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Annual Economic Report 2018

A strengthened economy ready to embrace the future

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Preface

The German economy developed well in 2017, much better even than we had expected at the beginning of last year. It is set to continue to grow in 2018.

The way the people of this country are benefiting from the upswing is encouraging. The unemployment rate in 2017 was down at its lowest level for more than 25 years. The rise in employment is continuing, and there has been a further increase in employees' net wages and salaries.

The Federal Government has put the policies in place for continued growth. Amongst other things, its investment strategy has expanded public sector investment and clearly improved the conditions for private-sector investment. As a consequence, our economy is strengthened and is ready to embrace the future.

Our economic policy continues to aim to achieve inclusive growth. We wish to generate "prosperity for all", not just for a few. Despite the successes, we must not ignore the enormous challenges facing us. Demographic change, globalisation, digitalisation and the future of Europe: we need to keep all of these within our focus so that Germany's economy can continue to achieve its potential.

Digitalisation is revolutionising our economy and the world of work. Efficient, nation-wide infrastructure is required if use is to be made of the opportunities offered by digitalisation. For this reason, we have provided more money for the broadband roll-out. At the same time, we have put a smart regulatory framework in place for the digital transformation. In the Act against Restraints of Competition, for example, we have adapted the rules to respond to the special features of the markets of the digital economy. Also, our White Paper on digital platforms is stimulating the policy debate on the future of the competition rules and regulatory framework for the digital economy.

Excessive income inequality and structural problems on the labour market hamper inclusive growth. The Federal

Government has therefore done a lot to increase the rate of participation on the labour market, the aim being that everyone should be able to enjoy the fruits of the upturn. For example, we are making it easier to combine family life and work, and to move more flexibly from working life to retirement. Also, the Federal Government has improved the rules on child support and has updated the Act on the Protection of Working Mothers. This puts single parents and mothers in a stronger position, helping them to participate in the labour market.

An economic and fiscal policy which is oriented to stability must not only restrict the level of public-sector debt, but also safeguard the foundations for our prosperity, such as good roads, modern schools and attractive universities. The provision of these public goods allows people to participate and creates equal standards of living and opportunities for growth.

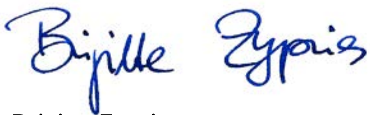
It is therefore important that the new rules governing fiscal relations between the federal and *Länder* governments will provide financial relief for the *Länder*, starting with approximately €9.7 billion from 2020. In addition to this, the Federation has doubled the volume of the municipal investment funds to €7 billion. This will allow the municipalities to improve the educational infrastructure and thus our country's future prospects.

The bulk of investment must come from the private sector. Investment in innovative products and processes is becoming more and more important in the digital age. For that reason, the Federal Government is particularly focusing on young companies and start-ups. Some progress has been made here, e.g. via the new edition of the High-Tech Start-Up Fund III and the expansion of the INVEST programme.

In the field of energy policy, we have achieved a paradigm shift towards a greater role for the market. The Federal Government thoroughly renewed its energy policy in the 18th legislative term, making it more competitive and anchoring the energy transition on a European basis. I am particularly pleased that, by introducing more competition for funding for renewable energy, we have managed to make the expansion of renewables much more cost-efficient. The funding rates for ground-mounted photovoltaic installations have dropped by more than 45 %, and are now less than 5 cents per kilowatt-hour. The beneficiaries include private households and industry.

Europe is facing major challenges, particularly with a view to the institutional structures of the Economic and Monetary Union. Germany remains very closely integrated with its neighbours. Our economy will only thrive if Europe continues to develop. It is necessary to keep developing the rules for the Economic and Monetary Union to make it fit for the future. In particular, the current good economic times need to be used for investments, reforms and the creation of fiscal buffers. This creates confidence and forms the basis for further bold integration.

It remains the case that growth can only become continuous if economic policy aims to allow all the forces for growth in society to play their part. It is necessary to enable people to participate in economic and social life. The 2018 Annual Economic Report shows that we have succeeded in improving the foundations for this.



Brigitte Zypries
Federal Minister for Economic Affairs and Energy

The 2018 Annual Economic Report of the German Federal Government

In accordance with Section 2 of the Act to Promote Economic Stability and Growth, the Federal Government hereby submits its 2018 Annual Economic Report to the German Bundestag and the Bundesrat. It also provides benchmark data for the overall orientation of the economy in 2017, in accordance with Section 3 of the Act.

In Part I of the Report, the Federal Government presents central priority fields of economic and fiscal policy. As a caretaker government, it has restricted the report to ongoing business and policies actioned in 2017. The measures cited and stances taken in the report do not represent any announcements or comments by a future federal government. The German version of this Annual Economic Report also contains an Annex which provides a detailed inventory of the measures that the Federal Government has taken since the submission of the 2017 Annual Economic Report.

As stipulated by the Act to Promote Economic Stability and Growth, Part II of the Report discusses the Government's projection of overall economic trends in the current year.

The Federal Government would like to thank the German Council of Economic Experts (GCEE) for its detailed and comprehensive analysis of economic developments in 2017 and the outlook for 2018, as well as for its discussion in its 2017/18 Annual Report of the guiding principles of economic policy. In the Annual Economic Report, the Federal Government comments on the Council of Economic Experts' 2017/18 Annual Report.

In preparing the Annual Economic Report, the Federal Government discussed its economic and fiscal strategy with the *Länder* and municipalities within the framework of the Konjunkturrat für die öffentliche Hand (a government economic advisory council). This strategy was also discussed with union representatives as well as with the Gemeinschaftsausschuss der Deutschen Gewerblichen Wirtschaft (a joint committee that serves as a co-ordinating body for German business associations).

I. The Federal Government's economic and fiscal policy

A. Dynamic economy, successful economic policy

1. The German economy is experiencing a robust cyclical expansion. Gross domestic product (GDP) grew by 2.2 % (price-adjusted) in 2017. For this year, the Federal Government is expecting a further rise of 2.4 %. The German economy is benefitting from a more positive global economic environment. This has helped to stimulate foreign trade and investment. The forces for growth in the domestic economy continue to provide a solid foundation for the positive macroeconomic development.

2. The good macroeconomic situation is particularly reflected on the labour market. According to the Federal Statistical Office, the number of gainfully active people in Germany was approximately 44.3 million last year, which is another all-time high. The number of people in work will continue to rise in 2018. This year, the number of people in work is likely to expand by 490,000 to 44.8 million (cf. Overview 1). The increase is particularly due to the increased number of people in jobs subject to social security contributions. The unemployment rate in 2017 was down at its lowest level for more than 25 years. The annual average number of unemployed people is set to decrease further by around 150,000 this year. Employees have enjoyed tangible increases in real wages over the last few years. Real net wages and salaries per employee have risen by an average of 1.1 % per year since 2010. The rate of inflation stood at 1.8 % last year, close to the target rate of the European Central Bank (ECB) for the euro monetary area. Despite slight overuse of capacities in the economy and tensions in some sectors, no overheating is being seen in Germany at present. In its Annual Report, the Council of Economic Experts also speaks of overuse of capacities in the German economy, not of overheating. Nevertheless, it is important to identify potential overheating and procyclical developments at an early stage.

3. Public finances have seen a continuous improvement. Solid economic growth above potential growth and a record level of employment have created extraordinarily good preconditions for fiscal policy and made budget surpluses for the entire public sector possible. Also, the debt-to-GDP ratio is being brought down below the Maastricht ceiling of 60 % in the budget planning period. At the same time, public-sector investment has seen a significant boost against the background of the solid public finances. The Federation is investing more in infrastructure, education and research. Further to this, the environment for private-sector investment has been improved. The combination of these two factors has boosted the production potential.

4. The Federal Government has acted in good time and used its economic policy to allow the German economy to grow to its full potential. The Federal Government has tackled present and long-term challenges including demographic change, digitalisation, globalisation and climate change, and designed its economic policy to be forward-looking. This is the policy approach called for by the Council of Economic Experts in the title of its latest Annual Report. The government has been guided by the principle of inclusive growth that allows all of society to play a role in this. Economic freedom and social and regional cohesion are not contradictions in the Social Market Economy; rather, they are complementary.

5. It has been shown that it is possible to consolidate public-sector budgets without undermining social participation. The Federal Government has used the good economic situation to tackle structural challenges on the labour market. These include the improved integration of the long-term unemployed, a rapid and lasting integration into the labour market of those refugees who are likely to stay in Germany for longer and their inclusion in society, strategies to safeguard the supply of skilled labour, and help with digitalisation for small and medium-sized enterprises (SMEs) in particular.

6. Demographic development is resulting in a decline in the total labour force and – due to the ageing population – in rising spending, particularly for old-age pensions, health and long-term care. In the long term, therefore, a burden on economic growth, public-sector budgets and the social security systems funded on a pay-as-you-go basis is to be expected. Also, the pressure to adjust deriving from digitalisation has increased further in recent years – the process is now revolutionising both the business community and the working environment. Digitalisation opens up new business models with a large potential to add value, whilst transforming traditional patterns of work and branches of industry. In this regard, the Federal Government is taking care to ensure that the conditions on the labour market will remain fair and just in future, whilst innovations continue to be enabled. Digitalisation and demographic change have motivated the Federal Government to do more in areas like education and training and boosting the labour force participation rate. An overview of the measures taken in response to the demographic development in the afore-

mentioned and other fields of action can be found in the Demography Report adopted by the federal cabinet on 1 February 2017, which takes stock of the measures taken up to the end of the 18th legislative term.

Globalisation offers major opportunities, but also challenges and risks. In the recent past, there has been an increase in protectionist tendencies; they pose a risk to an open economy reliant on free world trade. The Federal Government has refused to bow to protectionist interests. It has used its G20 Presidency and other forums to advocate a rules-based international trading system and open markets at national level, in Europe, and around the world.

7. Europe's economy has continued its recovery. All 28 EU states have growing economies, and unemployment in the European Union (EU) is at its lowest for nine years. Nevertheless, Europe is also facing great challenges, such as the fight against terrorism, coping with migration, digitalisation, undertaking structural reforms and investment to maintain growth, and global warming. Germany is extremely closely intertwined with its neighbours. Our economy will prosper only when Europe is successful, developing well and reforming itself where this is necessary. For this reason, the Federal Government is working together with its partners, and particularly France, to prepare Europe for the forthcoming tasks, and is intensively involved in the debate about the future of the EU and the future development of the Economic and Monetary Union.

8. Climate change and its repercussions also represent a challenge to future economic growth and rising prosperity. At the same time, efforts to mitigate climate change can improve quality of life and generate employment. In view of this, the Federal Government is also focusing on how compatible its policies are with the needs of the climate and on the special features of the German economy. The Federal Government's 2050 Climate Action Plan provides an orientation for this in line with the Paris climate accord.

9. Further to this, with its current sustainability strategy, the Federal Government has put the framework in place to implement the 2030 Agenda for Sustainable Development of the United Nations (cf. Box 2 and Item 144), in order to assist the business sector and other stakeholders in the context of economically, environmentally and socially sustainable development. This places the focus even more strongly on the long-term and the global repercussions of national economic and fiscal policy.

B. Sound fiscal policy, structural policy for the whole of Germany

10. The Federal Government has continued to pursue its forward looking and growth-oriented fiscal policy. This includes sound public-sector finances and a modern tax system, stable fiscal relations between the Federation,

Overview 1: Selected key figures for macroeconomic trends in the Federal Republic of Germany[1]

	2016	2017	Annual projection 2018
	Percentage change on preceding year		
Gross domestic product (GDP), output approach			
GDP (real)	**1.9**	**2.2**	**2.4**
Total employment	1.3	1.5	1.1
Unemployment rate in % (Federal Employment Agency definition)[2]	*6.1*	*5.7*	*5.3*
GDP by expenditure (real)			
Private consumption expenditure	2.1	2.0	1.9
Machinery and equipment	2.2	3.5	5.0
Construction	2.7	2.6	2.8
Domestic demand	2.4	2.2	2.3
Exports	2.6	4.7	5.3
Imports	3.9	5.2	5.8
External balance of goods and services (contribution to GDP growth)[3]	*-0.3*	*0.2*	*0.2*
Total gross wages and salaries per employee	2.5	2.7	2.9

1 Up to 2017 results of the Federal Statistical Office; National Accounts Status: January 2018.
2 In relation to the total labour force.
3 Absolute change (stocks/external balance) in per cent of pre-year GDP (= contribution to change in GDP).

Länder and municipalities, and an effective regional structural policy.

Sustainable public-sector finance

11. Germany has not taken on any new federal debt since the beginning of the last legislative term. Last year's total public-sector balance of finance (national accounts definition) amounted, according to initial calculations by the Federal Statistical Office, to a surplus of €38.4 billion or 1.2 % of GDP.

All levels of government contributed to this surplus. The robust economic development and the reduced spending due to the environment of low interest rates are helping to foster the ongoing positive public-sector financial situation. The Federation (federal budget and off-budget entities) achieved a surplus of €3.1 billion in 2017. The *Länder* and municipalities recorded substantially larger surpluses. German fiscal policy had fostered the cyclical development by providing for higher levels of funding for asylum and refugee-related services, public-sector investment, tax relief for families, single parents and low earners, and higher spending on social security funds.

12. Despite the good situation of the public-sector budgets, they continue to face multiple challenges. These include the fact that fiscal policy will need to adapt to a normalisation of the interest rate environment. The Federation, *Länder* and municipalities continue to face the tremendous task of providing humanitarian assistance to refugees and integrating them into society. The ageing of society will result in a growing financial burden in future. Welfare spending – including for long-term care, health and pensions – is by far the largest item in the public-sector budgets (Federation, *Länder*, municipalities, social insurance funds). Demographics mean that their share of the budget will continue to increase in the current projection. There is also a need for action on the revenue side of the public finances: due to fiscal drag, the high level of employment and rising wages and salaries have resulted in a rise in the macroeconomic ratio of taxes and charges. Furthermore, there is a need to continue the growth-oriented fiscal policy. Scope for fiscal policy action needs to be utilised in order to gradually improve the expenditure structure of the federal budget by targeting spending towards pro-growth investment in education, research and infrastructure.

13. It is likely that this year will also end with a public-sector surplus. This will probably amount to one percent of GDP. The projection of public-sector spending is based partly on the draft 2018 federal budget and the financial plan of June 2017 for the period up to 2021, which as in preceding years will see no new borrowing, and the technical assumption that policies will remain unchanged. This projection does not include potential outcomes of ongoing discussions about the policies of a new Federal Government. For 2019, 2020 and 2021, the draft envisages unallocated budgetary funding totalling €14.8 billion. The new Federal Government will take decisions on the scope available for fiscal policy action and how to deploy it in the 19th legislative term in the light of its political priorities and in view of the macroeconomic situation.

14. As a result of the surplus in 2017, the macroeconomic debt-to-GDP ratio has dropped further to a probable level of 64 ¾ % of GDP (cf. Diagram 1). The Federal Government's projection of the development of public-sector budgets expects this rate to drop below the "Maastricht threshold" of 60 % of GDP as early as 2019.

A modern system of taxes and charges

15. The tax system needs to meet the needs of a modern society in a globalised world. It needs to offer an attractive, competitive and fair environment for innovation and investment by the companies in Germany. That is the only way to safeguard and expand employment and prosperity.

16. In this context, it is important for the Federal Government to ensure that profits made in Germany are not shifted to "low-tax" countries. For this reason, the Federal Government is pushing ahead with the implementation of the OECD's Action Plan on Base Erosion and Profit Shifting (BEPS). The intention is for taxation to occur at the place where the actual corporate activity takes place and the economic value is added. In 2017, in line with the agreements at international level, the Federal Government launched the Act to Combat Harmful Tax Practices relating to the Transfer of Rights. The new rules, which will apply from 2018, restrict the tax deductibility of operational expenditure for transfers of rights under certain conditions. The intention is to prevent multinational companies from shifting profits by paying for licences in countries with special preferential rules – e.g. patent and licence boxes. Further to this, the Act raised the threshold for immediate depreciation of low-value assets from €410 to €800, and the lower threshold for the formation of a collective item from €150 to €250. This improves the depreciation rules and reduces the burden of bureaucracy on companies. Also,

the tax exemption for grants to business angels under the INVEST funding programme to foster Germany's start-up culture was adapted to fit the funding programme. The "exit grant" is now also tax-free (cf. Item 59).

Looking beyond these measures taken at national level, the Federal Government is working at European level towards the introduction of a Common Consolidated Corporate Tax Base (CCCTB), since it also substantially reduces the potential for cross-border tax arrangements.

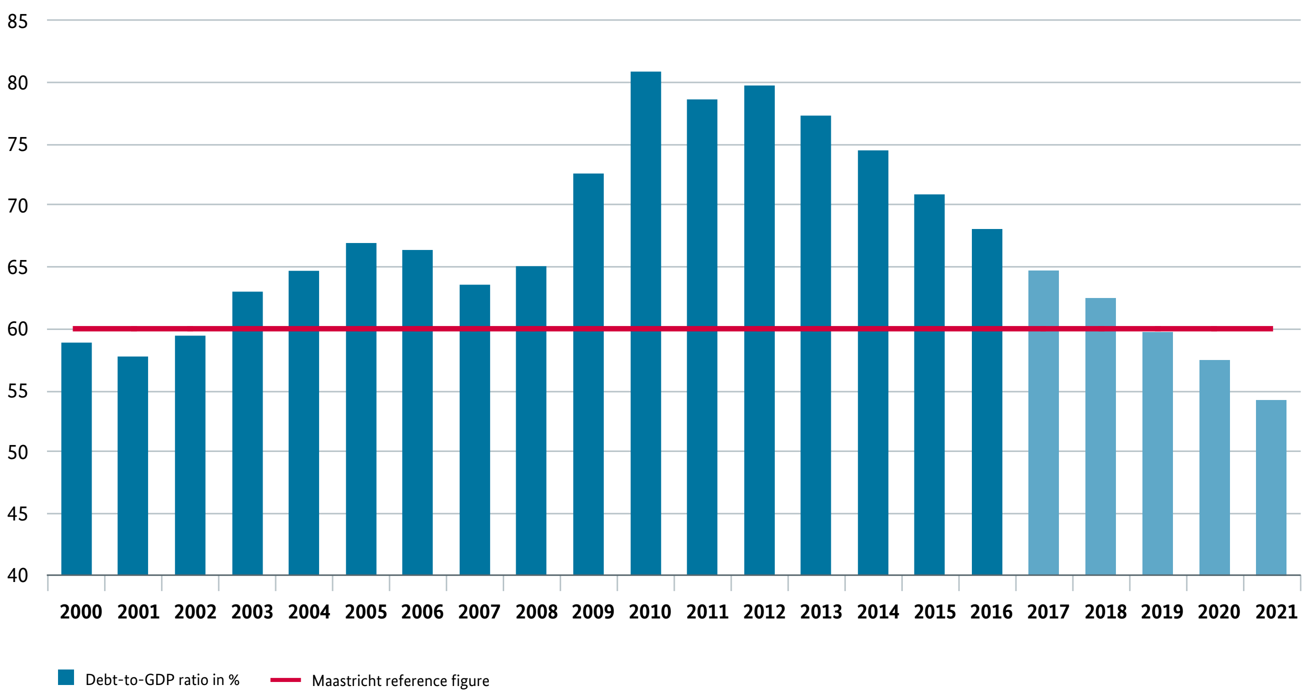
17. In the field of income tax, further relief is helping to provide more incentives to work and to boost the domestic economy. With effect from 1 January 2018, the income tax rate was again adjusted in order to offset the effects of fiscal drag and to take account of the increased subsistence level. Both the basic personal allowance and the other key elements of the income tax rate were increased, as were the child allowance and child benefit, and the maximum maintenance allowance. This will reduce the burden of taxes on taxpayers by around €4 billion. The changes to income tax made during the last legislative term have resulted in lasting tax relief of a total of €11 billion a year. This is also in line with the goal of the Council of Economic Experts (cf. GCEE Annual Report, Item 4) to reduce the tax burden resulting from fiscal drag. This year, the Federal Government will present reports on the effect of fiscal drag and on the subsistence level which should be made tax-free.

18. The favourable development in the finances of the Federal Employment Agency in recent years has made it possible to build up the general reserves to around €17 billion at the end of 2017. In the view of the Council of Economic Experts, the contribution rate to unemployment insurance could be cut in order to reduce the burden of charges (cf. GCEE Annual Report, Item 588). It will be up to the next federal government to decide whether and, if so, to what extent the contribution rate should be altered.

