Annual Report
2019

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President of the Deutsche Bundesbank

Professor Claudia Buch
Vice-President of the Deutsche Bundesbank

Burkhard Balz

Dr Johannes Beermann

Dr Sabine Mauderer

Professor Joachim Wuermeling

We mourn the loss of the following members of our staff

Klaus Peter Rarek	27 February 2019
Bernd Hagebusch	28 March 2019
Regina Elfes	6 May 2019
Lothar Schneider	23 May 2019
Klaus Scheffler	20 June 2019
Ina Kerstin Oosterhagen	13 July 2019
Bettina Andrees	7 August 2019
Heike Kirchner	11 August 2019
Michael Habbe	30 August 2019
Roland Happ	9 September 2019
Marco Schröder	18 September 2019
Johannes Christian Rank	23 September 2019
Bernard Bajon	3 October 2019
Jürgen Hugo Recktenwald	8 October 2019
Walter Müller	22 October 2019
Wilfried Seifert	19 November 2019
Ralf Gerhard Ebert	6 December 2019
Ines Gaudl	27 December 2019

We also remember the retired staff members
of the Bank who passed away in 2019.

We will honour their memory.

DEUTSCHE BUNDESBANK

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Contents

Boxes

Tables

Charts

Abbreviations and symbols

p	Provisional
r	Revised
e	Estimated
pe	Partly estimated
…	Figure available at a later date
.	Figure unknown, not to be published or not meaningful
0	Less than 0.5 but more than nil
–	Nil

Discrepancies in the totals are due to rounding.

Bundesbank round-up

Bundesbank round-up

Dear Readers

Climate change and its relevance for the financial sector, digitalisation and its impact on payments especially, the low interest rate environment and the associated risks, the danger of economies increasingly isolating themselves and the consequences this has for economic growth – various fundamental changes have gained importance for the Bundesbank over the last year as they have become more tangible.

New tariffs have weighed on global trade. On top of that, the harsher tone that has long been adopted in the trade dispute between the United States and China has unsettled many market participants. This difficult international environment did not fail to leave its mark on economic activity in Germany and the euro area. The ECB Governing Council responded to the somewhat weaker outlook for prices with a substantial package of monetary policy measures designed to ease financing conditions. It is therefore clear that policy rates will remain very low for quite some time. At the same time, the focus is increasingly turning to the risks and side effects associated with an unusually accommodative monetary policy.

The environment of persistently low interest rates has contributed to a rise in cyclical risks within the German financial system over recent years. Bundesbank experts created the analytical basis for the countercyclical capital buffer to be activated for the first time in Germany in 2019. The objective is to increase the resilience of the German financial system. In addition, important progress was made last year on reforming banking regulation. Moreover, credit institutions and banking supervision had to prepare for the possibility of the United Kingdom leaving the European Union with no exit deal.

A private sector initiative to launch a global digital means of payment attracted a great deal of public attention. What this shows is that digital change is increasingly leaving its mark on the economy and the world of finance. At the same time, politicians must press ahead with the decarbonisation of the economy. Climate action is one of the most pressing tasks facing our society.

When tackling these challenges, a recurring question is how the conditions for monetary policy are changing and what contribution central banks themselves can make. Climate change, for instance, does indeed impact on various areas of our work. It is clear to me that the Bundesbank has a role to play in greening the financial system. However, the Eurosystem's primary aim remains safeguarding price stability.

On the following pages, I would like to go into more detail about the issues and developments that shaped 2019 and, in this context, outline important work done by the Bundesbank.

Economic activity and price developments

Last year showed how important openness is for economies. The ongoing international trade conflicts clearly took a toll on the global economy. Over the summer, the dispute between the United States and China actually escalated further. According to Bundesbank analyses, the various measures that have since been implemented could lower the respective protagonists' economic output by ½% and shave 1%

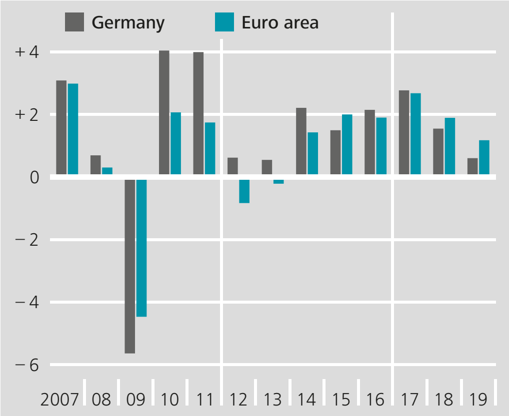
off world trade in the medium term.[1] A recent study was unable to identify any "lucky bystanders" as yet who might have benefited notably from the diversion of trade flows.[2] The effects of the trade dispute are being felt not only directly through new tariffs; the tensions have arguably also undermined enterprises' business confidence. Moreover, they have probably also heightened uncertainty in the financial markets and, possibly, in this manner dampened firms' investment activity. It is, however, clear that the trade disputes have not been the only factor dragging on the global economy. The crisis-like developments in a number of emerging market economies – including Argentina, Venezuela, Iran and Turkey – were also key factors in the global economic slowdown since 2017. This has been exacerbated by waning cyclical momentum in the passenger car market, for instance.[3] Overall, global growth in 2019 is likely to have reached its lowest point since the financial and economic crisis of 2009.

