. In the aggregate, the implicit return on foreign assets has been trending down over the last 5 years, but exceeded that of liabilities by an average of 0.5 percentage points.

5. Fiscal policy was again neutral in 2016, as the government posted its third consecutive yearly surplus. The general government balance climbed to 0.8 percent of GDP—almost a full percentage point higher than planned—, while the structural balance stood at 0.7 percent (Figure 4). The favorable labor market performance and buoyant corporate tax receipts explain the bulk of the 0.5 percentage points increase in the revenue-to-GDP ratio. Together with the decline in the interest bill, this increase more than compensated the 0.5 percent of GDP rise in primary spending (4 percent in real terms, and broadly in line with initial plans). The additional spending was mostly to provide for the large number of asylum seekers who arrived in 2015–16, with associated higher intermediate consumption and social benefits. Pension and health care outlays retained an upward trend, while public investment growth—broadly in line with GDP growth—was lower than anticipated.

6. Credit growth picked up further pace in 2016 as credit to non-financial corporates accelerated. With the ECB's quantitative easing program still under way, interest rates remain at or near record lows (Figure 5). Negative yields on government securities extend to 7-year maturities and those on bank debt securities to 3-year maturities, while one-year term bank deposits only yield ¼ of a percentage point. Against this backdrop, banks have been increasingly competing for returns and expanding maturity transformation. Bank lending surveys indicate that loan covenants and collateral requirements have been loosened, while interest margins have been further compressed, enticing firms to lock in record low interest rates for long maturities (exceeding 5 years). Thus, loans to non-financial corporates (NFC), lackluster until 2015, have been accelerating significantly in 2016. But credit growth is not a reliable indicator of real activity in Germany, as firms largely rely on own funds to finance investment, so this acceleration may not necessarily signal a strengthening of the economic momentum.

7. Mortgage credit growth has stabilized against the backdrop of rising house prices. House prices accelerated further in 2016, reflecting continued migration to urban centers, an inelastic housing supply, and easy financial conditions as banks and other financial institutions compete for mortgage business in a low interest rate environment (Figure 6). Housing completions and residential building permits have increased further over the past year, but new residential construction has remained below estimates of the amount required to balance the market, suggesting that the backlog is still building up.

OUTLOOK, EXTERNAL ASSESSMENT, AND RISKS

8. The cyclical upswing is expected to persist in the near term, albeit with slightly lower growth. Rising employment levels, better job quality, some fiscal expansion (see below), and continued monetary accommodation will support domestic demand, but the normalization of commodity prices should curb consumption growth. Exports growth, on the other hand, is expected to gradually recover from the 2016 slowdown, bringing about a pickup in business investment and imports. In all, real GDP is expected to grow by 1.8 percent in 2017 and 1.6 percent in 2018, increasing the positive output gap slightly.

9. **Core inflation and nominal wage growth are expected to gradually pick up.** After peaking in 2017, headline inflation should recede somewhat in 2018 (to 1.7 percent) as the effect of higher commodity prices wanes. With unemployment at its natural rate, job vacancies high and rising, and continuing shortages of skilled workers, real wages are expected to accelerate steadily. Higher wages, the stabilization of import prices, and an acceleration in residential rents should help to gradually push up core inflation, to exceed 2 percent beyond 2019. In the medium term, in a context of growth slightly above potential and still accommodative monetary policy, annual wage growth is expected to reach slightly above 3 percent.

10. **Current fiscal plans for 2017 envisage a moderate expansion, while leaving a comfortable buffer above deficit floors set by the fiscal rules.** Based on the 2017–20 financial plan, staff forecasts that the government should again register a surplus (0.4 percent of GDP) this year and meet the political commitment of no new net borrowing (*black zero*) throughout the current legislature. The structural balance is, however, expected to fall by 0.6 percent of GDP. The stimulus is underpinned by income tax relief worth 0.2 percent of GDP—in the form of a higher basic tax allowance, more generous child-related tax credits, and a correction of the bracket creep—as well as higher social benefits, including pensions, and some increase in public investment. Refugee-related expenditures are expected to remain at about ½ percent of GDP throughout the forecast horizon. Over the medium term, interest payments will continue to fall, and revenues are

Germany: General Government Operations 1/

	2015	2016	2017 Proj.	2018 Proj.	2022 Proj.
Net Lending/Borrowing	0.7	0.8	0.4	0.5	1.1
Structural Balance					
Staff projection	0.7	0.7	0.1	0.1	0.8
of which, Central Government	0.3	0.1	0.0	0.0	0.5
Outlook using the authorities' output gap 2/	1.0	0.9	0.6	0.5	1.1
of which, Central Government	0.5	0.2	0.2	0.2	0.7
SGP Medium Term Objective (General Government) 3/	*-0.5*	*-0.5*	*-0.5*	*-0.5*	*-0.5*
Debt Brake Floor (Central Government) 4/ 5/	*-0.66*	*-0.35*	*-0.35*	*-0.35*	*-0.35*
Fiscal Buffer in Relation to the Fiscal Rules, Staff Projection 6/	…	…	*0.6*	*0.6*	*1.2–1.3*
Public gross debt (Maastricht definition)	71.2	68.3	65.8	63.2	52.0

Sources: Ministry of Finance, Bundesbank, Federal Statistical Office, and IMF staff estimates and projections.

1/ Based on the European System of Accounts (ESA).

2/ Based on the authorities' Spring 2017 projections. Potential ouptut estimates by the German authorities and European Commisiton are larger than those of IMF staff, implying a larger structural balance for the same overall balance outlook and therefore higher implicit fiscal space.

3/ The SGP's MTO is currently set at -0.5 percent of GDP until 2019. It is assumed that it will remain at such level in 2020–22.

4/ Compliance with the debt brake rule is assessed based on public accounting—different from ESA—but financial transactions are excluded from revenues and expenditures so as to ensure that the structural balance measure is as close as possible that of the Maastricht definition (based on ESA).

5/ From 2020 onwards, state governments will be bound by a zero structural deficit ceiling, accoding to the national debt brake. Local governments and social security funds are subject to stringent borrowing constraints, but may run occasional deficits. The debt brake rule therefore does not impose a precise floor to the general government structural balance, but implies that it should remain close or above -0.35 percent of GDP over time.

6/ Calculated as the difference between the projected structural balance and the SGP's MTO. For 2022 the interval is defined by the differences to the debt brake floor (see footnote 5) and to the MTO.

Source: Ministry of Finance, Bundesbank, Federal Statistical Office, and IMF staff estimates and projections.

expected to remain buoyant. Consequentially, the fiscal buffer in relation to the Stability and Growth Pact's (SGP) medium-term objective (MTO) and national debt brake is set to rise from ½ percent of GDP in 2017–18 to 1¼ percent of GDP in 2022 (see text table and Table 2). Fiscal plans may, however, be revised after the federal elections in September 2017.

11. The external position in 2016 remained substantially stronger than implied by medium-term fundamentals and desirable policy settings, and policy action by Germany is needed to accelerate external rebalancing. The cyclically adjusted current account surplus reached 8.5 percent of GDP, broadly unchanged from 2015. A gap of 3–6 percent of GDP persists with respect to the level consistent with economic fundamentals and desirable policy settings (the "norm"), which is assessed at 2½–5½ of GDP (Annex I). As in 2015, overall policy gaps contribute 1½ percent of GDP to this gap, with the domestic contribution at about ½ percent of GDP (originating mostly from the stronger-than-desirable fiscal position). The wide interval reflects the high sensitivity of the norm to uncertain demographic factors. As in 2015, the REER is assessed to be undervalued by 10–20 percent in 2016. Going forward, staff projects a gradual rebalancing of the external position. Private investment is expected to strengthen, as the output gap remains positive through the medium term and the recovery consolidates. The rebound in energy prices should lead to a reversal of the oil and gas balance gains of 2015–16. Finally, more buoyant wage growth will both support consumption and imports and help realign external competitiveness. Nevertheless, the current account surplus is expected to remain large, at 7.5 percent of GDP in 2022—still 2 percent of GDP above the upper bound of the norm's confidence interval. Accordingly, there is a need for policies to accelerate the rebalancing process (Box 1).

12. Short-term risks to the macroeconomic outlook are broadly balanced, while longer-term risks are tilted to the downside. Due to its very open and interconnected economy, Germany is particularly susceptible to a general rise in anti-globalization sentiment. Risks related to the coherence of the European Union (EU) construction and the rebalancing within the monetary union are of key importance to Germany. The main risks are as follows (see also Annex II):

- A global retreat from economic integration, which may be prompted by anti-globalization sentiment in Europe or the U.S., would hurt Germany's exporting industries and deter domestic investment. Regarding Brexit, although its prospect has not yet produced visible macroeconomic effects, difficulties in negotiating the final exit agreement could increase uncertainty and hold back investment.

- On the upside, the political appeal of anti-globalization forces may continue to fade, or their impact on policies could be limited, lifting business confidence and reducing uncertainty both in Europe and globally. This would lead to a consolidation of the current cyclical recovery, with a stronger-than-expected pick-up in consumption and private investment.

- Anti-euro sentiment, stalled structural reforms, and banking sector and fiscal legacy problems in parts of Europe may reignite sovereign bond market tensions in the euro area and lead to sharp corrections in asset markets. These could, in turn, trigger financial turbulence in Germany and potentially important second round adverse outward spillovers because of the systemic and interconnected nature of Germany's largest financial institutions. The new and untested framework for bank recovery and resolution may complicate the policy response.

- In the euro area, a weaker-than-expected response of prices and wages to the recovery could lead to a prolonged period of exceptionally low interest rates, with associated risks for financial stability. This risk could materialize even if price and wage growth faltered in Germany only, given that Germany accounts for 28 percent of the euro area.

- A continued rise in house prices in Germany, supported by expansionary monetary conditions, may lift investment and consumption more rapidly than anticipated. Stronger cyclical growth could also follow from a somewhat looser fiscal policy in the new legislature.

Authorities' Views

13. The authorities broadly agreed with staff's views on the positive macroeconomic outlook, and emphasized the dominant role of domestic demand in driving future developments. They saw the strength of the labor market as continuing to prop up consumption, while low interest rates provided support to the housing market and the construction sector. Exports were expected to accelerate moderately in the next two years, but the contribution of net trade to growth would remain negative. Core inflation was forecast to pick up and approach 1.7 percent by 2018, in line with staff's projections. The authorities expected wage dynamics to remain more moderate as the pick-up of inflation over the forecast horizon would be reflected only partly in future wage bargaining rounds. The authorities also broadly shared staff's assessment of the risks to the outlook, but saw the long-term balance of risks as slightly less negative since some of the long-term risks highlighted by staff (such as low productivity growth in the long-term; see Annex II) were already part of their baseline.

14. As in earlier consultations, the authorities stressed that the current account surplus reflected private sector decisions and not of domestic policy-related distortions. In their macroeconomic model simulations, the surplus would decline substantially once temporary factors, namely favorable commodity prices and a favorable exchange rate, ceased to play a role. They also stressed that long-run demographic developments justified the need for high household savings and fiscal discipline, while acknowledging that the reasons behind high and increasing net savings by the non-financial corporate sector remained unclear, though recently the favorable exchange rate was seen as playing a role. Furthermore, they stressed that Germany's current account surplus with the rest of the euro area, which they viewed as the most relevant indicator for the functioning of the currency union, has halved since the global financial crisis (GFC). As in the past, the Bundesbank saw the undervaluation of the REER at around 6 percent based on various indicators of price competitiveness and relative productivity of the German economy—much smaller than in staff's assessment.

POLICY DISCUSSIONS

As the recovery firms, Germany should aim for a better mix of mutually reinforcing structural and fiscal policies to strengthen growth potential while promoting external rebalancing.

A. The Need for Wages and Prices to Accelerate

15. Before the global financial crisis (GFC), inflation in Germany was on average below that in the rest of the euro area (REA), consistent with the configuration of relative cyclical positions. From the inception of the euro and until the GFC, output gaps and inflation expectations in the REA were higher than in Germany (Figure 7). In addition, various indirect tax increases together with protracted rises in food and energy prices contributed to keep inflation beyond the positive trend in core prices. In more recent years, these patterns have changed. While inflation in Germany has been higher than the average, inflation in the monetary union has fallen well below the ECB price stability target, pulled down by large output gaps in several countries and sharp declines in energy prices. The recent recovery in energy and food prices has pushed up headline inflation in the euro area (as in Germany), but core inflation has yet to increase, suggesting that monetary policy will need to remain expansionary for some time.

16. A sustained rise in wage and price inflation in Germany is needed to lift inflation in the euro area and help open the way to the normalization of monetary policy. In the staff's medium-term forecast, headline inflation is expected to rise and slightly exceed 2 percent by 2019 in Germany. Underpinning this forecast, is the expectation that core inflation and wage growth will rise beyond levels experienced in the years following the launch of the euro—a natural consequence of Germany's relatively favorable cyclical position in a recovering monetary union. Model simulations suggest that a failure of German wage and price inflation to pick up could have adverse implications for growth and rebalancing in the monetary union.[3] Lower inflation and inflation expectations in Germany than in the baseline would translate into higher real interest rates and lower wage dynamics and depreciate the REER. This would have detrimental effects on domestic demand in the short term and weigh negatively on Germany's main trading partners. External imbalances would rise and both GDP and inflation would be lower in the euro area, delaying the normalization of monetary policy.

17. The authorities could usefully emphasize in their public communication the importance of robust wage and price growth in the current conjuncture. Through consistent communications efforts, the authorities could play an important role in lifting inflation expectations and wage growth. This would help speed-up the normalization of the ECB's monetary policy, thereby reducing the risk that interest rates would have to stay "*low for long*" and associated financial stability concerns (see Section E below). Policies that promote sustainable and higher long-term growth in Germany while stimulating aggregate demand in the short run would also go in this direction.

[3] See "Wage and Inflation Dynamics in Germany and Implications for European Recovery and Rebalancing", *Selected Issues Paper*, International Monetary Fund, 2017.

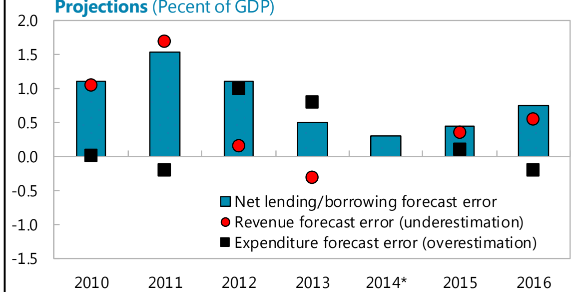
Authorities' Views

18. The authorities agreed that faster wage and price growth in Germany would be part of the normal market process in a country with a closed output gap and a tight labor market, but stressed that wage setting is left to social partners. The authorities assured staff that, despite the German public's preference for low inflation, there was broad understanding and acceptance of the framework of the monetary union and its implications. They also shared the view that higher wage and price growth resulting from the favorable economic developments in Germany would help rebalancing within the euro area, but they pointed out that wage bargaining was a decentralized process over which the government had no direct influence. The authorities also highlighted that substantial immigration (from EU and non-EU countries) may impact wage developments.

B. Fiscal Policy: Supporting Growth and Rebalancing while Safeguarding Sustainability

19. Fiscal consolidation has created substantial fiscal space. Fiscal policy in Germany has prioritized consolidation, including by saving budgetary overperformance, successfully strengthening Germany's fiscal position and creating the budgetary room to address unexpected developments, such as the need to provide for the refugees. With the general government balance outperforming Germany's MTO since 2012, the public debt ratio fell back to pre-crisis levels in 2016, and is set to cross below the 60 percent of GDP SGP benchmark in 2020. Net debt fell to 48 percent of GDP in 2015. Consolidation was aided by a decline in interest expenditures relative to GDP of 1 percentage point between 2010 and 2016, reflecting the low interest rate environment and the country's safe haven status, as well as the declining stock of public debt. But the primary surplus stayed at a relatively high level, hovering around 2 percent of GDP over the past five years. In fact, fiscal plans proved overly conservative through the whole post-crisis period, mostly because tax revenue consistently exceeded official estimates. The German government is expected to retain ample access to financing through the foreseeable future, even in the event of a large fiscal stimulus (see also Annex III).

Over-performance: Actual Fiscal Balance less Stability Program Projections (Pecent of GDP)



* The change in national accounts system from ESA1995 to ESA2010 does not have a relevant impact on the balance outturn (see 2015 Stability Program update). However, it does not allow a precise decomposition of the net-lending forecast error in 2014.
Sources: Stability Program projections, Destastis, and IMF staff calculations.

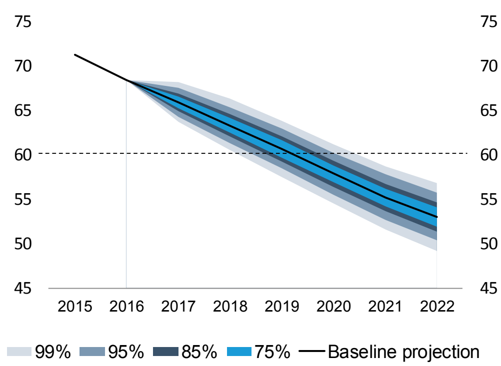
20. Going forward, a looser fiscal position would allow for further investment in Germany's growth potential, while also supporting external adjustment. Under baseline projections, there is sufficient headroom within Germany's fiscal rules to finance growth-friendly policies through the medium term, and this room should be fully used (½ percent of GDP in the short run, rising steadily to 1¼ p.p. by 2022—see text table above). To this end, revenue and expenditure measures can be complementary. On the spending side, despite progress in recent years (see Annex IV), more infrastructure investment, high-quality child care and aftercare programs, and training and integration efforts for the refugees would increase potential output. On the tax side, the burden on labor, which has been rising over time including through a bracket creep effect, could be permanently reduced with a view to support labor supply particularly among secondary earners and low-to-medium income households. If the government used fully the fiscal leeway under the rules, public debt would still decline over time under a wide range of realistic macroeconomic and fiscal shocks, even without accounting for any favorable effect of fiscal measures on long-term output.

Germany: General Government Debt Dynamics Under Stochastic Macroeconomic Scenarios 1/

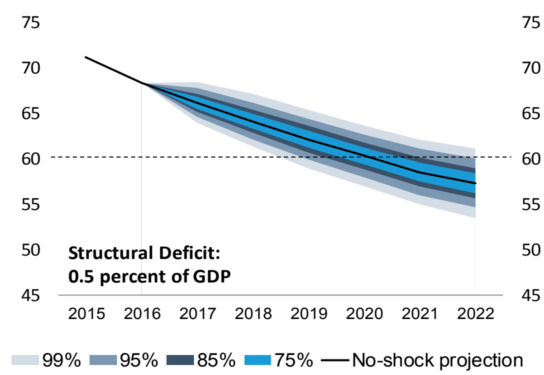
Under the baseline forecast for the structural fiscal position, public debt will continue to fall and cross the 60 percent of GDP benchmark by 2021, even after severe macroeconomic shocks.

The full use of the fiscal headroom relative to the MTO, implying a ½ percent of GDP structural deficit in 2017–22, would result in a declining debt path for all plausible macro scenarios. The debt ratio would fall below 60 percent of GDP by 2022 with 95 percent probability.

General Government Debt, Baseline Structural Balance Path
Percent of GDP



General Government Debt, Current MTO
Percent of GDP



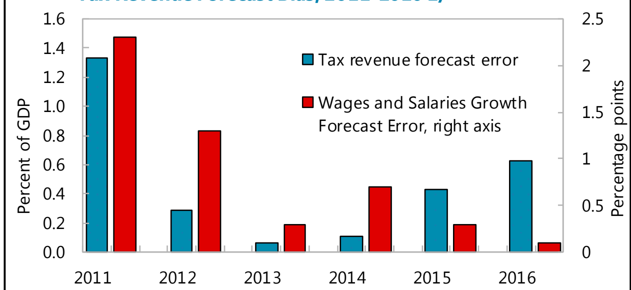
Source: IMF staff estimations.
1/ The fan charts show predictive densities of the government debt ratio to GDP for alternative assumptions regarding the structural balance path, calculated using the IMF's general equilibrium Global Integrated Monetary and Fiscal Model, and considering a range of shocks which match the historical volatility of Germany's GDP cycles.

21. **The government's agenda to improve public investment management at the local level is welcome and should be bolstered, including by rebuilding staffing capacity.** Investment needs are concentrated at the municipal level. Thus, the federal government recently doubled the size of the Municipal Investment Promotion Fund (MIP) created in 2015, to a total of EUR 7 billion (0.2 percent of GDP), adding to other, non-earmarked, extensive financial relief to subnational governments—some EUR 19 billion between 2014 and 2018. But the MIP's take-up has been disappointing so far (less than EUR ½ billion spent and less than EUR 2 billion in commitments by mid-2016), owing to administrative constraints, including a steady reduction in specialized personnel over the years. The scope for usage of the MIP was recently expanded to include school infrastructure, which should help raise take-up. Other measures may reduce public investment bottlenecks, but only in the medium term: (i) a recent fiscal equalization agreement between the states and the federal government foresees a transfer of investment competencies to the latter, and paves the way for the creation of an infrastructure entity responsible for the administration of highways; (ii) Germany's former PPP agency (*Partnerschaft Deutschland*) has been reformed to

improve its accessibility and extend its support to normal procurement. Furthermore, new measures have been introduced to expand high-speed broadband networks and provide schools with access to fast internet.

22. To improve fiscal planning and avoid continued overperformance, a revision of revenue projection models should be undertaken. Conservatism in revenue projections has led to a tighter fiscal stance than that intended by the government. In part, the persistent bias derives from the under-estimation of employment growth, resulting in higher-than-expected outturns for the personal income tax (PIT). The PIT was the only main tax category to be consistently underestimated in 2011–16, and explains the largest share of average forecast errors in that period. Going forward, a revision of both the macroeconomic relationships underlying revenue projections as well as estimated tax elasticities is warranted to help make fiscal planning more accurate.

Tax Revenue Forecast Bias, 2011-2016 1/



1/ Forecast errors are computed as the difference between actual values and the forecast as of November of the previous year (relevant for the budget formulation). Social security contributions are not included, but are also sensitive to the growth of wages and salaries.

Sources: Bundesbank, Federal Ministry of Finance, and IMF staff calculations.

23. Pension reforms are a priority to ensure long-term fiscal sustainability, and would allow a relaxation of Germany's fiscal targets in the medium-term. Rising aging costs are expected to burden the public accounts, with pension outlays in relation to GDP rising between 1.9 and 2.7 percentage points by 2050, and health and long-term care costs adding a further 1.3–2.1 percentage points.[4] Without further reforms, the government will have to either raise the already-high taxes and/or social security contributions (staff estimates that a 2 percent increase in payroll tax/contribution rates is necessary to finance a 1 percent of GDP rise in aging costs), or generate substantial upfront fiscal savings to allow for a large increase in public debt once aging costs rise sharply. Pension reforms that make it attractive to extend working lives would bring the double dividend of directly reducing the pension bill—by an estimated 0.7 percent of GDP per additional year of effective retirement age, assuming unchanged individual pension benefits—while positively affecting growth. Reforms to encourage female labor supply and promote the integration of refugees into the labor market would also help shore up fiscal sustainability through their effect on employment, although with a lower quantitative impact.[5] Once such reforms are in place, some relaxation of Germany's fiscal rules could be considered in the future (see Annex V).

Authorities' Views

24. The authorities underlined that the fiscal stance must consider that the output gap is closed and the public debt is still above the limit set by the fiscal rules. Therefore, in their view prudent fiscal policy should be oriented towards improving fiscal sustainability**.** They agreed on the

[4] Fourth Report on the Sustainability of Public Finances, German Federal Ministry of Finance, 2016.