Restructuring of the fiscal relations between the Federation and the Länder

19. The Act Amending the Basic Law of July 2017 and the Act on the Restructuring of the National Fiscal Equalisation System as from 2020 and on the Modification of Budgetary Provisions of August 2017 restructure the fiscal relations

Diagram 1: Development of the Maastricht debt-to-GDP ratio since 2000 (Maastricht debt in terms of nominal GDP)



Sources: 2000 – 2016 figures Deutsche Bundesbank; 2017 – 2021 projection by Federal Ministry of Finance, as of December 2017; projection figures rounded to quarter percentage points.

between the Federation and the *Länder*. These Acts provide for annual relief for the *Länder* from the Federation as from 2020, initially of around €9.7 billion. In addition to this, the Federation has doubled the volume of the municipal investment funds to €7 billion.

The agreement on the restructuring of the fiscal equalisation scheme abolishes the advance equalisation of turnover tax and replaces the existing fiscal equalisation among the *Länder* with financial capacity equalisation in the horizontal distribution of value-added tax. This horizontal financial capacity equalisation will take place in future via additions and subtractions from the shares of value-added tax distributed amongst the *Länder* on the basis of population. The new rules also provide that the Federation will provide additional grants to support fiscally weak *Länder* from 2020. In total, the measures taken mean that the Federation will become much more involved in the provision of finance to the *Länder*. Apart from the revision of the fiscal equalisation, the acts contain a number of stipulations to improve the fulfilment of tasks in the federal state (cf. e.g. Item 25).

20. In this legislative term, it will be important to roll out the restructuring of the financial relationships between Federation and the *Länder*. This means, for example, that the procedure in the Stability Council to monitor compliance with the debt brake by the Federation and the *Länder* must be decided on, the reform of the federal trunk road administration must be implemented, and the smooth transition of autobahn administration to the Federation must take place (cf. Item 28).

Regional structural policy

21. Despite the positive macroeconomic development, there are still considerable regional differences in Germany in terms of economic strength, the proportion of people in work, and the level of unemployment. As the Council of Economic Experts shows, one of the causes is that, due to their specialisation in certain products and sectors, not all German regions benefit equally from globalisation and international trade (cf. GCEE Annual Report, Items 674 ff.). In view of this, the aim of the Federal Government's regional policy is to improve the economic prospects of people in structurally weak regions. In this way, regional policy contributes towards more equivalent living conditions across the country and to social cohesion. The work for the preparation of the "Growth, Structural Change and Regional Development" Commission aims to strengthen the lignite mining regions affected by structural change (cf. Item 104). In western Germany, most of the structurally weak regions are rural or are characterised by old industries. In eastern Germany, most of the regions are still structurally weak. Despite substantial progress, they are still lagging behind in terms of economic strength and employment (cf. 2017 Annual Report on the Status of German Unity). A national funding system for structurally weak areas is being drafted for the time after the Solidarity Pact II expires at the end of 2019. This is based on the principles set out by the Federal Government for a national funding system in May 2015 and on the Federal Government's progress report for structurally weak areas of September 2017. The focus is on the Joint Task "Improving the Regional Economic Structure", in the context of which the Federation and the *Länder* work together to finance the potential for growth and innovation in structurally weak regions. Further elements of the new regional funding system are to include measures to promote investment and innovation and to improve infrastructure and public services. Back in 2017, the Joint Task was granted more scope to fund commerce-related research establishments and technology and start-up centres. Also, at the beginning of last year, the funding for research and development of external non-profit-making industrial research establishments under the INNO-KOM programme was expanded to cover not only the new *Länder* but structurally weak areas throughout Germany. Furthermore, the "Innovation & Structural Change" funding concept put the conditions in place for regionally oriented funding of innovation in eastern and western Germany.

22. Improving the regional economy also plays an important role in the Federal Government's policy on tourism. For example, the possibility for some rural areas to deploy their potential for tourism is an important way to secure employment, counteract the movement out of the area of young workers, and maintain local infrastructure. Amongst other things, the Federal Government supports a nationwide certification system for barrier-free tourism and travel-related services on a digital platform to reduce information impediments for people with disabilities.

23. The ongoing development of the Joint Task "Improving the Agricultural Structure and Coastal Protection" has made it possible since the end of 2016 to fund investment in micro-enterprises providing basic services in rural areas and in establishments providing basic local services for the rural population. This is a further element in the strengthening of regional public services.

C. Stimulating investment and innovation, strengthening industry

24. An economic and fiscal policy which is both oriented to stability and growth and sustainable must not only restrict the level of public-sector debt, but also maintain and build up the foundations for prosperity. This includes efficient transport routes, modern communication infrastructure, needs-oriented child-care, modern schools and attractive higher education institutions, and an efficient welfare state. High-quality public infrastructure is not merely a precondition for private-sector investment and thus fundamental for future economic development, but also contributes to greater social participation and more equal standards of living. It is thus a fundamental pillar of inclusive growth.

Higher public investment

25. Recent years have shown that it is possible to consolidate public-sector budgets whilst also investing more. Whilst the overall balance of public finances has seen a substantial improvement, in the national accounts definition from -€4.0 billion in 2013 to +€38.4 billion in 2017, there was also an increase in public-sector investment from €60.1 billion to €69.3 billion in the same period.

The Federation has made a significant contribution to the rise in total public-sector investment via its investment strategy, which is an element of the forward looking economic policy called for by the Council of Economic Experts. For example, federal investments have risen by some 45 % to €36.1 million (figures for the period between 2013 and 2017). Total federal spending rose by only just under 7 % in the same period. The main focus of public investment is on transport infrastructure, support for the broadband rollout, microelectronics, the development of electric mobility, the funding of energy efficiency in buildings, and funding for social housing.

The Federation has also eased the burden on the *Länder* and the municipalities, which foot the bill for approximately two thirds of Germany's public-sector investment (cf. also Item 19). For example, the Municipal Investment Promotion Act was amended in 2017 to provide financially weak municipalities with further support in the field of educational infrastructure. As a result, the Federation is providing financial assistance to the *Länder* for investment by financially weak municipalities in the repair, rebuilding and expansion of general and vocational schools between 1 July 2017 and 31 December 2022. This includes investment in the facilities assigned to the respective school for day-care for school students. In this context, the equipment required for the proper functioning of these buildings and necessary complementary infrastructure measures, including measures designed to ensure that digital requirements for school buildings are met, are also eligible for funding support. This means that the Federal Government has also responded to the Council of Economic Experts' call to improve digital infrastructure in schools (cf. GCEE Annual Report, Item 813).

Finally, the restructuring of "Partnerschaft Deutschland – Berater der öffentlichen Hand GmbH" provides consultancy services for all levels of government, offering support with the financial planning and implementation of infrastructure projects, and usefully complementing the capacities of the public administration. Access to these consultancy services has been made easier for municipalities in particular.

Investment in transport infrastructure at high level

26. Mobility is a basic precondition for a dynamic economy. This means that efficient and well-networked infrastructure is crucial for growth and prosperity. It is therefore necessary to maintain the quality of the federal transport routes and to remove bottlenecks – where necessary – by replacing, upgrading and building transport routes. In view of this, the Federal Government has substantially increased the level of investment in transport. Investment in the transport infrastructure will probably rise to €14.2 billion in 2018, and will remain at a high level in the following years.

27. In addition to public funding, contributions by the users also play a role in the strengthening of the transport infrastructure. In 2016, revenue from the truck toll amounted to approximately €4.6 billion. The extension of the truck toll to all federal trunk roads, as planned for 1 July 2018, will increase the revenues in future. Additional toll revenues of up to €2 billion per year are expected. The planned infrastructure levy (car toll) is also to help fund the transport infrastructure in future. Private-sector investors are being involved in specific projects.

28. Planning procedures for the realisation of investment in infrastructure are to be made faster and more efficient in future. An important step here is the reform of the federal trunk road administration as an element of the reorganisation of the nationwide fiscal equalisation system from 2020 (cf. Item 19). From 1 January 2021, the Federation will have

sole responsibility for planning, building, operating, maintaining, financially managing, and funding the federal autobahns. The Federation will establish an infrastructure company for autobahns and other federal trunk roads with the legal structure of a GmbH in order to carry out this work. In future, sovereign responsibilities – and particularly the planning – will be primarily undertaken via the Federal Trunk Road Office, which is also to be set up.

29. In order to implement the Rail Freight Masterplan and to stimulate more rail transport, a multi-annual funding concept to reduce track access charges is being drawn up and has been included in the financial plan up to 2021. This will make an important contribution towards the environmentally friendly shifting of transport from road to rail.

Taking the opportunities offered by digitalisation

30. Like the Council of Economic Experts (cf. GCEE Annual Report, Item 59), the Federal Government regards digitalisation as an opportunity. In future, new technological trends like artificial intelligence, virtual reality/3D and Blockchain will feature much more, offering major economic potential. At the same time, it is necessary to build the foundations for the gigabit society. Also, horizontal issues like IT security and data protection, skills development and a modern legal framework for the digital economy will have to be addressed appropriately.

31. In April 2017, the Federal Government adopted the report on the 2014-2017 Digital Agenda. The Federal Government's 2017 Digital Agenda set out a number of digital policy milestones for our three core objectives, which are growth and jobs, access and inclusion, and trust and security. In order to address the structural changes, the Federal Government is actively implementing the Digital Agenda, and has set out rules for living, learning, working and doing business in the digital age so that as many people as possible can participate in the digital transformation.

32. The Digital Agenda focuses in particular on the expansion of digital infrastructure, help for businesses as they embark on Industrie 4.0, support for SMEs and young, innovative firms, the promotion of attractive and competitive vocational training 4.0, the strengthening of cyber security in Germany, and the revision of the Telemedia Act, clarifying liability rules for Wifi providers. In order to support the digital transformation of SMEs, the "Mittelstand 4.0" centres of excellence were expanded further in 2017. In order to permanently improve IT security skills in Germany, the Federal Government has started to put the centres of excellence for IT security research on a permanent footing and is targeting funding towards start-ups in this field.

33. At the same time, the Federal Government has fostered the development of digital technologies by providing funding for pre-commercial research and development projects. The aim of this funding is to pick up on key digitalisation trends at an early stage and to accelerate the process of transferring scientific findings into the development of marketable high-tech technologies with great potential for practical applications. The research covers a broad spectrum of different projects, from the development and testing of a smart, ICT-based energy system fit-for-the-future, web-based knowledge infrastructures that pave the way for new electronic services (the Internet of Services), to the networking of "smart objects" for industrial, public infrastructure-based and home applications (the Internet of Things). Start-ups are of key significance for the technological and economic implementation of digitalisation, and various instruments exist to support them (cf. Items 58 ff.). In order to foster cooperation among start-ups, established companies and science, the Federal Government's activities include the launch of the Digital Hub Initiative. The twelve hub sites are intended to permit national networking amongst the sites, as well as greater international networking.

34. As in the analogue world, it is competition that generates the greatest possible scope to develop innovations and growth. In order to keep the markets of the digital sector open, there is a need for a tailored regulatory framework which ensures that innovative ideas and business models have market opportunities, whilst effectively preventing the exploitation of market power. A proactive competition policy for the platform economy must be able to swiftly counteract tendencies towards inefficient monopolisation at an early stage. For this reason, the Federal Government has pressed ahead with the development of a modern regulatory framework for the digital world. For example, the Act against Restraints of Competition has been adapted to respond to the special features of the markets of the digital economy (cf. Item 64). Also, the White Paper entitled "Digital Platforms. Digital regulatory policy for growth, innovation, competition and participation" was published in March 2017 in order to stimulate the policy debate on the future of the competition rules and regulatory framework for the digital economy. Prior to this, the White Paper "Work 4.0" was published in November 2016 to encourage debate on a modern regulatory framework (cf. Item 76).

35. In order to enable better use to be made of the potential for digitalisation in teaching and science, the Federal Government has introduced the "education and science exception" in the Act to Align Copyright with the Current Needs of the Knowledge Society. This stipulates what copyright uses may be made in the field of education and science without the approval of the author and other right-holders. For the first time, German law will include rules on text and data mining. In order to meet the justified needs of science authors and their publishers, the Act couples most permitted uses to a statutory entitlement to fair remuneration. The reform enters into force on 1 March 2018 for a period of five years.

36. Efficient, nation-wide infrastructure is required if use is to be made of the opportunities offered by digitalisation. A further €400 million was allocated to help fund the broadband roll-out in Germany in 2017. This means that the Federal Government has provided €4.4 billion so far for the expansion of broadband networks which can meet future needs. Funding only goes to those areas which are not currently covered by a next-generation network and where no such network will be built by private investors in the coming three years. The special programme for commerce will also assist the establishment of high-speed gigabit networks in under-supplied commercial and industrial areas and in ports.

The Federal Government has presented drafts for expert debate on the future development of digitalisation policy in the shape of its "Gigabit Campaign for Germany's Future" and the "2025 Digital Strategy"; the aims include a nation-wide roll-out of gigabit networks in Germany.

37. The next 5G mobile communications generation will be a core element of the gigabit networks of the future and will necessitate new architectures in information and communications technologies. The platform for this is being built by the research funding for the future 5G mobile communications standard within the "Industrial Communication of the Future" research initiative. The Federal Government aims to position Germany as a lead market for 5G applications and to support a rapid and successful introduction of 5G technology. In the "5G Strategy for Germany", the Federal Government has presented policy goals and comprehensive packages of measures for an efficient 5G network roll-out. In 2018, the implementation of the measures is to pick up speed, and ongoing activities are to be intensified. 5G connectivity is to be achieved by 2025, and mobile communications capacities are to be substantially expanded in central locations and rural areas.

A stronger industrial base, an improved supply of raw materials, better resource efficiency

38. The industrial sector is a major pillar of Germany's economic strength. The proportion of gross value added delivered by manufacturing in Germany has been fairly steady for the last 20 years, amounting to approximately 23 % in 2016. In contrast, the proportion of value created by industry has dropped substantially in other major European economies during the same period. Germany's strong industrial base contributes to the diversification of the economy and makes an important contribution towards growth and the preservation of jobs. The robustness of Germany's economy has shown that it was good to bank on boosting the competitiveness of the country's industry.

39. German industry is strong because it is broad-based: its blend of small, medium-sized and large firms, its largely intact value chains, the way it is anchored in the regions, its combination of established and new players and sectors and its close cooperation with the research institutions ensure a high level of international competitiveness coupled with a high level of willingness to accept social responsibility. These industrial strengths must be safeguarded and expanded.

40. Industry is also a fundamental element of Europe's economic, technological and social future. This is reflected in the European goal of raising the industrial share in the EU's GDP back to 20 % by 2020. Against this background, the Federal Government welcomes the industrial policy strategy tabled by the European Commission on 13 September 2017 as providing a good basis for further work. The Federal Government is working in the EU to achieve a longer-term industrial policy which is coherent with other policy fields and offers specific measures to lastingly strengthen the competitiveness of European industries. Regulatory requirements for industrial companies must be proportionate. This includes the establishment of specific sectoral targets for the cutting of red tape at EU level in areas which impose particular burdens on business (cf. Item 69). Once industries have relocated out of a country due to excessive regulatory burdens, it is very hard to attract them back again.

41. Another important factor for the lasting success of an industrial society is the capability of building key skills for the lead markets of tomorrow. Aspects like global competition, ambitious environmental and climate targets, and digitalisation are necessitating the continuous renewal of manufacturing capacities, mobility and energy supply.

42. The Federal Government aims to progress digitalisation in the industrial sector. Here, "Industrie 4.0" is the central policy challenge for the coming years. All areas of industrial value creation will be affected. The opportunities are massive. It is particularly important that the nation-wide introduction of Industrie 4.0 succeeds in the case of small and medium-sized enterprises, the backbone of the German economy. The Federal Government's main channel of support for this process of transformation is Plattform Industrie 4.0, including a new "Industrie 4.0 transfer network". Another step will see support for the digital transformation via artificial intelligence and machine learning. The establishment of the Learning Systems Platform by the Federal Government marks the start of this process.

43. The Federal Government is actively shaping the international framework for the digitalisation of industry. Uniform, or at least compatible, international standards, IT security requirements and a regulatory framework are needed so that digital industrial value chains can emerge on a global basis. In order to support this development, Germany has agreed on bilateral cooperation in the field of Industrie 4.0 with China, Japan, Italy, France, the Czech Republic, Australia and the U.S.-based Industrial Internet Consortium. The Federal Government is also actively supporting the digitalisation of industry at EU and G20 level.

44. Microelectronics is an important driver of digitalisation. For this reason, the Federal Government gave a big boost to the research-intensive field of microelectronics last year. For example, it was decided to spend a billion euros on promoting investment in microelectronics in the context of an "important project of common European interest". The funding is however still subject to authorisation in accordance with state aid rules by the European Commission. This will strengthen industrial value creation both in Germany and in Europe well beyond the field of microelectronics itself. In parallel to this, the "Microelectronics Research Factory" is for the first time networking, pooling and expanding microelectronics research capacities on a nation-wide basis. €400 million is being spent on equipping non-university research establishments and higher education institutions with state-of-the-art technology. The aim is to give Germany greater international weight as a centre for microelectronics for science and business.

45. Secure and sustainable extraction and supply of raw materials is of crucial importance for industrial production in Germany. New technological developments in the wake of digitalisation, the energy transition and electric mobility are changing the demand for raw materials. Certain metals and industrial minerals are of vital importance here. The aim of the Federal Government's integrated raw materials strategy is to improve the policy environment for recycling, resource efficiency and the domestic extraction of raw materials. Also, the Federal Government aims to improve the social and environmental conditions in the countries which export raw materials. The Extractive Industry Transparency Initiative (EITI) supports developing countries and emerging economies in their common fight against corruption in the commodity sector. The Federal Government is also implementing the EITI, and presented its first German EITI report in August 2017.

46. The Federal Government also aims to increasingly decouple the use of natural resources from economic development, i.e. in particular to keep reducing the specific rate of material consumption. Germany wants to become one of the world's most efficient and environmentally friendly economies. Lightweight construction can also help to bring this about. The German Resource Efficiency Programme (ProgRess) particularly aims to improve resource efficiency and recycling. The programme also supports the bio-economy strategy. The second progress report for the 2016–2020 period is currently being prepared, including in workshops with experts. Further to this, networks of SMEs and associations are promoting the sharing of information and networking on resource-efficient manufacturing, products and management.

47. The Federal Government regards the work on the European Defence Fund, with its research and capability windows, as very important in terms of strengthening the competitiveness of the European defence industry and laying the foundations for enhanced European cooperation in the European security and defence industry.

Sustainable and modern mobility

48. The Federal Government wishes to make mobility sustainable and climate-friendly. If possible, this will avoid the banning of certain types of cars in certain areas. At the same time, it is necessary to minimise dangers to health. As a response to repeated failures to comply with ceilings for NO_x levels in city centres, the Federal Government has developed a number of measures in dialogue with the automotive industry, *Länder* and municipalities, to be implemented by 2020. For example, the "Sustainable Urban Mobility" Fund was set up in August 2017; the automotive sector is also contributing to the fund. The fund then became included in the "Immediate Action Programme for Clean

Air 2017 – 2020", which is intended to finance the roll-out of measures in the municipalities affected by excess NO_2 emissions. The programme aims to help cut NO_2 emissions so that the ceilings can be met. The main focus of the programme is on the electrification of urban fleets (e.g. taxis and buses), including the expansion of charging infrastructure and measures to stabilise the grid, to retrofit diesel buses to reduce emissions, to improve traffic management, and to digitalise municipal transport systems.

49. A revised version of the Energy and Electricity Tax Act has been in force since January 2018. The new rules include the continued application of tax concessions for natural gas until the end of 2026, and for liquefied petroleum gas until the end of 2022. These tax concessions provide an incentive for zero-NO_x and lower-carbon public and private transport in city centres. The Act also implements EU state aid and electric mobility rules.