This difficult international environment is hurting Germany's export-oriented industry. Auto manufacturers were hit particularly hard last year. They experienced a sharp year-on-year decline in both output and exports. Shipments abroad of passenger cars fell to 3.5 million, not far off the level of the crisis year of 2009; in 2017, by contrast, global exports had totalled 4.4 million. This was probably attributable to structural challenges as well as the weakness in global sales. Over the course of the year, German exports also felt the effects of the United Kingdom's plans to leave the European Union. UK importers cut back their imports last spring after having stockpiled goods in anticipation of Brexit.

Overall, the downturn in German industry continued in 2019. By contrast, sectors with a more domestic focus remained on an expansionary path. The construction sector, for instance, boomed again last year on the back of robust domestic demand, which benefited from cheap loans, higher government spending and the good labour market situation. New em-

Aggregate output

Year-on-year percentage change in GDP, adjusted for price, seasonal and calendar effects



Sources: Federal Statistical Office and Eurostat.
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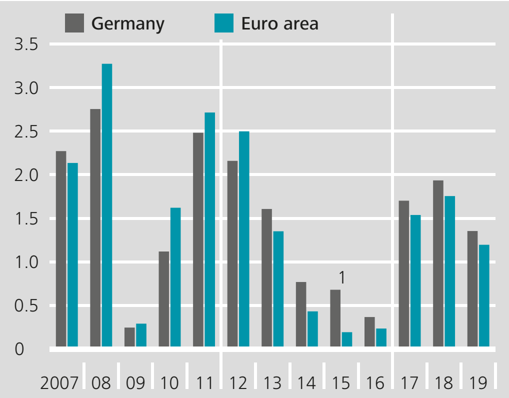
ployment records and significant wage growth helped loosen consumers' purse strings. Nonetheless, as the year progressed, the labour market started to show signs of a slowdown, and the most recent figures for unemployment fail to show any further decline. All in all, the two-speed economic developments translated into stagnation. However, there was no recession in the sense of a persistent, broad-based and distinct drop in economic activity. Averaged across the year, real gross domestic product (GDP) rose by 0.6% on the year in 2019, having expanded by 1.5% in 2018. This has brought aggregate capacity utilisation, which had been elevated for some time, closer to its normal range. The outlook for the German economy is currently highly uncertain. If the pace is to pick up over the next few years, it will be important that headwinds from the international environment die down, as many observers expect.

External dampeners and internal drivers paint a picture for the economy of the euro area very similar to that in Germany – one of a weak man-

1 See Deutsche Bundesbank, Consequences of increasing protectionism, Monthly Report, January 2020, pp. 45-66.
2 See Meinen, P., P. Schulte, S. Cigna and N. Steinhoff (2019), The Impact of US Tariffs against China on US Imports: Evidence for Trade Diversion?, Deutsche Bundesbank Discussion Paper No 46/2019.
3 See Deutsche Bundesbank, The weak state of the global car market, Monthly Report, May 2019, pp. 12 f.

Consumer prices (HICP)

Year-on-year percentage change



Sources: Federal Statistical Office and Eurostat. **1** Values for 2015 skewed upwards by exceptional revision of German HICP in 2019.
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ufacturing sector and a more robust domestic economy. However, the downturn in industry was less steep, and in most other Member States this sector is less relevant than it is in Germany. Consequently, GDP growth in the euro area as a whole was muted, but again higher than in Germany: it rose 1.2% versus 2018, in which it had expanded by 1.9%. With economic momentum lacking, employment growth also slowed. The unemployment rate initially continued to drop, hitting 7.4% at last count, which is not far off the low it had reached before the global financial and economic crisis. Employees' gross wages carried on rising noticeably into the second half of the year. Higher wages in conjunction with the very favourable financing conditions and the more accommodative fiscal policy are likely to continue to buoy domestic demand and inflation.

The Harmonised Index of Consumer Prices rose by 1.2% in the euro area in 2019, a considerably smaller increase than in the preceding year. This was mainly attributable to a slowdown in energy price inflation. Excluding energy and food, core inflation remained unchanged at just 1.0%. With the economy picking up and wage growth still perceptible, domestic price pressures should gradually strengthen over the next few years. A Bundesbank study on Germany illustrates that higher wages contribute to higher consumer prices.[4] While the influence of a rise in wages has weakened since the 1970s, the pass-through has been largely stable since the financial crisis. It can, however, take several years for rising wages to pass through to prices. The loss of economic momentum also means that the euro area inflation rate is likely to grow more slowly in the next few years than was anticipated a year ago.