[5] See "Macroeconomic Effects of Labor Supply Policies", *Selected Issues*, International Monetary Fund, 2016.

need for further steps to reform pensions in the future, as well as the desirability of reducing the tax wedge on labor**.** The Ministry of Finance saw scope for further tax relief of ½ percent of GDP per year in the next legislature, mainly in income taxation. Concerning public investment, the authorities highlighted the recent acceleration in spending at the federal level and the financial support already extended to subnational governments. They also pointed to the proposed creation of a Federal Infrastructure Corporation for Highways and plans for further investment acceleration in the future. But capacity constraints were seen to limit the scope and desirability of a faster spending increase than currently envisaged. The authorities also raised the question of the comparability of public investment ratios across countries. Revenue overperformance in recent years was attributed to the underestimation of past employment growth, as well as one-off effects. While the authorities concur that increasing the effective retirement age is desirable, the Ministry of Finance does not see merit in discussing new fiscal targets as there are several challenges to long-run fiscal sustainability, including old age and health care costs, and as a government debt level of 60 percent of GDP is a ceiling and not a target. In this context, the authorities emphasized the possibility of negative spillovers to other euro area countries through higher borrowing costs should Germany's fiscal policy lose credibility.

C. Income Distribution and Relative Poverty

25. As in other advanced economies, wage inequality has gradually risen in Germany, but this trend has stopped over the past few years.[6] The wage distributions for full-time and part-time employees widened from the mid-1990s. Technological change, greater trade openness and offshoring opportunities, as well as diminished coverage by collective bargaining agreements likely played a role, as in other advanced countries. Following the Hartz labor market reforms in 2003–05, labor force participation has been rising and unemployment falling, resulting in large gains in employment. The surge in labor supply triggered by the reforms initially reinforced pre-existing downward pressures on low wages, but did not result in an increase in labor income inequality because of its powerful positive effect on employment. Accompanying trends toward higher female labor force participation and more participation by older workers likely had similar effects. Since 2010, both wage and labor earnings inequality have been broadly stable, as the labor market strengthened further and the level of the new statutory minimum wage (announced in late 2013, and introduced in January 2015) proved sufficiently prudent not to significantly harm employment while providing a higher floor to hourly wages.

26. Inequality of disposable income has been broadly flat over the past ten years, but relative poverty risk has crept up and deserves continued attention by policymakers (Figure 8). Against the background of stable market income inequality and a well-developed redistributive tax and transfer system, the Gini index of disposable income has barely moved in recent years, and, at around 0.29, is near the European median. However, weak disposable income growth in the left tail of the income distribution has resulted in a slow but sustained rise in the share

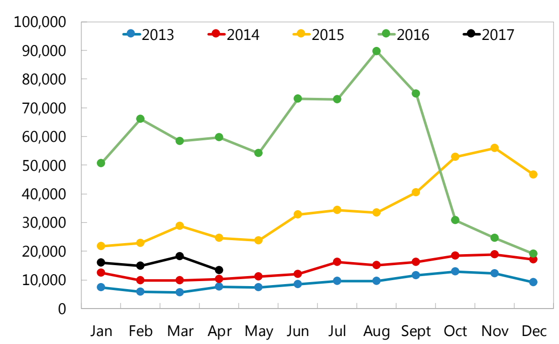
[6] See "Income Distribution and Labor Market Developments in Germany", *Selected Issues Paper*, International Monetary Fund, 2017.

of individuals at risk of poverty (to about 16 percent by end-2014) and in-work at risk of poverty.[7] This rise seems to be broad-based across demographic groups. Increased immigration since 2010 appears to have played only a marginal role so far (the latest available data are for 2014). The federal government's Fifth Poverty and Wealth Report describes measures taken by the current government to address inclusiveness in general and poverty in particular. Especially relevant among the latter are the new statutory minimum wage, a reform to reduce abuse in temporary employment, new or revamped training for the long-term unemployed or workers lacking formal vocational training, a higher tax allowance for single parents, as well as significant increases in some social transfers (such as housing benefits or supplementary child benefits) in 2016–17. While it is too early to assess the impact of these measures, if poverty risk does not recede going forward a review of the targeting and effectiveness of existing programs and benefits should be considered.

27. Anti-poverty policies should seek to preserve the strong gains in labor force participation and employment of the past decade. Data from the German Socio-Economic Panel, the extensive and detailed household survey from which income and wage inequality data are derived, also show that satisfaction with household income is at or near a post-reunification high for individuals below the second decile, despite the stagnation of real disposable incomes at the bottom of the distribution. This satisfaction measure is strongly negatively correlated with the unemployment rate. This suggests that anti-poverty measures should seek to preserve the benefits of labor market reforms on the employment rate. Policies to increase equality of opportunities and social mobility would also help address poverty concerns over the longer term, as argued in the latest report by the German Council of Economic Experts.

28. Successfully integrating refugees in the labor market will be an important component of anti-poverty efforts. Following an exceptionally large inflow of asylum seekers during 2015–16—around 1.2 million, or 1½ percent of the country's population—the number of new monthly applicants has dropped to near 2014 levels. By March 2017, about 0.5 million asylum seekers and refugees had completed the initial stages of the integration process and registered as jobseekers. However, at about 12 percent, their employment rate remains low. The Integration Law, which entered into force in August last year, introduced enhanced integration and language courses, specific language instruction targeted to vocational training, and provided increased legal security to refugees. The law also temporarily suspended the priority review—an obligation for employers to check whether another suitable applicant from Germany or the E.U. is available before hiring a refugee. In addition to these initiatives, creating new paths to vocational training more suitable for the refugees would further enhance labor market integration prospects.

Flow of New Asylum Seeker Applications



Source: Federal Office for Migration and Refugees

[7] Individuals are defined to be at risk of poverty if their disposable income is below 60 percent of median disposable income.

Authorities' Views

29. The authorities highlighted the measures taken during the current legislature to address poverty concerns. They agreed that the at-risk-of-poverty rate had increased between the end of the 1990s and 2005, saw the rise since then as much more limited, and thought that the trend looking forward was uncertain. Beyond the recent measures mentioned above, they also pointed at a 2016 law which contains numerous regulatory simplifications to improve the take-up of basic welfare benefits by eligible individuals. They also emphasized the importance for social cohesion of fighting against poverty and low incomes through labor market participation. On the refugees, the authorities agreed that their successful labor market integration is important to promote long-term growth and mitigate relative poverty risks. They noted that the pace of integration was picking up and viewed an employment rate of 50 percent five years after arrival as achievable.

D. Product Market Reforms and Innovation

30. Competition-enhancing reforms in professional services and network industries should be pursued more vigorously. Productivity growth in services has remained low. A recent cross-country study suggests that product market deregulation reforms in network industries, retail, and professional services have positive effects on investment, output, and employment and that their effect increases over time.[8] Since the last consultation, a new law (implementing a EU directive) was put in place to boost the efficiency of the railways sector and strengthen the power of the regulator. It is likely to make freight transportation relatively more attractive but have little effect on the long-distance passenger segment, where competition is most limited. Corrective regulatory measures should be taken should the status quo persist. No competition-enhancing measures have been taken in postal services, and the incumbent's dominant position is largely unchanged. In both areas, the regulator should make maximum use of its powers to avoid discrimination against smaller competitors and new entrants. The government's 2016 National Action Plan on access to and practice of regulated professions, produced in the context of a pan-EU initiative, contains only a limited number of policy measures. Per a new indicator developed by the European Commission (EC), the level of restrictiveness was higher than the EU median for lawyers, engineers, architects, and accountants in 2016 (Figure 9). Infringement procedures by the EC are still ongoing regarding the minimum compulsory tariffs of architects and engineers. Staff continues to view professional services as overregulated; greater openness could be instilled in the areas of exclusive rights, compulsory chamber membership, and regulation on prices and fees.[9]

31. The government's strategy to facilitate and manage economic transformation through digitalization is advancing, but Germany is still trailing peers in some areas. The authorities have placed a special focus on digitalization. Their "DIGITAL Economy 2016" monitoring report

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[8] Hijzen, A. and P. N. Gal. "The Short-Term Impact of Product Market Reforms: A Cross-Country Firm-Level Analysis", IMF WP 16/116, International Monetary Fund, 2016.

[9] See "Services Sector Performance and Product Market Regulation" in IMF Country Report No. 14/217.

indicates that digitalization in the corporate sector is gaining momentum. However, surveys suggest that the network infrastructure and a shortage of skilled labor are obstacles to faster progress. In addition, recently published data indicate that the average stock of ICT capital per worker is low in international comparison, and that Germany ranks only twenty fifth in the world in terms of average download speeds (Figure 9). The federal government has earmarked EUR 4 billion to support the deployment of fast broadband in remote areas through 2020. A new initiative ("Gigabit Germany") has been launched in cooperation with private companies, which could result in further financial incentives for the rollout of high-speed networks in regions where the private rate of return would be otherwise unattractive as private telecommunication companies significantly increase their fiber optic network investment until 2025. The Digital Networks Act, adopted last year, will reduce the cost of the rollout of optical fiber cables, while rules on competition and business regulatory frameworks are being updated to adapt them to the advances in digitalization. These new measures and financial commitments, which stimulate both the supply of and demand for digital services, are welcome, and the current momentum should be sustained.

32. The government has been taking several measures to incentivize venture capital investment. At around 3 percent of GDP, Germany's R&D spending in 2015 was high in European and global comparison, but venture capital investment remained relatively small (Figure 9). To promote innovation and foster venture capital investment, the government has implemented several initiatives under its "High-Tech Strategy," including the provision of grants, equity financing instruments, and preferential tax treatment, covering both the initial (seed) and growth phases of venture investment.[10] In late 2016, the government also modified the tax rules governing the loss carry-forward regime in case of change in company ownership, making the regime more friendly to young innovative firms. To boost the number of IPOs of young, fast-growing companies, a new segment of the stock exchange Deutsche Börse (so-called "Scale") was launched in March 2017, replacing its predecessor "Entry Standard." With stricter admission criteria and follow-up obligations, the cost of which will be partly covered by Deutsche Börse, Scale aims to ensure a high quality of listed firms and prevent the recurrence of past adverse experiences. This is a welcome step in improving exit prospects for venture capital investors. The government should assess the effectiveness of these measures periodically, especially in view of preventing the creation of a "small business trap." At the same time, any administrative uncertainties, including the treatment of value-added tax on management fees for venture capital, should be addressed.

Authorities' Views

33. The authorities emphasized the progress achieved in the implementation of their Digital Agenda and their promotion of venture capital investment. They acknowledged that available cross-country indicators on ICT and the digital economy showed that Germany was not a top performer, but argued that cross-country comparisons could be misleading as they may not all

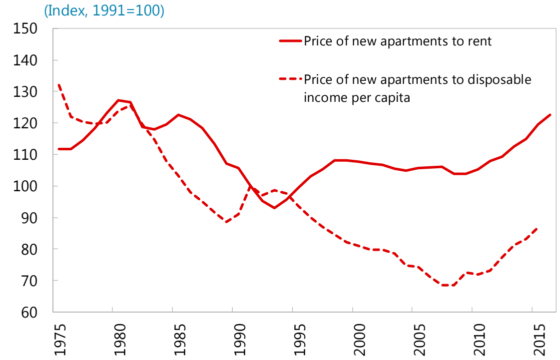
[10] In general, fostering young and innovate companies helps boost economic growth, but entrepreneurs frequently face financing barriers due to information asymmetries and the lack of collaterals, justifying public policy intervention in seed and early-stage financing (Wilson, K. E., "Policy Lessons from Financing Innovative Firms", *OECD Science, Technology and Industry Policy Papers,* No. 24, OECD Publishing, Paris, 2015).

properly account for differences in product sophistication. They mentioned several recent policy initiatives and achievements, among which their promotion of digitalization and ICT competence in SMEs, the development of a modern regulatory framework for the digital world, and the launch of the digitalization of the energy transition. They recognized that reforms had been somewhat slow to materialize in some professional services deregulation, but also argued that the E.U. principle of mutual recognition should not be used to dilute valuable quality and consumer protection standards. They argued there were no *de jure* obstacles to greater competition in long-distance railways transportation, and saw the international evidence as ambiguous about potential benefits from the separation between the infrastructure company and the incumbent services operator. While agreeing on the importance of reviewing periodically the effectiveness of instruments to support innovation and venture capital, they highlighted that most government-supported equity funds were managed on commercial terms, implying that there was little risk of perpetuating nonprofitable start-up companies.

E. Housing and Financial Sector Policies

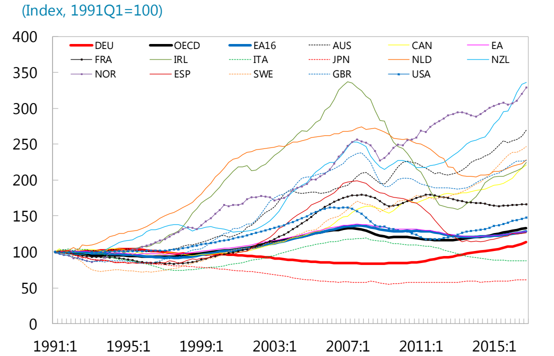
34. At the aggregate level, housing affordability remains good, and price developments moderate in international comparison, but growing regional differences warrant close monitoring. House prices have continued to accelerate but their level remains moderate, as do various indicators of mortgage affordability (price-to-rent, price-to-income). However, the picture is different when regional developments are considered. While house prices continue to fall in some rural areas, price growth has reached double-digits in large cities and university towns. In certain urban areas, overvaluation may amount to 30 percent according to the Bundesbank's latest estimates. While there is no comprehensive data available on regional mortgage growth, there is some anecdotal evidence of looser underwriting standards in some areas.

Housing Market Valuation Indices
(Index, 1991=100)



Sources: Bulwiengesa, Bundesbank, Destatis, and IMF staff calculations.

Real House Prices International Comparison
(Index, 1991Q1=100)



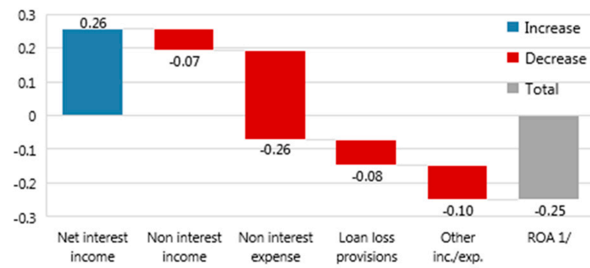
Sources: OECD and IMF staff calculations

35. Relaxing housing supply constraints would help mitigate price pressures. Last year the government adopted a package of measures to address supply shortages and improve affordability. The plan is progressing in coordination with local authorities and includes stepping up the sales of federally-owned land and properties below market price for affordable housing projects, more funds for social housing, and the promotion of building code harmonization. However, the authorities estimate that the supply of new housing units remained below demand in 2016. To significantly boost supply in the short term, these measures must be complemented by further encouragement for local authorities to relax zoning and height restrictions in areas under pressure. Lowering the effective transaction tax rate on new construction, as recommended by staff in the past, would also be helpful in this regard.

36. New legislation introducing macroprudential instruments for the real estate market was approved, but left the toolkit incomplete and important data gaps unaddressed. The new legislation broadens the macroprudential toolkit to include loan-to-value and amortization requirements, but does not include either debt-to-income or debt-service-to-income limits—instruments designed to limit borrower vulnerability to income and interest rate shocks, and ensure affordability. Most importantly, the new law does not include any provision for a granular, loan-by-loan database, a central tenet of past staff recommendation to ensure the effective implementation of macroprudential tools. At a minimum, a regular (at least annual) survey should be conducted in hotspots to collect information on individual loans, and assess household leverage, loan affordability and the concentration of banks' exposure.

37. The German banking sector must accelerate its restructuring and shore up profitability. Banks are generally well capitalized in risk-weighted terms, but leverage ratios are low in international comparison, especially for large private banks. Profitability continues to be weak, reflecting high operating costs, competition from within and outside of the banking sector, and slow development in non-interest revenues. The low interest rate environment is compounding these problems, while poorly performing legacy portfolios of shipping loans are weighing on some banks and may lead to increased provisioning costs in coming years. Hence, restructuring is ongoing, but progress is slow. Fee-based income has also increased recently, including at savings banks, but further sectoral consolidation and cost-cutting are likely going forward. The number of banks and branches has declined by about 15 percent since the financial crisis, and this trend is set to continue as the cost-to-income ratio remains on an uptrend in recent years—partially reflecting higher regulatory costs. Following a second year of large losses, Germany's G-SIB substantially increased capital in March–April 2017 and announced a new restructuring strategy. This is a welcome development, and has resulted in a decline in the bank's CDS spreads. However, it is too early to assess whether the new strategy will be able to sustainably return the bank to profitability.

Germany: Change in ROA Components 1/
(Percentage points, Post-crisis minus boom period)



Note: Boom (2005-07) and post-crisis (2013-15) periods are computed based on weighted averages of 19 German banks.
1/ ROA - Return on assets
Sources: Fitch and IMF staff calculations.

38. Interest rate risk remains elevated and the close supervisory attention to this risk is welcome. Low and flattening yield curves are gradually eroding margins as assets reprice over time and banks find it difficult to pass negative rates to depositors. Banks (especially cooperative and savings banks) have responded by increasing fee income but also by expanding maturity transformation. The latter exposes them to the risk of large valuation losses on the assets side and increased funding costs on the liability side should interest rates rise rapidly. The supervisory authorities are monitoring this risk closely via regular stress tests and scenario simulations (including 'low for long' scenarios). They have imposed Pillar II capital requirements on the most exposed banks, which should encourage better management of this risk.

39. Only limited progress has been made on the formalization of a coordination mechanism for addressing systemic crises.[11] The 2016 Germany FSAP pointed out that a formal coordination framework among authorities that would be involved in crisis management (the ECB, the Systemic Risk Board, as well as the competent German authorities) had yet to be developed. The FSAP also recommended to reinforce contingency planning for the management of a systemic crisis, including testing these plans via real simulation exercises with all concerned parties, but so far no progress has been made on this front.

40. The persistent low interest rate environment is also weighing on life insurers' (LI) profitability. As existing higher yielding investments mature, life insurers' average return on investment has been gradually trending down, getting closer to the stickier average technical rate—a measure of promised return to policyholders. The gap between the two measures is now about 50 basis points, or 80 basis point lower than in 2008, and at an all-time low.[12] Over the last couple of years, German LIs have shored up profitability without significantly increasing overall risk by increasing the maturity of their investment portfolio and holding foreign sovereign debt, including U.S. debt. The duration of the LI's sector sovereign portfolio reached a peak of 13.7 years last year.[13] But there are limits to this strategy. As high yielding, high quality investments become harder to find, further extension in the maturity of the assets portfolio runs the risk of locking in low long-term yields. If interest rates increase down the road, policyholders may decide to surrender their policies to pursue more attractive opportunities elsewhere.

41. Solvency buffers in LIs look comfortable, but this owes much to Solvency II (SII) transitional measures. At 286 percent (on aggregate) at the beginning of 2016, the solvency capital requirement ratio (SCR) for the German life insurance industry was well above the required (100 percent) minimum and among the highest in Europe.[14] However, some caution is in order when interpreting this figure. First, SII capital buffers are very sensitive to small changes in interest rates, especially when interest rates are low and the duration mismatch is large.[15] For instance, when long-term interest rates fell by 50 basis points in the first half of 2016, the aggregate SCR ratio declined by 76 percentage points to 210 percent, bringing it in line with the European average. Second, about 70 percent of German LIs are making use of SII transitional measures. Without these measures, about a third of reporting LI companies (26 insurers) would not have reported sufficient own funds in 2016:Q1. The associated capital shortfall would have been of EUR 12.3 billion, well above its

[11] See Annex VI on progress in the implementation of other FSAP key recommendations.

[12] See Financial Stability Review, Deutsche Bundesbank, November 2016.

[13] Marktausblick zur Lebenversicherung, 2016/17, Assekurata, June 2016.

[14] EIOPA Insurance Stress Test Report, EIOPA, November 2016.

[15] Domanski et al., "The Hunt for Duration: Not Waving but Drowning?", BIS Working Paper, October 2015.

2015:Q4 level of EUR 3.5 billion (for 16 insurers). The 2016 FSAP and the more recent EIOPA stress tests showed that the German life insurance sector would be severely negatively affected in a "low for long" situation due to large negative duration gaps and the prevalence of guaranteed returns products. Therefore, LI companies must move away from guaranteed returns and towards unit-linked products. This is especially the case for small to medium firms unable to mitigate duration gaps and improve profitability through access to international investment portfolios and derivative products. In this context, supervisors should continue to closely monitor poorly capitalized companies and demand early action plans from firms in difficulty—emphasizing changes in business models when necessary.

Authorities' Views

42. The authorities stressed that the banking and insurance sectors needed to accelerate the review and development of their business models, while many institutions had to shore up profitability and resilience. They highlighted the many challenges associated with the need for the financial system to adjust to the new regulatory framework, especially in the current low interest rate environment. However, they expressed confidence that the adjustment will be smooth thanks to comfortable capital buffers in both banking and life insurance sectors. The authorities were not overly concerned by the rapid increase in house prices in hotspots given moderate credit growth and consistently high credit standards. They agreed, however, that existing data gaps, particularly for mortgages, had to be remedied to enable effective macroprudential surveillance. They highlighted the role of demographics for the development of house prices and of substantial regional differences which cannot be seen in the aggregate. The authorities also expressed strong commitment to the new EU bank resolution framework and the concept of bail-in. They also shared staff's concerns about the need to ensure operational readiness in a systemic crisis, but noted that coordination among national and European authorities still needs to be tested in real-time simulation exercises.

STAFF APPRAISAL

43. The cyclical upswing is expected to continue in the near term. In 2017, growth should remain stable as foreign demand is expected to strengthen and consumption to soften as higher commodity prices will curb real income growth. In the medium term, continuing growth slightly above potential should result in a widening of the output gap and further tightening of labor market conditions. The risks to the outlook are balanced in the short term, but predominantly tilted to the downside in the longer run. Anti-globalization policies abroad could negatively affect long-term prospects for the very open German economy, while in the euro area insufficient progress in the reform agenda may rekindle stress.

44. The labor market continues to perform strongly. Following the Hartz reforms, labor force participation has been rising and unemployment falling, resulting in large gains in employment, also fed by immigration. The surge in labor supply triggered by the reforms initially reinforced pre-existing downward pressures on low wages, but did not result in an increase in labor income inequality because of its powerful positive effect on employment. In addition, both wage and labor earnings inequality have been broadly stable since 2010, as the labor market strengthened further and the level of the minimum wage proved sufficiently prudent not to significantly harm employment while providing a higher floor to hourly wages. However, average wage gains have been subdued, despite increasing signs of labor market tightness.

45. Looking forward, a sustained rise in wage and price inflation in Germany is needed to help lift inflation in the euro area and facilitate the normalization of monetary policy. Our baseline forecast envisages a gradual demand-driven rise in wage, core, and headline inflation, consistent with the tight labor market conditions. There is a risk, however, that, after a long period of moderation, wages will not respond sufficiently to these conditions. This would result in protracted low inflation in Germany and a slower-than-expected normalization of inflation and monetary conditions in the euro area. In this scenario, financial stability risks associated with 'low for long' interest rates would increase, and the rebalancing of competitiveness in the euro area would be delayed. To help ward off such risks, the authorities could usefully emphasize in their public communication the importance of robust wage and price growth in the current conjuncture, while respecting the autonomy of the social partners in wage setting.

46. External rebalancing would be facilitated by higher wage and price growth, but its pace would remain slow without policy action. Germany's external position is substantially stronger than implied by medium-term fundamentals and desirable policy settings. The surplus is expected to narrow slowly over the medium term, as energy and other import prices recover, private investment strengthens, and wage growth supports both domestic demand and a realignment of external competitiveness. However, under current policies, the projected adjustment is limited. Policies that boost public and private investment and reduce the need for private saving (such as through promoting longer working lives) would accelerate the necessary external rebalancing process.