Electric vehicles are key for sustainable mobility which is climate-neutral in the long term. They can use batteries or fuel cells, which transform on-board hydrogen into electrical energy. It is also necessary to build a needs-oriented charging infrastructure for battery-driven vehicles and hydrogen refuelling stations for fuel cell vehicles. The aim is to make Germany a lead market and top provider in the field of electric mobility, and to cover the entire value chain in Germany. Following the revision of the Charging Station Ordinance, it is possible to use a commonly used web-based means of payment at all publicly accessible charging stations to pay for electricity. From 2017 to 2020, the Federation is providing €300 million for the roll-out of at least 15,000 charging stations. Also, the environmental bonus is being provided as a measure to promote the sale of electric cars until 2019 at the latest, and a total of €600 million is available for this. A contribution to low-carbon mobility can be made in the next few years by conventional biofuels and advanced biofuels from waste and residual materials. Here, it is necessary to take account of competing uses in the various sectors.

50. The mobility of the future is sustainable, connected and increasingly energy efficient. If Germany is to be a world leader in the field of electric mobility, it needs to master battery technology. The Federal Government is supporting private-sector efforts to build up battery production capacities. This must go hand in hand with a boost to battery and fuel cell research. According to the 2050 Climate Action Plan, the transport sector also needs to make a substantial contribution to cutting carbon emissions. The Federal Government is therefore working at EU level to ensure that CO_2 fleet rules for new passenger cars and light commercial vehicles for the post-2020 period are ambitious and realistic. The intention to introduce a new standard for carbon emissions and fuel consumption of heavy-duty vehicles is also welcomed. The fuels made from renewable energy are to be funded on a long-term basis – particularly in air and maritime transport – via quotas for the providers of fuels.

51. Automated and connected driving is a forward looking technology at the interface between mobility and digital progress; it can make traffic safer and more efficient, reduce mobility-related emissions, and result in new fields of business in the service and mobility industry. As part of the "Automated and connected driving" strategy, the Federal Government has implemented measures in the fields of infrastructure, law, innovation, networking, IT security and data protection, as well as societal dialogue. This includes the Eighth Act Amending the Road Traffic Act, which creates greater legal certainty not only for consumers, but also for industry with regard to future innovations in the field of highly and fully automated driving functions. On the basis of the recommendations presented by the "Automated and Connected Driving" Ethics Commission, the Federal Government has also adopted a plan of measures to establish ethical rules for computers driving vehicles.

In view of the potential for automated and networked driving to develop new fields of business and innovations, an important role in the international arena is played by uniform legal and technical standards. The Federal Government will continue to advocate uniform rules and fair and transparent market access for the innovations developed on the basis of the uniform rules.

Progress on research and innovation

52. In the context of its High-tech Strategy, the Federal Government took many measures to boost research and development in 2017. Key fields were the digital economy and society (cf. Item 33), sustainable management and energy, innovation within the world of work, healthy living, smart mobility, and civil security. The High-tech Forum served the Federal Government as an independent body of representatives of science, business and society and recommended the continuation of the interministerial High-tech Strategy. By providing substantially more money for research and development, the Federal Government continued to contribute towards the goal of spending 3% of GDP on research and development in 2017.

53. Small and medium-sized enterprises in particular need to innovate in order to stay competitive. In order to boost their ability to innovate, the Federal Government updated its innovation strategy entitled "From the idea to the market" with a range of needs-oriented technology-neutral funding programmes for SMEs, and increased the relevant budget. The 10-point "Think Small First" programme, which the Federal Government is using to help SMEs to access funding for research and development projects, has been extended to include new funding schemes.

54. In order to accelerate the transfer of technology from research into market-ready products, funding has been provided for cooperation on research, e.g. in the technology-neutral ZIM (Central Innovation Programme for SMEs) and the IGF (cooperative industrial research). New international bidding rounds were held for the ZIM programme, together with Finland, France, Israel and Brazil and, for the first time, with Japan, Canada and Spain. The Federal Government also has technology-specific research programmes in which all companies and research establishments can participate. A new concept was developed last year to provide assistance to non-technical innovations as well.

55. The funding programmes are backed by policies to improve the environment for innovation in Germany. For example, the conditions for venture capital investments were improved (cf. Item 60), public procurement of innovations was made easier, and numerous measures were taken to support the recruitment of skilled workers (cf. Item 81).

56. Also, on the basis of a decision by the Bundestag of March 2017, various models for tax breaks for research and development were examined. Tax concessions for research and development by SMEs should supplement the project funding which is important for technology transfer.

D. A good environment for private-sector investment and good conditions for competition

57. Looking beyond the development of a modern regulatory framework for the digital world (cf. Item 34) and tax relief (cf. Items 15 f.), the Federal Government has taken further measures to improve the environment for private-sector investment in the context of its investment strategy. Since around 90% of investment is undertaken by the private sector, this is particularly important. The main improvements include the updating of the rules on competition in the light of digitalisation, further pruning of red tape, and measures to promote new start-ups. This is because young, innovative companies in particular lay the foundations for future economic prosperity thanks to their ideas for new products and services.

Improved preconditions for start-ups and young companies

58. In recent years, Germany has seen the rise of a dynamic start-up scene. As an engine of digital progress, young technology companies and start-ups have a crucial role to play as Germany's economy goes digital. If Germany is to be able to keep pace with start-up activities elsewhere in the world, it is vital to have adequate funding throughout all phases of corporate development. For many years, start-ups in Germany found it difficult to get any funding at all. This is because young, innovative firms which are starting out with nothing more than an idea cannot generally access traditional business loans. There have since been some improvements in the early phase.

59. With more than 480 assisted companies so far, the High-tech Start-up Fund is Europe's most active seed fund, and remains the key instrument for the financing of innovative start-ups. In 2017, the High-tech Start-up Fund III was launched, with funding of approximately €310 million. Around €100 million of this is private-sector capital which the Federation and the KfW raised from some 30 established companies. The networking with the private sector gives the assisted start-ups more than just financial backing. It also helps them to develop important sales markets and in some cases to find potential buyers for the start-ups.

Further to this, the INVEST Programme, which funds the establishment of young companies via grants towards venture capital, was significantly increased and expanded at the beginning of 2017. The eligible volume of investment has been doubled to €500,000 a year, and an additional exit grant has been introduced as flat-rate compensation for the tax charged on capital gains. The tax exemption for the INVEST grants will give young, innovative companies even more support in the search for a private-sector source of the seed capital they need.

60. On the other hand, there is a supply-side gap, particularly when it comes to using venture capital (VC) to finance growth. Only if there is sufficient funding available for the growth phase can a company succeed on the market and potentially develop into a market leader. The KfW estimates that the need for finance that is not being met in this mar-

ket segment still amounts to between €500 and €600 million a year in Germany. In order to unlock this impediment to growth, the volume of venture capital available in Germany needs to be expanded further in the coming years by the private sector, the Federation, the KfW and European financial partners.

61. The growing involvement of the KfW in the financing of venture capital is another important element. 2015 saw the launch of the ERP VC fund investments, marking the return of the KfW as an investor in venture capital funds via the ERP Special Fund and bearing a market risk. Also, the ERP Special Fund and the KfW together set up the coparion co-investment fund in 2016; it joins with private-sector lead investors to invest in young, innovative firms. Further to this, it was decided to establish a new, independent KfW VC company, substantially expanding the KfW's VC business and making better use of the potential of the ERP Special Fund to provide assistance.

62. Overall, the ERP programmes and their low-interest loans and investments are some of the most important instruments of German business promotion and deliver reliable support for SMEs. Of the total assessed volume of ERP funding of €6.8 billion in 2017, €3.8 billion for that reason alone was earmarked for the support for new start-ups and the takeover of small and medium-sized enterprises. In 2018, the broad support available from the ERP Special Fund for investment in the start-up and growth of young companies will be continued.

63. A wide range of programmes exists to give a boost to a spirit of entrepreneurship across society, particularly for women and people with a migrant or refugee background, and for the establishment of welfare companies. The Federal Government's New Age for Entrepreneurship initiative is giving start-ups a fresh boost. This includes, for example, information and advisory services on digitalisation and networking, accelerator programmes, and measures targeting start-ups by migrants. The "Start-up Your Future" pilot project, which was launched in 2017, helps refugees to benefit from the sponsorship of experienced business people with the aim of opening up self-employment as a possible source of earnings for them. The "Young Entrepreneurs in Science" initiative aims to raise awareness on the part of researchers and students of the possibility of setting up a company, so that they give greater consideration to this as a way to exploit scientific findings. Further to this, new procedures are being developed to pass on the skills needed for people to run their own business.

Proactive development of competition and procurement law

64. If competition law is to be able to effectively protect market players against impairments of competition, it must reflect the developments on the market. The Act against Restraints of Competition has therefore been repeatedly adapted to changing market conditions over the years. The 9th amendment to the Act entered into force in June 2017, developing competition law against the background of the increasing digitalisation of the markets. For example, the Act now cites certain factors which, in a digital, internet-based environment – e.g. in the case of multisided markets and networks – are of special importance and can play a key role in determining a company's position on the market. The new provisions will be evaluated in the coming years, not least in view of the impact of the new €400 million threshold in merger control based on the transaction value of a merger.

The 9th amendment to the Act also provides for an evaluation of the new statutory criteria for the determination of the market position of companies. Against this background, the Federal Government will examine whether the rules which have been put in place in response to the special features of the digital economy are working, and whether there is a need for further changes to the Act. The Federal Government is also examining what possibilities exist for procedures to be accelerated. The effectiveness of competition law is largely determined by the tools available to the competition authorities applying the law. The Federal Government will continue to participate in the ongoing discussions in the Council and the European Parliament on the European Commission's draft directive to boost the enforcement powers of the national competition authorities (ECN Plus).

65. The reform of procurement law, which entered into force in April 2016, creates for the first time a comprehensive, modern and flexible framework for public procurement above the EU thresholds. However, the bulk of procurement takes place below the EU thresholds. In order to transfer the reform's new, more flexible provisions to this segment, the Federal Government worked with the *Länder* to draw up the Ordinance for Public-sector Purchasing below the Relevant Thresholds. The Ordinance entered into force for the Federation in September 2017. Since the business community has a justified interest in encountering public procurement rules which are as similar as possible in all of Germany's *Länder*, the Federal Government will con-

tinue to work intensively towards the most rapid possible introduction of the Ordinance throughout Germany.

66. Companies committing serious white-collar crime should not benefit from public contracts or concessions. In order to provide contracting authorities with information about grounds to exclude companies from bidding – e.g. cases of bribery, failure to pay social security contributions, or violations of competition law – the legislature adopted the Competition Register Act in the summer of 2017. The Federal Government will enact an ordinance containing the details on the reporting of white-collar crimes to the register and the accessing of information in the register. When the ordinance enters into force, contracting authorities will be obliged to check the register before awarding a contract.

67. Reliable data on the procurement activities of the public sector at Federal, *Länder* and municipal level are becoming more and more important for strategic planning of requirements and purchasing. The implementation of public-sector investment, e.g. of infrastructure projects, must be rooted in a solid basis of data. For this reason, the Federal Government has for the first time created the basis for comprehensive nation-wide procurement statistics as part of the procurement law reform, in the form of the Procurement Statistics Ordinance. It is being developed in close cooperation with the Federal Statistical Office, which is responsible for managing it.

68. The European Commission is also advocating the establishment of a valid data basis in its "procurement package" of October 2017. Further to this, it is calling on the Member States to do more, particularly in terms of digitalising and centralising procurement processes and making these processes more professional. It also takes a more macroeconomic view of public procurement in terms of the volume – at least €280 billion a year in Germany – and the related strategic significance. The Federal Government welcomes this approach in principle; however, the procurement offices in the Federal Government, the *Länder* and the municipalities need time to adapt their procurement to the new legal framework so that the potential can be utilised in the interest of an overall system of efficient procurement.

Bureaucracy reduction

69. Bureaucracy can slow down private-sector investment and economic dynamism – particularly to the detriment of small and medium-sized enterprises. For this reason, the Federal Government took several measures in the 18th legislative term to reduce bureaucracy and encourage better regulation. The Second Bureaucracy Relief Act reduces burdens in tax law and simplifies the calculation of social security contributions and the invoicing of long-term care services. It significantly reduces compliance costs for companies; estimates of the value of the relief vary between €135 and €360 million a year (due to uncertainties in the estimations, the effect will be measured again in the near future). Germany's approximately 3.6 million small and medium-sized enterprises particularly benefit from the reduction in compliance costs. Furthermore, the introduction of electronic public procurement in the Ordinance for Public-sector Purchasing below the Relevant Thresholds (cf. Item 65) will also result in substantial relief for business and the public sector.

70. In line with the "one in, one out" principle, since 2015 the federal ministries have had to counterbalance new burdens on business via relief elsewhere, in order to limit the rise in compliance costs. The findings of the special review of the application of the bureaucracy brake undertaken in October 2017 are very favourable: compliance costs for business have dropped by around €1.5 billion a year due to the use of the bureaucracy brake.

71. The programmes of work adopted in 2014 and 2016 for better regulation have also been tackled successfully. Almost all of the 80 measures and projects contained in them have since been implemented, or are in the process of being thoroughly implemented. For example, the core energy market data register, which is currently being created, is significantly improving the data available for the energy sector.

72. By way of the eGovernment Act, Germany has made substantial progress giving citizens and companies simple and secure access to the administration and handling administrative matters online. The Online Access Act obliges the Federation and the *Länder* to make their administrative services available online by 2022 via their own administration websites. Each administration website will provide access to all administrative services in Germany, at municipal, *Länder* and federal level. The user accounts envisaged for the administration websites will make it easy and secure for citizens and companies to identify themselves to the administration.

The electronic invoice is to become the predominant form of invoicing in Germany. To this end, the Federal Government has adopted the Federal eInvoicing Ordinance. In future, invoices will no longer have to be printed out, put in envelopes and sent by post, but can be uploaded digitally with just a few clicks via a federal web-based invoicing website and sent to the recipient.

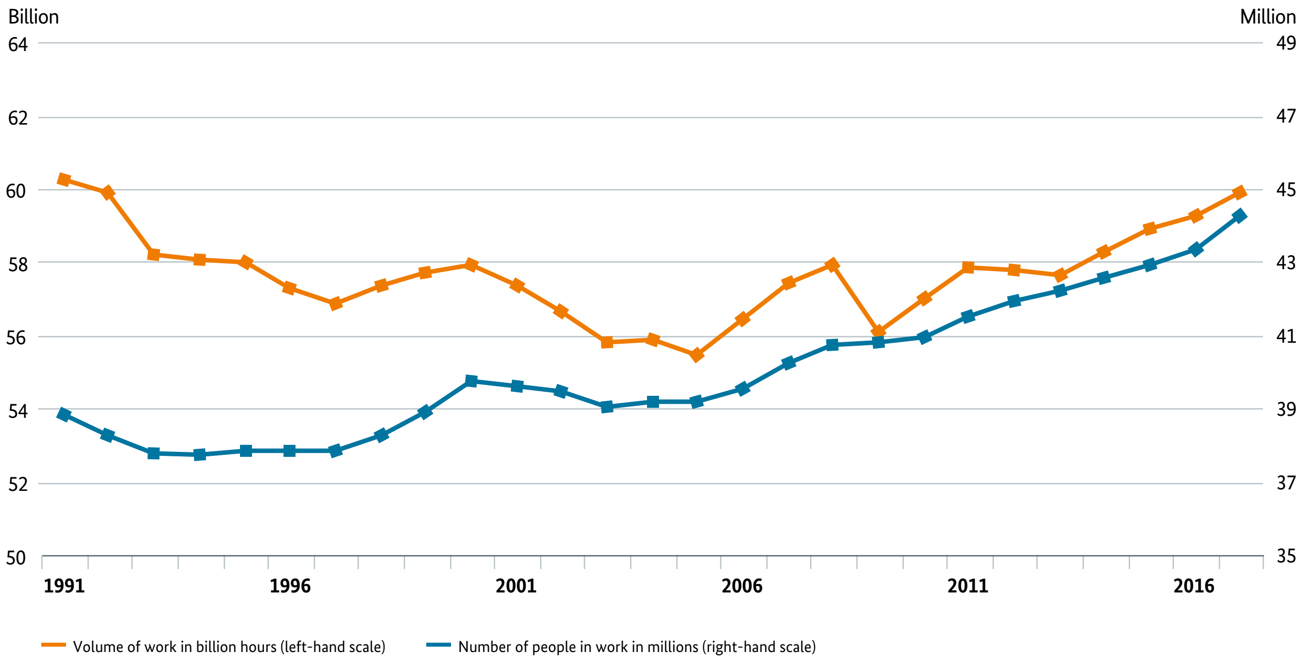
E. Modern and fair rules for the world of work and social security

73. Overall, the labour market is better than it has ever been since reunification. In 2017, gainful activity and employment subject to social security contributions again rose significantly in year-on-year terms, whilst unemployment and long-term unemployment both declined further. Employees have enjoyed noticeable increases in real wages over the last few years. This means that good progress has been made on the integration and involvement of everyone in working and social life, and also on the economic situation of employees. The decisions taken by the last Federal Government backed this positive overall trend, thus fostering inclusive growth. Access was opened up to the labour market and to "decent work". Central reforms were also launched in the social security systems for pensions and long-term care.

Increase in the labour participation rate

74. According to provisional figures from the Federal Statistical Office, around 44.3 million people were engaged in gainful activity in 2017, and on 30 June 2017 approximately 32.2 million of these were employed in a job subject to social security contributions. The volume of work also developed positively; it rose substantially for the fourth time in succession in 2017 (cf. Diagram 2). This was also contributed by the increase in the average number of hours worked by people in part-time work. The unemployment rate averaged 5.7% in 2017. The annualised number of long-term unemployed dropped by 9.3% to 901,000 in year-on-year terms. Despite the good development on the labour market, major challenges remain in place when it comes to the adequate integration into the labour market in particular of the low-skilled, long-term unemployed, older and disabled persons, and people with a migrant background. The Federal Government has therefore continued its efforts to boost the labour participation further. Skills development is of great importance, especially for people without professional qualifications, so that the changes on the labour market resulting from rapid structural change can be facilitated in a way that secures a high level of employment with high-quality jobs.

Diagram 2: Development of the volume of work and the number of people in work



Source: Institute for Employment Research (IAB) and Federal Statistical Office.

75. Incentives to take up work and for second earners to increase their hours were strengthened last year by the Act for Combating Tax Evasion and Amending Other Tax Provisions: from 2018, the IV/IV tax bracket combination will become the standard tax bracket for couples getting married and it will be possible to change from the optional III/V tax bracket combination to the IV/IV tax bracket combination at the request of only one spouse.

76. A good policy framework for the balancing of family life and work makes a key contribution towards activating the potential of skilled workers and for sustainably successful economic development. Since the introduction of the parental allowance, parental allowance plus and the expansion of day-care facilities for children, the participation rate of women with child-care duties has increased further. The Federation provided more than €6 billion in the last legislative term alone to support the *Länder* and municipalities as they increase the quantity and quality of childcare, operate and improve childcare, and via federal language teaching programmes. Most recently, from 2017 the funding for language skill development was boosted by €150 million and the new 2017 – 2020 investment programme was set up, furnished with €226 million in its first year.

Digitalisation can generate opportunities to improve the compatibility of family life and work via greater flexibility in terms of place and time. Almost all parents with children aged under 18 taking advantage of home office options say that they do well at combining the two areas of life. Overall, 30% of parents can imagine using such forms of work. However, only 6% of these parents currently have the option of working from home. With the "Success Factor Family" corporate programme, the Federal Government is working to achieve its aim of a family-friendly working world which takes advantages of the opportunities of digitalisation for a work-life balance. In the debate about the law on working hours, the social partners are particularly interested in greater flexibility for employers and greater control for employees: whilst the employer's side would like to liberalise the rules on working hours in terms of maximum working time per day and rest periods, the employees' representatives are calling for more rights for employees in terms of choosing when to place their working hours, telecommuting and non-availability. The Working Time Act is already flexible, and in many cases new working time models are being used or tested in practice. Nevertheless, there are new challenges ahead on the shaping of working hours in order to balance the need for flexibility on the part of employers and employees, whilst maintaining standards of health and safety at work. That is one of the findings in the draft White Paper "Work 4.0" which has been published for public debate.

77. For single parents and their children, the maintenance advance was significantly improved on 1 July 2017. It is now being paid permanently for children aged under 18 living with one parent who receive no maintenance, or no regular maintenance, or only partial maintenance. The new rule is intended to make it easier for single parents to permanently meet their needs from their own income without any benefits under Social Code II, and also to create an incentive – for single parents with children aged between 12 and 18 – to earn their own living. Further to this, the entry into force of the reform of the Act on the Protection of Working Mothers on 1 January 2018 has improved the career prospects of women in dependent employment. Also, the revision of the Insurance Contract Act has substantially improved the financial insurance for self-employed women with private health insurance during the period of statutory maternity leave.