Inflation expectations are another important factor determining price developments. The Bundesbank conducted a pilot study last year in which households in Germany were asked about their expectations for various economic variables.[5] The results suggest that German consumers' inflation expectations are largely in line with our monetary policy aim. The internet-based survey is to be continued at monthly intervals going forward. The availability of such survey-based indicators of expected price developments is especially important given that metrics based on financial market prices, such as swap rates, may be distorted by the activities of certain investors. Such a distortion was likely a factor in the clear drop in market-based indicators of inflation expectations in 2019. When looking at price and wage pressures in the goods and labour markets, the expectations of those active in these markets are likely to be relevant.

Monetary policy

The Eurosystem is committed to the primary objective of price stability. The current inflation outlook for the euro area justifies keeping monetary policy accommodative. The slight deterioration in the price outlook over the summer meant that the ECB Governing Council's decision to lower the deposit rate slightly in Sep-

4 See Deutsche Bundesbank, The impact of wages on prices in Germany: evidence from selected empirical analyses, Monthly Report, September 2019, pp. 15-37.
5 See Deutsche Bundesbank, The relevance of surveys of expectations for the Deutsche Bundesbank, Monthly Report, December 2019, pp. 53-71.

tember of last year was appropriate. However, the Governing Council also adopted a package of measures intended to comprehensively ease monetary policy. This included the resumption of net asset purchases and adjustments to its communications on the conditions for a first policy rate hike (forward guidance). In my opinion, such a comprehensive package was not necessary. The economic situation in the euro area was not really bad, and there was nothing to suggest a recession, or even deflation, in other words a persistent, general and self-reinforcing drop in consumer prices.

Since November of last year, the Eurosystem has again been buying securities with a monthly net volume of €20 billion under its asset purchase programme (APP). It continues to provide the majority of central bank liquidity via the APP. The Eurosystem's balance sheet holdings of monetary policy assets amounted to €2,632 billion at the end of 2019. That was more than four times the central bank liquidity provided via refinancing operations. The ECB Governing Council expects to continue the net asset purchases as long as necessary to reinforce the accommodative impact of low policy rates on the economy. Net purchases would consequently end shortly before the Governing Council starts raising the key ECB interest rates. By adjusting its forward guidance, the Governing Council has also made it clear that policy rates in the euro area are likely to remain low for some time to come.

To preserve favourable bank lending conditions and ensure the smooth transmission of monetary policy, the Governing Council also agreed on a third series of targeted longer-term refinancing operations (TLTRO-III). Between September 2019 and March 2021, seven operations, each with a maturity of three years, will be carried out on a quarterly basis. The new TLTROs differ from the preceding series in terms of their remuneration. The interest rate for the individual operations is coupled to the average interest rate applied to the main refinancing operations and the Eurosystem's deposit facility over the life of the respective TLTRO-III. In the previous series, by contrast, the interest rate was fixed at the rate applied to the main refinancing operation at the time of allotment. The conditions applicable to the TLTRO-III consequently take potential future policy rate changes into account.

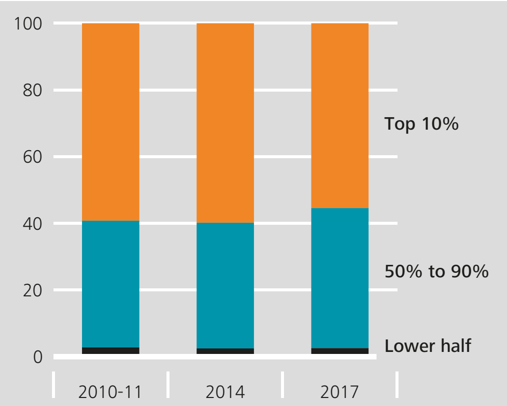
Even before last year's measures, the very accommodative monetary policy had caused concern among the public. One worry is that the asset purchase programmes have increased wealth inequality in Germany. However, this is not backed up by the big picture that emerges from the Bundesbank's regular household survey "Panel on Household Finances" (PHF).[6] Although the survey shows that German households' net wealth is distributed relatively unevenly, this distribution did not change substantially between 2014 and 2017. Had the exceptionally accommodative monetary policy fostered greater wealth inequality, this would presumably have become apparent in recent years. We are also witnessing a broad-based increase in wealth. Not only has the wealth of homeowners risen, so too has that of renter households and of less affluent households. This is probably due in large part to favourable economic developments. Economic growth has improved the labour market situation and lifted incomes, and has consequently allowed households to save more and build wealth. By driving the economy, the accommodative monetary policy has contributed to the broad-based build-up of wealth.

In the past, I have repeatedly pointed to the risks and side effects associated with the exceptionally expansionary monetary policy. It is clear that, with the renewed easing of the stance and the postponement of normalisation, these risks and side effects will increasingly move centre stage. The longer the very low interest rate environment lasts, the greater the potential risk, say, of yield-seeking investors accumulat-

6 See Deutsche Bundesbank, Household wealth and finances in Germany: results of the 2017 survey, Monthly Report, April 2019, pp. 13-42.