47. The fiscal position continues to strengthen. The prudent management of the fiscal accounts has led to a protracted reduction in the debt-to-GDP ratio after the crisis. In 2016, primary spending rose, including to provide for the refugees, but this was more than compensated by higher tax revenues from favorable labor market performance and buoyant corporate tax receipts, as well as a decline in the interest bill. Despite the moderate fiscal stimulus expected this year—with higher social spending, some income tax relief, and larger public investment—current fiscal plans still preserve a comfortable buffer above the European and national fiscal rules. Staff forecasts this buffer to rise over the coming years.

48. Fiscal space should be used to raise Germany's growth potential by encouraging investment, promoting labor supply, and boosting productivity. Policies to relieve the tax burden and increase growth-enhancing spending can complement each other. On the revenue side, there is space to reduce Germany's large and increasing tax burden on labor with a view to support labor supply. On the expenditure side, overcoming barriers to expanding investment in public infrastructure remains important. The financial relief already extended by the federal government to the regions and municipalities is useful, but it is necessary to rebuild staffing capacity (particularly at the local level) for the planning and administration of investment projects. The proposed Federal Infrastructure Corporation for Highways is welcome and should ensure a more stable and efficient framework for investment in transport infrastructure. In addition, as recommended in the past, policies to expand labor supply through an enhanced provision of childcare and after school programs, and to provide suitable vocational training to refugees, would be a good investment in Germany's future, as are initiatives to foster digitalization and innovation.

49. To improve fiscal planning, a reexamination of revenue projection models should be undertaken. Tax revenue projections (especially for personal income taxes) have proven overly conservative over the post-crisis period, resulting in a tighter fiscal stance than originally intended. To some extent, this persistent bias is explained by an underestimation of employment growth in the official macroeconomic forecasts. A re-examination of both the macroeconomic relationships underlying revenue projections and estimated tax sensitivity to macroeconomic developments is warranted to enable better fiscal planning.

50. Pension reforms to prolong working lives would foster long-term fiscal sustainability while helping external rebalancing. If the fiscal room under the rules is fully used, and considering a wide range of realistic macroeconomic shocks, government debt would still decline rapidly with high probability. However, in the long term fiscal sustainability is challenged by rising aging costs. Further pension reforms that make it more attractive to extend working lives, as recommended in the past, would lower the pension bill and raise growth. By reducing the need for households to save, these reforms would also help lower external imbalances. The resulting sustainability gains would also facilitate some relaxation of fiscal targets in the medium and long term.

51. Despite a well-developed social safety net and strong employment gains in recent years, relative poverty risk warrants continued attention. Disposable income inequality (measured by the Gini coefficient) has remained broadly stable over the last decade and is near the European median. Nevertheless, there has been a slow secular rise of the at-risk-of-poverty rate. To address this problem, new social cohesion measures were put in place, but it is too early to assess their impact. If poverty risk does not recede, a review of the targeting and effectiveness of some social benefits should be considered. Anti-poverty policies should seek to preserve the achievements of past labor market reforms. Measures to enhance labor force participation of women with children and facilitate the labor market integration of refugees would go in this direction.

52. Competition-enhancing reforms in some network industries and professional services should be accelerated. Since the last consultation, a new law (implementing a EU directive) was put in place to boost the efficiency of the railways sector and strengthen the power of the regulator. The law is a step in the right direction, but will have little effect on the long-distance passenger segment, where competition is currently lacking. No new competition-enhancing measures have been taken in postal services, where the incumbent retains a dominant positon. In both areas, the regulator should make maximum use of its powers to avoid discrimination against smaller competitors and new entrants. The government's 2016 National Action Plan on access to and practice of regulated professions, produced in the context of a European Union initiative, contains only a limited number of policy measures, and some professions remain overregulated.

53. Measures to speed up digitalization and stimulate venture capital investment are welcome. Germany is an innovation leader in Europe. Digitalization in the business sector is moving forward, though the network infrastructure and a shortage of skilled labor are holding back progress. The average stock of capital per worker in ICT is low in international comparison, and Germany ranks only twenty fifth in the world in average download speeds. The federal government is providing financial support to several initiatives to accelerate the deployment of fast broadband, is adapting regulatory frameworks to advances in digitalization, and is actively fostering venture capital investment. These initiatives and financial commitments are welcome, and the current momentum should be sustained.

54. Housing prices remain in line with fundamentals at the aggregate level although some hot spots are developing as prices continue to accelerate. To help balance supply and demand and maintain affordability, the government adopted a package of measures including stepped-up sales of federally-owned land and properties below market price for affordable housing projects, more funds for social housing, and the promotion of building code harmonization. To significantly boost supply in the short term, these measures must be complemented by further encouragement for local authorities to relax zoning and height restrictions.

55. New legislation introducing additional macroprudential instruments for the real estate market is a step in the right direction, but leaves the toolkit incomplete and important data gaps unaddressed. The new legislation will introduce loan-to-value ratios and amortization requirements, but will not include debt-to-income and debt-service-to-income ratios, which are important to limit borrower vulnerability to income and interest rate shocks. Most importantly, the new law does not grant supervisors the power to request access to loan-level data, a key pre-requisite for the effective implementation of these macroprudential instruments. To partially overcome data gaps, a regular (at least annual) survey could be conducted in the country's hotspots to assess households' leverage, loan affordability, and the concentration of bank exposure.

56. The German banking and life insurance sectors must accelerate their restructuring to shore up profitability and resilience. In the banking sector, while regulatory capital is generally comfortable, cost-to-income and leverage remain high, and restructuring efforts are ongoing. Low profitability reflects structural inefficiencies, persistent crisis legacy issues, provisions for compliance violations, and the need to adjust to the new regulatory environment. Lower and flatter yield curves are compounding these issues by gradually eroding margins, especially in smaller retail banks. In the life insurance sector, low interest rates hurt solvency ratios, and large duration gaps must be reduced through changes in investment strategy and less reliance on guaranteed return products. In this context, recent supervisory attention to interest risk both in banking and insurance is welcome.

57. It is recommended that the next Article IV consultation take place on the regular 12-month cycle.

Box 1. How Can Germany's Current Account Gap Be Closed?

While Germany's external imbalance is expected to remain sizable in the medium-term, rebalancing is possible through a mixture of policy adjustment in Germany and abroad. In Germany, policy levers are available that would promote both internal economic objectives and faster external rebalancing. Specifically, fiscal space could be used to finance higher public investment in infrastructure, as well as initiatives that promote higher labor supply and innovation. These policies would reduce public sector savings as well as stimulate private sector investment, thereby reducing the CA surplus while also lifting potential growth. In addition, pension reforms to encourage longer working lives as life expectancy rises would reduce households' need to save for retirement, thereby reducing private savings and the CA surplus. Finally, faster wage and price growth would also speed up the rebalancing process.

Using quantitative estimates from the EBA model, as well as staff analysis in past Germany Article IV consultations, the table below shows how the CA surplus could be brought down comfortably within the norm interval.

The adjustment under the baseline together with the elimination of policy gaps in trading partners would result in an estimated reduction of Germany's surplus of some 1.7 percent of GDP.

In Germany, using the fiscal room available under the rules in the medium-term would have an estimated *average* effect on the CA surplus of -0.5 percent of GDP. This effect would be reinforced if such room was used primarily for initiatives that also stimulate private investment, such as investing in public infrastructure or pro-innovation policies, given larger external spillovers. In addition, policies that boost labor supply in the future would also strengthen private investment. For instance, additional spending on childcare and afterschool care that encourages women to work longer hours would lower the CA surplus by encouraging private investment even if it was budget neutral.[1] Incentivizing female labor force participation through targeted tax relief would have similar effects, as would spending on stepped up vocational training to accelerate refugee job market integration. Finally, staff estimates suggest that pension reforms that achieve a one-year increase in the effective retirement age could reduce the surplus by almost ½ of a percentage point of GDP.[2] These reforms would also raise future potential output by mitigating the effect of aging on labor supply and help reduce the fiscal cost of population aging.

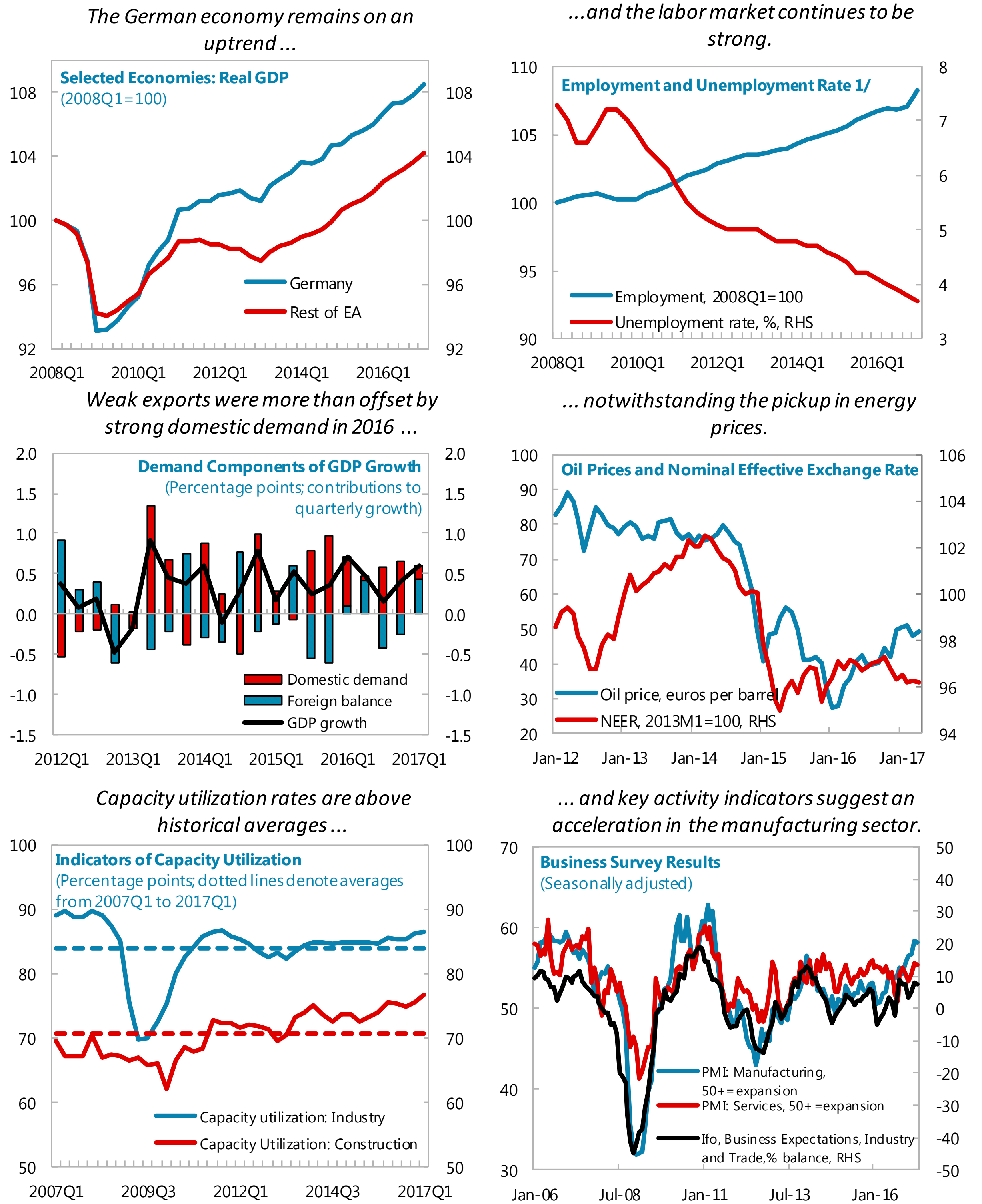
While this type of quantification inevitably relies on uncertain model estimates, it nevertheless shows that there are paths to eliminate Germany's external imbalance in the medium term through policies that also strengthen the country's economic potential.

Current account gap	2.5 to 5.5 percent of GDP
Medium-term adjustment under the baseline forecast	-0.8 percent of GDP
Fiscal adjustment by trading partners	-0.9 percent of GDP
Using all the fiscal room in relation to the fiscal rules	-0.5 to -0.75 percent of GDP
Pension reform	-0.4 percent of GDP per additional year of effective retirement age

1. See "Macroeconomic Effects of Labor Supply Policies", *Selected Issues*, International Monetary Fund, 2016.

2. Ibid.

Figure 1. Germany: Growth Developments

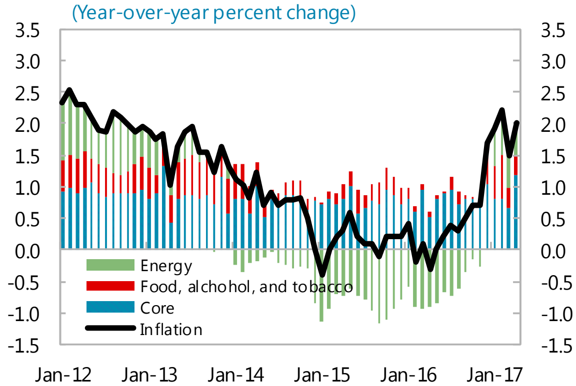


Sources: Destatis, Haver Analytics, IFO Institute, INS, IMF *World Economic Outlook*, Markit, and IMF staff calculations.
1/National Accounts Concepts.

Figure 2. Germany: Prices and Labor Market

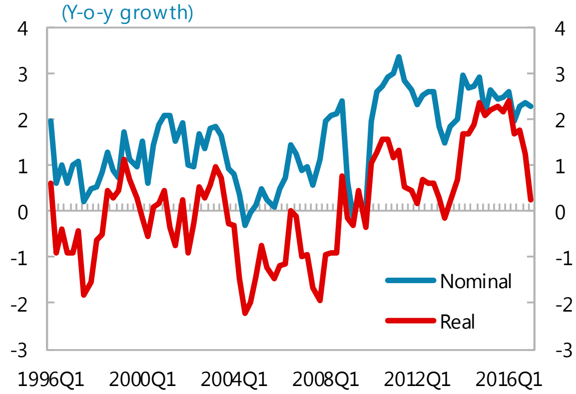
Inflation is picking up on the back of energy and food price increases…

Contributions to Headline Inflation
(Year-over-year percent change)



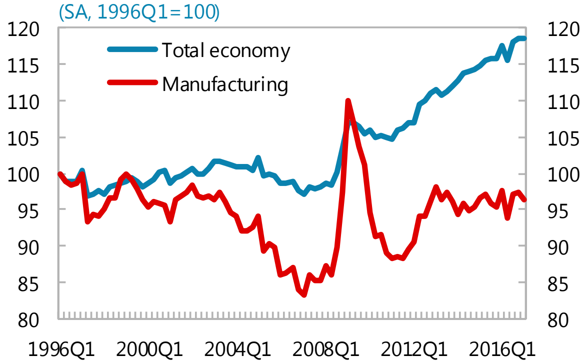
… while nominal wage growth has remained above productivity growth…

Compensation Per Employee
(Y-o-y growth)



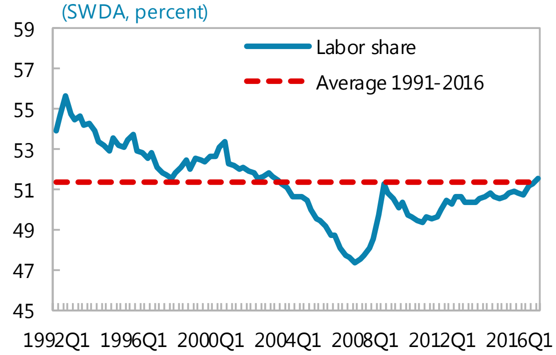
…raising unit labor costs…

Unit Labor Costs
(SA, 1996Q1=100)



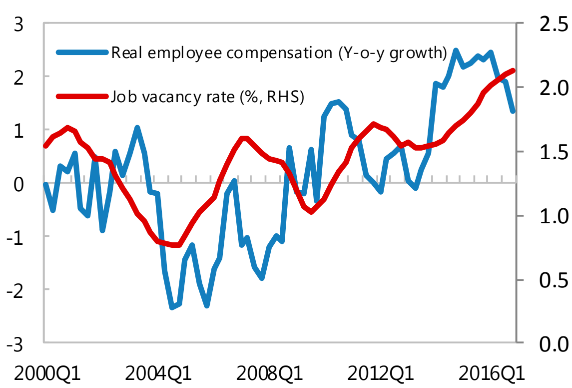
… and helping to normalize the labor share.

Labor Share in GDP
(SWDA, percent)



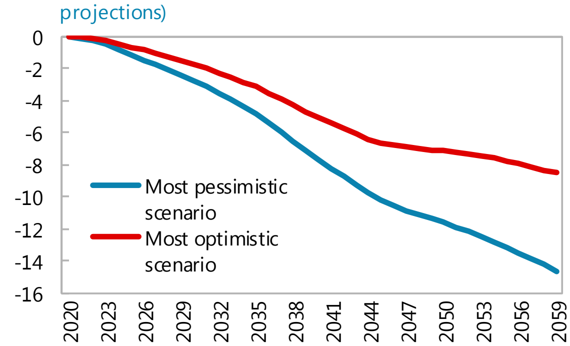
Real wages progression has been disappointing lately.

Labor Market Tightening Indicators



Working age population should drop quickly after 2020 if net immigration flows subside.

Working Age Population Change from 2020
(Millions of people aged 15-74, Destatis' 2015 projections)

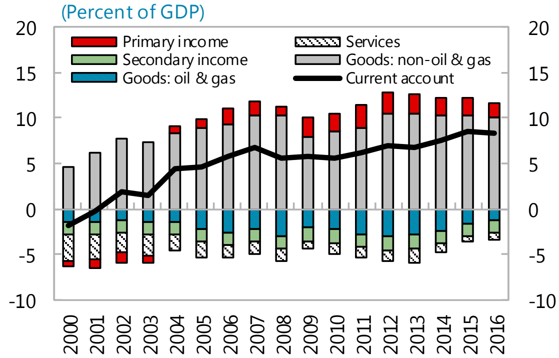


Sources: Bundesbank, Federal Statistical Office, Federal Statistical Office's 13th Coordinated Population Projection, Eurostat, Haver Analytics, and IMF staff calculations.

Figure 3. Germany: Balance of Payments

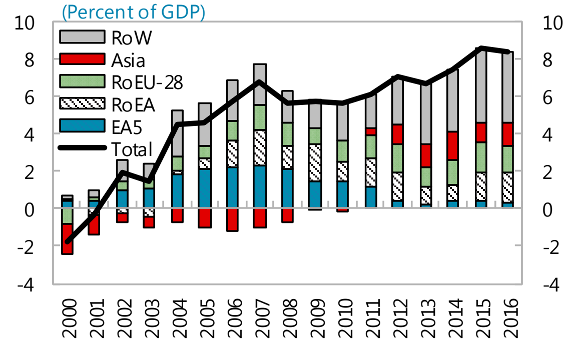
The current account was broadly stable in 2016, as were its main components.

Current Account Balance Breakdown
(Percent of GDP)



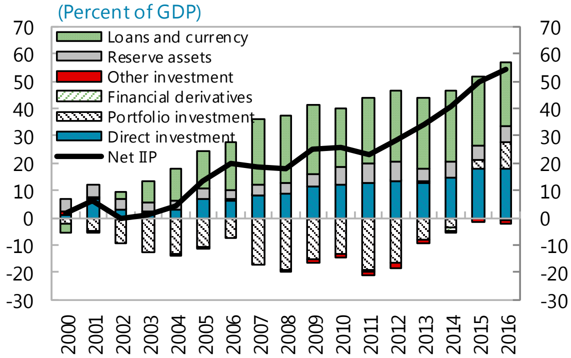
The rebalancing vis-à-vis the euro area (EA) halted in 2015-16 mostly due to a lower energy deficit with the Netherlands.

Current Account Balance by Region
(Percent of GDP)



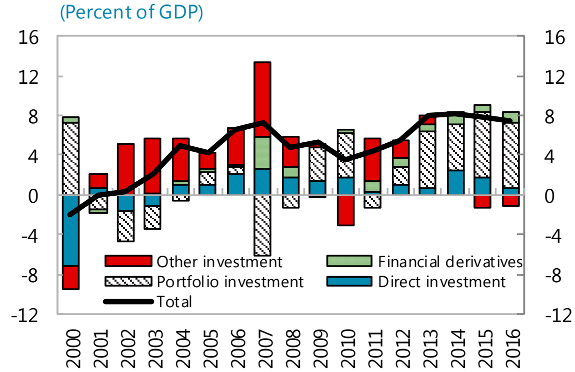
The Net International Investment Position surpassed 50 percent of GDP.

Net International Investment Position by Instrument
(Percent of GDP)



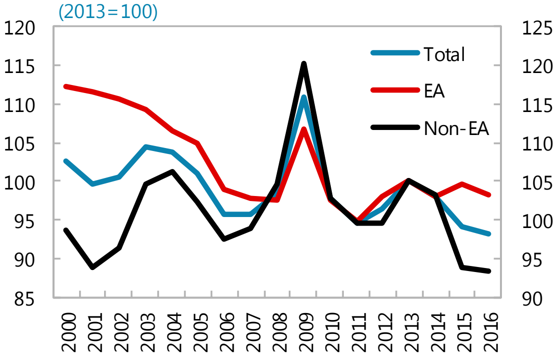
External savings are financing mostly a net increase in portfolio investment, while direct investment is edging down.

Capital and Financial Account
(Percent of GDP)



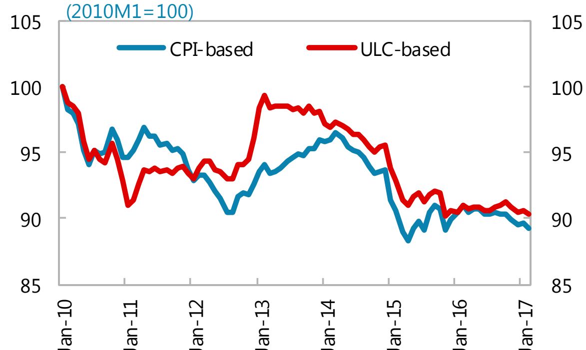
Wage growth relative to EA trading partners hasn't been enough to realign price competiveness.

REER ULC-Based 1/
(2013=100)



The REER has been stable since 2015.

REER
(2010M1=100)

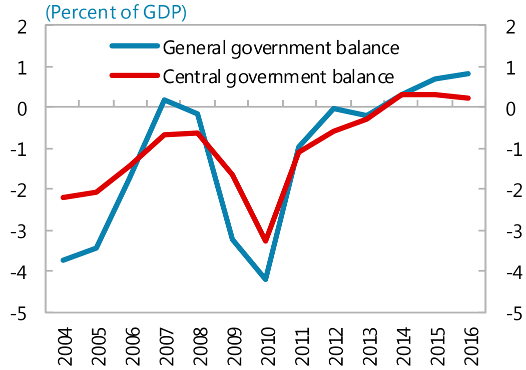


Sources: Bundesbank, DOTS, GDS, Haver Analytics, IMF *World Economic Outlook*, and IMF staff calculations.
1/ Countries included in the calculations are Australia, Austria, Belgium, Canada, Colombia, Denmark, Estonia, Finland, France, Greece, Hong Kong SAR, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Suriname, Sweden, Switzerland, Taiwan Province of China, United Kingdom, and United States.
Note: EA5= Euro area economies (Greece, Ireland, Italy, Portugal, Spain) with high borrowing spreads during the 2010-11 sovereign debt crisis.

Figure 4. Germany: Fiscal Developments and Outlook

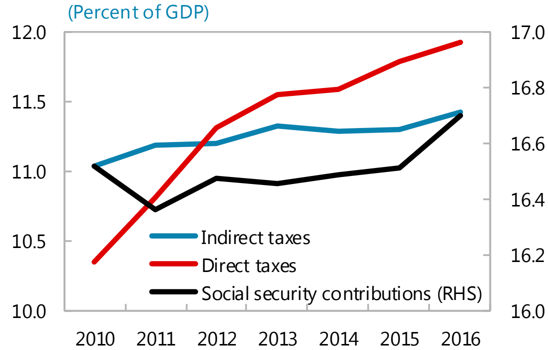
The general government surplus continues to rise...