78. With their experience and potential, older employees are indispensable for the world of work. The Act to Flexibilise the Transition from Working Life to Retirement and to Strengthen Prevention and Rehabilitation in Working Life (the "Flexi-Pension Act") has created even better possibilities in Germany to shape the transition from working life to retirement in a flexible and self-determined manner which meets the individual plans of the employees. Also, the Act has put various measures in place to strengthen the benefits provided by pension insurance funds in terms of preventative action on health, rehabilitation and follow-up care. These will help to extend the period in which the beneficiaries are able to work in old age.

79. Despite tangible successes, the reduction of long-term unemployment continues to be a key issue for the Federal Government's labour market policy. The Federal Government's "Creating Opportunities – Ensuring Social Participation" concept has provided a lasting boost to the reduction of long-term unemployment. The aim is to use "networks to activate, advise and offer opportunities" in the job centres across the country to achieve optimised support for people in long-term unemployment and to enable their social participation. The "ESF - Federal programme for the integration of long-term unemployed beneficiaries as defined in the Social Code II on the general labour market" makes it possible to provide comprehensive support to long-term unemployed people with little contact to the labour market. The federal programme "Social participation in the labour market" is targeted at long-term unemployed

persons with little contact to the labour market who will probably not be able to be placed straight into jobs on the general labour market. The programme aims to create possibilities to participate in the secondary labour market, thereby improving the medium-term to long-term prospects for employment on the regular labour market.

80. From January to the end of November 2017, 173,000 people came to Germany seeking protection from war and persecution. The integration of the refugees who will be living in Germany for the foreseeable future is one of the greatest challenges for the coming years. Building on the comprehensive efforts made in recent years (cf. the brochure "Measures taken by the Federal Government to improve the language skills of and to integrate refugees"), the Federal Government took a range of further measures in 2017 to facilitate the successful integration of refugees into society and the labour market. Since the majority of refugees are young, the system of dual vocational training offers a good path into the labour market for this group of people. The measures taken by the Federal Government to integrate refugees into the labour market and to reduce long-term unemployment (cf. Item 79) are in line with the calls made by the Council of Economic Experts to pay special attention to these groups (cf. GCEE Annual Report, Item 7).

Vocational training for a sound skills base, immigration of skilled workers, fair shaping of the labour market

81. One consequence of the ongoing strength of the German economy and the German labour market is high demand for skilled workers. It is becoming increasingly difficult for employers in many sectors and regions to fill the vacancies in their companies. In December 2017, around 761,000 vacancies were reported to the Federal Employment Agency, 15.6% more than in December 2016. Alongside the efforts to boost the labour participation rate, investment in vocational training plays a crucial role in securing the supply of skilled labour. In view of shrinking year groups, high proportions of school leavers without a qualification, and of people leaving the education system, some regions are facing particular challenges.

In the Alliance for Initial and Further Training, the Federal Government agreed with its partners to strengthen dual vocational training in Germany and to promote the recognition of vocational training as being equivalent to academic training. The instrument of Assisted Training initiated by the Alliance aims to give support during training to less well performing young people and the companies giving them training.

The digital and demographic transformation will result in very rapid changes both to demand for labour and to the supply of labour. This means that a major qualitative challenge will be to keep adapting the skills and qualifications of the workforce to the constantly changing demand. Education for the digital transformation will become a prerequisite for individual success on the labour market and for corporate competitiveness. In the context of the strategy "Educational campaign for the digital knowledge society", support is being given to the *Länder* for the teaching of digital skills. The Federal Government's campaign to further improve teacher training also prioritises the potential of digital media in teaching and learning. The Federal Government's "Digital Higher Education" research priority supports the development of digital teaching and learning formats at higher education institutions and the internal infrastructure of higher education institutions. Further to this, the "Digital media in vocational training" programme aims to promote and disseminate the use of digital media in initial and further training. In order to orient dual vocational training to the needs of a digital economy, the Federal Government and the social partners are already subjecting training regulations to regular scrutiny in terms of the response to new technologies. The Federal Government has taken a range of further measures to tackle this challenge under the umbrella of the "Vocational Training 4.0" initiative.

82. In order to make Germany more attractive as a workplace for qualified professionals from abroad, Germany is facing up to the competition with traditional countries of immigration like Canada, Sweden and New Zealand to attract such skilled workers. The official information portal www.make-it-in-germany.com provides qualified professionals in other countries who are interested in working in Germany with all the relevant information about living and working in this country. The recognition of foreign professional qualifications is an important lever for the migration and integration of skilled foreigners. An evaluation of the Federal Recognition Act in 2017 underscores its positive impact on the labour market.

83. Following the introduction of the minimum wage, the Federal Government has launched a number of further pieces of legislation to ensure a fair labour market. For example, the Act Amending the Temporary Employment Act and Other Acts, which entered into force on 1 April 2017, counteracts the abusive deployment of contracts for

work and services, orients temporary agency work to its core function, and strengthens the legal position of temporary agency workers. The Act Promoting Transparency of Remuneration Structures is intended to help make wage disparities between women and men visible and to improve the enforcement of the principle of "equal pay for equal or equivalent work". A report will be published in mid-2019 on the implementation of the Act.

In terms of the promotion of equal opportunities for women and men, the Act on the Equal Participation of Women and Men in Executive Positions in the Private and Public Service is already having an impact. The proportion of women on supervisory boards of companies which are covered by the fixed quota rose from 25.0% to 27.3% in the 2015 financial year. In companies not subject to the fixed quota, the proportion of women on supervisory boards rose from 19.5% to 21.2%. The goal is to have women making up 30% of the supervisory boards of companies listed on the stock exchange and subject to full co-determination by 2030.

Forward looking social security arrangements for old age

84. Following the pension package from 2014, which introduced a full pension for people aged 63 and older who have particularly long periods of pension insurance, and a better inclusion of child-raising periods for children born before 1992, further important changes were adopted in the field of pension insurance at the end of the last legislative term. The Act on the Conclusion of the Pension Transition gradually aligns the different calculation bases for pensions in eastern and western Germany. The current pension amount (east), the contribution assessment ceiling (east) and the basic formula (east) are being gradually raised to the western levels, and the current system of extrapolating earnings in the new *Länder* is being correspondingly reduced. From 2025, pensions will be calculated uniformly throughout Germany. Further to this, the statutory pension insurance for disabled people unable to do a full day's work was further improved. As of 2018, the added period for recipients of disability benefits who become pensioners is being gradually increased by three years to 65 years in the period up to 2024. This represents a targeted and substantial increase in entitlements for new pensioners. Also, the Act to Strengthen Company Pensions offers numerous improvements intended to encourage the provision of company pensions. Additional pension provision in general is also encouraged by the Act; for example, a tax allowance for additional pension provision is introduced in basic income support in old age and for disabled people. This sends out a clear signal that individual pension provision pays off no matter what situation people are in. Also, the "Riester pension" is made more attractive, for example via an increase in the basic supplement. Furthermore, benefits paid out from the occupational Riester pension will in future not be included in the calculation of contributions to statutory health and long-term care insurance.

The positive employment situation is also being reflected in statutory pension insurance. For example, the contribution rate was cut from 18.7% to 18.6% at the beginning of this year. The current pension insurance report expects this rate to remain in place until 2022. The pension adjustment increased pensions by 1.9% (west) and 3.59% (east) on 1 July 2017. It currently looks as though 2018 will see another clear rise in pensions.

A modern health system in a time of demographic change

85. Modern health care largely depends on well trained skilled workers with the latest knowledge. In order to equip them for the challenges relating to demographic change, the Federal Government has updated the training courses for long-term care and medicine in a needs-oriented and forward looking manner. The Act Reforming the Caring Professions merges the current vocational training programmes for "nursing and health care", "nursing and paediatric care" and "elder care" from 1 January 2020 into a new, general and standardised nursing training programme. Further to this, the Medical Study Master Plan 2020 will orient the structure and content of medical studies more to needs-based care, and in order to attract more young general practitioners into rural areas in Germany, the *Länder* will be allowed to introduce a rural doctors quota.

The Acts to Strengthen Long-Term Care adopted in the last legislative term which fundamentally reformed long-term care brought clear improvements for the policy environment which exists to ensure the long-term care system has the personnel it needs. In recent years, long-term care was one of the service sectors which registered a particularly sharp rise in its workforce. The extension of the payments towards services introduced by the first and second Acts to Strengthen Long-Term Care will further increase the level of demand for professional support and lead to a further rise in employment in the long-term care sector. Further to this, the Federal Government has taken a wide range of measures to bring about a lasting improvement in the long-term care situation in hospitals.

86. The innovation funds set up in the last legislative term can deliver important boosts to the development of care funded by the statutory health insurance funds. In 2016 – 2019, €300 million is available each year from the statutory health insurance funds. The eHealth Act, which entered into force at the end of 2015, and the funding initiative for medical IT have brought about progress in the digitalisation of the health sector. The measures taken by the Federal Government thus already address calls by the Council of Economic Experts to leverage the potential for efficiency in health care – not least via the strengthening of cross-sectoral approaches to health care and the digitalisation of the health care system (cf. GCEE Annual Report, Items 54 ff.). The measures taken during the last legislative term are also having an impact on in-patient care: for example, the use of the Hospital Structure Fund to restructure hospital capacities is leading to the first indications of a needs-oriented adaptation of hospital capacities.

Germany is a world leader in pharmaceutical research and development. It needs to safeguard and build on this international competitive advantage. At the same time, there must continue to be a good balance between the encouragement of innovation on the one hand and affordability on the other. The Act to Strengthen Pharmaceuticals Provision in Statutory Health Insurance Funds, most of which entered into force in 2017, safeguards the quality of the medicines available, and particularly the rapid access to innovative medicines, and the long-term affordability for the statutory health insurance funds.

Affordable needs-based housing and social urban development

87. The last few years have seen a worsening of the already tight situation on the housing market in a number of cities and regions, where a shortage of housing is leading to rising rents and prices and some high housing costs. The shortages are not only affecting people on low incomes, but increasingly also middle-income households. In its Fifth Poverty and Wealth Report published in 2017, the Federal Government also identified a rise in the number of homeless people, which it puts down to a large number of factors, including a shortage of housing in certain regions and market segments. The Alliance for Affordable Living and Building was set up as a central instrument for intensifying housing construction in a joint effort to tackle the challenges on the housing market involving the Federation, the *Länder*, municipalities, the housing and construction sectors as well as other stakeholders in society.

In the context of the National Urban Development Policy initiative, funding totalling €790 million was available in 2017 alone for the promotion of urban development, compared with €455 million in 2013. On top of this, a further €200 million in funding was available for the Social Integration in the Neighbourhood investment pact and €75 million for the National Urban Development Projects programme. The last legislative term saw a particular focus on social urban development to improve quality of life and to boost integration and social cohesion at a local level. This was particularly expressed in the increase in the funding for the Urban Restructuring and Social City programmes, and also in the introduction of the interministerial strategy entitled "Social City: strengthening neighbourhoods, living together in the neighbourhood".

88. The rising numbers of older people with limited mobility and of people with disabilities will further increase the need for age-appropriate dwelling space. Age-appropriate conversion of residential buildings and neighbourhoods allows these people to pursue an independent life in a familiar setting for as long as possible. The Federal Government therefore increased the funding in the KfW programme Age-appropriate Conversions when it was reintroduced in 2014 – 2017.

F. A modern, competitive and environmentally compatible energy policy; effective action to mitigate climate change

89. The energy transition is one of the Federal Government's key projects and is helping Germany to attain its climate targets. The Federal Government thoroughly renewed its energy policy in the 18th legislative term, making it more competitive and anchoring the energy transition on a European basis. Almost all of the projects contained in the 10 point energy agenda from the beginning of the legislative term have been implemented. They include important reforms for the electricity market, the funding system for renewable energy, grid expansion and energy efficiency.

90. The Federal Government has thus achieved a great deal on the road to a secure, clean and affordable energy supply. Renewable energy has become the most important energy source in Germany: it accounts for roughly one third of gross electricity generation (cf. Diagram 3). At the same time, Germany's energy supply is one of the most reliable in the world. Even in a time of favourable economic development, the process of decoupling energy consumption from GDP development is continuing. However, clear prog-

ress needs to be made on boosting energy efficiency and cutting greenhouse gas emissions in all sectors if the energy transition is to be successful and the climate targets are to be reached. The "Energy of the Future" monitoring process adopted by the Federal Government regularly reviews the status of implementation so that fine-tuning can take place if necessary.

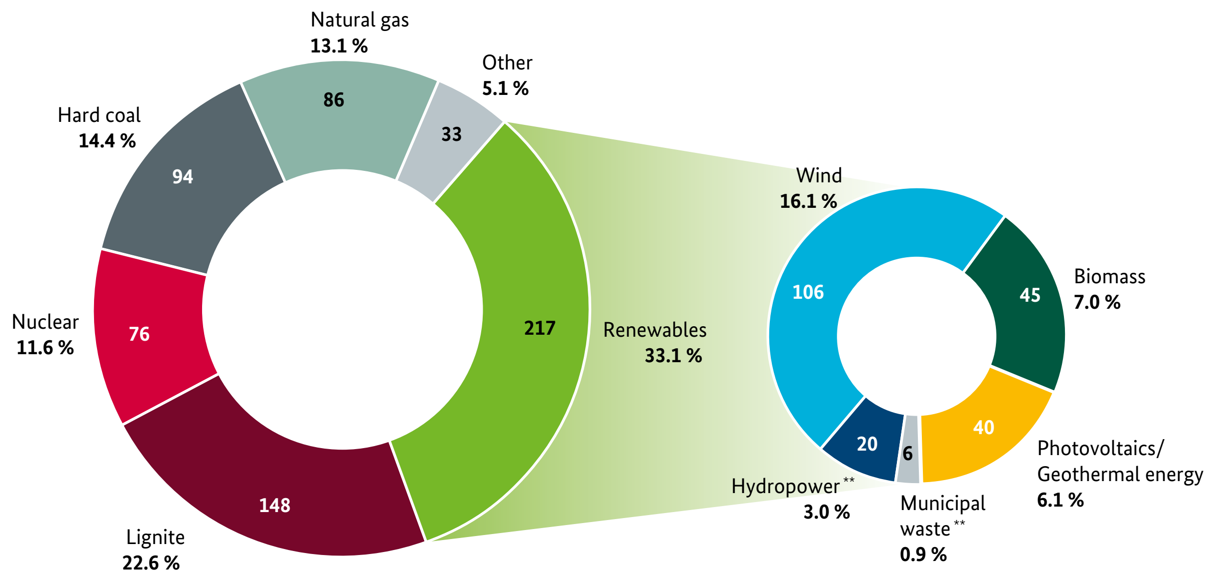
91. In order to attain the long-term goal of a virtually carbon-free energy supply, increased efforts will be needed to further reduce overall energy consumption (the "efficiency first" principle) and to make the electricity system even more flexible. Here, "sector coupling", i.e. the efficient use of renewables-based electricity for heating, transport and industry, can make an important contribution to decarbonisation. It is necessary to examine how a substantial boost to this can be given by a budget-neutral revision of the structure of taxes, charges and levies in line with the goals of the Energy Concept, the energy transition and the 2050 Climate Action Plan.

92. The Federal Government is also calling at European level for an ambitious energy and climate policy with a view to a robust Energy Union and the reliable attainment of the EU's energy and climate targets for 2030. The package of legislation presented by the European Commission at the end of 2016 entitled "Clean Energy for all Europeans" is intended to reshape the European policy framework for energy. Key goals include the proposals for a governance system for the Energy Union, for the new EU electricity market design, and for a revision of the Renewable Energy and Energy Efficiency Directives. As things stand in the negotiations on the new Governance Regulation, each Member State must present the European Commission with the draft of a National Energy and Climate Plan (NECP) for 2021 – 2030 by the end of 2018. In the field of international cooperation, the Federal Government has concluded further bilateral partnerships with the United Arab Emirates and Australia.

Competition in the field of renewable energy

93. Since the beginning of 2017, remuneration for new installations to generate electricity from renewable energy has mainly been determined via technology-specific auctions held on the basis of the 2017 Renewable Energy Sources Act. This paradigm shift towards funding rates set

Diagram 3: Gross electricity generation in Germany in 2017 in terawatt-hours (TWh)*



* Provisional figures, some estimated
** Renewable share
Total gross electricity generation: 654.2 TWh.
Due to small quantity, geothermal energy is not depicted separately.

Source: Working Group on Energy Balances; status: December 2017.

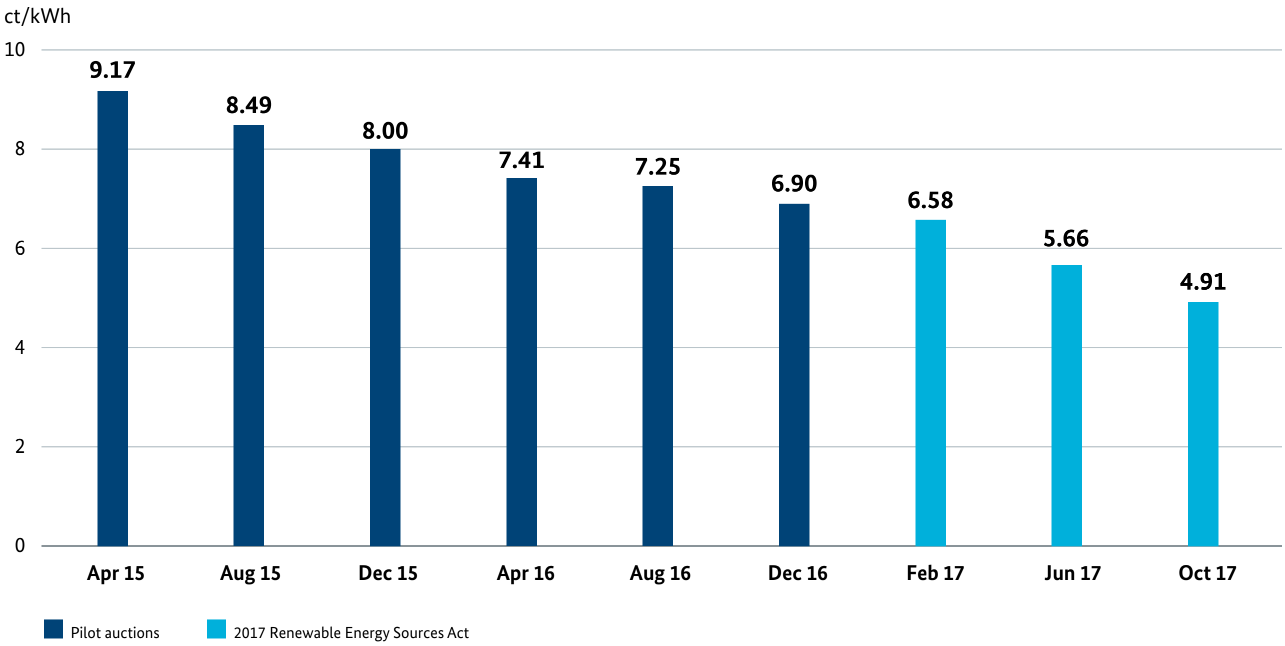
by competition and to quantity-based rather than price-based funding is resulting in a much more cost-efficient expansion of renewable energy. The Federal Government is subjecting this process to an ongoing evaluation in order to continue the dynamic expansion of renewable energy. In order to maintain stakeholder diversity, small installations will continue to receive a fixed amount of funding. The expansion of wind energy installations is being temporarily restricted in regions with increased levels of congestion in the transmission system.

94. The results of the auctions for ground-mounted photovoltaic installations (PV) (since April 2015) and for wind energy (since May 2017) show that auctions have resulted in significantly falling prices. For example, the average funding rates for ground-mounted PV installations have dropped by more than 45% to below 5 cents/kilowatt-hour (cf. Diagram 4). Three rounds of auctions have been held for onshore wind energy installations, with the average funding rates falling by 33%. All of the auctions were characterised by a high intensity of competition. In each round, the volume up for auction was oversubscribed several times over. The vast majority of funding awards for onshore wind energy installations went to citizens' energy companies and projects with a longer-term implementation deadline. The legislature has responded to this and temporarily revised the special rules applying to citizens' energy companies. Lessons drawn from the auctions are described in a report on the 2017 Renewable Energy Sources Act.