German households' share in total net wealth

%



Sources: PHF 2010-11, PHF 2014, PHF 2017.
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ing risks which may ultimately prove untenable. I am sceptical about the resumption of net asset purchases in particular. In my opinion, government bond purchases under the special terms of the monetary union should be an emergency tool. The Eurosystem has become the largest creditor of the euro area countries and consequently risks blurring the boundary between monetary and fiscal policy. Pressure from fiscal policy on the central bank could ultimately undermine its independence and thus impair its ability to ensure stable prices.

Public finances and the road ahead for monetary union

A stability-oriented monetary union needs sound public finances. Government debt in the euro area remains high at 86½% of GDP. While the debt ratio does not exceed the ceiling of 60% laid down in the European Treaties in ten of the 19 euro area countries, in seven of them it exceeds the ceiling considerably, with, in some cases, no signs of improvement. Furthermore, these countries in particular, but also many others, are failing to meet the target of having a structurally more or less balanced budget. While the low interest rate level is easing the pressure on public finances, this effect is more than offset by a loosened fiscal policy stance in the euro area as a whole.

Within the monetary union, member countries set their own fiscal policy. In order to build trust in the sustainability of public finances, binding rules are important. However, there are shortcomings in the existing European rules.[7] These rules have been amended numerous times over the years and are now hard to understand. A reform would not have to entail developing an altogether new set of rules. Indeed, any reform should uphold the fundamental objectives of the budget rules. Above all, it should be about making the rules simpler and more transparent and ensuring they can be implemented in a predictable fashion. This would involve, in particular, cutting down on the many areas where largely unspecified discretionary powers can be used. Furthermore, expenditure ceilings could play a greater role. One way of implementing this could be to set a maximum level of expenditure growth in line with the target for the structural fiscal balance. Realistic forecasts are important for this. In order to prevent the build-up of large fiscal imbalances, the expenditure ceiling should be set on an annual basis for the coming financial year. In addition, national rainy day funds could be established. They would provide more flexibility for fiscal policy within the rules. In good times, when a country exceeds the medium-term objectives, it could save money in such a fund. It would then be in a position to draw on these funds, should the need arise. The currently much discussed golden rule of taking government investment into account when setting the maximum deficit has advantages and drawbacks. In this context, the decisive factor is a stability-oriented design that ensures moderate debt ratios and further strengthens the monetary union.

The banking union is already one step that has made the monetary union more stable. For

7 See Deutsche Bundesbank (2019), European Stability and Growth Pact: individual reform options, Monthly Report, April 2019, pp. 77-90.

more than five years it has stood for a common supervisory regime and a common resolution regime. The Single Supervisory Mechanism (SSM) has improved supervision from a methodological standpoint and delivered greater transparency regarding the key internal models banks use to determine capital requirements. In addition, it has led to the gradual scaling back of non-performing loans on the balance sheets of euro area banks. The Single Resolution Mechanism (SRM) has improved the conditions for the orderly resolution of even systemically important institutions without placing financial stability in jeopardy or burdening taxpayers.

If the banking union were to be augmented by a single European deposit insurance scheme, this could give depositor protection more credibility and thus further reduce the risk of a run on national banking systems. Last year, new proposals were made on how a single deposit insurance scheme could be designed. However, from the Bundesbank's perspective, three preconditions would have to be met before it is implemented. First, Europe-wide minimum requirements would have to be set up for what are, at present, nationally embedded insolvency regimes. These ideas should also be pursued for non-systemically important institutions in particular. Second, legacy risks on banks' balance sheets that arose under national responsibility, such as non-performing loans, should be further scaled back. And third, the preferential regulatory treatment of domestic government bonds would have to come to an end. This could loosen the sovereign-bank nexus. Otherwise there is the danger of fiscal risks being moved to the national banking system in future and then being shifted via a single deposit insurance scheme to European banks and, in the extreme, to all euro area countries.

Financial stability and banking supervision

German credit institutions find themselves in a challenging environment. The fierce competitive pressure is one factor, but low interest rates and the business cycle also play a role. It is important for these institutions to obtain adequate loan margins that are commensurate with the risks. This applies in particular to corporate lending and real estate financing, which is typically long-term in nature.

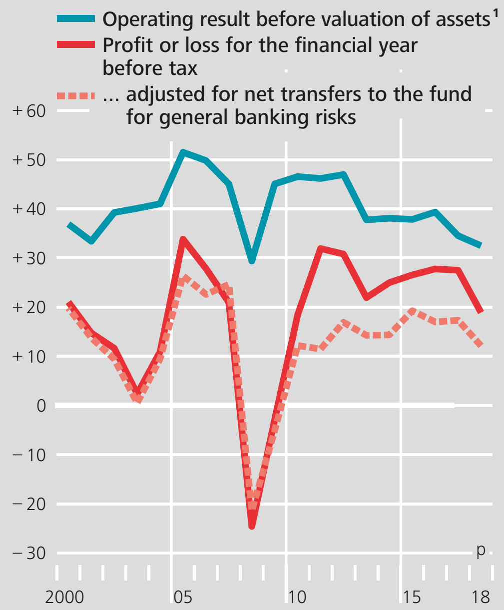
The longer the current low interest rate environment persists, the greater the strain on banks that primarily generate their income from traditional deposit-taking and lending operations. This tallies with banks' responses in the latest survey, conducted by the Bundesbank and the Federal Financial Supervisory Authority (BaFin), on the profitability and resilience of German financial institutions in the low interest rate environment.[8] The institutions expect a deterioration in net interest income and, in light of the cooling off of the economy, higher write-downs. However, on a positive note, the surveyed institutions have, on the whole, improved their capital base and intend to strengthen it further.