Central and General Government Balances
(Percent of GDP)



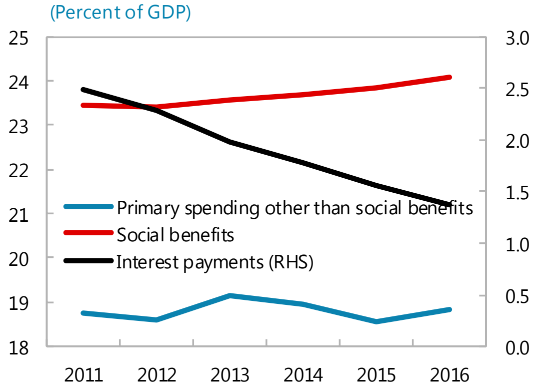
...supported by a broad increase in tax revenue...

Tax Revenue and Social Security Contributions
(Percent of GDP)



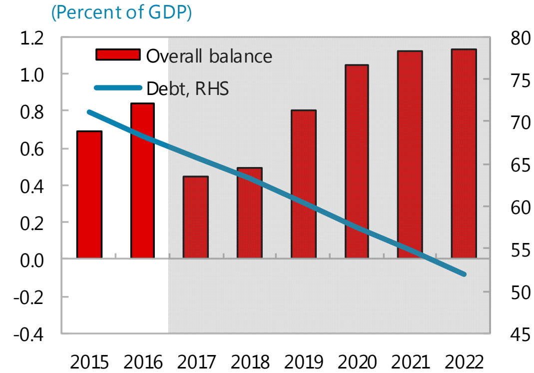
...and declining debt service. Transfers are rising and public consumption picked up to provide for the refugees.

General Government Spending
(Percent of GDP)



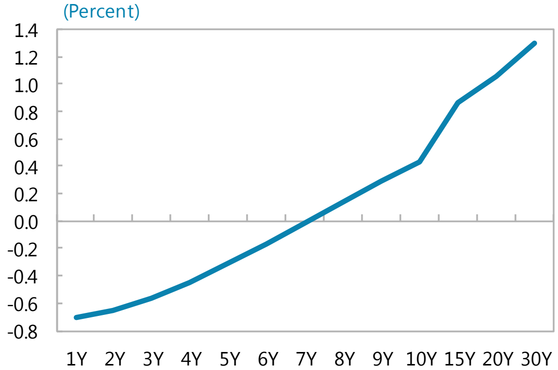
Current fiscal plans imply growing surpluses from 2018, pushing debt down to 50 percent of GDP by 2022.

General Government Fiscal Outlook, Staff Projection
(Percent of GDP)



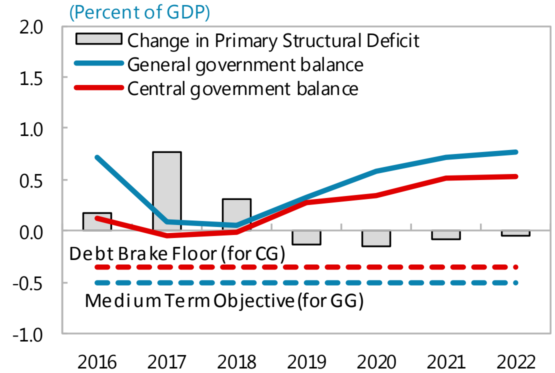
Financial conditions remain very supportive, creating fiscal space.

Government Bond Yields Curve, May 24, 2017
(Percent)



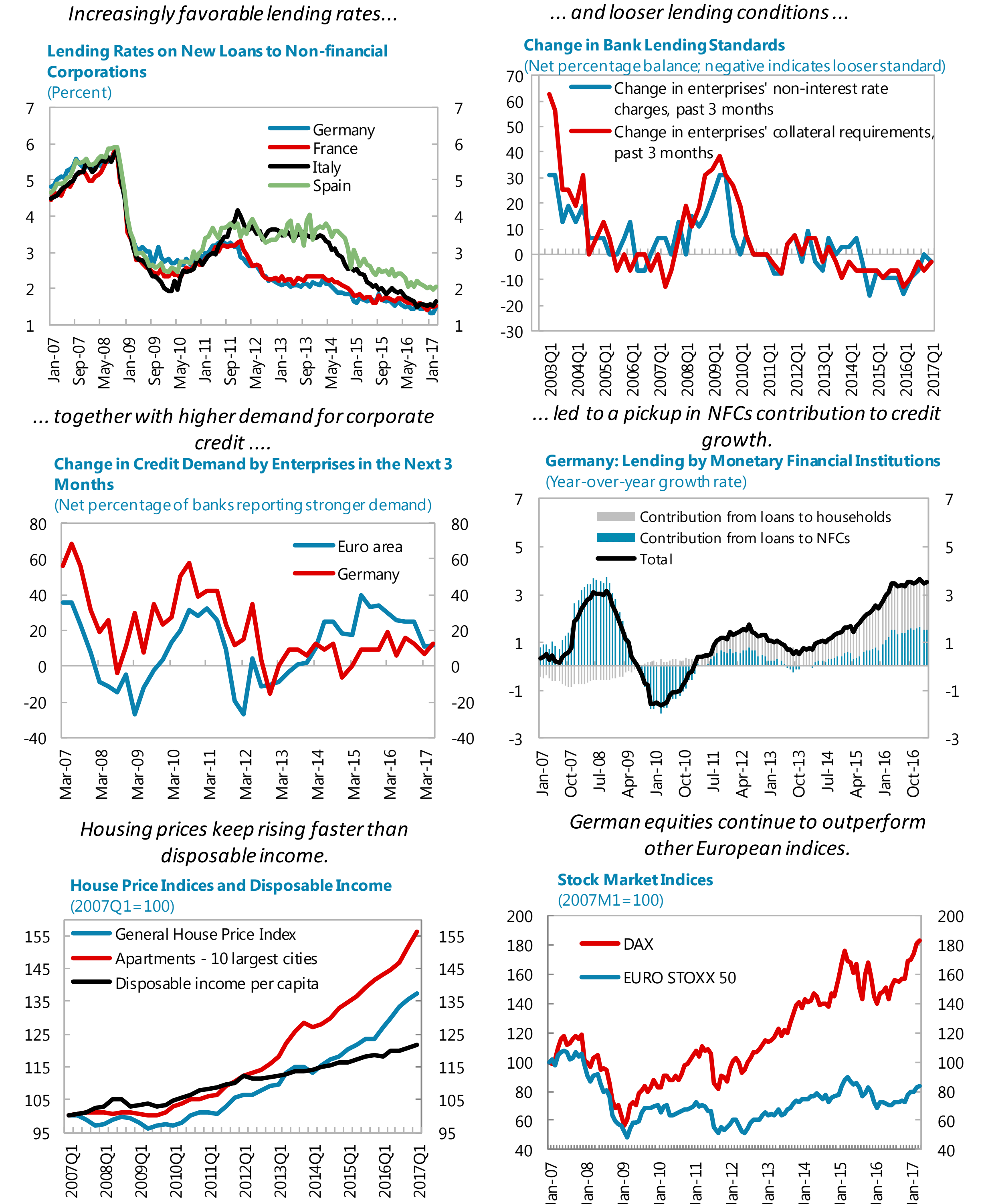
A moderate stimulus is expected this year, with a broadly neutral stance thereafter.

Fiscal Structural Balances Outlook
(Percent of GDP)



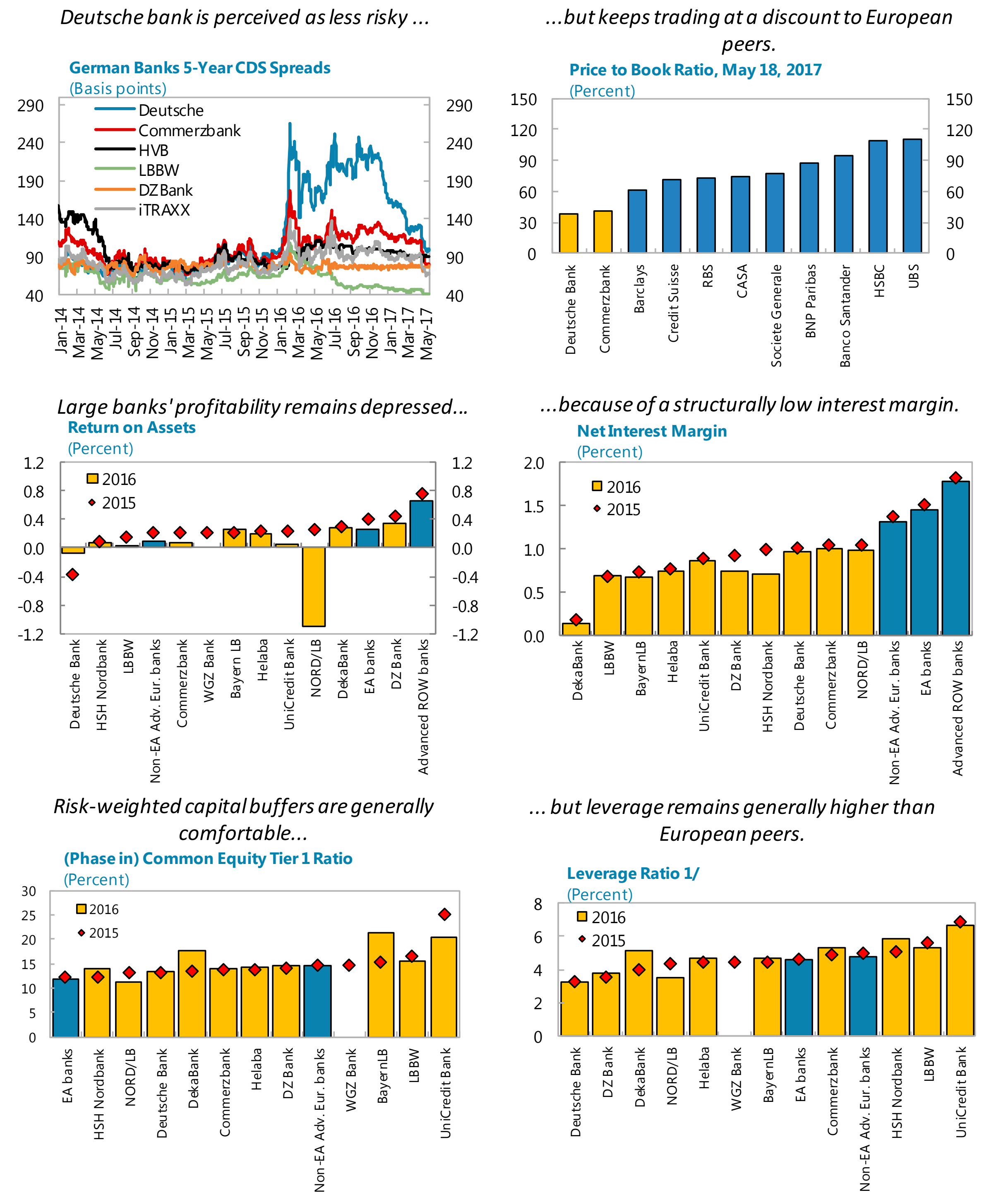
Sources: Bloomberg Finance L.P., Federal Statistical Office, Ministry of Finance, and IMF staff calculations and projections.

Figure 5. Germany: Credit Conditions and Asset Prices



Sources: Bundesbank, ECB, Haver Analytics, and IMF staff calculations.

Figure 6. Germany: Recent Developments in the German Banking Sector

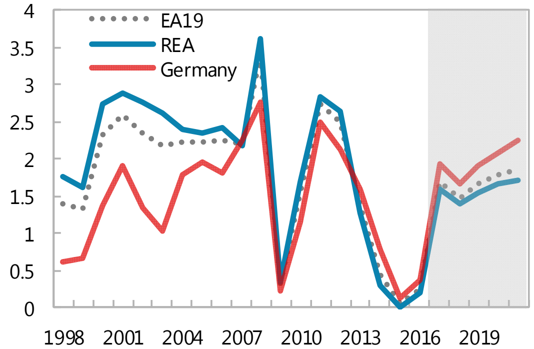


Sources: Bloomberg Finance L.P., ECB, IFS, S&P Global Market Intelligence, and IMF staff calculations.
1/ Leverage ratio is defined as common equity net of intangibles as a percent of total assets net of intangibles.

Figure 7. Inflation Dynamics in Germany and the Rest of the Euro Area (REA)

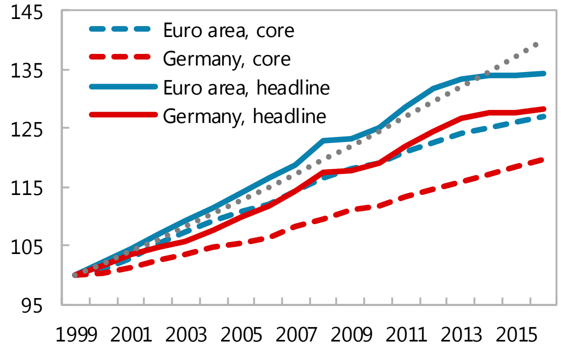
Prices in Germany are forecast to grow faster than in the REA,

Headline Inflation Projections
(Percent)



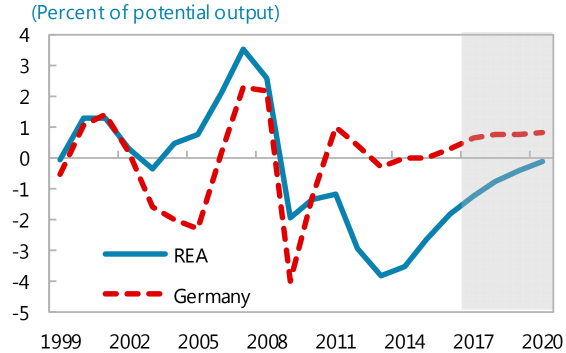
... a striking departure from past developments,

HICP: Germany and Euro Area
(Index, 1999=100)



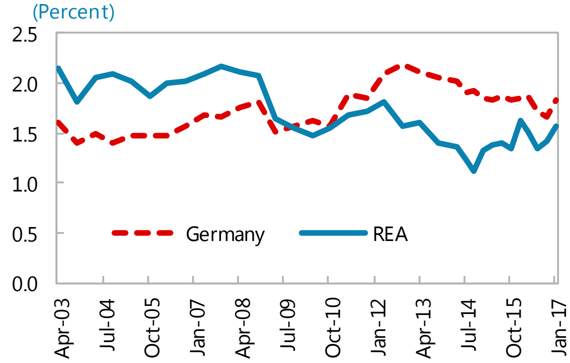
...consistent with Germany's better relative cyclical position...

Output Gaps
(Percent of potential output)



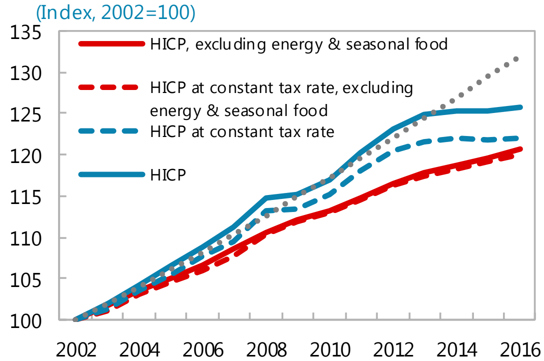
... and higher inflation expectations than in the REA.

Inflation Expectations, 2-year ahead
(Percent)



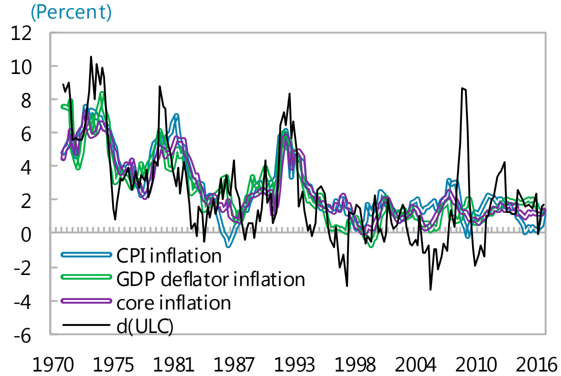
Taxes on energy and food boosted headline inflation in the EA.

HICP: EA 11-19
(Index, 2002=100)



ULC and core inflation co-move at medium frequency.

Germany Inflation and Unit Labor Costs
(Percent)

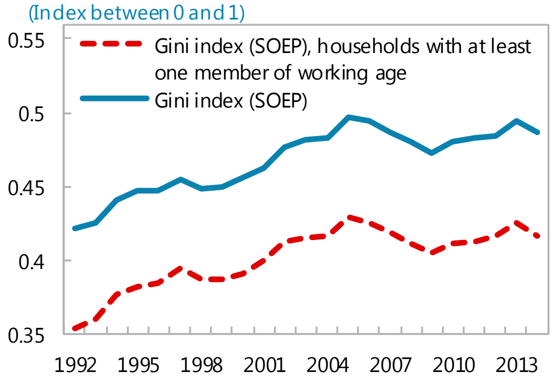


Sources: Consensus forecasts, Eurostat, World Economic Outlook, Haver Analytics, and IMF staff calculations and projections.

Figure 8. Germany: Inequality and Poverty

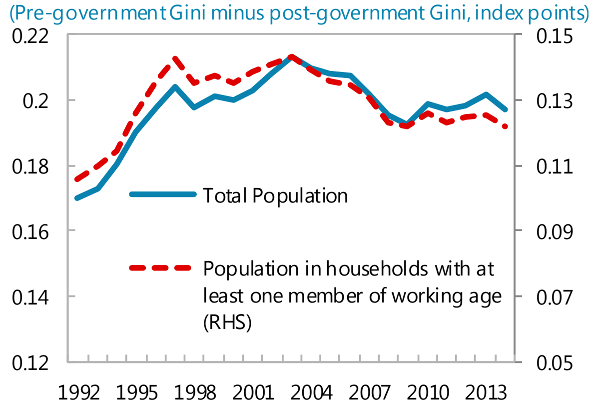
Market income inequality reached a plateau in 2005...

Gini Coefficient of Equivalized Market Income, 1992-2014
(Index between 0 and 1)



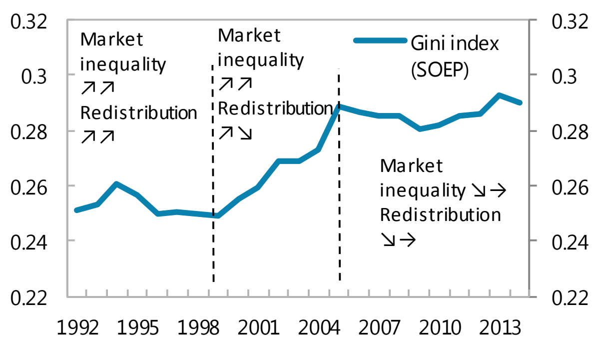
...while redistribution has only slightly declined...

Impact of Tax and Benefit System on Gini Index
(Pre-government Gini minus post-government Gini, index points)



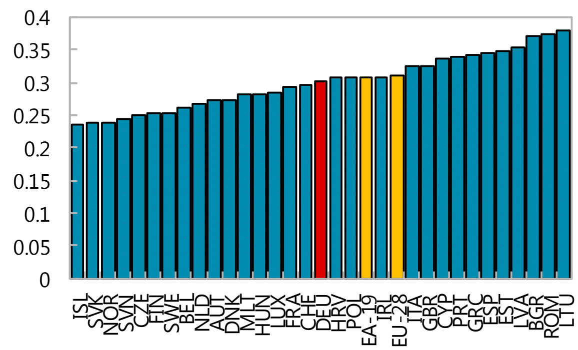
...resulting in stable disposable inequality over the past ten years...

Gini Coefficient of Equivalized Disposable Income, 1992-2014
(Index between 0 and 1)



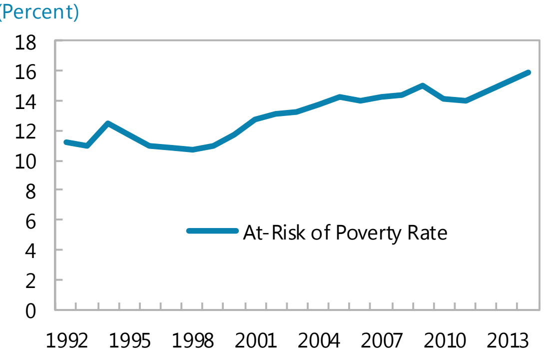
... placing Germany just below the European median

Gini Coefficient of Equivalized Disposable Income, 2014
(Scale of 0 to 100)



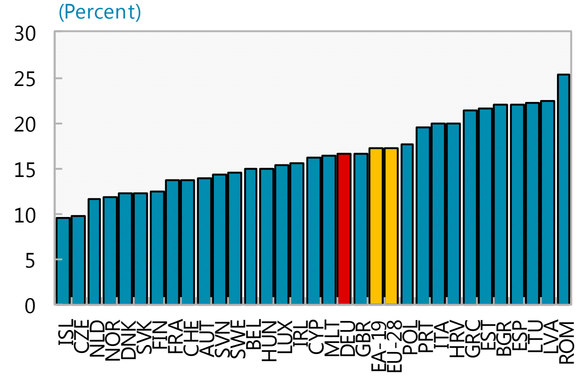
The relative poverty rate remains on an upward trend...

At-Risk of Poverty Rate (percent of total population with less than 60 percent of the median equivalized disposable income
(Percent)



... placing Germany just above the European median

At Risk of Poverty Rate, Total Population, 2014
(Percent)



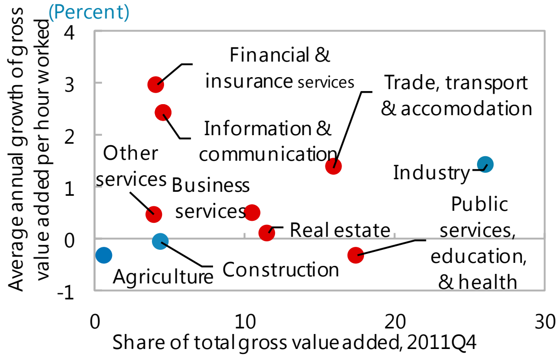
Sources: Eurostat, SILC., SOEP and IMF staff calculations.

Figure 9. Germany: Product Market Competition, Innovation and Digitalization

Productivity gains in non-financial non-ICT services have been low...

Germany: Sectoral Labor Productivity Growth, 2011Q4-2016Q4

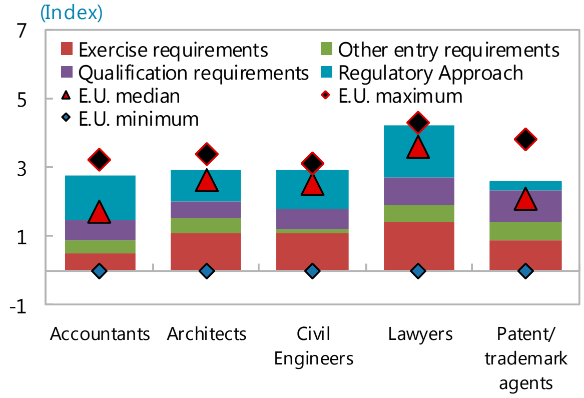
(Percent)



...while some professions remain more regulated than in peer European countries.

Germany: E.C. Restrictiveness Indicators, 2016

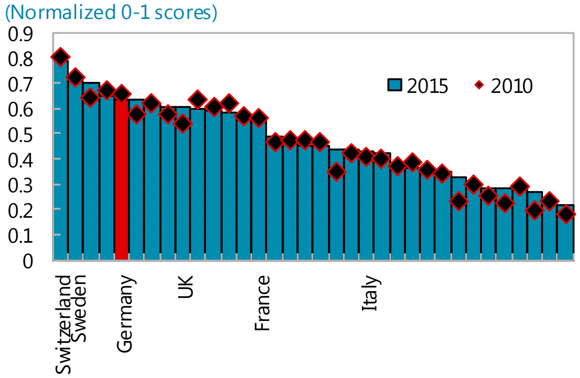
(Index)



Germany is an innovation leader...