95. Also, the Federal Government aims to gather practical experience with cross-technology auctions. From 2018, there will be joint auctions for onshore wind energy and solar installations during a three-year pilot phase. In order to strengthen the European dimension of the energy transition, there will also be a limited number of "open auctions", in which sites located in other Member States can also be awarded funding. The Federal Government introduced this possibility of "open auctions" for wind energy installations in 2017, in addition to ground-mounted PV installations.

96. In addition, the Federal Government has brought the energy transition into the cities. The Landlord-to-Tenant Electricity Act, which entered into force in July 2017, aims to let tenants take part directly in the energy transition. Landlords can sell the electricity from their PV installations to their tenants, and receive funding under the Renewable Energy Sources Act for this. At the same time, the Act puts the conditions in place for the tenants to actually benefit

Diagram 4: Average funding awarded in the auctions for ground-mounted PV installations



Source: Federal Ministry for Economic Affairs and Energy (BMWi).

from this and to continue to be able to freely choose their electricity provider. It is estimated that up to 3.8 million apartments can benefit from landlord-to-tenant electricity.

A reliable energy supply and infrastructure

97. The electricity supply in Germany must remain reliable even as it integrates a growing share of energy from renewables. This requires factors like a flexible electricity system, a rapid expansion of grids, and an upgrading and optimisation of existing grids. This is because a needs-oriented and modern electricity grid is the backbone of a successful energy transition. If the electricity grid fails to meet these needs, there is a risk of continued rising costs for redispatch or the curtailing of renewable energy installations. It is therefore vital to make rapid progress on the planning and authorisation procedures for all measures to strengthen the existing grid and to build new grid. The same is true of grid optimisation measures, including the use of modern technology. At the end of the third quarter of 2017, 750 kilometres of the 1,800 kilometres of grid needed according to the Power Grid Expansion Act, and 150 kilometres of the 5,900 kilometres of measures to strengthen existing and build new grid according to the Federal Requirements Plan Act, had been realised.

98. When it comes to the expansion and operation of the grid, costs must be shared fairly. The Act on the Modernisation of the Grid Fee Structure of July 2017 aims to harmonise transmission system fees in Germany and gradually remove regional disparities by 2023. Also, the "avoided grid fees" are being reduced. This will result in a restriction of distribution system costs in 2018, and will thus help to stabilise electricity prices.

99. In order to keep Germany as one single bidding zone, the Federal Cabinet approved an amendment of the Electricity Network Access Ordinance in November 2017. Following approval from the Bundesrat, it entered into force at the end of 2017. The amendment means that transmission system operators will not have the power to unilaterally split Germany into several bidding zones.

100. The amendment to the Gas Network Access Ordinance entered into force in August 2017. The aim is to improve access to the German gas market and to merge the two gas market areas by April 2022. This increases liquidity, improves security of supply and prepares the German gas market for future European developments.

101. The grids at the borders between Germany, Austria, Poland and the Czech Republic are subject to particularly heavy use. In response to this, Germany and Austria will implement congestion management from October 2018. This strengthens security of supply and reduces the necessary balancing measures taken by the grid operators, lowering the burden on German electricity consumers.

102. The assistance available to combined heat and power (CHP) generation facilities has now been approved under state aid rules and placed on a new basis. The Ordinance on CHP Auctions means that funding will now be auctioned for installations in the segment of between one and 50 megawatts; the first round of auctions took place in December 2017. Separate auctions for innovative CHP systems will award funding to highly flexible, low-emission CHP plants that use heat from renewable sources.

103. The Federal Government is to conduct a review until June 2018 to examine whether the reductions in carbon emissions due to the gradual transfer of the lignite-fired power stations to "security stand-by" up to 2020 will actually amount to an additional 12.5 million tonnes. To the extent that this target is missed, the power plant operators will have to present a proposal by December 2018 for further measures to cut up to 1.5 million tonnes of carbon emissions.

104. In order to support structural change in the lignite mining regions, the Federal Government decided in the 2050 Climate Action Plan to set up a "Growth, Structural Change and Regional Development" Commission. The Commission is to develop a tool box which brings together economic development, structural change, social acceptability, and climate change mitigation. The Federal Government is laying the groundwork for this Commission , by way of preparatory studies and meetings with the stakeholders affected. It also launched the programme "Mining Regions Venture" in June 2017. This programme provides €4 million a year from the Energy and Climate Fund for competitions for ideas and projects for structural development in Germany's four lignite mining regions.

Improved energy efficiency and innovative energy technologies

105. Energy efficiency is one of the key pillars of the energy transition. In its Green Paper on Energy Efficiency, the Federal Government carried out a consultation process on the future development of energy efficiency policy. In future,

the "efficiency first" principle is to be established as a strategic overall principle for energy policy. In a second step, options for measures in a medium-term to long-term Federal Government efficiency strategy are to be fleshed out in the White Paper on Energy Efficiency. This is also anchored in the 2050 Climate Action Plan.

106. Since July 2017, the individual Renovation Roadmap has provided a standardised instrument for the provision of energy advice in the building sector. This gives owners a transparent, tailored strategy for the energy-related renovation of their buildings. Further to this, the Federal Government is also aiming to simplify and reduce the amount of bureaucracy involved in the funding programmes. The Funding Strategy for Energy Efficiency and Heat from Renewables has put an important basis in place for this. Further to this, the range of funding was extended in 2017 to include the Pilot Project Heating Networks 4.0 funding programme, which introduces innovative renewables-based heating infrastructure to the market. Finally, the attractiveness of investments in the use of industrial waste heat was given another significant boost.

107. At European level, the Federal Government has been calling vigorously for a reform of the EU's framework regulation on energy consumption labelling and the individual product-related regulations. The aim is to give the consumer even clearer information about the energy consumption of individual projects.

108. Energy research is the key to a successful energy transition. The Federal Government's energy research programme prioritises renewable energy, energy efficiency and energy system technologies. In 2018, the programme is to be continued in its seventh edition. The consultation on this has been concluded. The assisted measures are presented in the annual federal report on energy research.

109. In the second module of the funding initiative entitled "Solar Construction – Energy-efficient Cities", the Federal Government is providing up to €100 million for research, development and innovation for sustainable urban development over the five years from October 2017. The funding programme entitled "Smart Energy Showcases – Digital Agenda for the Energy Transition" (SINTEG) is developing solutions for technical, economic and regulatory challenges relating to the energy transition in five model regions. The SINTEG Ordinance, which was launched by the Federal Government in May 2017, puts temporary "experimentation clauses" in place, enabling participants in the programme to test new technologies, processes and business models without losing out in economic terms.

110. Other research initiatives are focused on aspects like the energy transition in the transport sector, solutions for the restructuring of the energy system, and the conversion of gases from smelting into basic materials for the chemical industry.

Progress on mitigating climate change

111. The Federal Government's 2020 Climate Action Plan includes a range of measures for all sectors which will enable Germany to meet its national climate target for 2020 (40% below the 1990 level). The Federal Government portrays the degree to which Germany is on track to meet this target in an annual Climate Action Report.

112. The Federal Government aims to cut greenhouse gas emissions by at least 55% between 1990 and 2030 in order to attain a large degree of greenhouse gas neutrality by 2050 in line with the Paris Agreement (80 to 95% less than in 1990). Here, the Federal Government is relying on a technology-neutral approach which encourages innovation. It shares the view of the Council of Economic Experts that further efforts are required so that, alongside the electricity sector, the transport and heating sectors can also shoulder greater responsibility for mitigating climate change (cf. GCEE Annual Report, Item 79). For this reason, the 2050 Climate Action Plan has introduced target corridors for all sectors for 2030. The Federal Government will present a quantified programme of measures to ensure that the 2030 targets can be attained. Consideration is also being given to proposals by the Council of Economic Experts for a uniform carbon price for all sectors (cf. GCEE Annual Report, Item 80) and the general revision of the structure of taxes, charges and levies in terms of the distribution of the burden across different sectors (cf. GCEE Annual Report, Item 79). So far, fossil fuels for heating and transport have been cheaper for consumers than electricity since electricity contributes more to financing the energy transition through surcharges, taxes and levies. Here, account must particularly be taken of the burden of energy costs and the cost of funding energy-related renovations borne by private households, and also of the industrial sectors facing international competition, especially those that make intensive use of energy.

113. An agreement was reached at European level in November 2017 on the reform of EU emissions trading. Here, a balance has been struck between the reduction in

the supply of certificates and the safeguarding of the international competitiveness of European industry. The agreement implemented key interests of the Federal Government: Firstly, the existing surplus of certificates is being removed from the market much more quickly, and the number of certificates in the market stability reserve is also being limited. This strengthens emissions trading, as also called for by the Council of Economic Experts (cf. GCEE Annual Report, Items 81 f.). Secondly, energy-intensive industry facing international competition will continue to be protected against unfair competition from companies in countries with lower climate mitigation standards, thus preventing carbon leakage, since there is still no level playing field in terms of international climate mitigation requirements. To this end, the rules on the free allocation of emission allowances and electricity price compensation basically remain in place, having been brought into line with advances in technology. An innovation fund is also being set up to promote technologies which can contribute in the long term to a climate-friendly transformation of the economy. Innovative industrial technologies will also be eligible for funding.

114. For those sectors not covered by emissions trading (and particularly buildings, transport, agriculture, waste management), the Member States have achieved agreement in Brussels with the European Parliament and the European Commission on an Effort Sharing Regulation. It envisages a 30% EU-wide reduction of greenhouse gas emissions from the 2005 level until 2030. The obligations for individual Member States to cut emissions in this period vary between 0 and 40%. For Germany, a national climate target of -38% from the 2005 level is envisaged outside the emissions trading scheme. The Member States can trade their annual emissions allocations to a limited extent.

115. A coordinated international approach is vital for climate change mitigation. For example, chaired by Germany, the heads of state and government of the G20 countries stressed the economic opportunities for innovation and growth deriving from investment in climate change mitigation in July 2017. With the exception of the United States, they declared that the Paris Agreement was irreversible and adopted a G20 Climate and Energy for Growth Action Plan. In it, they state their commitment to an unrestricted implementation of the Paris Agreement and the targets of the 2030 Agenda for Sustainable Development, and a related efficient transformation of the energy systems. Here, a key role is played by increasing energy efficiency, the use of renewable energy, and the orientation of financial flows to the targets of the Paris Agreement, with corresponding investment in low-carbon technologies and infrastructure for the future.

116. The 23rd World Climate Conference (COP 23) held in Bonn in November 2017 sent a clear signal to the international community for climate change mitigation and made a clear commitment to the Paris Agreement. The strategic goals of the talks held at COP 23 were attained. The focus of the talks was on the implementation of the technical rules for the Paris Agreement. These include rules on transparency for the nationally determined contributions (NDCs), the shaping of the Talanoa dialogue as a test-run for the first global stocktaking in 2023, the renewed reporting or updating of the NDCs in 2020, and new rules for market mechanisms.

G. Confidence in a strong Europe and in stable financial markets

117. The broadbased economic upturn in the European Union accelerated further in 2017 and was experienced by all Member States. Growth is at the highest rate seen in the last ten years. At the same time, Europe is also facing great challenges, such as the fight against terrorism, coping with migration, digitalisation, maintaining growth inter alia by undertaking structural reforms and investment, and global warming. In order to attain employment and sustainable economic growth throughout Europe, the Federal Government has aimed to boost competitiveness, to regain the confidence of citizens and to ensure that structural reforms and investment go hand in hand.

A resilient and competitive Europe

118. The Federal Government is working together with its European partners to strengthen Europe for the forthcoming challenges. The President of the European Council presented an agenda in October 2017 setting out the framework for the future process of reform. The heads of state and government had already formulated the guidelines for Europe's future development in the declarations of Bratislava and Rome. The Federal Government will continue resolutely down this path in order to safeguard a Europe which fosters lasting and sustainable growth. Cohesion within the EU is of central importance for these goals, as is the upholding of the European promise of a democratic and peaceful future. At the Euro summit in December 2017, the heads of state and government discussed the further development of the Economic and Monetary Union (EMU) and

further work. The common aim is to strengthen crisis prevention and the resilience of the EMU as a whole. In this context, a wide range of proposals are under discussion, including the completion of the Banking Union and the further development of the European Stability Mechanism (ESM), which could assume responsibility for further tasks. With its specific proposals of 6 December 2017 the European Commission also makes a contribution to the debate. A resilient and viable Economic and Monetary Union is also in the interest of Germany's economy, which benefits above average from putting the broad upswing on a permanent footing. Therefore the current good economic times need to be used for investments, reforms and the creation of fiscal buffers in order to prepare for the future. This creates confidence and forms the basis further potential integration steps. The Federal Government will work constructively in the policy-making processes which are now necessary, and calls for a continuation of the existing policies of solidarity and solidity in which liability and control are to be found at the same level. In addition to openness to further institutional development, this also includes better crisis prevention and resilience, the assumption of responsibility by the Member States, and a strengthening of competitiveness.

119. Further to this, the European Commission, the European Parliament and the Council of the European Union signed an interinstitutional proclamation of the European Pillar of Social Rights in Göteborg on 17 November 2017. The principles of this Pillar are not legally binding. The proclamation is intended to result in upward social convergence amongst the Member States and to serve as a common compass for a more coordinated approach at the various levels in the field of employment and social policy. In terms of the implementation of the European Pillar of Social Rights, it will now be important to develop initiatives within the framework of the current division of responsibilities which can have a specific, tangible impact on the improvement of the social situation. The next steps must be in line with the principles of subsidiarity and proportionality. At the same time, consideration must be given to the differing national situations and systems, including the role of the social partners.

Boosting the potential for growth: a strong internal market and investment

120. The capacity for innovation and productivity play a crucial role in boosting the forces for growth. In addition to structural reform, investment also plays a key role in consolidating sustainable growth in the EU Member States. The Federal Government therefore welcomes the extension of the lifetime until the end of 2020 and the substantial expansion of the European Fund for Strategic Investments (EFSI). An increase in the EFSI guarantee to €26 billion and the contribution from the European Investment Bank to €7.5 billion is intended to leverage investment worth up to €500 billion. The focus is on projects which, due to an increased risk, would not find any, or adequate, funding without the EFSI. The Federal Government believes that the funding should focus on projects in the fields of innovation, research and development, and small and medium-sized enterprises. Here, it is necessary to ensure that there is no direct competition with the funding provided by the European structural and investment funds (ESIFs). The ESIFs aim to support regions which are lagging behind or have structural problems, thereby fostering growth, competitiveness and jobs. Germany can use a total of €28.8 billion from the ESIFs in the 2014–2020 programming period. In the debate about the details of the ESIFs after 2020, the Federal Government has coordinated a joint stance with the *Länder*. The Federation and the *Länder* are calling for all regions to continue to be eligible for support under cohesion policy, depending on each region's state of structural development and on the region's individual needs. Here, cohesion policy should foster growth and jobs within the context of the fund-specific objectives, and give better support to necessary structural reforms in the Member States. The rules governing the management of the ESIFs need a great deal of streamlining.

121. In order to strengthen the European internal market for services, the European Commission published proposals for an EU services package in January 2017. In the debate on the draft proposals, the Federal Government is arguing actively for unbureaucratic and practical solutions in the interest of the internal market. At present, negotiations are taking place at European level on a proportionality test for new or amended occupational rules. Discussion is also focusing on the introduction of a services e-card which is to simplify administrative procedures for the cross-border provision of services. Here, the Federal Government is calling for a solution in which the existing national rules and quality-assuring requirements are not undermined. The notification system for new rules should also be reformed in order to ensure that only suitable and proportionate rules can be applied throughout the EU.

122. The Federal Government actively and constructively supports the European Commission's Digital Single Market strategy. The conclusion of all the individual measures con-

tained in the strategy by the end of 2018 should achieve central objectives like better online access to goods and services throughout Europe, the establishment of fair conditions for digital networks and innovative services, and the modernisation of copyright and new incentives for investment in fast broadband infrastructure. The abolition of the roaming fees last year has already shown the citizens of Europe that this strategy is bearing fruit in their everyday lives. Further progress on the road to a digital single market will include the ban on unjustified discrimination against customers due to their nationality or place of residence (geoblocking) in the second half of 2018.

123. The Capital Markets Union is intended to bring the European financial markets closer together and thus to further improve the financing available to companies in the real economy. Small and medium-sized enterprises in particular will benefit from additional opportunities to diversify their sources of finance. In June 2017, the European Commission reported in its mid-term review on 20 implemented measures which are intended to release capacities on bank balance sheets for additional finance and to encourage investment in SMEs. For example, improvements have been made in the rules on prospectuses, for venture capital finance (cf. Items 59 and 60) and in the financing of investment in infrastructure by insurance companies. Further to this, the European Commission's mid-term review adjusted the Action Plan and announced new measures, for example in the fintech sector. The Federal Government is continuing to call for the Capital Market Union to contribute to a sustainable pick-up in market activity without creating new risks for financial market stability. The Council of Economic Experts also stresses that the expansion of capital market financing can boost the resilience of the financial system (cf. GCEE Annual Report, Item 119).

Progress on the Banking Union and greater financial stability

124. The establishment of the Banking Union is helping to increase stability in the European financial sector. The Banking Union is based on the common European rules, which have been translated by the Federal Government into national law in recent years. This involves rules on the equity and liquidity of banks (Capital Requirements Directive, CRD IV, and the related Capital Requirements Regulation, CRR), on the recovery and resolution of banks (Bank Recovery and Resolution Directive, BRRD) and on the deposit guarantee schemes (Deposit Guarantee Scheme Directive). These measures are supplemented by the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM).

In its communication on the completion of the Banking Union of 11 October 2017, the European Commission presented modified proposals for the completion of the Banking Union via a potential common European Deposit Insurance Scheme (EDIS). The ECOFIN Council had previously agreed that a political debate on further risk-sharing is not possible until sufficient progress has been made on the measures to reduce risk, including appropriate regulation of government bonds. The ECOFIN Roadmap of June 2016 remains in force. The proposals from the European Commission only partially address the calls for risk reduction, and therefore need to be substantially improved, as well as being effectively implemented and applied. This is also in line with the view of the Council of Economic Experts (cf. GCEE Annual Report, Item 108). The Federal Government supports the goal of introducing a backstop for the bank resolution fund at the latest by the end of the transition phase at the end of 2023. As agreed in the ECOFIN Roadmap, this must be fiscally neutral in the medium-term.

125. The reduction of risks in the banking sector is continuing, but further progress is needed. The Council of Economic Experts also stresses the point (cf. GCEE Annual Report, Item 109) that risks in the banking system diminished last year because the stocks of non-performing loans (NPLs) were reduced in Europe. The value of these NPLs dropped by 16% up to mid-2017 in year-on-year terms, to what is still a high level of €893 billion. Further significant progress is needed on the consolidation of balance sheets of certain banks in order to reduce risks and stimulate the economic recovery in some European countries. A lasting reduction in these risks must therefore be a high priority. In this context, the ECOFIN Council presented an Action Plan in July 2017 which envisages various measures with a view to an accelerated consolidation of balance sheets. It is now necessary to implement these measures rigorously and on schedule.

The resolution and insolvency regime also needs to be improved. Despite the fact that the rules introduced in previous years for the resolution of banks have been applied successfully, a further establishment of high-quality buffers against losses is required in order to make resolution with creditor participation even more practically attainable. The Council of Economic Experts is calling for further reforms here in order to boost the credibility of the new rules (cf. GCEE Annual Report, Item 432). Also, steps must be taken to harmonise insolvency law and to introduce a leverage ratio in the context of the revision of the CRR/CRD rules and in line with international agreements (cf. GCEE Annual Report, Items 439 f.).

126. It is also necessary to further restrict the interdependent risks resulting from the link between banks and states. At present, a great deal of government debt is held by the banks of the respective EU Member State. This is partly due to the fact that government debt enjoys privileged treatment under banking rules, e.g. via exemptions from large credit limits and from the requirement to hold equity as a buffer against losses. However, excessive government debt can imperil the stability of the respective banking sector if there are doubts about whether it will be repaid. At the same time problems in the banking sector can impact on the state. For this reason, as also advocated by the Council of Economic Experts (cf. GCEE Annual Report, Items 111, 168 and 560), the Federal Government worked at international and European level last year to reduce regulatory exceptions for government bonds on bank balance sheets. This would reduce a direct transfer of the risk of losses from government bonds to the respective Member State's banking system. Also, it would provide incentives to reduce debt and permit reliable rules for potentially necessary restructuring of public-sector debt. In the view of the Federal Government the current deliberations of the European Commission about sovereign bond-backed securities (SBBS) as a substitute for the adequate regulatory treatment of government bonds on bank balance sheets is not constructive. The creation of a new structured product can also result in creating new risks.