In comparison to the previous survey, significantly more institutions are considering applying negative interest rates to customer deposits. While only about one in four institutions was considering this in 2017, now nearly half state that they have taken negative interest rates on customer deposits into account in their planning forecasts. The negative interest paid to the Eurosystem is likely to play only a limited role for credit institutions, as the amounts are small compared to net interest income. Furthermore, the two-tier system for reserve remuneration introduced last year should provide the institu-

8 See Deutsche Bundesbank, The performance of German credit institutions in 2018, Monthly Report, September 2019, pp. 77-113.

The performance of credit institutions in Germany

€ billion



1 Operating result before valuation of assets corresponds to the sum of net interest, commission, trading and other operating income, less administrative expenses. It is an indication of the ability to generate operating earnings. This result has to cover credit risk provisioning, write-downs, depreciation and amortisation, as well as transfers to reserves, taxes and dividends.

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tions with a certain amount of relief. It exempts part of the credit institutions' excess liquidity from the otherwise negative remuneration at the rate applicable on the deposit facility and is thus intended to support the bank-based transmission of monetary policy.

The persistent low interest rate environment also has implications for financial stability in Germany. For example, the low interest rates could contribute to banks taking on higher risks in order to boost returns. One indication of this was the strong growth in lending by German banks to precisely those enterprises that were financially relatively less sound. In the event of an unexpected slump, these enterprises could be the first to run into financial difficulties. Due to the long period of favourable economic development, risk weights and credit risk provisioning have fallen significantly in recent years. Overall, there are increasing signs that banks are underestimating systemic risks and are thus not adequately protected against these.

Bundesbank analyses indicate that the cyclical systemic risks in the German financial system have increased in recent years.[9] In the event of an unexpected slump, loan losses could take a heavy toll on banks. The effects would be even stronger if the value of collateral, such as real estate, were to fall at the same time. Housing prices continued to rise in 2019, albeit not quite as strongly as in previous years. Bundesbank calculations have been indicating for some time now that housing in towns and cities could be overvalued. As real estate financing is an important line of business for banks in Germany, turmoil in the real property market would have a direct knock-on effect on the banking system. Furthermore, an unexpected slump could cause investors to reduce their investments in risky assets, thus driving down the prices of these assets sharply.

A threat to financial stability can arise, in particular, if the cyclical risks materialise together, numerous market participants are affected simultaneously, and the risks thus reinforce each other. The German Financial Stability Committee (G-FSC) therefore issued a recommendation to BaFin in May of last year to increase the countercyclical capital buffer from zero to 0.25%. In doing so, the G-FSC was fulfilling its mandate to identify potential risks to financial stability in Germany at an early stage and recommend countermeasures. BaFin followed the G-FSC's recommendation. Banks now have until the beginning of the third quarter of 2020 to meet the additional capital requirements. Through this measure, banks are supposed to build up more capital so that they are better able to withstand losses if risks materialise. This is intended to prevent banks from excessively constraining their lending in a downturn and thus amplifying the downturn.

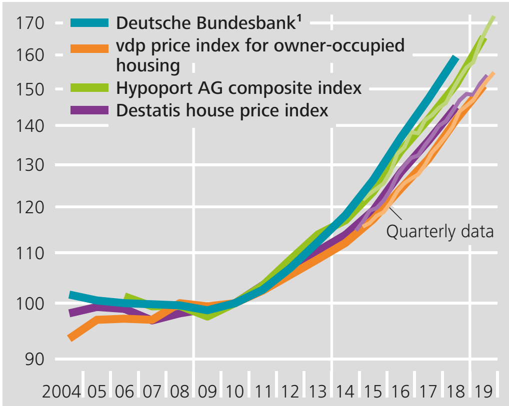
Last year also saw important changes to banking regulations. With the adoption of the new

9 See Deutsche Bundesbank, Financial Stability Review 2019 and Deutsche Bundesbank, Financial Stability Review 2018.

banking package, key amendments to the international regulatory framework that had been agreed by the Basel Committee on Banking Supervision and the Financial Stability Board (FSB) were transposed into European law. Amongst other things, the new stricter rules are intended to increase banks' bail-inable capital in the event of a resolution, thus improving their resolvability. The idea is that this will avoid the need for public sector support measures. Furthermore, the banking package takes greater account of the principle of proportionality than was previously the case, reducing the reporting and disclosure burdens on small, non-complex institutions without impairing their solvency and soundness.[10]