EU and EFTA Countries: Summary Innovation Index, 2010-2015

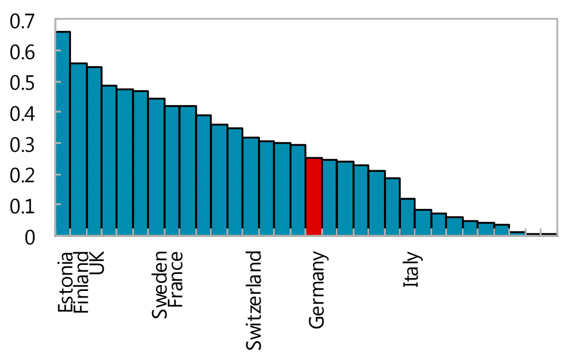
(Normalized 0-1 scores)



...with a relative weakness in venture capital.

EU and EFTA Countries: Venture Capital, 2013-2015 average

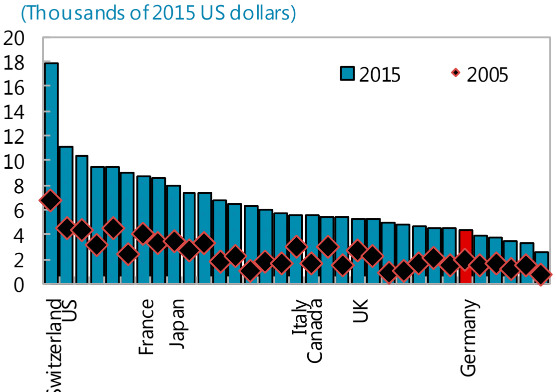
(Normalized 0-1 scores)



ICT capital per worker is low relative to other advanced economies......

Advanced Economies: ICT Capital per worker, 1995-2015

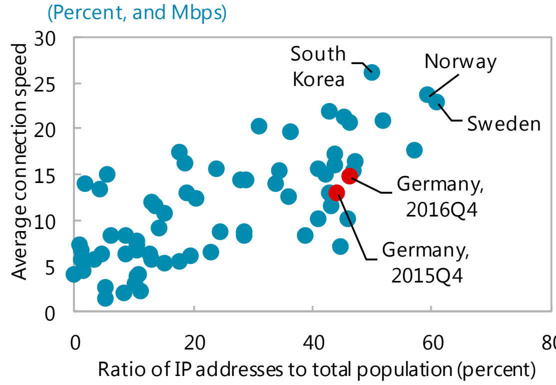
(Thousands of 2015 US dollars)



... as is average internet connection speed.

Advanced and Emerging Economies: Internet Access and Connection Speed, 2016Q4

(Percent, and Mbps)



Sources: Akamai's State of the Internet 2016Q4 Report, Conference Board, Destatis, European Commission and IMF staff calculations.

Table 1. Germany: Selected Economic Indicators, 2014–18

	2014	2015	2016	*Projections* 2017	2018
National accounts			(Percent change)		
GDP 1/	1.6	1.5	1.8	1.8	1.6
Private consumption	1.0	1.9	1.9	1.3	1.4
Public consumption	1.2	2.8	4.0	1.9	2.0
Gross fixed investment	3.5	1.2	2.0	1.9	1.7
Construction	1.9	-0.2	2.5	2.0	1.3
Machinery and equipment	5.4	2.8	0.9	1.3	2.0
Final domestic demand	1.5	1.9	2.4	1.5	1.6
Inventory accumulation 2/	-0.1	-0.5	-0.1	0.0	0.0
Total domestic demand	1.5	1.5	2.2	1.6	1.7
Exports of goods and services	4.0	4.6	2.5	4.3	4.1
Imports of goods and services	4.0	5.0	3.7	4.2	4.6
Foreign balance 2/	0.3	0.1	-0.3	0.3	0.0
Output gap (percent of potential GDP)	0.0	0.0	0.3	0.7	0.8
Employment and unemployment 3/			(In millions of persons, unless otherwise indicated)		
Labor force	41.9	42.0	43.0	43.3	43.6
Employment	39.8	40.1	41.2	41.6	41.9
Unemployment	2.1	1.9	1.8	1.7	1.7
Unemployment rate (percent)	5.0	4.6	4.2	3.9	3.9
Unemployment rate (percent) 4/	4.7	4.3	4.0		
Prices and incomes			(Percent change)		
GDP deflator	1.8	2.0	1.4	1.1	1.4
Consumer price index (harmonized)	0.8	0.1	0.4	1.7	1.6
Compensation per employee (total economy)	2.8	2.4	2.3	2.7	2.9
Compensation per employee (manufacturing)	2.9	2.1	1.6	3.1	3.3
Unit labor cost (total economy)	2.0	1.6	1.7	2.2	1.9
Unit labor cost (manufacturing)	-1.9	1.2	0.2	1.8	1.5
Real disposable income 5/	1.3	2.4	2.1	0.9	1.4
Household saving ratio (percent)	9.4	9.7	9.7	9.8	9.8
Public finances			(Billions of euros, unless otherwise indicated)		
General government					
Expenditure	1,298.2	1,333.9	1,388.4	1,441.0	1,481.6
(percent of GDP)	44.4	44.0	44.3	44.8	44.7
Revenue	1,306.8	1,354.8	1,414.7	1,455.5	1,498.0
(percent of GDP)	44.7	44.7	45.1	45.2	45.2
Overall balance 5/	8.6	20.9	26.3	14.5	16.4
(percent of GDP)	0.3	0.7	0.8	0.4	0.5
Structural balance	17.8	21.4	22.3	2.8	1.7
(percent of GDP)	0.6	0.7	0.7	0.1	0.1
General government debt	2,189.6	2,158.8	2,140.0	2,116.0	2,093.4
(percent of GDP)	74.9	71.2	68.3	65.8	63.2
Federal government					
Overall balance 6/	8.6	10.0	6.9	3.9	6.6
(percent of GDP)	0.3	0.3	0.2	0.1	0.2

Table 1. Germany: Selected Economic Indicators (concluded)

	2014	2015	2016	*Projections* 2017	2018
	(Billions of U.S dollars, unless otherwise indicated)				
Balance of payments					
Current account	289.7	288.5	289.0	294.7	297.4
(percent of GDP)	7.5	8.6	8.3	8.4	8.1
Trade balance 6/	303.5	289.8	300.4	298.3	306.2
Services balance	-33.7	-20.6	-24.8	-25.3	-29.2
Primary income balance	74.6	63.7	57.7	66.5	67.1
Net private transfers	-17.4	-16.7	-15.3	-15.5	-16.1
Net official transfers	-37.3	-27.7	-29.0	-29.4	-30.6
Foreign exchange reserves (EUR billion, e.o.p.) 7/	30.6	33.4	35.0		
Monetary data	(Percent change)				
Money and quasi-money (M3) 8/ 9/	4.9	9.2	5.7		
Credit to private sector 8/	0.6	2.4	3.5		
Interest rates	(Period average in percent)				
Three-month interbank rate 8/	0.2	0.0	-0.3		
Yield on ten-year government bonds 8/	1.2	0.6	0.2		
Exchange rates					
Euro per US$	0.75	0.90	0.90		
Nominal effective rate (2005=100) 10/	101.9	97.0	98.6		
Real effective rate (2005=100) 11/	96.0	90.8	91.3		
Memorandum Items:					
Nominal GDP (billions of euros)	2923.9	3032.8	3134.1	3217.7	3313.2
Population growth (percent)	0.4	0.9	1.0		
GDP per capita (thousands of euros)	36.1	37.1	38.0		

Sources: Deutsche Bundesbank, Federal Statistical Office, IMF staff estimates and projections.
1/ Seasonally and working day adjusted (SWDA).
2/ Contribution to GDP growth.
3/ ILO definition, unless otherwise indicated.
4/ National Accounts Concepts
5/ Deflated by national accounts deflator for private consumption; not SWDA.
6/ Net lending/borrowing.
7/ Excluding supplementary trade items.
8/ Data refer to end of December.
9/ Data reflect Germany's contribution to M3 of the euro area.
10/ Nominal effective exchange rate, all countries.
11/ Real effective exchange rate, CPI based, all countries.

Table 2. Germany: General Government Operations, 2014–22

(Percent of GDP)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
				Projections					
Revenue	44.7	44.7	45.1	45.2	45.2	45.4	45.4	45.4	45.4
Taxes	22.9	23.1	23.3	23.4	23.5	23.7	23.8	23.8	23.8
Indirect taxes	11.3	11.3	11.4	11.4	11.5	11.5	11.6	11.6	11.6
Direct taxes	11.6	11.8	11.9	11.9	12.0	12.2	12.2	12.2	12.2
Social contributions	16.5	16.5	16.7	16.9	17.0	17.0	17.1	17.2	17.2
Grants	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other current revenue	5.2	4.9	4.9	4.8	4.6	4.5	4.4	4.3	4.3
Expense	44.4	44.0	44.3	44.8	44.8	44.6	44.4	44.3	44.3
Compensation of employees	7.7	7.5	7.6	7.6	7.6	7.5	7.5	7.4	7.4
Goods and services	4.6	4.6	4.8	4.9	4.9	4.9	4.8	4.8	4.8
Interest	1.8	1.6	1.4	1.2	1.0	0.8	0.7	0.7	0.6
Subsidies	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Social benefits	23.7	23.9	24.1	24.5	24.5	24.6	24.7	24.9	24.9
Social benefits in kind	8.2	8.3	8.6	8.8	8.8	8.8	8.9	9.0	9.0
Social transfers	15.5	15.5	15.5	15.7	15.8	15.8	15.8	15.9	15.9
Pensions	8.8	8.9	8.9	9.0	9.0	9.1	9.1	9.1	9.1
Child benefits	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Unemployment benefits	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1
Other social transfers	4.6	4.7	4.7	4.8	4.8	4.9	4.9	5.0	5.0
Other expense	5.8	5.6	5.7	5.7	5.9	5.9	5.8	5.7	5.7
Gross public investment	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3
Net acquisition of nonfinancial assets	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net lending/borrowing	0.3	0.7	0.8	0.4	0.5	0.8	1.0	1.1	1.1
Primary balance	2.1	2.2	2.2	1.7	1.4	1.6	1.8	1.8	1.8
Memorandum items:									
Structural balance	0.6	0.7	0.7	0.1	0.1	0.3	0.6	0.7	0.8
Structural primary balance	-1.2	-0.9	-0.7	-1.1	-0.9	-0.5	-0.1	0.1	0.1
Change in structural balance	0.6	0.1	0.0	-0.6	0.0	0.3	0.2	0.2	0.1
Public gross debt (Maastricht definition)	74.9	71.2	68.3	65.8	63.2	60.5	57.6	54.8	52.0

Sources: Bundesbank, Federal Statistical Office, Ministry of Finance, and IMF staff estimates and projections.

Table 3. Germany: Medium Term Projections, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022
				Projections					
Real sector	(Percentage change unless otherwise indicated)								
Real GDP	1.6	1.5	1.8	1.8	1.6	1.4	1.3	1.2	1.2
Total domestic demand	1.5	1.5	2.2	1.6	1.7	1.6	1.5	1.5	1.5
Private consumption	1.0	1.9	1.9	1.3	1.4	1.4	1.4	1.4	1.4
Households saving ratio (in percent)	9.4	9.7	9.7	9.8	9.8	9.8	9.7	9.7	9.5
Foreign balance (contribution to growth)	0.3	0.1	-0.3	0.3	0.0	-0.1	-0.1	-0.2	-0.2
Output gap (percent of potential GDP)	0.0	0.0	0.3	0.7	0.8	0.9	0.9	0.7	0.7
Employment (millions of persons)	39.8	40.1	41.2	41.6	41.9	42.0	42.2	42.3	42.4
Labor productivity (per employed person)	0.8	0.8	0.6	0.5	1.0	1.0	0.9	0.9	1.1
Consumer prices	0.8	0.1	0.4	1.7	1.6	1.9	2.1	2.2	2.4
Compensation per employee	2.8	2.4	2.3	2.7	2.9	3.0	3.0	3.1	3.2
	(Percent of GDP)								
External sector									
Current account balance	7.5	8.6	8.3	8.4	8.1	7.9	7.9	7.7	7.5
Trade balance	6.9	8.0	7.9	7.8	7.6	7.2	7.0	6.6	6.2
Net international investment position	37.3	48.8	51.8	58.0	63.8	69.8	75.6	81.4	86.9
General government									
Overall balance	0.3	0.7	0.8	0.4	0.5	0.8	1.0	1.1	1.1
Gross debt	74.9	71.2	68.3	65.8	63.2	60.5	57.6	54.8	52.0

Sources: Federal Statistical Office, Bundesbank, and IMF staff estimates.

Table 4. Germany: Balance of Payments, 2014–22
(Percent of GDP)

				Projections					
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Current account	7.5	8.6	8.3	8.4	8.1	7.9	7.9	7.7	7.5
Trade balance	6.9	8.0	7.9	7.8	7.6	7.2	7.0	6.6	6.2
Trade in goods	7.8	8.6	8.7	8.5	8.4	8.2	8.0	7.8	7.5
Exports	38.2	38.9	38.1	39.5	40.1	40.7	41.4	42.0	42.5
Imports	30.3	30.3	29.5	31.0	31.7	32.6	33.3	34.2	35.0
Trade in services	-0.9	-0.6	-0.7	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3
Exports	7.7	8.1	8.1	8.1	8.2	8.4	8.6	8.7	8.9
Imports	8.5	8.7	8.8	8.8	9.0	9.4	9.7	10.0	10.2
Primary income balance	1.9	1.9	1.7	1.9	1.8	2.0	2.2	2.4	2.6
Receipts	6.5	6.4	6.0	5.0	4.9	5.6	6.3	7.0	7.7
Payments	4.6	4.5	4.4	3.1	3.1	3.6	4.1	4.6	5.1
Secondary income balance	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
Capital and Financial Account	8.2	7.7	7.4	8.4	8.1	7.9	7.9	7.7	7.5
Capital account	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial account	8.1	7.7	7.4	8.4	8.1	7.9	7.9	7.7	7.5
Direct Investment	2.5	1.8	0.7	1.7	1.4	1.2	1.4	1.3	1.3
Abroad	2.9	3.3	2.2	2.8	2.8	2.6	2.7	2.7	2.7
Domestic	0.4	1.6	1.5	1.2	1.4	1.4	1.3	1.4	1.3
Portfolio investment balance	4.5	6.5	6.6	6.1	6.3	6.6	6.1	6.0	6.1
Financial derivatives	1.1	0.9	1.0	1.2	1.0	1.1	1.1	1.0	1.0
Other financial transactions	0.1	-1.3	-1.1	-0.5	-0.6	-1.0	-0.8	-0.7	-0.9
Change in reserve assets	-0.1	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	0.6	-0.8	-1.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources: Bundesbank, Federal Statistical Office, IMF Statistics Department, and IMF staff estimates.
Note: Based on Balance of Payments Manual 6.

Table 5. Germany: International Investment Position, 2008–16

(Percent of GDP)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Assets	188.2	220.4	255.3	235.6	271.5	255.1	239.0	255.0	251.1
Direct investment	38.7	46.8	47.8	45.1	54.4	55.7	51.1	58.1	57.1
Portfolio investment	57.0	73.2	74.7	63.3	77.8	82.1	79.2	86.3	85.8
Equity and investment fund shares	15.6	20.6	21.6	17.2	21.1	24.5	24.2	28.3	29.1
Debt securities	41.4	52.6	53.0	46.1	56.8	57.7	55.0	58.1	56.7
Financial derivatives (other than reserves) and employee stock options			30.6	31.5	35.5	23.1	24.7	21.5	18.6
Other investment	88.8	95.1	95.9	89.4	96.7	88.8	79.1	83.8	84.2
Reserve assets	3.7	5.3	6.3	6.4	7.0	5.3	5.0	5.2	5.3
Liabilities	171.1	194.6	229.4	214.0	242.4	219.4	201.6	206.2	199.3
Direct investment	30.2	35.4	35.4	33.3	40.8	42.6	37.4	40.8	40.1
Portfolio investment	75.3	88.8	88.1	81.0	94.7	90.5	82.6	82.6	76.4
Equity and investment fund shares	12.5	18.9	19.5	15.0	19.8	23.0	19.6	21.8	21.3
Debt securities	62.8	69.9	68.6	65.9	75.0	67.6	62.9	60.9	55.0
Financial derivatives (other than reserves) and employee stock options			30.7	32.0	35.3	22.7	25.4	22.0	19.5
Other investment	65.6	70.4	75.3	67.8	71.5	63.6	56.2	60.7	63.3
Net International Investment Position	17.2	25.8	25.8	21.6	29.1	35.7	37.3	48.8	51.8
Direct investment	8.6	11.5	12.4	11.8	13.6	13.1	13.7	17.3	17.0
Portfolio investment	-18.3	-15.6	-13.4	-17.7	-16.9	-8.4	-3.4	3.7	9.4
Financial derivatives (other than reserves) and employee stock options			-0.1	-0.5	0.2	0.4	-0.7	-0.5	-0.9
Other investment	23.3	24.7	20.6	21.6	25.2	25.2	22.8	23.2	20.9

Sources: IMF Statistics Department and IMF staff calculations.
Note: Based on Balance of Payments Manual 6.

Table 6. Germany: Core Financial Soundness Indicators for Banks, 2011–16

(Percent)

	2011	2012	2013	2014	2015	2016
Capital adequacy						
Regulatory capital to risk-weighted assets	16.4	17.9	19.2	18.0	18.3	18.8
Commercial banks	15.6	17.8	18.9	17.2	17.3	17.9
Landesbanken	17.7	18.8	21.3	18.4	19.4	21.4
Savings banks	15.8	15.9	16.4	16.6	16.7	16.9
Credit cooperatives	15.6	15.8	16.6	17.4	17.6	17.7
Regulatory Tier I capital to risk-weighted assets	12.1	14.2	15.6	15.4	15.7	16.3
Commercial banks	13.1	15.0	16.1	15.5	15.5	16.0
Landesbanken	12.7	14.0	16.9	14.7	15.6	16.6
Savings banks	10.5	12.5	13.4	14.5	14.8	15.2
Credit cooperatives	10.4	11.1	12.0	13.5	14.1	14.5
Asset composition and quality						
Sectoral distribution of loans to total loans						
Loan to households	26.2	26.8	28.5	28.7	29.0	28.5
Commercial banks	21.4	20.8	22.9	22.3	22.2	20.9
Landesbanken	5.4	5.6	5.8	5.6	5.5	5.4
Savings banks	56.2	57.2	57.4	57.0	58.2	57.8
Credit cooperatives	66.8	68.7	69.3	69.8	68.8	68.2
Loans to non-financial corporations	14.6	14.9	15.6	15.2	15.2	14.9
Commercial banks	11.9	11.5	12.3	12.0	12.0	11.0
Landesbanken	19.1	20.8	22.4	22.5	23.5	24.1
Savings banks	20.3	21.5	22.0	21.7	22.4	23.1
Credit cooperatives	14.1	15.2	16.0	16.6	16.8	17.4
NPLs to gross loans	3.0	2.9	2.7	2.3	1.98	
Commercial banks	2.0	1.9	1.8	1.4	1.15	
Landesbanken	4.1	4.5	4.8	4.8	4.50	
Savings banks	3.5	3.1	2.8	2.3	1.94	
Credit cooperatives	3.5	3.2	2.8	2.4	2.04	
NPLs net of provisions to capital	31.6	27.4	23.8	20.9	17.51	
Commercial banks	19.1	16.4	13.3	7.8	6.86	
Landesbanken	45.6	46.6	49.4	53.6	42.21	
Savings banks	35.3	31.5	27.6	22.6	19.74	
Credit cooperatives	34.0	30.8	26.8	22.7	19.52	

Table 6. Germany: Core Financial Soundness Indicators for Banks (concluded)

(Percent)

	2011	2012	2013	2014	2015	2016
Earnings and profitability						
Return on average assets (after-tax)	0.3	0.2	0.2	0.2	0.2	
Commercial banks	0	0.1	0.1	0.1	0.1	
Landesbanken	0	0.1	-0.1	-0.1	0.1	
Savings banks	1.3	0.6	0.5	0.5	0.5	
Credit cooperatives	0.7	0.7	0.8	0.6	0.6	
Return on average equity (after-tax)	6.5	5.6	3.5	4.0	4.0	
Commercial banks	0.8	3.7	3.5	3.5	2.2	
Landesbanken	-1	2.8	-1.6	-1.5	1.9	
Savings banks	22.9	9.3	7.3	6.7	6.5	
Credit cooperatives	11.9	11.5	11.0	8.6	7.4	
Interest margin to gross income	72.9	71.5	71.9	75.4	75.0	
Commercial banks	59.8	61.8	63.0	66.4	67.0	
Landesbanken	94.5	82.3	78.5	89.9	82.5	
Savings banks	79.6	79.4	80.0	79.8	78.2	
Credit cooperatives	78	78.2	78.6	79.2	78.4	
Trading income to gross income	3.7	5.5	4.9	2.9	2.9	
Commercial banks	9.2	9.9	8.0	5.8	5.3	
Landesbanken	-4.8	6.7	12.5	1.2	5.4	
Savings banks	-0.1	0.1	0.1	0.0	0.0	
Credit cooperatives	0.1	0.1	0.0	0.0	0.0	
Noninterest expenses to gross income	63.9	64.2	69.1	69.2	70.4	
Commercial banks	67.9	67.2	72.8	73.4	75.6	
Landesbanken	59.8	59.6	61.8	70.9	69.1	
Savings banks	62.7	65.7	67.2	68.3	68.9	
Credit cooperatives	63.9	65.9	64.6	65.9	66.6	
Liquidity						
Liquid assets to total short-term liabilities	137.9	144.2	140.5	145.5	146.5	146.6
Commercial banks	124.3	129.5	125.1	128.3	128.4	127.9
Landesbanken	144.3	135.8	138.5	139	139.2	146.4
Savings banks	210.1	233.6	234.6	238.9	246.3	253.7
Credit cooperatives	208.4	230.6	231.8	233.3	241.7	246.9
Sensitivity to market risk						
Net open positions in FX to capital	4.5	3.9	3.8	4.0	4.6	4.0
Commercial banks	2.3	2.0	1.8	1.9	1.8	1.9
Landesbanken	7.4	4.8	5.3	7.3	10.6	6.4
Savings banks	7.7	7.8	7.7	4.8	4.8	4.4
Credit cooperatives	8.3	8.1	8.0	7.7	7.9	7.9

Source: Deutsche Bundesbank. The authorities provide annual data only and disseminate them once a year.