127. Stable, functioning financial markets are needed to ensure sustainable finance for the economy. The Council of Economic Experts points out (cf. GCEE Annual Report, Item 471) that the continuing expansionary monetary policy of the European Central Bank, coupled with the ongoing period of low interest rates, has resulted in a further increase in the risks in the financial system; there is a risk of corrections to the prices of many assets. In order to safeguard financial stability, laws entered into force last year to permit targeted tackling of potential dangers to financial stability and to boost the transparency of financial markets and financial products. This includes the introduction of new macroprudential instruments via the Financial Supervision Law Supplementary Act, which derives from a recommendation by the Financial Stability Committee. The Act grants new powers to the Federal Financial Supervisory Authority so that it can take action to counter a potential danger to financial stability which might derive from overvaluations on the housing market, declining standards in the provision of credit, or an excessive expansion of the provision of credit.

H. Against protectionism, in favour of modern trade rules and sustainable development

128. The Federal Government is working at international level to actively shape globalisation and resolutely counter protectionism. More than almost any other country, Germany's export-oriented industry is closely integrated into the world economy. Good international economic relations are therefore of great importance for the German economy. Free, rules-based trade, open markets and sustainable development are prerequisites for welfare gains, inclusive growth and poverty reduction.

An interconnected world

129. Germany held the presidency of the G20 in 2017. Under the motto "Shaping an Interconnected World", the G20 countries made a clear commitment to multilateralism at the Hamburg summit and agreed on joint action to tackle global challenges (cf. Box 1). Not least, they sent out a signal for rules-based trade, open markets, sustainable development, and against isolationism. The G7 agenda under the Italian presidency also connected in many ways with Germany's G20 presidency.

130. In order to foster digitalisation around the world, the Federal Government held the first G20 Digital Ministers Meeting. It adopted a specific roadmap for future G20 work, "A Roadmap for Digitalisation – Policies for a Digital Future", setting out priority goals and measures. The Argentinian G20 presidency has announced its intention to build on these results in 2018. Germany wishes to deepen the issue of digitalisation in the global context with representatives of business, science, civil society and the technical community, and has applied to host the 2019 Internet Governance Forum.

Modern trade policy to everyone's benefit

131. The Federal Government is pursuing a modern trade and investment policy. Core elements include better market access, the reduction of barriers to trade and investment, and thoroughly modernised investment protection. At the same time, high consumer protection, labour and environmental

standards need to be safeguarded, and a level playing field created for domestic and foreign suppliers. Germany's export-oriented SMEs benefit particularly from this. The backing of other policies, for example in the field of education, taxes and social security, addresses various effects of globalisation on individuals, regions and sectors. The Council of Economic Experts also advocates opposition to protectionist tendencies (cf. GCEE Annual Report, Item 704).

Box 1: Main results of the G7 and G20 summits in 2017

G20 summit in Hamburg on 7 – 8 July 2017

- The G20 agreed on joint action to tackle global challenges.
- It committed to a rules-based trading system without protectionism and to open markets with a strengthened WTO.
- It was agreed to intensify cooperation to tackle overcapacities in the steel industry, particularly in the context of the G20 Global Forum.
- Also, the G20 highlighted economic opportunities for innovation and growth deriving from investment in climate change mitigation and – with the exception of the United States – declared that the Paris Agreement on combating climate change is irreversible and committed firmly to its swift implementation in the G20 Climate and Energy Action Plan.
- In addition, the G20 set up a partnership with Africa with a core element of long-term investment partnerships in the context of the Compact for Africa initiative.
- The G20 agreed on an updating of the G20 Action Plan to implement the 2030 Agenda for Sustainable Development. The G20 initiated a dialogue process on resource efficiency and an Action Plan on Marine Litter.
- The G20 adopted the Hamburg Action Plan setting out the G20 strategy for strong, sustainable and inclusive growth. Of special importance here is a strengthening of the resilience of the G20 economies. The G20 agreed that there should be no relaxations of international financial market regulation and that the work towards a fair and modern international tax system will continue.
- In the field of digitalisation, the G20 agreed on a roadmap with eleven fields of action and committed to a proactive approach to shaping the future work environment, giving special consideration to necessary vocational training and skills development measures.
- The G20 emphasised the importance of sustainable and inclusive global supply chains for balanced economic growth and committed to encouraging the implementation of labour, social and environmental standards and the enforcement of human rights (cf. Item 145).

G7 summit in Taormina, Italy on 26 – 28 May 2017

- The G7 expressed its intention to make use of the economic opportunities offered by Industrie 4.0 and adopted an action plan to this end.
- The G7 committed to promoting girls and women in the economy, advocated free and fair trade, spoke out against protectionism and committed to closer cooperation with Africa.
- With the exception of the United States, the G7 confirmed its firm commitment to implementing the Paris Agreement.

132. The Federal Government's focus is on the multilateral trading system of the World Trade Organization (WTO) as a regulatory framework for open and rules-based world trade. The multilateral trading system must be strengthened. It is the most effective way to agree on measures to regulate and restrict trade-distorting practices. Multilateral rules apply to everyone: industrial and developing countries, large and small companies benefit equally from them. Despite a clear commitment by the WTO members to the multilateral system, it was not possible to attain any satisfactory results at the 11th WTO Ministerial Conference in Buenos Aires in December 2017. This places the WTO negotiation pillar in a difficult position, but this could offer an opportunity for an open debate on future negotiations in the WTO context. The Federal Government will continue to advocate the relevance of the WTO negotiation pillar. Further to this, the Federal Government supports the European Commission's initiative for a multilateral investment court.

133. In addition, the Federal Government supports ambitious and comprehensive bilateral free trade agreements on the part of the EU. The agreement with Canada (CETA) sets new benchmarks in the reduction of trade barriers whilst simultaneously safeguarding high standards, and it serves as a model for future agreements. Apart from the issue of investment protection, the talks on the free trade agreement with Japan were concluded in December 2017. Negotiations on agreements with Singapore and Viet Nam have been completed. And talks with Mexico and Mercosur are on the final straight. In addition to this, the Federal Government supports the negotiations with Chile on the modernisation of the free trade agreement with Chile and the commencement of negotiations on free trade agreements with Australia and New Zealand. The Federal Government continues to support negotiations with China on an investment agreement, the earliest possible resumption of talks on a free trade agreement with India, and a further deepening of transatlantic economic relations.

134. Global market access for European companies also needs to be improved in the field of public procurement. Against this background, the Federal Government supports ambitious free trade agreements containing commitments on market access to public contracts. Further to this, the European Commission has presented a proposal for an instrument on international public procurement; it is currently being discussed in the Council of the EU and will be subject to further scrutiny by the Federal Government. Under the proposal, access for bidders from certain countries outside the EU to Europe's procurement markets could be restricted, following a public investigation by the European Commission and consultations with the relevant country, if European bidders are not granted reciprocal market access in that country. In the course of further discussions of this proposal, it will be important for all stakeholders, such as municipalities and the business community, to be closely involved.

Support for companies on foreign markets

135. The development of markets outside the EU is of great importance for Germany's export-oriented economy. The Federal Government supports this via a broad range of instruments to promote foreign trade and investment, using the global network of bilateral chambers of commerce, Germany Trade & Invest, embassies and consulates-general.

136. Export credit guarantees offer German companies comprehensive protection against claims which are not paid for economic and political reasons. In 2017, the Federal Government provided export credit guarantees for supplies and services of German exporters worth €16.9 billion. The main focus was on business with emerging and developing economies.

137. Investment guarantees insure German direct investments against political risks in developing, emerging and former transition countries. In 2017, the Federation provided investment guarantees for projects worth €1.1 billion. As in the preceding year, the main target regions were Asia and (eastern) Europe.

138. These instruments have basically worked well. However, German companies are facing increasing competition, not least from Asian rivals who are given financial and political backing by their governments. For this reason, the Federal Government wishes to lend greater support to projects in other countries which are in Germany's strategic interest. To this end, the Federal Government has adopted a strategy paper, appointed a coordinator and set up an office for foreign strategic projects. The office will intensify the Federal Government's political backing for projects abroad. Also, certain strategic projects abroad are to benefit from additional financial instruments adapted to the specific competitive situation.

Controls and transparency for exports of military equipment

139. Restricting and controlling the international arms trade makes an important contribution to security policy. The Federal Government is boosting transparency in the sensi-

tive area of military equipment exports by providing rapid and comprehensive information about licensed exports. The Federal Government published the Report on Military Equipment Exports for 2016, as well as the interim report on the first four months of 2017, as early as June 2017.

140. The Federal Government is sticking to its strict rules governing the export of military equipment. The Small Arms Principles of 2015 set particularly high standards for the export of small arms and light weapons. In 2017, the first two post-shipment controls for small arms exported from Germany were carried out. The controls are intended – initially in the form of pilot controls – to verify whether the weapons supplied are still in the country of destination and in the possession of the end-user cited in the end-use statement.

Improved investment scrutiny dovetailed at European level

141. Foreign direct investments are a major driver of growth and jobs in an industrial centre like Germany. For this reason, government intervention in foreign direct investments requires special justification. The Federal Government therefore shares the opinion of the Council of Economic Experts that there should not be a general requirement to license foreign investment (cf. GCEE Annual Report, Item 22). For many years, it proved possible to use the investment scrutiny rules contained in the Foreign Trade and Payments Act and the Foreign Trade and Payments Ordinance to find sensible solutions which struck an appropriate balance between the interests of investors and the maintenance of public order and security. In no case has an investment review resulted so far in the Federal Government prohibiting an acquisition.

142. However, the cases requiring scrutiny have become more numerous and complex in recent years. The existing set of legislative tools has reached its limits. For this reason, the Federal Government agreed to an amendment of the Foreign Trade and Payments Ordinance in July 2017. The change mainly provides for extended review deadlines, and new reporting requirements for stakes in operators of critical infrastructures. It also prevents the investment review from being circumvented by abusive contractual arrangements.

143. However, also the new investment scrutiny rules cannot give appropriate consideration to important aspects like the geostrategic aims of other countries. Against this background, Germany, France and Italy approached the European Commission. In September 2017, the European Commission presented a draft regulation establishing a framework for the scrutiny of foreign direct investment in the European Union. The proposal contains a uniform legal framework for conducting investment reviews in the Member States, oriented to the criterion of a danger to public order or security. Contrary to what the Council of Economic Experts implies (cf. GCEE Annual Report, Item 137), the proposal does not call for a general requirement to license foreign investment. It defines critical infrastructures and technologies, security of supply and access to sensitive information as aspects of public order and security. It is up to the Member States to decide whether to intervene in acquisitions. But other Member States which are also affected and the European Commission can submit comments which must be given consideration in the review procedure.

Sustainable development around the world, cooperation with developing and emerging economies

144. The "2030 Agenda for Sustainable Development" of the United Nations is the central international point of reference for sustainable development. The Federal Government's German Sustainability Strategy has put the national framework in place for implementing Agenda 2030, and has set specific goals for this (cf. Box 2). Also, the Federal Government supports a strategic framework at EU level for the implementation of the Agenda 2030 goals in the relevant policy fields where responsibility rests with the EU.

145. In the context of the German G20 presidency, Germany also called for global supply chains to be made sustainable (cf. Box 1). Also, the G20 committed to encouraging the implementation of labour, social and environmental standards and the enforcement of human rights. Furthermore, the G20 stresses that fair and appropriate pay and social dialogue are essential elements of sustainable and inclusive global supply chains. The G20 supports access to remedies and, where relevant, out-of-court complaints mechanisms. This includes the national contact points for the OECD guidelines (cf. Item 148). The G20 welcomes the Vision Zero Fund to prevent serious and fatal accidents at work and encourages companies and other stakeholders to join. Emphasis is also given to the responsibility of companies to live up to their duty of care; the National Action Plan for Business and Human Rights offers an important framework for this (cf. Item 147).

146. The Federal Government is increasingly orienting its policy on corporate social responsibility (CSR) towards the international arena. A milestone along this path was the implementation of the CSR guidelines in national law. Further

examples include the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy of the International Labour Organization (ILO), the UN's Guiding Principles for Business and Human Rights (cf. Item 147) and the OECD Guidelines for Multinational Enterprises (cf. Item 148). The National CSR Forum advises the Federal Government on the development and implementation of the CSR strategy, involving various stakeholders in society. In the ILO context, Germany was highly involved in the negotiations on the revision of the Tripartite Declaration. It was brought into line with current developments in March 2017 and defines principles for decent work around the world.

147. The Federal Government's National Action Plan for Business and Human Rights 2016 – 2020 (NAP) sets out measures and expectations with a view to implementing the UN Guiding Principles on Business and Human Rights. The NAP contains measures to increase the obligation of the state to provide protection and the expectation that all companies will introduce the elements of a duty of care under humanitarian law in an appropriate manner. From 2018, annual surveys of companies employing more than 500 staff will review the integration of the duty of care to respect human rights into corporate procedures. A new interministerial committee coordinates and guides the work of implementing the NAP, and discusses recommendations from the Working Group on Business and Human Rights of the National CSR Forum. The support available for companies implementing the NAP is being continuously expanded.

148. The OECD Guidelines for Multinational Enterprises state how companies are expected to conduct themselves when operating abroad. National contact points (NCPs) in the participating countries publicise the OECD guidelines and promote compliance. They also serve as a complaints office where there is a potential violation of the OECD guidelines. The structure and staffing of Germany's NCP was changed in 2017. Also, the NAP has strengthened the NCP's complaints mechanism by establishing a link between non-participation in NCP complaints procedures and the promotion of foreign trade and investment. In order to further improve its work, the NCP will be given recommendations resulting from an OECD review, and the implementation of these will be one of the main focuses of its work in 2018.

149. Since 2015, the Partnership for Sustainable Textiles has been helping to improve the policy conditions along the supply chain in the manufacturing countries. The Federal Government's new Aid for Trade strategy means that its trade-related development cooperation is rigorously based on the global SDGs. In the WTO context, the Federal Government is giving developing countries greater support as they assert their rights in trade disputes. In 2016, Germany rose to become the world's second-largest donor of public development assistance behind the United States. German spending on public development assistance rose from around €16 billion in 2015 to exceed €22 billion in 2016.

Box 2: Implementation of Agenda 2030 via the German Sustainability Strategy

The 2030 Agenda for Sustainable Development of the United Nations marks the first time the international community has linked up economic, environmental and social aspects of sustainable development in an agenda. At the heart are 17 global Sustainable Development Goals (SDGs). The Federal Government has committed to an ambitious implementation of Agenda 2030.

Inclusive growth, greater participation and responsible resource management will become increasingly important pillars of our economy as technological and social change advances. The holistic approach of sustainable development can support this change and foster greater coherence in government policy. The international agreement reached in the context of the UN's Agenda 2030 and the consequent obligations demand greater responsibility from the public administration, commerce, civil society and the individual.

In the light of this, the Federal Government adopted a new edition of the German Sustainability Strategy on 11 January 2017. This, the most comprehensive updating of the strategy since it was first adopted in 2002, underscores the significance of sustainable development for policy-making, and sets out specific goals and measures stretching across the entire range of policies. For the first time, this new edition reflects the Federal Government's national and international measures to attain all the SDGs. In order to boost the significance of issues of sustainable development, all the ministries have appointed their own coordinators.

150. The Federal Government intends to give German firms better backing as they make use of the economic potential in Africa. At the same time, this is intended to improve Africa's economic development and the prospects of the people living in Africa. An economic development which creates jobs is also central for stability in the various regions of Africa. It can help to alleviate the high migratory pressures and combat the reasons why people flee. In view of this, the Federal Government adopted principles on the economic development of Africa in June 2017: the tools for the promotion of foreign trade and investment and development cooperation are to be strengthened further, adapted more to the conditions in Africa, and dovetailed. Also, in the context of its G20 presidency, the Federal Government advocated the G20's Compact with Africa initiative, which aims to improve the environment for private-sector investment and for investment in infrastructure in Africa (cf. Box 1). The Federal Government is supporting this G20 initiative via bilateral partnerships for reform. To this end, agreements were concluded with Ghana, Côte d'Ivoire and Tunisia; agreements with other countries are in the pipeline.

II. The Federal Government's 2018 Annual Projection

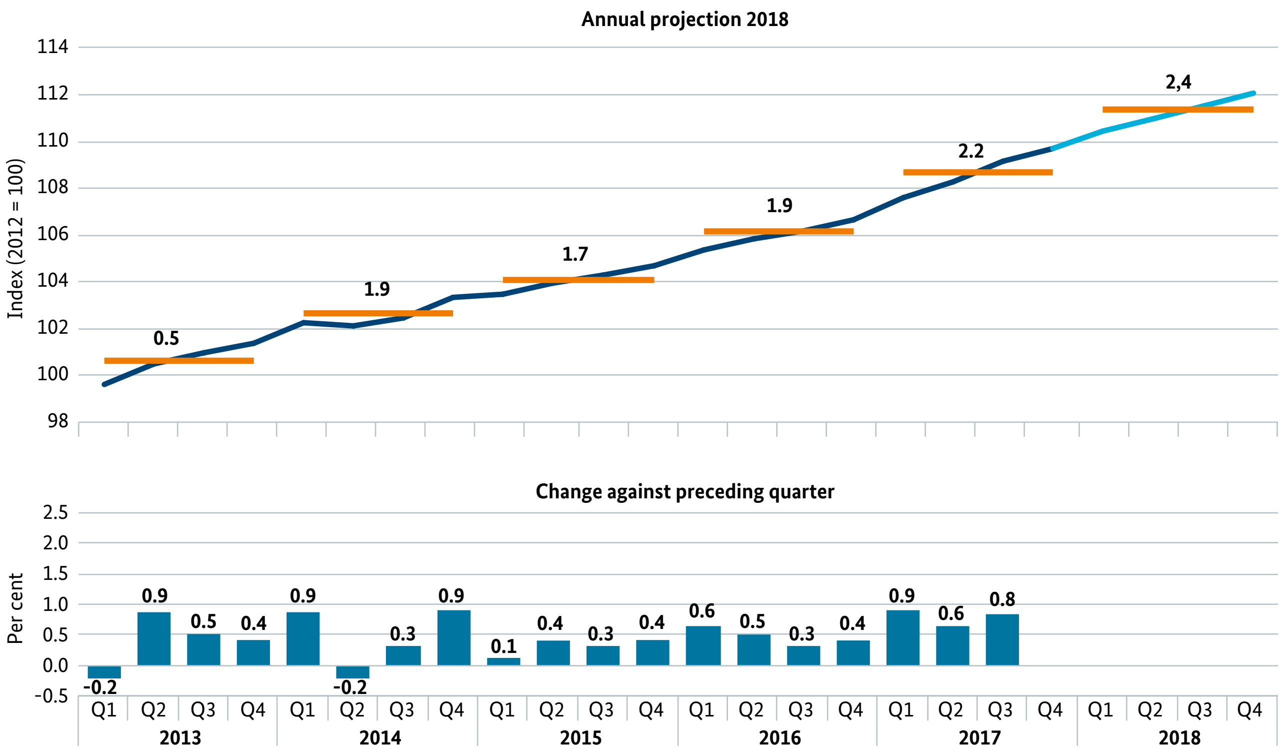
Overview: German economy experiencing robust expansion

151. The German economy is experiencing a robust expansion. The substantial growth expected for this year will mark the ninth successive year of GDP expansion. The upturn is now rooted in broad foundations in both the domestic and the international economy. Employment and incomes, and thus people's potential to consume, are growing tangibly. The companies are exporting more vigorously, and are investing more in plant and machinery. Despite some skills shortages in some occupations, no end to the upswing is in sight at present.

Last year's growth of 2.2% was the highest rate since 2011. Adjusted for the lower number of working days, the GDP increase was actually higher, at 2.5%. The existing robust development of the domestic economy was increasingly boosted by a stimulus from outside Germany, as the improvement in the global economy and the recovery of world trade seen from the end of 2016 continued throughout 2017. Further positive stimuli derived from the demand for labour, and also from the low interest rates. These forces for growth are continuing to be felt, and the cyclical prospects for the global economy are likely to improve further in the course of this year. The good development of the forward-looking cyclical indicators such as new orders or indicators of market sentiment suggest that the dynamic development of the industrial sector is set to continue. The upswing on the labour market is continuing. The economic conditions for 2018 are good (cf. Box 3).