Price indices for housing in Germany

2010 = 100, log scale



1 Weighted by transaction. Bundesbank calculations based on price data provided by bulwiengesa AG.
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All in all, the banking package is a further important contribution to the process of eliminating regulatory weaknesses identified in the financial crisis and to increasing the stability of the financial system. However, this is not the end of the process of revising European banking regulations. During Germany's presidency of the Council of the European Union in the second half of 2020, it is expected that the groundwork will be laid for European implementation of the Basel III finalisation package from December 2017. The latest Basel reforms are the final part of revisions to global banking regulations following the financial crisis and are thus a decisive step towards strengthening financial stability and a level global playing field. However, they can only have the desired effect if they are implemented uniformly across the globe. The Bundesbank is therefore advocating implementation in Europe that is strictly in the spirit of Basel.

One question that is raised time and again by regulatory reforms, quite rightly, is whether the objectives have ultimately been achieved, whether any side effects have emerged, and whether the right balance has been struck for society between the costs of regulation and the benefits associated with more stable financial markets. It is now possible to assess this matter for some of the financial market reforms that were drafted and implemented under FSB coordination following the global financial crisis. As a basis, the FSB first of all developed a general framework for the systematic evaluation of financial market reforms. With the help of this framework, the reforms of the derivatives markets and the impact of the financial market reforms on the financing of infrastructure projects have already been evaluated. A further project concluded that lending to small and medium-sized enterprises (SMEs) has, overall, not been impaired on a long-term basis by the increased capital and liquidity requirements of the originally adopted Basel III package. A more detailed analysis for German banks shows that higher capital requirements coincided with a temporary increase in the market shares of more-resilient institutions in the area of SME financing. Such a shift can contribute to increasing the stability of the financial system and to ensuring an adequate credit supply to the real economy.

Furthermore, the "too big to fail" reforms are being evaluated in a project chaired by Bundesbank Vice-President Claudia Buch. "Too big to fail" in this context refers to institutions which

10 See Deutsche Bundesbank, The European banking package – revised rules in EU banking regulation, Monthly Report, June 2019, pp. 31-49.

are important to the financial system because of their size, complexity, interconnectedness, cross-border business activities or lack of substitutability. In order to reduce the systemic risks posed by these institutions, the G20 countries have adopted a number of reforms. These encompass additional requirements for loss absorbency, a resolution regime and more intensive supervision. The evaluation examines whether these reforms reduce the likelihood and impact of a systemically important financial institution running into difficulties. An interim report is scheduled to be published in June 2020, followed by a final report at the end of 2020.

Last year, Brexit dominated much of the agenda for credit institutions, supervisors, and national and European lawmakers. As the House of Commons rejected the draft Withdrawal Agreement negotiated between the European Commission and the United Kingdom, the prospect of a hard Brexit, i.e. leaving without a deal, seemed like a real possibility on more than one occasion. The date for leaving the EU was therefore postponed a number of times. Following an early general election in the United Kingdom, the House of Commons finally approved the Withdrawal Agreement and Brexit occurred on 31 January 2020. An eleven-month transition period is now underway, during which the future relationship between the United Kingdom and the EU needs to be renegotiated.

If there had been a hard Brexit, the United Kingdom would have been immediately classed as a third country. From a banking supervision perspective, certain risk exposures on banks' balance sheets to the United Kingdom would have had to be valued differently in this case, for instance, and access by German credit institutions to UK financial infrastructures would also potentially have been subject to restrictions. In order to prevent this from endangering the stability of the financial system, supervisors and credit institutions made extensive preparations. For example, various Brexit-related licensing procedures for credit institutions and investment firms were concluded in Germany in 2019. However, some institutions have still not delivered on their commitments to move adequate staff and balance sheet positions. In this context, the Bundesbank, BaFin and the ECB have repeatedly made it clear that "empty shells" will not be tolerated, i.e. business must actually be relocated. A change in the regulatory treatment of UK-domiciled financial infrastructures, particularly central counterparties (CCPs), in the event of a disorderly Brexit was also taken into account, with the European Commission and the European Securities and Markets Authority holding out the prospect of temporary recognition of equivalence for CCPs from the United Kingdom. At the same time, through the adoption of the German Tax Act relating to Brexit (*Brexit-Steuerbegleitgesetz*), the Federal Government gave BaFin the power, in the event of a hard Brexit, to temporarily tolerate companies domiciled in the United Kingdom carrying out certain cross-border transactions that are closely connected to the settlement of existing contracts.

These contingency measures were conceived merely as transitional provisions in the event of a hard Brexit in order to facilitate the relocation of banks and to temporarily defuse the key risks to financial stability. These contingency measures were obviated by the approval of the Withdrawal Agreement. As the transition period will already draw to a close at the end of this year, viable long-term solutions will need to be found.