Table 7. Germany: Additional Financial Soundness Indicators, 2011–16

(Percent, unless otherwise indicated)

	2011	2012	2013	2014	2015	2016
Deposit-taking institutions						
Capital to assets	4.4	4.7	5.5	5.6	5.9	6
Commercial banks	4.0	4.1	4.9	5	5.2	5.1
Landesbanken	4.0	4.4	5.0	4.9	5.4	5.7
Savings banks	5.7	6.9	7.5	7.9	8.3	8.6
Credit cooperatives	5.8	6.3	7.0	7.4	7.7	7.9
Geographical distribution of loans to total loans						
Germany	75.7	76.8	76.8	74.6	75.9	76.6
EU-member countries	16.8	16.0	16	15.8	15.1	14
Others	7.5	7.2	7.2	9.6	9	9.4
FX loans to total loans	11.0	10.5	10	11.5	11.4	11.2
Personnel expenses to noninterest expenses	52	52.9	51.9	51.3	51.1	
Commercial banks	45.5	46.6	44.7	42.7	42.8	
Landesbanken	47.9	49.6	48.4	50.2	50.6	
Savings banks	61.7	62.7	62.3	63.4	63.1	
Credit cooperatives	59.7	59.6	59.8	60.1	60.3	
Trading and fee income to total income	27.1	28.5	28.1	24.6	25	
Commercial banks	40.2	38.2	37	33.6	33	
Landesbanken	5.5	17.7	21.5	10.1	17.5	
Savings banks	20.4	20.6	20	20.2	21.8	
Credit cooperatives	22	21.8	21.4	20.8	21.6	
Funding						
Customer deposits to total (non-interbank) loans	73.6	75.7	84.5	86.9	85.0	82.1
Commercial banks	83.1	84.0	104.5	109.2	101.7	90.5
Landesbanken	33.7	33.6	41.6	40.2	43.7	39.8
Savings banks	106.9	107.7	108.5	110	109.5	109.5
Credit cooperatives	117.7	118.7	116.9	117.5	116.9	117.7
Deposits/total assets	60.0	61.3	64.6	63.9	65.8	66.8
Commercial banks	58.0	60.3	65.6	63.3	66.2	68.5
Landesbanken	51.4	51.8	55.4	55.1	58.6	58.4
Savings banks	86.7	86.8	86.7	86.7	86.6	86.5
Credit cooperatives	86.3	86.6	86.8	87	87.1	87.2
Interbank assets/total assets	34.8	34.3	35.0	33.9	33.7	34.9
Commercial banks	32.7	34.1	35.9	34.8	36.4	39.3
Landesbanken	36.5	34.1	34.8	32.6	30.8	3.07
Savings banks	24.9	22.7	21.2	20.3	18.2	17.9
Credit cooperatives	28.0	26.0	24.2	22.7	21.6	21.2
Interbank liabilities/total assets	21.8	21.7	21.5	21.7	21.6	21.9
Commercial banks	22.5	23.6	22.6	23.6	23.9	26
Landesbanken	25.2	24.4	28.0	27.9	28.1	27
Savings banks	16.6	15.5	14.1	13.1	11.9	11.1
Credit cooperatives	14.3	14.2	13.2	13.1	12.7	12.3
Securitized funding/total assets						
Commercial banks						
Landesbanken						
Savings banks						
Credit cooperatives						
Loans/assets	37.7	38.4	40.3	39.5	41.1	41.6
Commercial banks	27.3	27.2	30.0	28.1	29.3	29.7
Landesbanken	36.1	38.0	39.5	40.5	43.9	46.1
Savings banks	61.7	62.9	63.7	63.9	65.1	65.5
Credit cooperatives	58.2	59.0	60.6	61.2	61.8	62
Securities holdings/assets	18.1	18.0	19.4	19	18.5	17.4
Commercial banks	11.0	11.0	13.0	12.8	12.6	11.9
Landesbanken	19.4	19.0	21.7	20.9	19.9	18.2
Savings banks	25.0	25.4	25.2	25.2	25.2	24.6
Credit cooperatives	26.6	27.8	27.4	27.8	26.9	26.8
Off-balance sheet operations to total assets						
of which: interest rate contracts						
of which: FX contracts						
Spread between highest and lowest interbank rates 1/	14.38	9.60	3.88	4.09	8.90	3.51
Spread between reference loan and deposit rates 2/	331	325	325	318	301	280

Table 7. Germany: Additional Financial Soundness Indicators (concluded)

(Percent, unless otherwise indicated)

	2011	2012	2013	2014	2015	2016
Insurance sector						
Solvency ratio, Life	177.0	169.0	162.0			
Solvency ratio, Non-life (without reinsurance and health insurance)	312.0	314.0	317.0			
Return on average equity, Life 3/	9.7	9.5	6.1			
Return on average equity, Non-life 3/ (without reinsurance and health insurance)	2.8	3.2	3.8			
Market liquidity						
Average bid-ask spread in the securities market (government bills)	0.0	0.01	0.01	0.0	0.0	0.01
Average bid-ask spread in the securities market (corporate securities)	0.3	0.01	0.01	0.01	0.0	0.0
Corporate sector						
Total debt to equity 4/	104.3	93.2	84.9	82.8	80.8	81.9
Total debt to GDP 5/	128.9	129.6	131.1	129.9		
Return on invested capital 6/ 7/		6.4	9.1			
Earnings to interest and principal expenses 4/ 8/	1228.8	1709.4	1597.8	1659.3	1837.1	1863.4
Number of applications for protection from creditors 4/ 9/	14553.0	13951.0	14344.0	13480.0	13078.0	12056.0
Households						
Household debt to GDP 4/	59.8		56.2	55.1	52.8	52.84
Household debt service and principal payments to income 4/ 8/	2.9		2.1	1.8	1.5	1.4
Real estate markets						
Real estate prices, new dwellings 10/	100.0	106.9	114.6	121.2	130.2	140.2
Real estate prices, resale 10/	100.0	106.8	115.0	121.5	130.7	141.6
Real estate prices, new and resale 10/	100.0	106.9	114.9	121.4	130.6	141.4
Real estate prices, commercial property 11/	104.7	108.9	114.0	120.9	129.4	138.7
Residential real estate loans to total loans	16.7	17.1	18.3	19.0	19.2	18.5
Commercial real estate loans to total loans	5.7	5.7	5.9	5.8	5.8	5.56

Source: Deutsche Bundesbank. The authorities provide annual data only and disseminate them once a year.

1/ Spread between highest and lowest three month money market rates as reported by Frankfurt banks (basis points).

2/ Spread in basis points.

3/ Profits after tax devided by equity.

4/ Indicator compiled according to definitions of the Compilation Guide on FSIs.

5/ Total debt to corporate gross value added.

6/ Return defined as net operating income less taxes, where net operating income and taxes are compiled according to the FSI Compilation Guide.

7/ Invested capital estimated as balance sheet total less other accounts payable (AF.7 according to ESA 1995).

8/ Excluding principal payments.

9/ Resident enterprises that filed for bankruptcy.

10/ Residential property price index (yearly average, 2011 = 100); source: Bundesbank calculations based on price data provided by bulwiengesa AG for 127 towns and cities, weighted by transactions.

11/ Commercial property price index (office and retail property, yearly average, 2010 = 100), source: capital growth data provided by bulwiengesa AG for 127 townsand cities; separate indices are calculated for office property and retail property.

Annex I. External Sector Report

	Germany	Overall Assessment
Foreign asset and liability position and trajectory	**Background**. Germany's positive net international investment position (NIIP) reached 52 percent of GDP at end-2016, about twice the 2011 level. The net rise in foreign assets over this period has however fallen short of the accumulation of current account (CA) surpluses. The NIIP of financial corporations other than MFIs is large and positive (50 percent of GDP), while that of the general government is large and negative (34 percent of GDP), partly reflecting Germany's safe haven status. The NIIP is expected to reach 85 percent of German GDP and 3.5 percent of world GDP by 2021, as the projected CA surplus remains sizable through the medium term. Foreign assets are well diversified by instrument. The stock of Germany's net (Target2) claims on the Eurosystem has been on an upward trend since the beginning of 2015 and reached €857 billion in May 2017 (27 percent of GDP), after declining consistently between 2012 and 2014. **Assessment**. With the implementation of quantitative easing measures by the ECB, Germany's exposure to the Eurosystem has widened again.	**Overall Assessment**: *Germany's external position in 2016 remained substantially stronger than implied by medium-term fundamentals and desirable policy settings.* The current account surplus has narrowed slightly relative to 2015 levels as cyclical conditions improved in Germany and globally. Staff projects a gradual narrowing in the medium run, as energy and other import prices recover and private investment keeps strengthening. Without nominal exchange rate flexibility, stronger wage growth relative to euro area trading partners is expected to contribute to realign price competitiveness within the monetary union, but at a slow pace. The projected adjustment is, however, partial and additional policy actions will be necessary to fully rebalance the economy. **Potential policy responses**: A more growth-oriented fiscal policy, making use of fiscal space to stimulate potential growth, as well as pension reforms prolonging working lives would reduce savings, stimulate investment, and reduce external imbalances.
Current account	**Background**. The CA surplus has been widening since 2001. It averaged 7.5 percent of GDP over the last five years and reached 8.3 percent of GDP in 2016, a 0.3 p.p. decline relative to 2015, while the nominal balance remained virtually unchanged. The increase in net exports in 2016 was roughly equally split between euro area and non-euro area trade partners. The bulk of the CA surplus reflects large saving-investment surpluses of non-financial corporations and households, with rising net savings of non-financial corporations and fiscal consolidation accounting for the upward trend. **Assessment**. The cyclically-adjusted CA balance reached 8.5 percent of GDP in 2016, slightly below the 2015 level and 3–6 percentage points of GDP stronger than the value implied by fundamentals and desirable policies. Staff assesses the CA norm at 2½–5½ percent of GDP, with a midpoint slightly lower than the CA norm implied by the EBA model of 4½ percent. 1/ The sensitivity of the norm to demographic factors and uncertainties regarding the evolution of these factors explain the relatively wide range around the assessed CA norm.	
Real exchange rate	**Background**. The yearly average CPI based real effective exchange rate (REER) was broadly unchanged relative to 2015, as have the nominal effective exchange rate and the ULC-based REER, as the euro remained stable vis-à-vis the U.S. dollar, but appreciated relative to the sterling and the renminbi. The REER through March 2017 showed a very minor depreciation relative to the 2016 average. **Assessment**. Staff's assessment for 2016 is of a REER undervaluation of 10–20 percent. The EBA REER Level model yields an undervaluation of about 19 percent. The undervaluation implied by the CA regression model using standard trade elasticities is 10–15 percent. 2/	
Capital and financial accounts: flows and policy measures	**Background**. In 2016, net portfolio and other investment flows, constituted about ½ and ⅓ of the capital and financial accounts balance, respectively. On a regional basis, about ⅔ of the net outflows were toward European countries and ⅓ toward the Americas (mostly the U.S.), with small net inflows from emerging countries and offshore centers. Net direct foreign investment declined reflecting both a decrease in outward investment and an increase in flows into Germany. **Assessment**. Safe haven status and the strength of Germany's current external position limit risks.	
FX intervention and reserves level	**Background.** The euro has the status of global reserve currency. **Assessment.** Reserves held by Euro area countries are typically low relative to standard metrics. The currency is freely floating.	
Technical Background Notes	1/ The rapid aging of the population contributes 3 percentage points to the estimated EBA CA norm of 4½ percent of GDP. The difference between the EBA norm and the mid-point of the staff assessed norm (-0.5 percentage points) reflects staff's judgement that demographic projections used in the EBA model are somewhat pessimistic in light of the most recent developments in immigration and fertility. Most of the EBA-estimated gap for 2016 reflects the regression's residual rather than gaps in the policies variables included in the EBA model. 2/ The EBA REER Index model has an unusually poor fit for Germany. The result for 2016 is an estimate of overvaluation (of 4 percent) that has been discarded from the assessment as implausible, including in light of the assessment that the CA is too strong.	

Annex II. Risk Assessment Matrix

Source of Risks	Relative Likelihood	Impact	Policy response
Risks to the economic outlook			
I. Retreat from cross-border integration. A fraying consensus about the benefits of globalization could lead to protectionism and economic isolationism, leading to reduced global and regional policy collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth.	H	M With its high degree of trade openness, Germany is especially susceptible to fluctuations in global demand; fiscal buffers are comfortable.	**Let automatic stabilizers work. Consider a discretionary fiscal expansion to the extent allowed by the fiscal rules. If the output gap widens significantly, depending on the size and nature of the shock to the economy, invoking the escape clause under the national debt brake rule could be appropriate to support the German economy.**
II. Policy uncertainty and divergence. Two-sided risks to U.S. growth with difficult-to-predict policies and global spillovers. In Europe, uncertainty associated with negotiating post-Brexit arrangements and with upcoming major elections. Policy divergence could lead to rising global imbalances and exacerbate exchange rate and capital flow volatility.	H	M With its high degree of trade openness, Germany is especially susceptible to fluctuations in global demand; fiscal buffers are comfortable	
III. Reassessment of regional sovereign risk. Financial stress in the euro area could re-emerge triggered by policy uncertainty, faltering reforms, or political unrest as confidence in the European project erodes across parts of Europe.	H	H	
IV. Structurally weak growth in key advanced economies: Low productivity growth, a failure to fully address crisis legacies and undertake structural reforms, as well as persistently low inflation could undermine medium-term growth.	H	M	
Risks to the financial sector			
V. Low for long. The failure of wage and price inflation to pick up in the euro area could substantially delay the normalization of monetary policy.	M	M This could exacerbate price pressures in the housing market and further deteriorate banks' and life insurance companies' profitability prospects. Faced with falling net interest margins, banks may be tempted to adopt (risky) search-for-yield strategies, while life insurers may not be able to pay guaranteed yields to policyholders and may become distressed, increasing financial stability risks.	**Lift inflation expectations through consistent communication efforts. Consider a discretionary fiscal expansion to the extent allowed by the fiscal rules. Take precautionary measures now by strengthening the macroprudential framework and bank supervision. Keep pushing large banks to reduce leverage. Supervisors should also make full use of the additional early intervention powers granted to them by the 2014 life insurance reform law to ensure prudent behavior by the industry.**
VI. European bank distress: Strained bank balance sheets amid a weak profitability outlook could lead to financial distress in one or more major banks.	M	H This may have knock-on effects on the broader financial sector and on sovereign yields in vulnerable economies.	**The authorities should ensure that liquidity buffers are adequate, engage in contingency planning, and put in place coordination mechanisms among the relevant authorities involved.**

Annex III. Public Debt Sustainability Analysis

Public debt is back at pre-crisis levels, and is expected to continue to fall in the medium term owing to projected high primary surpluses and a favorable interest rate-growth differential. The public debt-to-GDP ratio should cross the 60 percent mark by 2020. A negative growth shock represents the largest risk to the debt outlook. Also, the realization of contingent liabilities related to future bank recapitalization needs or worse-than-expected performance of winding-down institutions would push debt up by about 3 percent of GDP. In both cases, gross financing needs would temporarily rise but remain below 14 percent of GDP, and debt would swiftly return to a firm downward path after the shock.

A. Baseline Scenario

1. Macroeconomic assumptions. Real GDP growth is expected at about 1½ percent over the next three years, supported by rising employment, some fiscal stimulus and a still expansionary monetary policy. In the medium run, growth should converge to its potential level, estimated at 1.2 percent per year. Inflation—measured by the GDP deflator—should be 1.4 percent in 2017, and steadily rise thereafter towards 2 percent. Sovereign interest rates remain low and are currently negative up to a seven-year maturity. Thus, average interest rates are expected to continue falling, from 2 percent in 2016 to 1.2 percent in 2022.[1]

2. Germany's high level of government debt calls for using the higher scrutiny framework. At 68.3 percent of GDP in end 2016, public gross debt is still above the indicative DSA threshold for high scrutiny of 60 percent of GDP. Debt increased significantly over 2009–10, reaching a peak of 82.5 percent of GDP, reflecting sizable fiscal stimulus, large financial sector support and euro zone crisis-related lending. Since the peak, it has declined gradually on the back of fiscal consolidation and a favorable interest rate-growth differential. Estimated gross financing needs are however already below 15 percent of GDP and should continue to fall through the forecast horizon.

3. Realism of baseline assumptions. The forecasts of macro-fiscal variables affecting debt dynamics have been on the conservative side. The median forecast error for real GDP growth during 2007–15 is -0.11 percent, suggesting that there is slight upward bias in the staff projections, but the forecast bias is in line with other surveillance countries. Similarly, the median forecast error for inflation (GDP deflator) is 0.54 percent, suggesting that the staff overestimated inflation in the past (particularly post-2009). The median forecast bias for the primary balance is relatively large, at 1.16 percent of GDP, among the most conservative for surveillance countries.

4. Cross-country experience suggests that the projected fiscal adjustment is feasible. Both the maximum 3-year adjustment in the cyclically-adjusted primary balance (CAPB) over the projection period (½ percent of GDP) and 3-year average cyclically adjusted primary balance are not

[1] The interest rate on new borrowing is derived from forecasts of the real interest rate and inflation, and it does not necessarily match market-based interest rate forecasts. Using market-based forecasts would make little difference to the debt sustainability analysis.

ambitious in cross-country comparison. Germany was able to deliver larger fiscal consolidations in the past, notably in 2011 and 2012.

B. Shocks and Stress Tests through the Medium Term

5. Germany's government debt should remain below 70 percent of GDP under plausible macro-fiscal shocks, while gross financing needs would remain below 14 percent of GDP. Under all considered macro-fiscal stress tests, both the debt-to-GDP ratio and gross financing needs either continue to fall or swiftly return to a downward path after the shock. Temporary shocks to real GDP growth, a combined macro-fiscal shock, or a contingent liability shock would nonetheless drive a temporary increase in debt and/or gross financing needs. Given the historical variability of growth, debt dynamics in Germany is most sensitive to growth shocks.

List of Shocks and Stress Tests[2]

- **Growth shock**. Under this scenario, real output growth rates are lower than in the baseline by one standard deviation over 2018–19, i.e. 2.7 percentage points. The assumed decline in growth leads to lower inflation (0.25 percentage points per 1 percentage point decrease in GDP growth) and the interest rate is assumed to increase 25 basis points for every 1 percent of GDP worsening of primary balance. Debt (gross financing needs) would peak at 70 (14) percent of GDP in this case, and converge to 61 (11) percent of GDP by 2022.

- **Primary balance shock.** This scenario examines the effect of a dual shock of lower revenues and rise in interest rate, leading to a cumulative 1.4 percent deterioration in the primary balance over 2018–19 (one standard deviation shock to the primary balance). The shock would result in a modest deterioration of debt dynamics.

- **Interest rate shock**. This scenario assumes a 400 basis points increase in debt servicing costs throughout the forecast horizon, mimicking the historical maximum interest rate experienced since 2006. The effect on public debt and gross financing needs would also be relatively modest.

- **Additional stress test**: Combined macro-fiscal shock. This test combines shocks to growth, the interest rate, and the primary balance; while avoiding double-counting the effects of individual shocks. The impact on debt dynamics is slightly worse than that of a growth shock.

- **Additional stress test**: Contingent fiscal shock. This scenario assumes a cumulative 3 percent of GDP (about 90 billion euros) additional support to the financial sector over 2018–19 comprising of additional re-capitalization needs in the banking system (55 billion euros), a call on half of capital shield guarantees (25 billion euros), and worse than expected performance of portfolios of winding-down institutions (10 billion euros). While a sizable shock, the impact on the debt ratio is relatively limited, and a convergence to 60 percent is still achieved in 2021. Gross financing needs would remain comfortably below 15 percent of GDP.

[2] Given that virtually all outstanding sovereign debt is denominated in euros, the standard scenario of a real exchange rate shock would not have a relevant effect on German government debt and is therefore not discussed.

Figure A1. Germany: Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario

(in percent of GDP unless otherwise indicated)

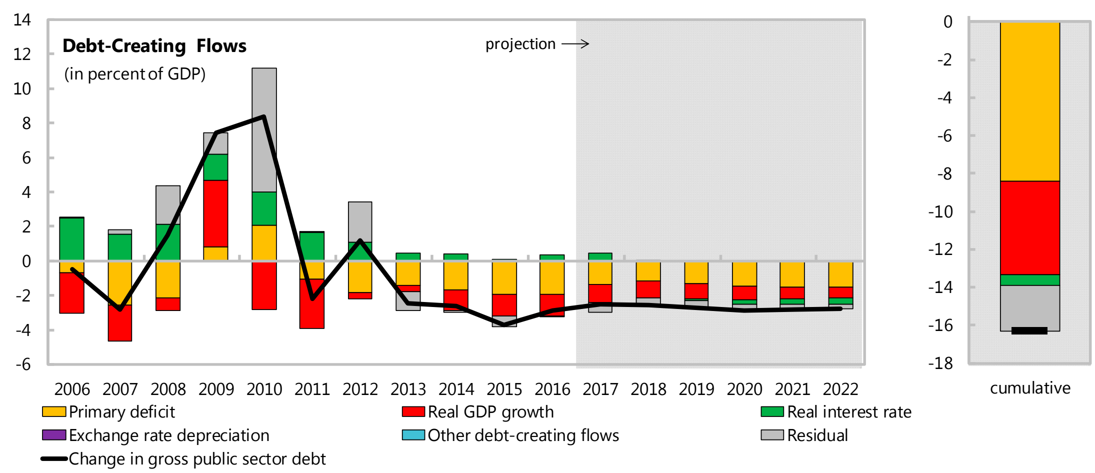
Debt, Economic and Market Indicators [1/]

	Actual			Projections					
	2006-2014 [2/]	2015	2016	2017	2018	2019	2020	2021	2022
Nominal gross public debt	73.3	71.2	68.3	65.8	63.2	60.5	57.6	54.8	52.0
Public gross financing needs	16.1	13.8	13.1	11.9	11.2	9.3	9.7	8.5	9.2
Real GDP growth (in percent)	1.4	1.7	1.9	1.5	1.5	1.4	1.3	1.2	1.2
Inflation (GDP deflator, in percent)	1.3	2.0	1.4	1.1	1.4	1.5	1.7	1.7	1.9
Nominal GDP growth (in percent)	2.7	3.7	3.3	2.7	3.0	2.9	3.0	2.9	3.1
Effective interest rate (in percent) [4/]	3.5	2.2	2.0	1.8	1.5	1.3	1.2	1.2	1.2
10-year bond yield	1.2	0.6	0.5	0.2	0.4	0.7	1.1	1.5	1.9

As of May 26, 2016		
Sovereign Spreads		
EMBIG (bp) 3/		0
5Y CDS (bp)		19
Ratings	Foreign	Local
Moody's	Aaa	Aaa
S&Ps	AAA	AAA
Fitch	AAA	AAA

Contribution to Changes in Public Debt

	Actual			Projections							
	2006-2014	2015	2016	2017	2018	2019	2020	2021	2022	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	0.9	-3.7	-2.9	-2.5	-2.6	-2.7	-2.9	-2.8	-2.8	-16.3	
Identified debt-creating flows	-0.5	-3.1	-2.8	-1.9	-2.1	-2.3	-2.5	-2.5	-2.5	-13.9	
Primary deficit	-1.0	-1.9	-1.9	-1.4	-1.2	-1.3	-1.5	-1.5	-1.5	-8.4	-1.0
Primary (noninterest) revenue and gra	43.4	44.3	44.8	44.9	44.9	45.1	45.1	45.2	45.1	270.4	
Primary (noninterest) expenditure	42.5	42.4	42.9	43.6	43.8	43.7	43.6	43.6	43.6	262.0	
Automatic debt dynamics [5/]	0.5	-1.1	-0.9	-0.5	-0.9	-1.0	-1.0	-1.0	-1.0	-5.5	
Interest rate/growth differential [6/]	0.5	-1.1	-0.9	-0.5	-0.9	-1.0	-1.0	-1.0	-1.0	-5.5	
Of which: real interest rate	1.5	0.1	0.4	0.5	0.0	-0.1	-0.3	-0.3	-0.4	-0.6	
Of which: real GDP growth	-1.0	-1.2	-1.3	-1.0	-1.0	-0.9	-0.8	-0.7	-0.6	-4.9	
Exchange rate depreciation [7/]	0.0	0.0	0.0	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization/Drawdown of Deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Eurc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes [8/]	1.4	-0.7	-0.1	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-2.4	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

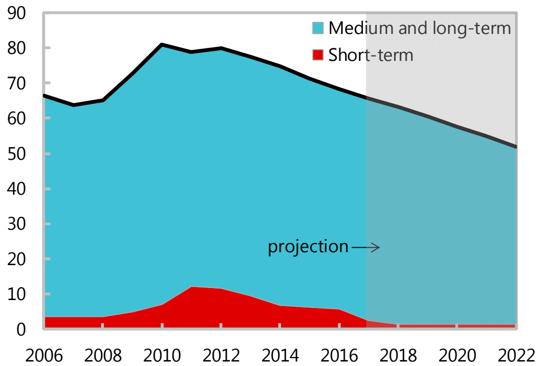
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Figure A2. Germany: Public DSA—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