For 2018, the Federal Government expects an annual average increase in gross domestic product of 2.4% in price-adjusted terms (cf. Diagram 5 and Overview 2). This means that the powerful upturn is continuing. The rise in employment is likely to be slightly slower due to the scarcity of labour: it will become increasingly difficult for employers

Diagram 5: GDP change in Germany (price-adjusted)



Blue line: Quarterly curve, in pre-year prices, adjusted for seasonal and calendar-day effects
Orange lines: Annual average, in pre-year prices; change against previous year in per cent
Blue columns: Change in per cent, adjusted for seasonal and calendar-day effects

Source: Federal Statistical Office, Federal Government's annual projection.

Overview 2: Key figures of the 2018 annual projection

Macroeconomic trends in the Federal Republic of Germany[1]	**2016**	**2017**	**Annual projection 2018**
	Percentage change on preceding year		
Gross domestic product (GDP). output approach			
GDP (real)	**1.9**	**2.2**	**2.4**
Total employment	1.3	1.5	1.1
GDP per employee	0.6	0.8	1.2
GDP per hour worked	1.3	1.0	1.1
for information:			
Unemployment rate in % (ESA concept)[2]	*3.9*	*3.5*	*3.2*
Unemployment rate in % (Federal Employment Agency definition)[2]	*6.1*	*5.7*	*5.3*
GDP by expenditure (at current prices)			
Consumption expenditure			
Private consumption expenditure	2.7	3.8	3.6
Public consumption expenditure	4.8	3.7	4.1
Gross fixed capital formation	4.3	4.9	5.7
Change in stocks (€ billion)	*-26.4*	*-21.4*	*-22.1*
Domestic demand	3.3	4.2	4.2
Foreign balance of goods and services (€ billion)	*250.6*	*248.1*	*257.7*
Foreign balance of goods and services (as % of GDP)[7]	*8.0*	*7.6*	*7.6*
Gross Domestic Product (nominal)	**3.3**	**3.8**	**4.1**
GDP by expenditure (real)			
Consumption expenditure			
Private consumption expenditure	2.1	2.0	1.9
Public consumption expenditure	3.7	1.4	1.8
Gross fixed capital formation	3.1	3.0	3.8
Machinery and equipment	2.2	3.5	5.0
Construction	2.7	2.6	2.8
Other plant and equipment	5.5	3.5	4.2
Stockbuilding (GDP growth contribution)[3]	*-0.2*	*0.1*	*0.0*
Domestic demand	2.4	2.2	2.3
Exports	2.6	4.7	5.3
Imports	3.9	5.2	5.8
External balance of goods and services (contribution to GDP growth)[3]	*-0.3*	*0.2*	*0.2*
Gross Domestic Product (volume)	**1.9**	**2.2**	**2.4**
Prices (2010 = 100)			
Private consumption expenditure[4]	0.6	1.7	1.6
Domestic demand	0.9	1.9	1.8
Gross Domestic Product[5]	1.3	1.5	1.8
Distribution of gross national income			
(resident concept)			
Compensation of employees	3.8	4.3	4.0
Income from self-employment and property	2.1	3.9	4.7
National income	3.2	4.1	4.2
Gross national income	3.1	4.0	4.1
for information (resident concept):			
Employees	1.5	1.7	1.3
Total gross wages and salaries	4.0	4.4	4.1
Total gross wages and salaries per employee	2.5	2.7	2.9
Disposible income of private households	2.9	3.9	3.6
Savings ratio in %[6]	*9.7*	*9.7*	*9.7*

1 Up to 2016 figures from the Federal Statistical Office; National Accounts Status: January 2018.
2 In relation to the total labour force.
3 Absolute change (stocks/external balance) in per cent of pre-year GDP (=contribution to change in GDP).
4 Consumer price index, percentage change on preceding year: 2017: 1.8%; 2018: 1.7%.
5 Unit labour costs, percentage change on preceding year: 2017: 1.8%; 2018: 1.5%.
6 Saving in per cent of private households' disposable income including occupational pension claims.
7 Current account balance: 2017: +7.9%; 2018: +7.8%.

in many sectors and regions to fill the vacancies in their companies. This will make it more difficult to expand production. For this reason, the Federal Government expects a somewhat lower increase in calendar-adjusted GDP this year, of 2.4%, than last year (cf. Overview 3). Nevertheless, the overall economic development will remain robust. The eurozone, Germany's most important sales market, is just at the outset of a cyclical recovery. Also, the German economy is seeing a slight over-utilisation of capacity, so that no abrupt end to the cyclical upswing needs to be feared. The risks and opportunities for the economy are currently more balanced than in the recent past, even if the imponderables remain considerable.

The Federal Government's annual projection is somewhat higher than the November 2017 forecast by the Council of Economic Experts. The Council has predicted growth of 2.2% for 2018 (cf. GCEE Annual Report, Item 298). On the one hand, the volatile development recently seen in the manufacturing sector means that GDP growth in the final quarter was probably a little lower than expected by the Council. On the other, GDP for the first half of 2017 was revised substantially upwards. This information was not available to the Council when it made its forecast. Overall, therefore, the figures for 2017 were somewhat more positive than expected by the Council, meaning that the situation at the beginning of 2018 is also somewhat better. On top of this, the cyclical outlook abroad has improved further. The basic picture of the economy is very similar in both projections. Both the annual projection and the Council's forecast expect consumer spending to generate a lot of growth. The Council's view that the cyclical development in Germany is particularly exposed to risks from the global economy is shared by the Federal Government.

The labour market continues to be a key driving force for Germany's economic growth. The rise in employment started back in 2005 and will continue this year. Employment will particularly pick up pace in the services market, but is also likely to expand in the manufacturing sector. The forecast rise in employment would not be possible without immigration from other EU countries. However, the cyclical recovery across Europe means that demand for labour will also increase in those countries, making it less attractive to move to Germany to work. Also, the labour participation rate of the domestic population is already very high compared with other countries, so that the ongoing activation of the hidden reserve is likely to slow in future. Despite intensive efforts to integrate the refugees and the high level of demand for labour, past experience suggests that integration into the labour market is likely to be gradual.

In view of the good revenue situation of the companies and a growing scarcity on the labour market, the parties to collective bargaining are likely to agree substantially higher wage rises than seen in previous years. Gross wages and salaries per employee (effective earnings) will rise faster this year than last year. The cuts in taxes and charges seen at the beginning of the year lessen the impact of fiscal drag, so that net wages are likely to rise roughly as fast as gross wages. Monetary welfare benefits are set to expand substantially, not least due to the regular pension increases.

Overall, therefore, disposable income is likely to increase clearly again this year. Corporate income and income from assets will expand slightly more strongly than wages and salaries in the course of the economic recovery. Overall, the macroeconomic wage ratio will remain roughly constant.

Overview 3: Technical details of the GDP growth projection (in % or percentage points)

	2016	2017	2018
	In percent or percentage points		
Annual average GDP rate	**1.9**	**2.2**	**2.4**
Statistical overhang at the end of the previous year [1]	0.6	0.9	0.8
Rate of growth over course of year [2]	1.9	2.9	2.2
Annual average GDP rate. adjusted for working days	1.9	2.5	2.4
Calendar effects [3]	0.1	-0.3	0.0

Source: Federal Statistical Office 2018; in-house calculations

1 Index level in Q4 of previous year adjusted for seasonal and calendar-day effects in relation to quarterly average of previous year adjusted for calendar-day effects.
2 Rate of change over year from Q4 to Q4, adjusted for seasonal and calendar-day effects.
3 In percent of GDP.

There will be a moderate rise in unit wage costs. As a result of the somewhat smaller increase in energy prices, the rise in consumer prices is likely to be marginally lower this year than last year.

In view of the expansion of real disposable income and the good outlook on the labour market, private households will increase their consumer spending sharply (cf. Overview 4). The additional income will also be used for investment in private housing.

Public-sector consumption is set to rise more strongly in 2018 than last year. The dynamism is due to the higher rise in non-monetary welfare benefits. Assuming that policies remain unchanged, a positive financial balance for the entire public sector can be expected this year. The structural fiscal surplus, i.e. adjusted for cyclical and one-off effects, will again be positive in 2018.

The global economy is experiencing a broadbased upswing. All leading economies are likely to experience tangible growth this year. In line with the forecasts of international organisations, the projection for 2018 as a whole assumes a slight acceleration in the world economy. World trade is also likely to continue its powerful expansion. In view of the high level of demand from abroad, exports will increase more strongly than last year both nominally and in real terms, despite the appreciation of the euro. There has been a further improvement in the cyclical prospects for the eurozone. Following the period of weakness in preceding years due to the debt crisis, the cyclical recovery is likely to continue this year.

In view of the further improvement in sales prospects, ongoing good financing conditions and the above-average level of capacity utilisation, companies will invest more in expanding their plant and equipment. This means that the investment ratio will increase substantially this year. Due to the dynamic rise in overall demand, imports are likely to continue to rise faster than exports. This means that the current account balance is likely to see another slight drop, to 7.8 percentage points in terms of GDP.

152. The 2018 annual projection is based on the following assumptions:

- The price for Brent crude oil will rise by nearly 22% to around USD 66 a barrel as an average for 2018. This is derived from futures prices.
- The exchange rates in the projection period are assumed to be constant at their respective averages of the last six weeks before the production of the projection. This produces a euro rate of around USD 1.19, or around 5.3% up on last year.
- The interest rate for main refinancing transactions of the European Central Bank will remain constant at 0.00% until the end of the projection period.

Overview 4: Contributions towards GDP growth in the projection

	2016	2017	2018
		In percent or percentage points	
Contributions to growth [1]			
GDP (growth) = (1)+(2)+(3)+(4)	1.9	2.2	2.4
(1) Private-sector consumption	**1.1**	**1.1**	**1.0**
(2) Public-sector consumption	**0.7**	**0.3**	**0.4**
(3) Gross investment	**0.4**	**0.7**	**0.8**
(3a) Changes in inventories	-0.2	0.1	0.0
(3b) Gross fixed investment	0.6	0.6	0.8
Investment in construction	0.3	0.3	0.3
Equipment	0.1	0.2	0.3
Domestic demand = (1)+(2)+(3)	**2.2**	**2.1**	**2.1**
Export of goods and services	1.2	2.2	2.5
Import of goods and services	-1.5	-2.0	-2.3
4) Net foreign demand	**-0.3**	**0.2**	**0.2**

Source: Federal Statistical Office 2018; in-house calculations

1 Deviations in totals possible due to rounding.

— There will be no negative developments during the projection period which significantly raise the level of economic uncertainty. For example, the financial sector will remain stable, and there will be no tangible increase in geopolitical risks.

— All of the economic and fiscal policy measures (cf. Part I) adopted by the time of the finalisation of the Annual Economic Report have been fed into the projection.

153. In the view of the Federal Government, and given the assumptions cited above, the underlying course indicated by the annual projection is the most likely development of the German economy. Nevertheless, the estimate does involve uncertainties. There are chances for a more favourable economic development on both the domestic and the foreign markets. For example, the cyclical recovery in many countries in the European Union might be stronger than assumed, triggering further German exports and investments. The main risks are to be found in the global environment, e.g. in a cyclical weakening in China, in the financial markets, in geopolitical events, or the repercussions of Brexit. Furthermore, it is not possible to exclude a rise in protectionist barriers to trade, even if the risks of this have recently diminished.

Global economy picking up speed

154. The global economy is in good shape. Global growth is being driven by almost all of the regions in the world. This year, the average pace of growth is again likely to accelerate slightly. Also, inflation remains low in many places. Monetary policy around the world remains expansionary, although the degree of expansion is likely to fall slightly. Risks remain in the external economic environment, but the global opportunities and risks are now more balanced than they were a few months ago.

The most important regions for the German economy, the United States and the European Union, are developing dynamically. The boost to global cyclical dynamism is also deriving from the emerging economies. As commodity prices stabilise, the economy is likely to pick up in some major emerging economies. For this reason, the 2018 annual projection assumes that global economic growth of nearly 4% in 2017 will be followed by price-adjusted growth of around 4%[1] in 2018. Global trade, which picked up a lot of steam in the 2016–2017 winter semester, is likely to expand really strongly, at around 4½%.

The eurozone experienced an economic recovery last year: all of the larger countries registered higher growth than in the preceding year. The cyclical dynamism is likely to remain high this year too. Indicators are currently positive. According to the European Commission's rising Economic Sentiment Indicator, the cyclical climate in the eurozone brightened considerably. The Markit purchasing managers index for the eurozone is also at a high level, both for the goods-producing industry and for services. Capacity utilisation in industry has almost returned to the pre-crisis level. This is likely to trigger investment in expansion and to boost demand for skilled workers. Despite the pick-up in growth, inflation remains below the ECB's target. However, the broadbased upswing is likely to tend to increase what is currently moderate pressure from wages and prices. The good cyclical situation is likely to create upward pressure on unit wage costs. The risks to growth in the eurozone continue to include the repercussions of Brexit and possible negative effects from the rise in international tax competition following the U.S. tax reform.

The economy in the United States accelerated substantially last year, and is likely to pick up further speed in 2018. The upswing is now characterised by sharp increases in investment. Consumer spending has registered stable rates of growth in recent years, and is boosted by very solid developments on the labour market and by low interest rates. Inflation also remains moderate in the United States. Despite the three increases in interest rates by the Federal Reserve in 2017, the monetary environment remains favourable. The tax reform is likely to give an additional boost to the economy in the course of this year. It is still difficult to assess the longer-term effects on international competition. The stabilisation of the oil prices is likely to foster fresh investment in the energy sector.

Japanese economic growth picked up speed last year. This year is likely to see it continue at a slightly slower pace. Rising exports are boosting investment at home. The Tankan Index, for example, is suggesting a further clear increase in corporate investment. Furthermore, some investment in the construction sector is likely to be triggered by the Olympic Games being held in Tokyo in 2020. Consumer spending is benefiting from a further increase in the number of people in work, coupled with falling unemployment.

1 GDP of the global economy calculated on the basis of purchasing power parities.

Despite this, the development in wages and inflation remains weak. The expansionary fiscal and monetary policy is bolstering growth.

The emerging economies are benefiting from the recovery in world trade. The commodity-exporting emerging economies will derive a further boost from the slightly higher commodity prices. The cyclical recovery in Brazil is likely to make further progress. Russia registered clear growth last year, and this is set to continue this year. In China, the rate of expansion is likely to weaken somewhat compared with last year, but to remain at a high level. Consumer spending will continue to expand sharply there. However, investment will be constrained somewhat by rising interest rates and overcapacities. In India, the economy is likely to pick up speed against the backdrop of rising exports and investment.

Strong world trade

155. Global trade developed very strongly last year. For the first time since 2011, the volume of world trade expanded faster than global GDP. That is likely to be the case once again this year. The volumes of exports from the major Asian economies, the United States, the United Kingdom and the eurozone have been pointing upwards since 2016. The emerging economies are also likely to play a key role in global trade growth.

Germany's exports are characterised by a high level of regional diversity. Despite this, the cyclical recovery in Germany's main sales market, the eurozone, is of particular significance for German export expectations. The broad-based upswing in the eurozone should therefore clearly boost German exports to the region. With regard to exports outside the eurozone, last year's appreciation of the euro against the dollar has acted as a price rise, but the euro's exchange rate does not seem to have had any negative effects on exports so far. German exporters are likely to actually gain new market shares this year. Exports to the United States are benefiting from the good economic situation there. This should more than offset the effect of the euro's appreciation.

Overall, exports of goods and services are set to rise sharply this year, by around 5.3%. Due to the dynamic domestic demand, imports will increase a little faster, by 5.8%. The stabilisation of commodity prices and the higher increase in unit wage costs compared with other countries mean that export prices will increase somewhat faster than import prices. This means that the terms of trade will see a slight improvement.

Per se, rising exports have a positive impact on GDP growth. If one deducts the concomitant rise in imports, this effect is more or less offset. In total, therefore, German foreign trade will only make a small arithmetical contribution to growth. Given no more than a slight change in the current account balance, coupled with rising nominal GDP, the current account balance is likely to fall again slightly as a proportion of GDP.

Companies investing more again

156. Following the global economic and financial crisis and the economic weakness seen in 2012 and 2013, the economic upturn in Germany is now entailing a gradual increase in the capital stock. The coming year is also expected to see a further increase in investment. The Federal Government expects gross fixed capital formation to grow by 3.8% in 2018. That will be the fifth successive year of increase (cf. Diagram 6). However, the economy was largely driven by consumer spending in recent years. The growth in investment in plant and equipment was steadier. Its upward trend, and also its fluctuations, are smaller than was the case in previous post-reunification investment cycles.

Private-sector investment in plant and equipment is likely to pick up speed against the backdrop of the continuing good global economy. Business expectations are positive and the financial environment remains most attractive. In view of the above-average level of capacity utilisation in industry, companies will no longer be able to delay investment in expansion. This is also reflected in the findings of the latest economic survey by the Association of German Chambers of Commerce and Industry: both in industry and services, those surveyed intend to invest more in their capacities. Also, the scarcity of labour justifies investment in rationalisation. This means that investment in plant and equipment is likely to increase strongly in 2018, at a rate of 5.0%. Skills shortages are increasingly being seen in the construction sector. In surveys by the ifo Institute, nearly one company in five states that a shortage of skilled employees is impeding its construction work. The increasingly full order books show that there is a demand for construction work and that it is becoming more difficult to meet it. As a result, there are some initial signs of overheating in this sector, mainly in the form of sharp rises in construction prices. Since the economic and financial crisis, the house-building sector has outperformed overall investment in construction in every single year. In view of the continuing high level of demand, coupled with low interest rates for loans and good income prospects, this will continue in 2018. However, the rise in investment in housing construction – particularly when measured against the preceding years, which were characterised not least by the additional need to house the many refugees – is likely to be a little less dynamic, at 3.5%, as can be seen from the declining number of building permits being issued. In contrast, commercial building is likely to pick up in line with the upturn in investment in plant and equipment. Overall, investment in construction is set to expand by 2.8% in 2018.

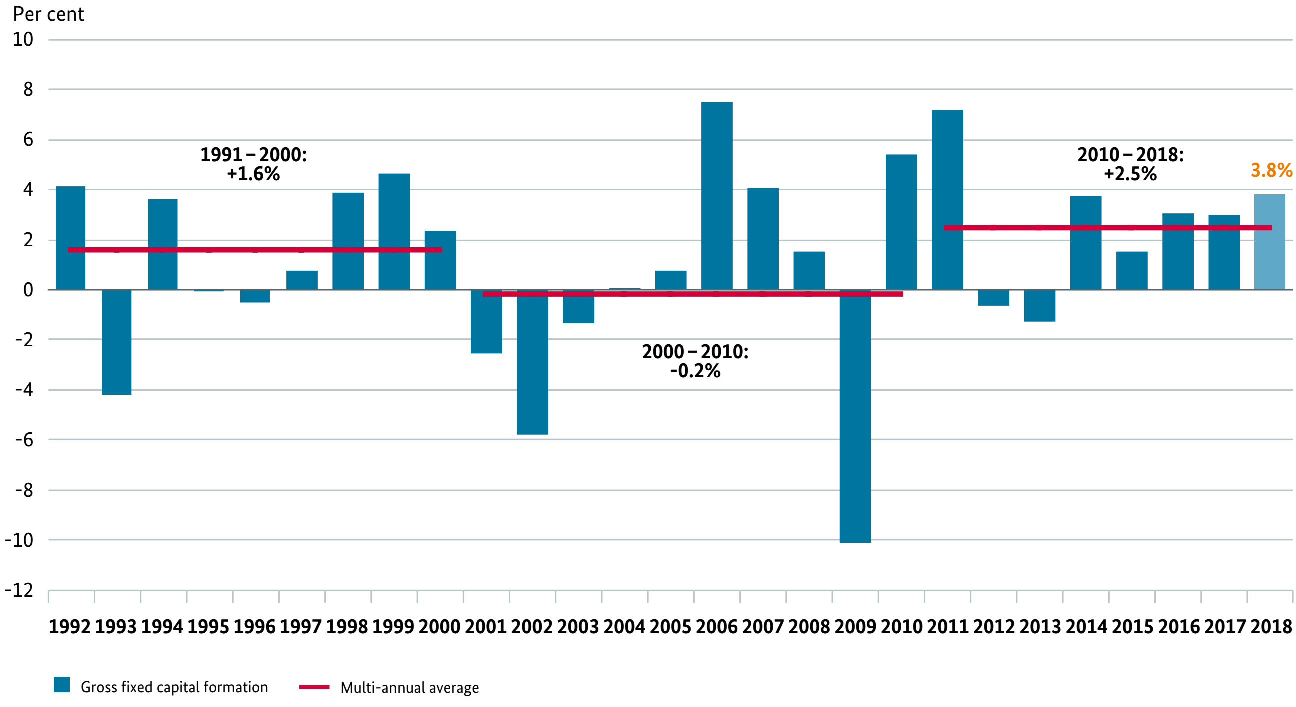
The significance of investment in research and development, software and databases has increased further as a result of the advance in digitalisation. In the 2013 – 2017 period, "other" investment in plant and equipment rose by around 20% (price-adjusted), and thus by much more than the other spending on real capital. Overall, its share has almost doubled since reunification. Around a quarter of corporate investment is now in intellectual property, and this proportion can be expected to increase further. In 2018, other investment in plant and equipment will continue its dynamic rise, expanding by 4.2%.