Climate change and digitalisation

Action to protect the climate gained increased prominence over the past year as a pressing issue facing our society. The challenges posed by climate change and climate policy are also affecting the financial sector and central banks (see the box on pp. 22-24). On the one hand, the financial sector can play an important role in financing investment in climate action. On the other, just like the real economy, it can suffer the negative impact of climate change and the transition to a more sustainable economy. Above all, adequate attention has to be paid to the financial risks associated with climate change. This applies in particular to banks' risk management and the analysis of financial stability. In my opinion, however, the same should also hold for the risk management of central banks regarding their financial investments, on which climate-related financial risks could likewise have a bearing.

To better assess and potentially limit risk, especially in the securities portfolios held for monetary policy purposes, it could, in my estimation, be important to impose certain climate-related reporting requirements and transparency standards on issuers. Properly designed, this could play a role in facilitating and improving the assessment of climate-related issues in the asset purchase programmes and beyond.

Analyses underpinning monetary policy should look into the economic consequences of climate change. It is, however, a matter for democratically elected politicians to decide on what methods society employs to deal with climate change. Monetary policy is committed to the objective of price stability. How far other considerations, such as ecological sustainability, can be of relevance in fulfilling the ECB's mandate, is something for the ECB Governing Council to consider as part of its strategy review.

In 2019, the Bundesbank was also increasingly concerned with the impact of digitalisation. This provides opportunities as well as risks. In an age where our professional and personal lives are becoming increasingly interconnected, there is a growing threat of cyberattacks. As a contribution to greater financial sector resilience against cyberattacks, the Bundesbank, together with the Federal Ministry of Finance, adopted the German implementation of the European TIBER-EU framework last year. TIBER-EU tests mimic, under controlled conditions, the tactics, techniques and procedures of real-life hackers. The Bundesbank assists and supports banks, insurance companies, financial market infrastructures and their major service providers in conducting such tests by means of a competence centre set up especially for this purpose. A steering committee, of which BaFin is also a member, sets requirements for the implementation of the framework and establishes strategic objectives. TIBER-DE represents a voluntary and cooperative approach aimed at bringing about sustained improvements in an open exchange with enterprises of the financial sector. An initial test has already been launched.

Advancing digitalisation is transforming payments in particular. Smartphones are playing an increasingly important role in purchases of goods and services. This is where providers are aiming to embed the payment transaction seamlessly into the buying process (one-click payments). New players are emerging, especially from the non-bank sector. The new provisions governing access to payment accounts contained in the second Payment Services Directive (PSD2) open the door to the development and establishment of innovative business models. These often have to do with the use of data as well as the introduction of real-time transfers. Technology enterprises that both compete and cooperate with established market players have been attracting particular attention. PSD2 is giving a boost to competition in the European market for payment services. This is because it allows account information service providers and licensed payment initiation service providers to access precisely defined account data at the account servicing payment service provider in order to offer their services. Furthermore, statutory provisions have now been put in place that require technological infrastructures of, for example, large technology enterprises to open up as interfaces for the traditional payment service providers.

A great deal of public attention was attracted in 2019 by the formal announcement of the Libra project to be overseen by a membership

The significance of climate change for the Bundesbank's tasks

Politicians, the economy and central banks have increased their focus on climate change and its consequences. Scientific studies show that climate change is reflected not only in higher global temperatures but also in additional physical effects such as rising sea levels, changing patterns of precipitation and more frequent extreme weather events[1] like heatwaves, torrential rainfall or storms. Such events typically cause short-term economic harm, e.g. through infrastructure damage, output losses or crop failures. In the future, this may lead to greater fluctuation in macroeconomic variables such as value added or price developments than we have seen in the past. In the long term, climate change may cause shifts in the structure of the economy and affect potential growth. In addition, climate action such as carbon taxes or emissions trading is likely to have an impact on economic and price developments. Financial risks – i.e. credit, market, liquidity and insurance risk – could increase and affect not just individual agents but the entire financial system.

Climate change therefore affects several of the Bundesbank's business areas. The Bundesbank is aware of the challenges that the economic consequences of climate change pose to the fulfilment of its tasks – e.g. in microprudential supervision, in exercising its financial stability mandate, in its role as portfolio manager for the German state, in the management of its own funds portfolio and in monetary policy. In addition, the Bundesbank has a responsibility to continually question the impact of its own operating processes on the environment. For some years now, the Bundesbank has been strengthening its commitment to environmental management with the objective of reducing its greenhouse gas emissions and using resources sustainably.

The financial risks associated with climate change can be broken down into two categories: physical and transition risk. The aforementioned consequences of extreme weather events are examples of physical risk caused directly by climate change. Transition risk, by contrast, can arise from policies implementing the economic transition to a low-carbon economy, from technological developments or changes in consumer preferences. For instance, introducing or increasing carbon pricing or transitioning away from specific fuels is likely to have an impact on the economy. To name one example, sectors and companies whose business models are based on extracting, processing or burning fossil fuels may face adjustment pressures in the future. This may also have an indirect effect on these firms' investors. It is therefore essential to monitor risks both to banks and to the financial system as a whole.