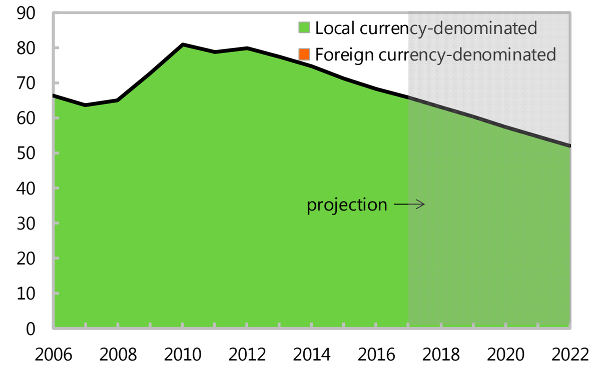
By Maturity

(in percent of GDP)



By Currency

(in percent of GDP)

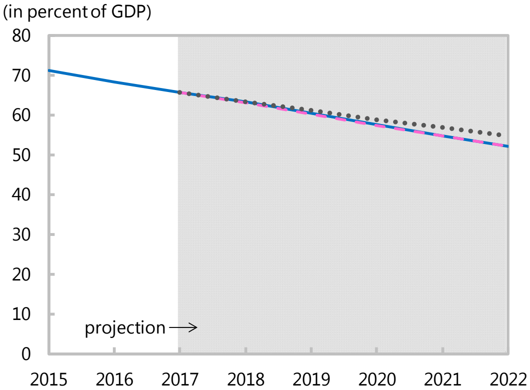


Alternative Scenarios

Baseline Historical Constant Primary Balance

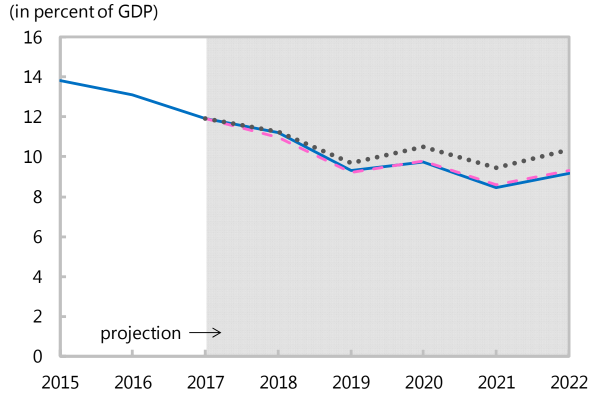
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



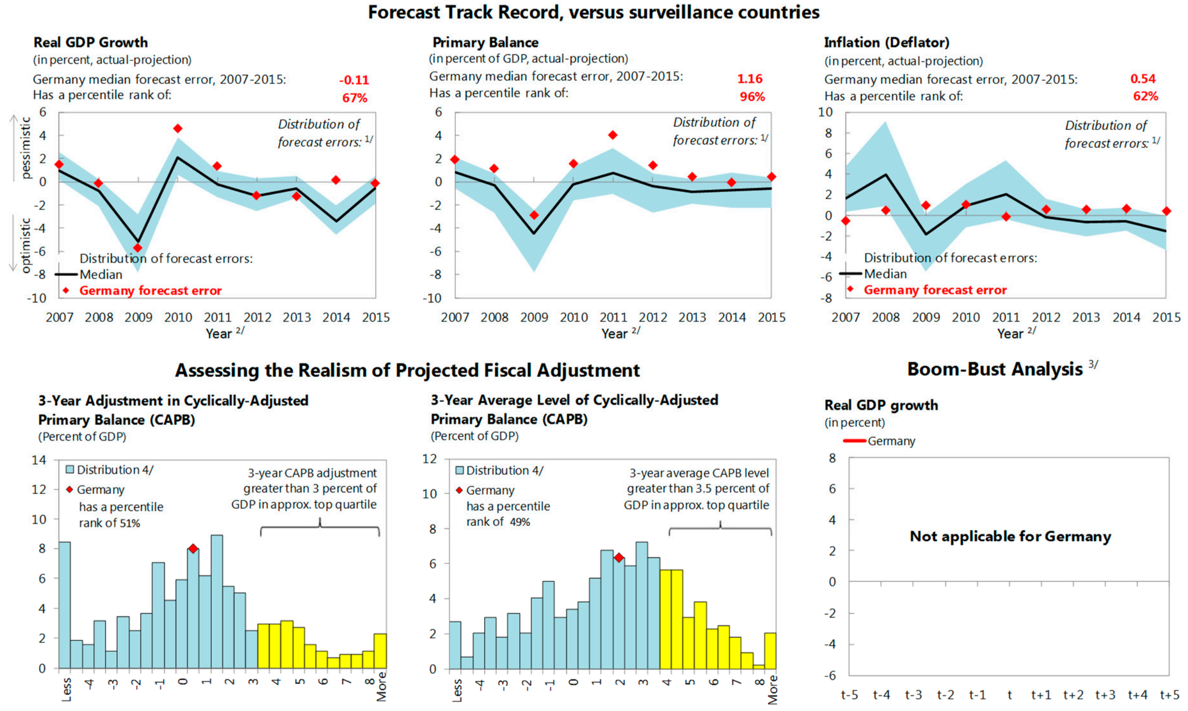
Underlying Assumptions

(in percent)

Baseline Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	1.5	1.5	1.4	1.3	1.2	1.2
Inflation	1.1	1.4	1.5	1.7	1.7	1.9
Primary Balance	1.4	1.2	1.3	1.5	1.5	1.5
Effective interest rate	1.8	1.5	1.3	1.2	1.2	1.2
Constant Primary Balance Scenario						
Real GDP growth	1.5	1.5	1.4	1.3	1.2	1.2
Inflation	1.1	1.4	1.5	1.7	1.7	1.9
Primary Balance	1.4	1.4	1.4	1.4	1.4	1.4
Effective interest rate	1.8	1.5	1.3	1.2	1.2	1.2

Historical Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	1.5	1.3	1.3	1.3	1.3	1.3
Inflation	1.1	1.4	1.5	1.7	1.7	1.9
Primary Balance	1.4	1.2	1.2	1.2	1.2	1.2
Effective interest rate	1.8	1.5	1.6	1.8	1.9	2.2

Figure A3. Germany: Public DSA—Realism of Baseline Assumptions



Source : IMF Staff.

1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries.

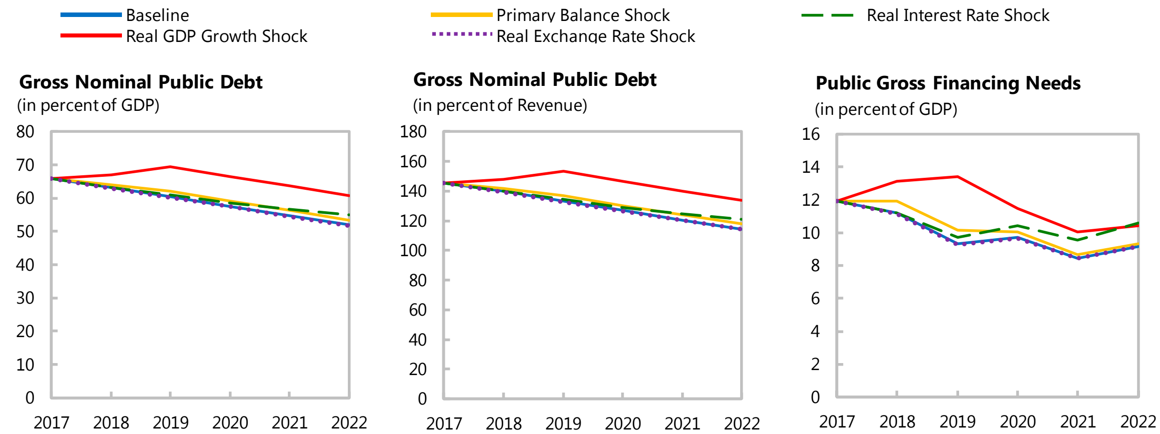
2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Germany, as it meets neither the positive output gap criterion nor the private credit growth criterion.

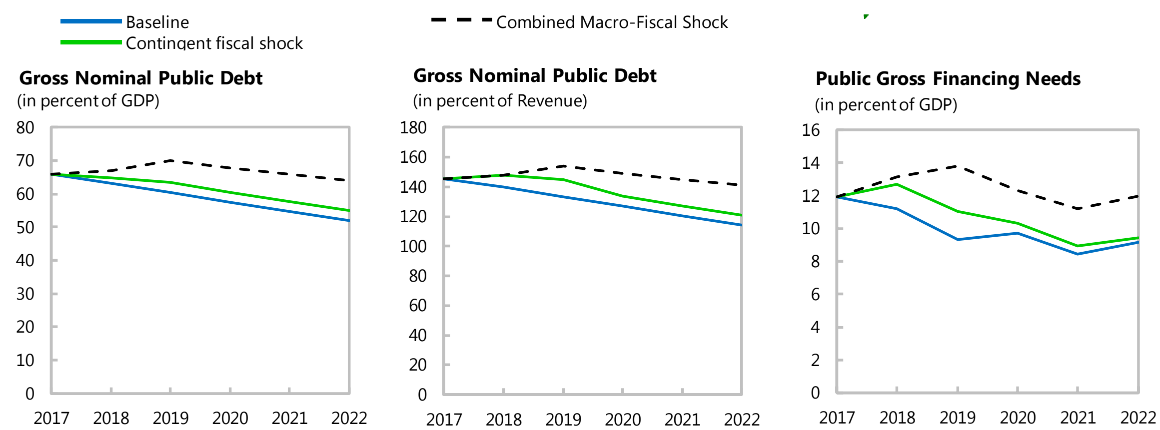
4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure A4. Germany: Public DSA—Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions
(in percent)

Primary Balance Shock	2017	2018	2019	2020	2021	2022
Real GDP growth	1.5	1.5	1.4	1.3	1.2	1.2
Inflation	1.1	1.4	1.5	1.7	1.7	1.9
Primary balance	1.4	0.4	0.6	1.5	1.5	1.5
Effective interest rate	1.8	1.5	1.3	1.3	1.2	1.2
Real Interest Rate Shock						
Real GDP growth	1.5	1.5	1.4	1.3	1.2	1.2
Inflation	1.1	1.4	1.5	1.7	1.7	1.9
Primary balance	1.4	1.2	1.3	1.5	1.5	1.5
Effective interest rate	1.8	1.5	1.9	2.3	2.7	3.1
Combined Shock						
Real GDP growth	1.5	-1.2	-1.3	1.3	1.2	1.2
Inflation	1.1	0.7	0.8	1.7	1.7	1.9
Primary balance	1.4	-0.3	-1.7	1.5	1.5	1.5
Effective interest rate	1.8	1.5	2.0	2.4	2.8	3.3

Real GDP Growth Shock	2017	2018	2019	2020	2021	2022
Real GDP growth	1.5	-1.2	-1.3	1.3	1.2	1.2
Inflation	1.1	0.7	0.8	1.7	1.7	1.9
Primary balance	1.4	-0.3	-1.7	1.5	1.5	1.5
Effective interest rate	1.8	1.5	1.4	1.4	1.3	1.3
Real Exchange Rate Shock						
Real GDP growth	1.5	1.5	1.4	1.3	1.2	1.2
Inflation	1.1	1.8	1.5	1.7	1.7	1.9
Primary balance	1.4	1.2	1.3	1.5	1.5	1.5
Effective interest rate	1.8	1.5	1.3	1.2	1.2	1.2

Source: IMF staff.

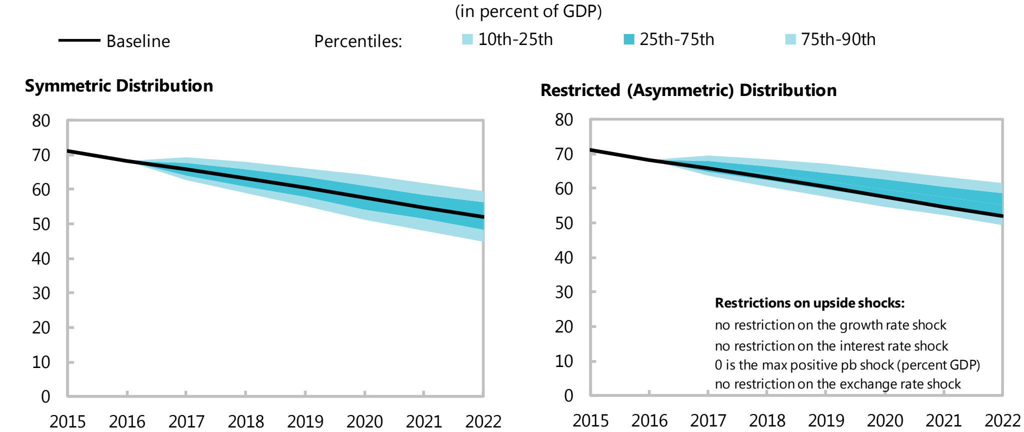
Figure A5. Germany: Public DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

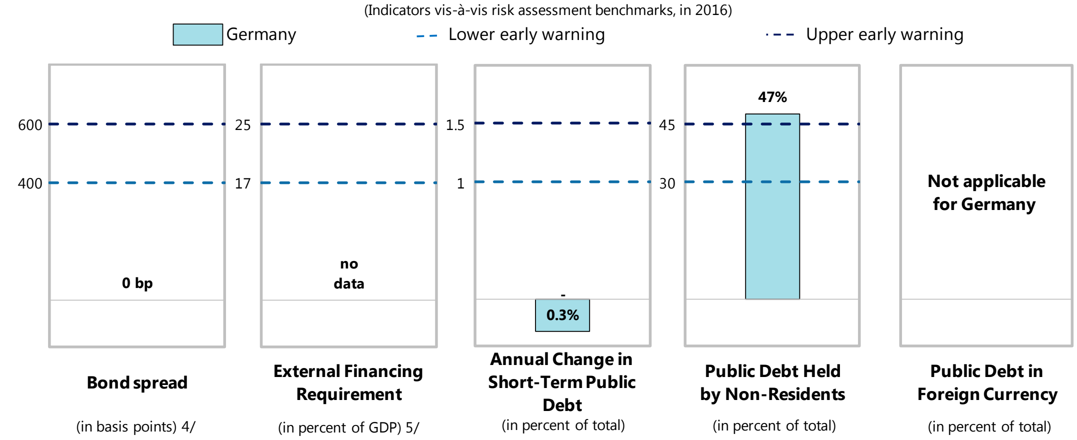
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2016)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 26-Feb-16 through 26-May-16.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Annex IV. Authorities' Response to Past IMF Policy Recommendations

IMF 2016 Article IV Recommendations	Authorities' Response
Fiscal Policy	
• Step up investment addressing weaknesses in public infrastructure to strengthen potential output and domestic demand. To facilitate this process, put in place new institutions that enable better planning and coordination of public investment at the local level. • Reduce labor tax wedge for lower income households. • Promote longer working lives, indexing the statutory retirement age to life expectancy.	• Plans for additional public investment (excluding military investment) of some €25.5 billion (0.8 percent of GDP) through 2019 have been announced so far over the past three years, of which €3.5 billion since the publication of the 2016 Article IV Staff Report. • Germany's former PPP advisory agency *Partnerschaft Deutschland* has been restructured to provide advisory support for municipal investment, both for PPP and conventional procurement, as a public entity. • A fiscal equalization agreement has paved the way for some centralization of investment competencies in the medium term. Discussions are ongoing to create a Federal Infrastructure Corporation for Highways, but it would be operational only in the medium term. • An update of the basic income allowance has safeguarded the minimum subsistence income and compensated for the fiscal drag from inflation (bracket creep). • New legislation (*Flexirentengesetz*), implemented in December 2016, raises incentives to continue working beyond the current statutory retirement age.
Financial Sector Policy	
• Expand the macroprudential toolkit to better address potential future excesses in the housing sector. • Ensure that life insurance companies maintain sufficient capital buffers to withstand a prolonged period of low interest rates.	• New regulation passed that introduced new instruments that allow LTV and amortization requirements in relation to real estate borrowing, but omits complementary LTI/DSTI instruments. The law also does not address important data requirements for the effective operation of these macroprudential instruments. • Supervisors have intensified the monitoring of vulnerable life insurers. • For progress on the implementation of outstanding FSAP recommendations see Annex VI.
Structural Reforms and Housing Supply	
• Spur competition to increase productivity in the services sector. • Reduce disincentives for women to work full time as a way to mitigate the adverse effects of an aging population on labor supply. • Remove impediments to housing supply expansion to relieve pressure on house prices.	• A new law was passed to strengthen the powers of the railways regulator, and boost the attractiveness and efficiency of the sector. However, the law has been criticized by the EC for likely leading to increases in access charges in the long-distance passenger segment, which is precisely the segment where competition is most limited. No competition-enhancing measures have been taken in postal services, and the incumbent's dominant position is largely unchanged. The government's 2016 National Action Plan on access to and practice of regulated professions, produced in the context of a pan-EU EC-led initiative, contains only a limited number of policy measures. Infringement procedures by the EC are still ongoing regarding the minimum compulsory tariffs of architects and engineers. • Federal government's financial support to the regions for the expansion of childcare more than doubled since 2015 (+€1.5 billion). • The government's action plan to address supply shortages (particularly in the affordable segment) adopted last year is progressing in coordination with the responsible regional authorities. However, no action has been taken towards the loosening of height and zoning restrictions in areas under pressure.

Annex V. Long Term Fiscal Sustainability and Fiscal Targets

Aging-related costs will place a large burden on public finances in the longer term. Pension reforms are a priority to address such challenge, and would allow for the future relaxation of Germany's fiscal targets.

1. Germany's population is set to age faster than in other European economies, with a high associated fiscal burden. Despite strong immigration over the recent years, dependency ratios are projected to approach 45–50 percent by 2030 and continue to rise thereafter as fertility rates and net immigration are not enough to compensate improvements in longevity. Total age-sensitive expenditures are thus projected to climb up, by ½–3 percent of GDP by 2030 and by 3–6½ p.p. by 2060 (with main upward contributions from pension outlays, 2¼–3½ p.p., and health and long term care expenditures, 1–2¼ p.p.), and continue to increase sharply afterwards.[1] Left unaddressed, such rise will place considerable pressure on debt dynamics, particularly after 2030. Recent official estimates[2] show that if other expenditures and the revenue ratio stay constant, and depending on long term demographic and macroeconomic assumptions, debt would rise to 75–225 percent of GDP by 2060, with an associated fiscal adjustment need of 1¼–4 percent of GDP.[3]

2. Addressing the sustainability challenge in a durable and growth-friendly manner will require an increase in effective retirement ages, prolonging working lives. By design, Germany's social security system is balanced over the medium term through a combination of reductions in replacement rates and increases in contribution rates. Given Germany's population outlook, however, the necessary adjustment is such that it would considerably add to the already high tax burden on labor and push the pension replacement rate down to a level that would induce significant old-age poverty problems and demand a substantial rise in household saving rates. Both outcomes would be detrimental to growth. Instead, measures which encourage longer working lives, as advised by staff, would bring the double dividend of rebalancing the pension system while reducing the need to save and lifting long term output.[4]

3. With such policies in place, there would be room for some relaxation of fiscal targets in the future. In the absence of macro-fiscal shocks, a structural balance of -1.5 percent of GDP (1 p.p. below the current MTO) would still be consistent with a declining debt path, but macroeconomic uncertainty justifies a more conservative approach, with the adoption of a minimum fiscal target of -1 percent of GDP (the minimum floor foreseen by the European SGP). This conclusion is derived through model analysis, in which we simulate distributions of the public debt path for various (stylized) structural balance paths and considering a wide range of plausible demand, interest rates, and productivity shocks. The simulations suggest that public debt would

[1] Fourth Report on the Sustainability of Public Finances, German Federal Ministry of Finance, 2016.

[2] Ibid.

[3] The adjustment need is calculated as the necessary increase in the primary balance now to compensate for the prospective rise in aging-related costs up to 2060.

[4] See "Macroeconomic Effects of Labor Supply Policies", *Selected Issues*, International Monetary Fund, 2016.

continuously fall with very high likelihood when the government runs a permanent structural deficit of up to 1.5 percent of GDP. Furthermore, the overall deficit would be lower than the Maastricht ceiling of 3 percent of GDP under virtually all considered macroeconomic scenarios. However, the probability that debt remains structurally above the SGP debt ceiling of 60 percent of GDP would be non-trivial—higher than 25 (15) percent in the next 8 (12) years—, whereas such probability(ies) would drop to 5 (<1) percent when the structural deficit stays at 1 percent of GDP (Figure B1). Nevertheless, without reforms, retaining the deficit limits currently foreseen in the national debt brake rule—close to that of the current MTO—is appropriate, even if the financial buffer that can be accumulated in this way can only delay (not resolve) the long-term sustainability problem.[5]

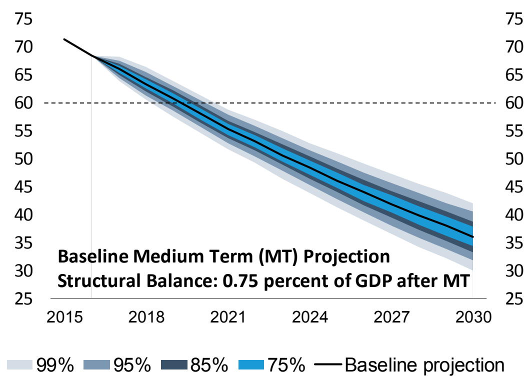
4. Eventually, ensuring long-term fiscal sustainability will require a combination of reform efforts and retaining fiscal targets which are consistent with a declining public debt with high probability. Staff analysis suggests that a one-year increase in the effective retirement age (with no accompanying increase in the annual benefit accrual) would yield a 0.7 p.p. in pension savings.[6] Thus, to fully close the estimated pension gap, the average retirement age would have to rise by 3 to 5 years up to 2060, beyond the already programed rise to age 67 by 2030, an objective which may be difficult to meet. Furthermore, although there may be scope for further reforming the health care system with a view to curbing the (inevitable) rise of health and long-term care spending, several reforms have already been implemented in the past, limiting the scope for easy savings going forward.

[5] The SGP's 60 percent ceiling to the public debt ratio to GDP is taken as given in this analysis.

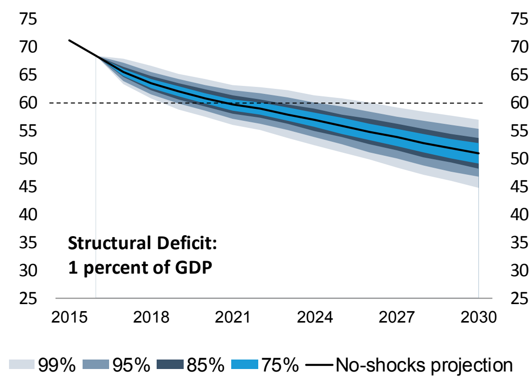
[6] To achieve similar savings with an increase in payroll-related taxes or social security contributions (SSC), a 1.4 percentage point increase in the tax/SSC rate would be necessary.