Dynamic labour market with increasing shortages

157. The labour market remains in good shape. Bolstered by the good economy, the number of people in work is continuing to rise. However, a growing shortage of skilled workers is likely to gradually impact on the dynamism of the rise in employment. The fall in unemployment is slowing. Major challenges still face people without a formal qualification, older people, severely disabled people and people with a migrant background in terms of adequate integration into the labour market. Skills development is of great importance here. Also, considerable regional disparities in unemployment continue to be a challenge.

The number of gainfully active persons in Germany increased by 1.5% to around 640,000 as an annual average for 2017, reaching another all-time high at 44.3 million (cf. Diagram 7). The volume of work also continued to increase following a decline up to the middle of the last decade, and

Diagram 6: Development of gross fixed capital formation



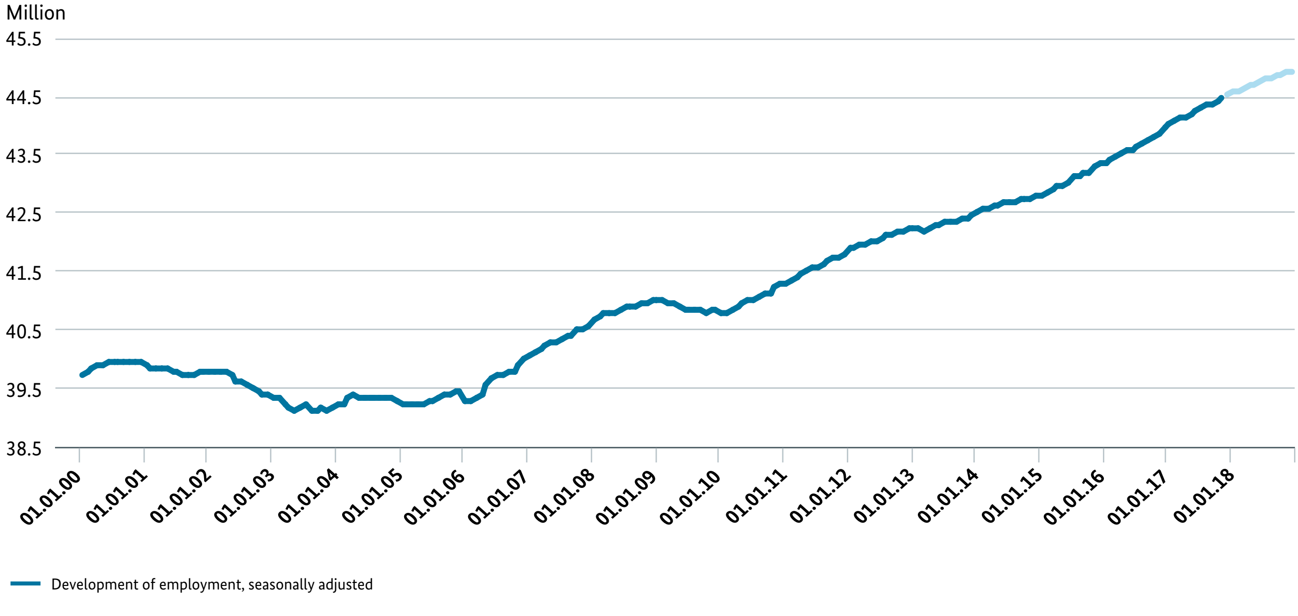
Source: Federal Statistical Office, Federal Government's annual projection rose to the highest level for 25 years. Employment rose in almost all sectors of the economy. The highest increases in absolute terms were in commerce-related services and in health and social services. Even if the latest figures show employment not increasing quite as dynamically as was the case at the beginning of the year, the general economic situation and key leading indicators like the high number of vacancies or the labour market barometer of the Institute for Employment Research are indicative of an ongoing high need for recruitment in the business sector.

In view of the good economic situation, it can be assumed that the increase in employment will continue this year, but that the rate of increase will slow, not least due to the trend towards an increasing scarcity of skilled labour. Overall, the number of people in work is set to rise by 490,000. As in preceding years, the increase in employment is going hand in hand with a rise in the number of people in jobs subject to social security contributions; the number of self-employed persons and people exclusively in marginal employment is likely to fall further.

The additional jobs are being filled less by people in unemployment, and more by the rising labour force participation of women and older people, and by people coming from abroad. A significant role is played by labour migration, particularly from countries of the European Union. The activation of women and older people will continue to increase, but there are signs that it will reach its limits given what is already a high participation rate compared with other countries. In contrast, in view of the high proportion of women in part-time work and the low number of hours being worked by people in part-time work, there is still some potential to increase the volume of work. It is however becoming more and more difficult to offset the negative effects of the demographic development on the labour supply. The potential domestic labour force will start to decline in the near future. This will have a negative impact on production capabilities. The scarcity is already becoming apparent in more and more occupations in the construction sector, in manufacturing, and in healthcare and long-term care. This is reflected in the increasing time it takes to fill vacancies (cf. Diagram 8). Against the background of the current drop in immigration from the European Union, this development will manifest itself more strongly.

Unemployment continued to fall in 2017. The number of registered unemployed dropped by nearly 160,000, and reached the lowest level since German reunification, at 2.5 million people. The unemployment rate contracted to 5.7%. The annualised number of long-term unemployed dropped by 9.3% to approximately 900,000 in year-on-year terms.

Diagram 7: Development of employment (seasonally adjusted)



Source: Federal Statistical Office, Federal Government's annual projection

The Federal Government expects unemployment to continue to fall in the course of 2018. The annualised number of registered unemployed is likely to drop by just under 150,000, with the unemployment rate falling to 5.3%. The rising number of unemployed people in the context of movements of refugees is thus offset by the drop in unemployment amongst other groups of people.

Inflation rates below but close to 2%

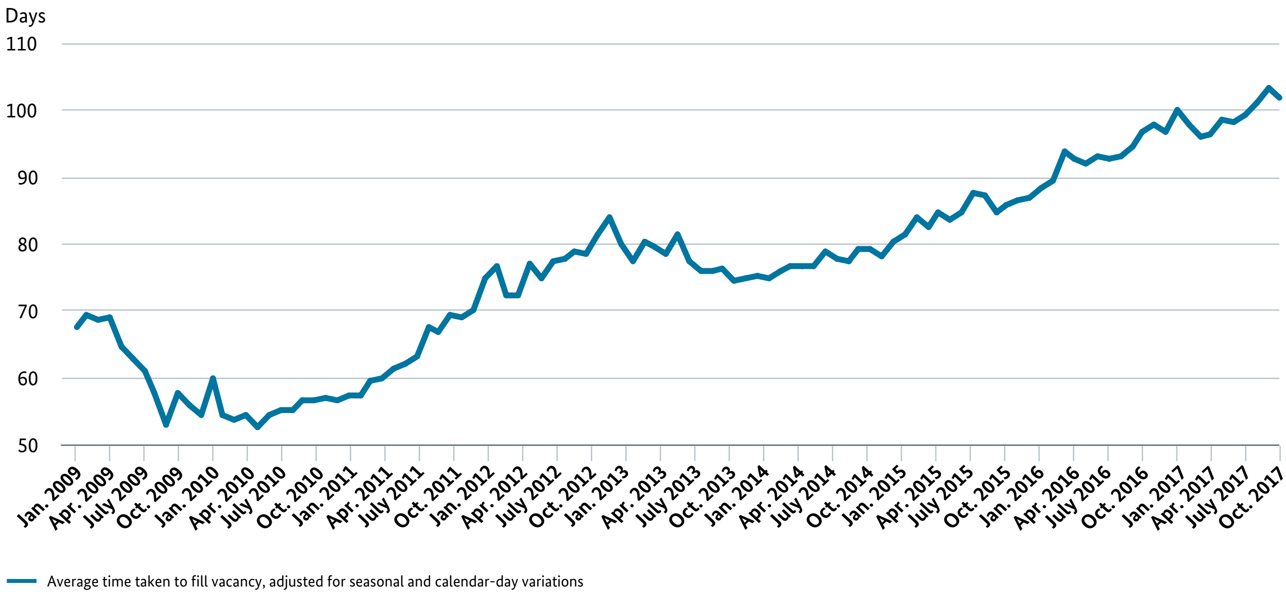
158. The rise in the consumer price level in Germany accelerated clearly, from 0.5% in 2016 to an average of 1.8% in 2017. This was largely due to the rise in oil prices from the low points in 2016. If one excludes energy and food prices from the development (core inflation), the inflation rate stuck at 1.4% as an annual average for 2017, and was thus only slightly higher than the long-term average of 1.2% since 2000.

The future price development will continue to be dominated by energy prices. Judging by futures prices on the commodity exchanges in mid-January, the oil price in 2018 is likely to be well above the 2017 level, at USD66. At 22%, this increase in energy prices is only just below the preceding year's rate of increase, when oil prices rose by 24% in US dollars. However, the impact of the rise on the price level is lessened by the recent appreciation of the euro.

Also, the appreciation of the euro is making many imported goods cheaper. This means that no inflationary pressures on goods are to be expected from outside Germany. A certain degree of price pressure will however come from within Germany. The level of capacity utilisation in the manufacturing sector is above average. Also, in view of the scarcity on the labour market, higher wage rises can be expected, and this could generate a certain degree of price pressure. Overall, the countervailing internal and external price effects are likely to balance each other out in the case of goods apart from energy products.

In the services sector, higher unit wage costs are also to be expected as wages pick up speed. Price increases which are well above the average can already be seen in certain segments such as construction services. In view of the ongoing influx of people into conurbations, a higher rise of net prices can also be expected for rented accommodation at a macroeconomic level. Since demand for housing remains high, this is likely to continue. Rental payments account for roughly one-fifth of the basket of goods, and are the largest item in the basket used to measure the consumer price level. This means that prices for services are likely to pick

Diagram 8: Development in time taken to fill vacancies (adjusted for seasonal factors and calendar irregularities)



Source: Federal Employment Agency

up a little speed. The price increase for net rental payments is the factor behind the slight increase in the core inflation rate to 1.6% in 2018.

All in all, at 1.7% the rise in the consumer price level this year is likely to be somewhat lower than last year's increase, due to the weaker dynamism in energy prices. The consumer spending deflator will rise by 1.6%, a little less than consumer prices.

Rising wages boost consumption

159. In the last two years, consumer spending rose roughly in line with GDP. As the most important component on the expenditure side, it thus contributed more than in previous years to the growth of macroeconomic demand in Germany. The environment for consumption remains favourable this year. The upswing on the labour market is continuing, and wages are also likely to rise substantially. Furthermore, monetary welfare benefits are increasing, so that overall disposable income is like to grow tangibly. Given the expected rise in the price level, it will also rise clearly in real terms. At the same time, consumer sentiment is very positive against the backdrop of the good environment for consumption, and the propensity to purchase on the part of private households is high.

The existing perceptible scarcity on parts of the labour market is likely to increase, as already mentioned. At the same time, the external economic environment and thus the sales prospects for the companies this year are likely to see some improvement. Also, the rates of increase of the consumer price level have come closer to the medium-term expectations of inflation. All this is likely to play a role in the forthcoming collective bargaining negotiations.

Gross wages and salaries per employee (effective earnings) will rise by more than collectively agreed earnings, not least due to the nation-wide minimum wage. The scarcity on the labour market is encouraging pay levels above the collectively agreed rates. For this reason, the wage drift is again likely to be positive this year. In the course of the global economic upturn, corporate profits are also set to develop better than they did last year. Experience shows that this has a positive impact on premium payments and profit-sharing for employees. Also, mini-jobs will continue to be transformed into regular employment subject to social security payments, so that per-capita income will rise. Against this background, there will be a slightly greater increase in effective earnings per employee than last year, at 2.9%.

The development of disposable income will also be boosted by the increase in the basic personal allowance, which will lessen the effect of fiscal drag. At the same time, the contribution rate to statutory pension insurance and the average additional contribution to statutory health insurance will be cut. This means that net wages and salaries per employee will rise by 2.9% this year, at roughly the same rate as the gross figure. The level of gainful activity is likely to expand more slowly this year than in 2017. This will slow the development of the total payroll. In view of the increased dynamism of wages, net wages and salaries will however increase just as fast as in the preceding year, at 4.1%. Since these are by far the largest component of disposable income, at 48.3% at present, this also has a tangible impact on the overall development of disposable income.

Accounting for a share of 23.7%, monetary welfare benefits also make a substantial contribution to the development of disposable income. In view of the good development in wages, statutory pensions will see another significant rise this year. On the other hand, the fall in unemployment will result in lower payments of wage replacement benefits. All in all, monetary welfare benefits will rise by 2.8%, somewhat less than was the case last year.

Disposable income also includes entrepreneurial and property income of private households. Accounting for 28.1%, this is the second largest component of disposable income. In the course of the cyclical upturn, profits made by those in self-employment are likely to expand further. However, the development in income from assets will continue to be restricted by the continuing extremely low level of interest rates.

Overall, nominal disposable income of private households is likely to see another substantial rise, by 3.6% this year, after 3.9% last year. The average annual rise over the last 15 years was 1.9%.

The continuing low level of interest rates reduces the propensity of households to save, and stimulates investment in housing. On the other hand, rising incomes mean a greater capacity to save money. Overall, therefore, the savings ratio is not likely to see much of a change. Nominal consumer spending is therefore likely to rise at the same rate as disposable income.

Overall, consumer spending will increase by 1.9% in 2018 against the backdrop of a continuing moderate rise in prices. The increase is thus set to be slightly smaller than in 2017, when consumer spending rose by 2.0%. The cause of this is the slightly slower rise in gainful activity. The dynamic upswing in consumer spending will thus continue this year.

Public-sector consumption again dynamic

160. Public-sector consumption is set to rise more strongly in 2018 than in the preceding year. In 2017, the public-sector budget achieved a surplus of 1.2% in terms of nominal gross domestic product. This means that the overall public-sector budgets have been in surplus in every year since 2014. The coming years are also expected to see a positive constant financial balance for the state as a whole. The structural fiscal surplus, i.e. adjusted for cyclical and one-off effects, will also be positive in 2018. The medium-term budgetary target set for Germany in the context of the European Stability and Growth Pact, of a structural deficit of at most 0.5% in terms of nominal GDP, will continue to be met.

Box 3: Review of the 2017 Annual Projection

According to provisional annual figures from the Federal Statistical Office, price-adjusted gross domestic product expanded by 2.2% in 2017. This means that the German economy grew much more strongly than the rate of 1.4% that had been expected in the 2017 annual projection (cf. Overview 5). In particular, the domestic forces for growth were stronger than had been initially forecast. Investment activity picked up more than had been anticipated, and consumer spending also grew more dynamically.

One reason for the underestimation of the upswing was that the figures for the rise in employment subject to social security contributions were roughly 60,000 too low for each month from June 2016 on. This statistical error was identified in early 2017. As a result, the dynamism of the domestic economy was underestimated.

Furthermore, the external economic environment was better than expected. As a result, exports expanded more strongly than expected. However, the higher level of domestic demand also meant a greater rise in imports. For this reason, foreign trade did not generate a major stimulus for growth.

In the last annual projection, the Federal Government anticipated a moderate increase in investment in plant and equipment. Against the background of hesitant investment activity in 2016 and the restrained assessment of the global economy – also by the international organisations – the ensuing upswing seemed unlikely. As a consequence of the unexpected recovery in world trade, there were positive surprises from investment in plant and equipment, investment in construction, and spending on research and development.

As expected, the domestic economy continued to be a major pillar of growth in 2017. Consumption rose somewhat more strongly than expected, and this was largely down to the excellent development on the labour market, which was much more positive than initially shown by the figures. The number of people in work again rose more strongly than in previous years. Gross wages and salaries per employee rose slightly more than expected; due to the strong increase in employment, the total payroll was underestimated.

Following the extremely low inflation rate in the preceding years, the normalisation of prices in 2017 was predicted correctly.

Public-sector consumption grew by 3.7% in nominal terms, less than the expected rate of 4.3%. In real terms, the projection for public-sector consumption of 1.4% was in line with the actual development.

Overview 5: Comparison between the 2017 annual projection and actual outcomes

Key figures for macroeconomic trends in the Federal Republic of Germany [1]	Annual projection 2017	Actual outcomes 2017
	Percentage change on preceding year, unless otherwise stated	
Gross domestic product (GDP), output approach		
GDP (real)	**1.4**	**2.2**
Total (employment)	0.7	1.5
GDP per employee	0.6	0.8
GDP per hour worked	0.8	1.0
for information:		
Unemployment rate in % (ESA concept) [2]	*3.8*	*3.5*
Unemployment rate in % (Federal Employment Agency definition) [2]	*6.0*	*5.7*
GDP by expenditure (at current prices)		
Consumption expenditure		
Private consumption expenditure	3.0	3.8
Public consumption expenditure	4.3	3.7
Gross fixed capital formation	3.4	4.9
Change in stocks (€ billion)	*-33.5*	*-21.4*
Domestic demand	3.4	4.2
Foreign balance of goods and services (€ billion)	*232.5*	*248.1*
Foreign balance of goods and services (as % of GDP)	*7.2*	*7.6*
Gross Domestic Product (nominal)	**2.8**	**3.8**
GDP by expenditure (real)		
Consumption expenditure		
Private consumption expenditure	1.4	2.0
Public consumption expenditure	2.3	1.4
Gross fixed capital formation	1.7	3.0
Machinery and equipment	1.2	3.5
Construction	1.9	2.6
Other plant and equipment	2.2	3.5
Stockbuilding (GDP growth contribution) [3]	*0.0*	*0.1*
Domestic demand	1.6	2.2
Exports	2.8	4.7
Imports	3.8	5.2
External balance of goods and services (contribution to GDP growth) [3, 7]	*-0.1*	*0.2*
Gross Domestic Product (volume)	**1.4**	**2.2**
Prices (2010 = 100)		
Private consumption expenditure [4]	1.6	1.7
Domestic demand	1.7	1.9
Gross Domestic Product [5]	1.4	1.5
Distribution of gross national income		
(resident concept)		
Compensation of employees	3.2	4.3
Income from self-employment and property	2.0	3.9
National income	2.8	4.1
Gross national income	2.8	4.0
for information (resident concept):		
Employees	0.8	1.7
Total gross wages and salaries	3.3	4.4
Total gross wages and salaries per employee	2.5	2.7
Disposible income of private households	2.9	3.9
Savings ratio in % [6]	*9.7*	*9.7*

1 Up to 2017 figures from the Federal Statistical Office; National Accounts Status: January 2018.
2 In relation to the total labour force.
3 Absolute change (stocks/external balance) in per cent of pre-year GDP (=contribution to change in GDP).
4 Consumer price index, percentage change on preceding year: annual projection 2017: 1.8%; actual outcome 2017: 1.8%.
5 Unit labour costs, percentage change on preceding year: annual projection 2017: 1.8%; actual outcome 2017: 1.8%.
6 Saving in per cent of private households' disposable income including occupational pension claims.
7 Current account balance: Annual projection 2017: +8.1%; actual outcome 2017: +7.9%.