Figure B1. Public Debt Dynamics and Fiscal Balance with Macroeconomic Uncertainty, for Alternative Fiscal Targets 1/ 2/

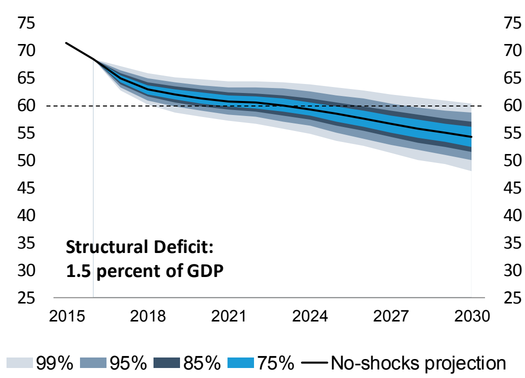
General Government Debt, Baseline Structural Balance Path
Percent of GDP



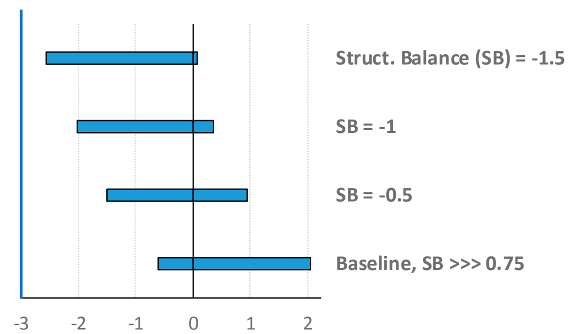
General Government Debt, Minimum MTO under SGP
Percent of GDP



General Government Debt, Lower MTO than in SGP
Percent of GDP



General Government Fiscal Balance
Percent of GDP



Source: IMF staff calculations.

1/ The fan charts show predictive densities of the government debt ratio to GDP for four different assumptions regarding the structural balance path, calculated using the IMF's general equilibrium Global Integrated Monetary and Fiscal Model, and considering a range of shocks – demand/interest rate shocks are calibrated to match the historical volatility of the German output gap (about 1.5 percent), while productivity shocks are meant to allow for growth projection errors of up to ½-¾ percentage points. The overall balance chart shows the maximum and minimum simulated value of the balance ratio to GDP (without assigning a probability).

2/ The simulations allow for a feedback effect from fiscal policy (macro-stabilization through automatic stabilizers or changes to the structural balance) to GDP and other macroeconomic variables. However, it is assumed that looser fiscal positions have no significant impact on potential output (the additional spending is unproductive). The obtained debt paths are therefore conservative, and would show a steeper decline if the additional fiscal room were used to implement growth enhancing policies (such as public investment or a permanent reduction in the tax burden).

Annex VI. Authorities' Response to FSAP 2016 Recommendations

Germany: FSAP Key Recommendations 1/		
Recommendations	**Time Frame[1]**	**Status**
Financial stability policy framework		
Establish a core set of readily-available, consistent data for banks and non-banks to strengthen financial stability and macroprudential policy analysis.	Short term	The Bundesbank is integrating selected granular supervisory and statistical data of banks, insurance companies and investment funds to build a "house of microdata" that will be used for financial stability and macroprudential policy analysis. The "house of microdata" will be supplemented by AnaCredit data when available.
Develop the legal basis for real estate-related macroprudential tools.	Short term	The German government passed legislation (Bundesrat, May 12, 2017) that implements part of the FSC's recommendation of January 2015. The law introduces new instruments for capping LTV ratios and setting amortization requirements, if necessary, for financial stability purposes. The minimum requirements are meant to apply to all financial institutions. Unfortunately, the law omits complementary DTI and DSTI ratio instruments and does not address important data requirements for the effective operation of the real estate-related macroprudential instruments.
Banking oversight		
Implement measures to strengthen the oversight role of the banks' supervisory board.	Short term	Within the German two-tier system, the supervisory board's role is passive and restricted to a pure control function. There is no indication that the legislator intends to amend the legal framework.
Provide guidance on risk management and other supervisory requirements, e.g. regarding loan portfolio management, concentration and related party risk, and operational risk.	Short term	Bundesbank and BaFin are currently following-up on the 2016 FSAP recommendations when reviewing relevant provisions in MaRisk. The authorities consider that concentration risk is sufficiently covered by MaRisk, and further guidance has not been issued.
Increase granularity and coverage of bank supervisory data	Short term	Starting in June 2017, all LSIs will report using FINREP templates, increasing the granularity and comprehensiveness of the information available to supervisors. The new reporting standard will also allow to access data at a consolidated level (e.g., NPLs). The requirements have been set on a harmonised basis throughout the SSM-covered countries. However, national regulatory reporting will remain in place as a necessary complement from a German banking supervisory perspective.
Increase the effectiveness of the AML/CFT supervisory framework over cross-border banks.	Short term	As of 1 January 2017, BaFin's AML Department added 30 additional staff (two new divisions for AML/CFT banking supervision). In the context of its ongoing AML/CFT supervision BaFin asked banks with cross-border correspondent banking relationships to give more emphasis to this issue in their own risk assessments, to avoid that the required enhanced Customer Due Diligence measures lead to a termination of the relevant relationships. Also, a sub-working group of the European Banking Authority´s AMLC has been set up to work out a framework for future AML/CFT supervisor colleges on all banks with cross-border activities.

Germany: FSAP Key Recommendations (concluded)		
Recommendations	**Time**	**Status**
Insurance oversight		
Prepare a communication strategy ahead of the publication of Solvency II indicators	Short term	BaFin conducted bilateral discussions with LI companies ahead of the publication date of May 21, 2017, but no common communication strategy was decided.
Extend the application of G-SII toolkit on a risk-based basis to other large groups, including recovery and resolution planning, enhanced supervision and regular stress tests	Medium term	BaFin has extended the requirement for recovery plans to two other groups headquartered in Germany, beyond the country's single G-SII. The supervisory teams responsible for the respective groups are in the process of defining the elements of the plans and will review them once they are finalized. BaFin does currently not intend to further extend this requirement to other LI groups. Germany also participates in the EIOPA stress testing exercises. In 2016,20 life insurers covering three quarters of the market participated. Furthermore, insurers are required to perform additional stress tests on their own as part of their risk and solvency analysis (according to the Insurance Supervision Act, section 27). Those results are also part of the narrative reporting to BaFin.
Communicate supervisory expectations based on the ORSA (Own Risk Solvency Assessment) review more systematically; use Solvency II framework to impose capital add-ons	Medium term	BaFin gives feedback to LI undertakings following the ORSA review, especially when those do not seem to hold sufficient own funds over and above the SCR to comply with capital requirements on a continuous basis. Capital add-ons are not a first resort measure, but the supervisor is ready to set capital add-ons on a case by case basis when pre-conditions are found to be in place under Solvency II.
Require action plans for companies facing difficulties in meeting Solvency II requirements, including stress testing to ensure that they would be met even after a plausible shock	Medium term	BaFin monitors progress towards compliance with solvency capital requirements without transition measures, and assesses the plausibility and appropriateness of the companies' plans on a yearly basis. BaFin is also thoroughly reviewing internal models, including by developing a new stochastic approach (BSM—Branchensimulationsmodell) that better accounts for embedded options and guarantees of typical LI products.
Asset management oversight		
Intensify frequency of on-site inspections and enhance risk classification methodology	Short term	BaFin revised the risk classification methodology for supervised asset managers, and, starting in 2018, will use improved impact criteria. BaFin has also increased the frequency of on-site inspections from 80 in 2014, to 102 in 2016.
Introduce stronger rules on reporting of pricing errors and investor compensation rules	Short term	BaFin has published the "Mindestanforderungen an das Risikomanagement von Kapitalverwaltungsgesellschaften" (KAMaRisk) in January 2017, which is a circular on, inter alia, the minimum requirements for the risk-management of investment managers. According to chapter 6, no. 3 v) and w) of the KAMaRisk, asset management companies are required to have policies in place (1) to inform depositaries of material pricing errors and (2) to compensate investors in the event of material pricing errors.
1/ Includes only recommendations to German authorities.		

INTERNATIONAL MONETARY FUND

GERMANY

June 13, 2017

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By European Department

CONTENTS

FUND RELATIONS

(As of April 30, 2017; unless specified otherwise)

Mission: May 4–16, 2017 in Berlin, Bonn, Frankfurt, and Nuremberg. The concluding statement of the mission is available at http://www.imf.org/en/News/Articles/2017/05/15/mcs05152017-Germany-Staff-Concluding-Statement-of-the-2017-Article-IV-Mission

Staff team: Ms. Detragiache (head), Messrs. Natal and Vandenbussche, and Mses. Mineshima and Pereira (all EUR).

Country interlocutors: Parliamentary State Secretary Meister, Bundesbank President Weidmann, officials from the Federal Chancellor's office, the Finance, Economic Affairs, Labor, and Environment Ministries, the Bundesbank, the Federal Office for Migration and Refugees. Mr. Meyer (OED), Mr. Thomsen (EUR), and Ms. Kozack (STI) participated in the discussions. Additional meetings took place with representatives from the social partners, the banking and insurance sectors, think tanks, and academics.

Fund relations: The previous Article IV consultation discussions took place during April–May 2016 and the staff report was discussed by the Executive Board on July 24, 2016. The Executive Board's assessment and staff report are available at http://www.imf.org/external/pubs/cat/longres.aspx?sk=44029.0

Membership Status: Joined August 14, 1952; Article VIII.

General Resources Account:	**SDR Million**	**Percent of Quota**
Quota	26,634.40	100.00
Fund holdings of currency	23,799.60	89.36
Reserve position in Fund	2,834.93	10.64
Lending to the Fund		
New Arrangements to Borrow	1,991.83	

SDR Department:	**SDR Million**	**Percent of Allocation**
Net cumulative allocation	12,059.17	100.00
Holdings	11,716.25	97.16

Outstanding Purchases and Loans: None

Financial Arrangements: None

Projected Payments to Fund (SDR Million; based on existing use of resources and present holdings of SDRs, as of April 30, 2017):

	Forthcoming				
	2017	2018	2019	2020	2021
Principal					
Charges/Interest	1.13	1.97	1.97	1.97	1.97
Total	1.13	1.97	1.97	1.97	1.97

1/ When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Rate Arrangement

Germany's currency is the euro, which floats freely and independently against other currencies.

Germany is an Article VIII member and maintains an exchange system free of restrictions on payments and transfers for current international transactions. It maintains measures adopted for security reasons, which have been notified to the Fund for approval in accordance with the procedures of Decision 144 and does so solely for the preservation of national or international security.

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT)

Germany was last assessed against the previous AML/CFT standard in 2009. Some shortcomings were identified inter alia with respect to the money laundering (ML) and terrorist financing (TF) offenses, and AML/CFT preventive measures (including the reporting of suspicious transaction requirements, and customer due diligence, CDD, requirements). In recent years, Germany has introduced significant reforms to enhance its AML/CFT regime. It notably criminalized self-laundering and immobilized bearer shares, enhanced domestic cooperation, and improved the supervisory framework for designated non-financial business and professions (DNFBPs) and the risk analysis model applied by BaFin for AML/CFT supervision. Onsite visits to financial institutions and DNFBPs have increased. Germany made progress in addressing the 2016 FSAP's main recommendations on AML/CFT. BaFin notably increased by 30 the staff devoted to AML/CFT supervision, and established new units specifically dedicated to the supervision of major banks with cross-border activities. Within the EU, the German authorities actively support enhanced cooperation between AML/CFT supervisors. BaFin has started to establish its own audit teams (along external audit teams), increased the number of its onsite inspections of banks, and is planning on-site inspections to be carried out by BaFin-only teams in the medium term. It is also adjusting its AML/CFT supervisory framework in line with the European Supervisory Authorities' joint November 2016 guidelines on risk-based supervision. Furthermore, Germany is working on the implementation of the Fourth EU AML Directive requirement to establish a register containing information on beneficial ownership information of corporate and other legal entities, and of express trusts and legal arrangements having a structure or functions similar to trusts. A draft law implementing this requirement is scheduled to enter into force in June 2017, and to allow for the register to be accessible by competent authorities in December 2017.

The next assessment of Germany's AML/CFT framework is tentatively scheduled to take place in 2021.

STATISTICAL ISSUES

(As of June 13, 2017)

I. Assessment of Data Adequacy for Surveillance
General: The economic database is generally comprehensive and of high quality, and data provision is adequate for surveillance.
National Accounts: Germany adopted the *European System of Accounts 2010 (ESA2010)* in September 2014. The 2006 ROSC Data Module mission found that the macroeconomic statistics generally follow internationally accepted standards and guidelines on concepts and definitions, scope, classification and sectorization, and basis for recording. However, the sources for estimating value added for a few categories of service industries could be improved. A direct source for quarterly changes in inventories, which is an important indicator of changes in GDP over the business cycle, is lacking. Extrapolations of changes in inventories are based on the difference between the monthly production index and turnover index in manufacturing.
Government Finance Statistics: Comprehensive data reporting systems support the accuracy and reliability of the government finance statistics. However, these data are based on cash accounting systems, although documentation exists to explain the differences between the general government data in the ESA2010 (noncash) classification and the general cash data on an administrative basis; Germany publishes—through Eurostat—general government revenue, expenditure, and balances on a noncash/ accrual basis on a quarterly basis (*ESA2010*) and these data are presented in a GFSM 2001 format in International Financial Statistics, albeit with delay. Germany submits annual data for publication in the *Government Financial Statistics Yearbook,* in *GFSM 2001* format. Monthly data are only disseminated on a cash-basis and are reported to STA. **Monetary and Financial Statistics:** The ECB reporting framework is used for monetary statistics and data are reported to the IMF through a "gateway" arrangement with the ECB. The arrangement provides an efficient transmission of monetary statistics to the IMF and for publication in the *IFS*. Monetary statistics for Germany published in the *IFS* cover data on central bank and other depository corporations (ODCs) using Euro Area wide residency criterion. Data based on national residency criterion is also published as memorandum items. **Financial Sector Surveillance:** Germany participates in the IMF's Coordinated Direct Investment Survey (CDIS), Coordinated Portfolio Investment Survey (CPIS) and financial soundness indicators (FSIs) databases. The German authorities compiled a comprehensive set of FSI data and metadata. Of the 40 FSIs, Germany reports all except net foreign exchange exposure to equity (I31). Even though

Germany reports all of the 12 core FSIs, six FSIs are reported on an annual basis only: (i) NPL Net of Provisions to Capital, (ii) NPL to Total Gross Loans, (iii) Return on Assets, (iv) Return on Equity, (v) Interest Margin to Gross Income, and (vi) Non-Interest Expense to Gross Income. Plans are already underway to change the legal basis for the periodicity of deposit taking institutions' reporting requirements. In addition, the quality of data on bank exposures submitted to the BIS needs to be improved, including provision of the data on ultimate risk basis for advanced countries. **External Sector Statistics:** The Bundesbank compiles the balance of payments in close cooperation with the Federal Statistical Office. Balance of payments, International Investment Position statistics, and related cross-border statistics are compiled according to the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*), and the legal requirements of the ECB and Eurostat.	
II. Data Standards and Quality	
Adherent to the Special Data Dissemination Standards Plus (SDDS Plus) since February 2015. **Implementing G-20 DGI recommendations**: Currently disseminates a residential property price index and a commercial property price index.	Data ROSC from 2006 is available.

Germany: Table of Common Indicators Required for Surveillance

(As of May 22, 2017)

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]	Memo Items: Data Quality–Methodological soundness[9]	Memo Items: Data Quality–Accuracy and reliability[10]
Exchange Rates	May 22, 2017	May 22, 2017	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	March 17	April 17	M	M	M		
Reserve/Base Money[2]	March 17	April 17	M	M	M		
Broad Money[2]	March 17	April 17	M	M	M		
Central Bank Balance Sheet	April 17	May 17	M	M	M		
Consolidated Balance Sheet of the Banking System	March 17	April 17	M	M	M		
Interest Rates[3]	April 17	May 17	M	M	M		
Consumer Price Index	April 17	May 17	M	M	M		
Revenue, Expenditure, Balance and Composition of Financing[4]—General Government[5]	Q4:16	February 17	Q	Q	Q	LO, LO, LO, O	O, O, O, O, O
Stocks of General Government and Government-Guaranteed Debt[6]	December 16	February 17	A	A	A		
External Current Account Balance	March 17	May 17	M	M	M	O, O, LO, O	O, O, O, O, O
Exports and Imports of Goods and Services	March 17	May 17	M	M	M		
GDP/GNP	Q1:17	May 17	Q	Q	Q	O, O, O, O	LO, O, O, O, O
Gross External Debt	Q4:16	March 17	Q	Q	Q		
International Investment Position[7]	Q4:16	March 17	Q	Q	Q		

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

[2] Pertains to contribution to EMU aggregate.

[3] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.

[4] Foreign, domestic bank, and domestic nonbank financing.

[5] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[6] Including currency and maturity composition

[7] Includes external gross financial asset and liability positions vis-a-vis nonresidents.

[8] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA)

[9] Reflects the assessment provided in the data ROSC (published on January 18, 2006, and based on the findings of the mission that took place during July 5–20, 2005) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning methodological soundness, namely, (i) concepts and definitions, (ii) scope, (iii) classification/sectorization, and (iv) basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); not observed (NO); and not available (NA).

[10] Same as footnote 9, except referring to international standards concerning accuracy and reliability, namely, (i) source data, (ii) assessment of source data, (iii) statistical techniques, (iv) assessment and validation of intermediate data and statistical outputs, and (v) revision studies.

Statement by Steffen Meyer, Executive Director for Germany
June 28, 2017

I would like to convey my authorities' gratitude for insightful discussions during the Article IV. My authorities find their views well-documented and the staff assessment candid and balanced.

The German economy has continued a strong, sustainable, balanced, job-rich and inclusive growth performance. The German government projects a working-day adjusted growth rate of 1.8 percent for 2017 and 1.6 percent for 2018. The public debt ratio has continued to gradually decline towards the ceiling of 60 percent of GDP, the share of climate-friendly energy sources has been increased and private balance sheets remain healthy. Growth continues to be driven by domestic demand while lower oil prices and a steady strengthening of investment income are reflected in the balance of payments. Employment has reached record levels. Participation rates have grown steadily and a well-developed redistributive tax and transfer system has kept income inequality in check. We broadly agree with staff's views on the macroeconomic outlook and risks. However, as in the past we see a much smaller undervaluation of the REER (in 2016 at around 6 percent) than staff.

Structural reforms have been crucial to achieve this sustained growth performance. Successful labor market reforms in the past as well as reliable social safety nets have underpinned inclusive growth in Germany. In recent years, the authorities have continued to build on these achievements and adopted additional reforms.

- Reforms have aimed at **encouraging more flexible working lives and ensuring fair conditions for workers** through the introduction of the so-called *Flexirente* and a comprehensive statutory minimum wage which in real terms (USD PPPs) is the highest among major advanced economies. The German authorities also adopted a law on greater pay transparency and amended provisions for temporary staff.
- Another set of reforms has focused on **social inclusion and addressing concerns about poverty** through promoting continuing education and training, the introduction of programs to support workers after periods of caring for children or relatives as well as the parental allowance with a partnership bonus. In addition, the supplementary child allowance has been increased, targeted benefits to stabilize the financial position of single parents were introduced and housing benefits reformed in line with the trend in rent and incomes.
- **Tackling long-term unemployment** has been another priority. Efforts were made to intensify job coaching, improve wage subsidies and support workers who require special support due to health impairments or are living with children in a community of need.

- Going forward, the authorities recognize that a **well-funded education system and the integration of refugees into the labor market** are the major challenges for inclusive growth and mitigating relative poverty risks.
- Continued progress is being made on **digitalization** with several policy initiatives. These include the promotion of digitization and competence in SMEs as well as the development of a modern regulatory framework for the digital world. Instruments to support innovation and venture capital, such as the High-Tech Start-up Fund and the INVEST program, are evaluated on a regular basis by external institutions. They certify that measures are successful and funds are used adequately.
- The authorities agree that reducing the **regulatory burden in the services sector** may lead to an increase in productivity. They are scrutinizing regulations not only in terms of potential productivity gains but also with regard to their protection of health, safety and consumer interests.

Fiscal policies will remain growth-friendly and an anchor of stability in the euro area. As public debt is gradually approaching the debt ceiling, supporting the sustainability of public finances in the face of demographic challenges and rebuilding buffers for unforeseen developments deserve high priority. With a view to long-term demographic challenges it is key to look beyond 2030, as adverse dynamics will accelerate considerably with "baby boomers" entering retirement. The national debt brake, which essentially prescribes a close-to-balanced budget, was not least geared to frontload the required consolidation by bringing the debt ratio well below the ceiling of 60 % of GDP. It will be important for the aging German society to keep this strategy over the long term. The current fiscal stance also rightly reflects the favorable cyclical position and growth outlook for Germany. Public investment and priority expenditures have been increased substantially in recent years. As capacity constraints have been coming more to the fore, recent initiatives such as the creation of a Federal Infrastructure Corporation for Highways and other Federal Trunk Roads as well as greater financial support to subnational governments should allow for better project selection and investment planning going forward.

Regarding the Fund's recommendation towards improved revenue forecasts, several caveats apply: for the long run, there is empirical evidence that the conditional tax revenue forecasts are not systematically downward biased. There are episodes in which revenue forecasts show upward (early 2000s) or downward bias (recent years). In these years, unexpected revenue shortfalls or windfalls play a role. It is, however, not reasonable to project high revenue growth due to windfalls into future years. The methodology is being constantly evaluated and – if possible – improved. Recently, the forecast of the assessed income tax (fraction of PIT) has been augmented by better taking into account the effects of increasing taxation of pensions, which plays an increasing role in the coming years and should lead to higher revenue growth in this tax category. Moreover, it is important to fully account for the institutional setting for tax revenue forecasts in Germany. The working group on tax revenue forecasts is an independent technical working group. Based on individual forecasts by the Ministry of Finance, Deutsche Bundesbank, Research Institutes, Council of Economic Advisers, and *Länder* the working group decides on a consensual revenue forecast. Forecasters are free in their choice of forecast models.

The external sector in Germany remains strong as a result of private demand and supply decisions in international trade and investment. The authorities closely observe the high current account surplus. Except for a small fiscal policy gap, there are no deviations from desirable policies identified in the EBA exercise for Germany. The authorities' fiscal strategy is comprehensively discussed above but in this context, we would like to point out that some additional loosening of fiscal policies is currently being discussed in the run up to the general election in September 2017. More specifically, steps to reform pensions as well as reducing the tax burden on labor are envisaged as priorities for the next election period. In addition, transitory effects from lower commodity prices and a favorable euro exchange rate will soon cease. These factors as well as brisk domestic demand support the expectation of a reduced external balance in the years to come. The sustained increase in investment income reflected in the BoP is fundamentally justified by a rapidly aging population in Germany and greater returns on job-rich investments outside of Germany.

Continued robust wage and price growth will further strengthen domestic sources of growth. Looking at OECD data, average wages (USD PPPs) in Germany have increased already more strongly than in any other major advanced economy since 2010 thanks to the strength of the domestic economy and an increasingly tight labor market. Real wage growth has accelerated over the last three years with annual increases close to or above two percent which are the strongest wage gains in over two decades. While wage setting is left to social partners, in light of favorable economic conditions, these developments are likely to persist for the foreseeable future and will support growth and the normalization of monetary policy in the euro area. Staff's suggestion for a more proactive public communication on wages is not supported by past experience. The decentralized process for wage bargaining is highly valued in Germany and communication by officials has generally been seen as unhelpful interference or a politicizing of negotiations by social partners.

Concerning the housing market and financial sector assessment, we broadly concur with the findings of the staff report. The banking and insurance sectors have to shore up profitability and resilience in a challenging environment with low interest rates and a new regulatory framework. Increases in house prices appear to be driven mainly by fundamentals and the extraordinarily low level of mortgage rates. Continued vigilance is, however, needed especially for certain regional markets that are experiencing rapid price growth. Vigilance is also needed as regards the growth of loans for house purchases, which have picked up in recent months driven by very favorable financing conditions as well as buoyant household demand. We remain committed to tackle and overcome the significant data gaps in the mortgage sector in particular. At the current juncture, however, preference has been given to existing initiatives on the European level, reflecting subsequent efforts following the recommendation of the European Systemic Risk Board in October of 2016 on closing real estate data gaps.