An adequate, consistent data pool is needed in order to analyse the financial risks associated with climate change. However, not all companies yet fully report the relevant data, e.g. on their direct and indirect

1 See, for example, IPCC (2018), Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, Geneva.

greenhouse gas emissions.[2] In addition, it is extremely difficult to gauge the concrete effects of climate change or the transition away from fossil fuels. A better data pool is also essential to enable financial institutions to take adequate account of climate-related risks in their risk management and allow supervisors to appraise these risks accurately.

The financial risks associated with climate change may affect asset management, too. The portfolios managed by the Bundesbank for external public sector clients mostly have comparatively long investment horizons. Consequently, climate change and the associated adjustment measures could affect their performance.

As part of its portfolio management, the Bundesbank assists Germany's central and state governments in applying sustainability criteria to their investments. Some state governments in Germany are already following a sustainable investment approach and taking account of climate-related risk factors in their equity investments, e.g. by ruling out investment in fossil fuel producers. In 2019, for instance, a number of federal states began to base their equity investment on sustainable stock indices developed on their behalf in collaboration with the Bundesbank. Germany's central government has already ruled out investing in shares issued by nuclear power companies and, with the Bundesbank's assistance, has put together a detailed sustainability strategy for its investments. Consideration is now being given to how this strategy will be implemented.

The Bundesbank is also now investigating how sustainability aspects – interpreted here as going beyond consideration of climate-related financial risks – might play a greater role in its own financial investments in the future. In terms of euro-denominated assets, the Bundesbank currently invests solely in German Pfandbriefe and the covered bonds of a few selected European countries. There are some bonds labelled "green" or "socially responsible" in this segment. Yet these are still a niche product, with a market share of only a few percent. Furthermore, there is not yet a universal definition of what makes a bond "green" or "socially responsible".

Climate-related financial risks may also affect securities portfolios held for monetary policy purposes. Particularly at longer maturities, climate factors could affect the default risk of corporate bonds. Nonetheless, methods for taking account of climate-related financial risks in the risk management of monetary policy portfolios must be compatible with the principle of market neutrality, to which the Bundesbank and the Eurosystem are bound. This principle ensures effective implementation of monetary policy measures to safeguard price stability in the euro area and, at the same time, protects the market economy system enshrined in the European Treaties and allows the economy to be structured efficiently. Although, in general, current market prices for goods and services probably do not adequately reflect the effects of climate change, this should be addressed, above all, through fiscal policy measures such as taxation or through emissions trading in order to take adequate account of environmental harms

2 In 2017, the Task Force on Climate-related Financial Disclosures (TCFD), which is based at the Financial Stability Board and run by the private sector, released recommendations on the voluntary reporting of climate and environment-related risks. The recommendations are targeted at companies and other organisations and aim to achieve comparable and consistent reporting on the financial aspects of these risks. In June 2019, the TCFD released its second status report on the progress made in implementing its recommendations. At that point, 785 companies and other organisations had committed to support the recommendations, with some already in the process of implementing them. The TCFD also receives support from various governments and supervisory authorities.

and thus improve the steering mechanism of prices.

The primary objective of the Eurosystem's monetary policy is to safeguard price stability in the euro area. Where this objective is affected, it is of vital importance to monetary policy that climate-related risks and developments are taken into account in its analyses. This applies, for instance, to the impact of climate change and climate policy on price developments. It is therefore essential to have a full understanding of the current and future repercussions of climate change for the functioning of the economy and the financial system. Consideration must be given not only to short-term disruptions to the economy triggered by individual events but also to structural changes and large, policy-driven movements in the price of specific goods. Central banks are only at the beginning of this process.

The Bundesbank is playing a supporting role in the transition to a sustainable financial system, maintaining a firm focus on its price and financial stability mandates. It is not the place of the Bundesbank or the Eurosystem to take climate policy decisions. That remains the task of governments and parliaments, which have the right tools for climate action at their disposal and the necessary democratic mandate to use them.

organisation of companies. The purpose of this private sector initiative is the introduction of a stablecoin (see the box on pp. 26-27). This is a new digital means of payment with a global reach, backed by selected financial assets such as a basket of currencies in order to make it relatively stable in value – a feature that would set it apart from many existing crypto tokens. If stablecoins become more and more common in future, it has to be ensured that they fulfil all the necessary regulatory requirements.

Stablecoin initiatives like Libra are also a wake-up call for private sector providers to continue incorporating advances into existing payment systems. Central banks can assist in this process by modernising their infrastructures. The ability to settle cross-border payments quickly and cost-effectively, for example, should be standard. For payments in the euro area, the Eurosystem has expanded its market infrastructure for this purpose to include a new service for the settlement of instant payments. TARGET Instant Payment Settlement (TIPS) began back in November 2018 and allows banks the secure settlement of real-time transfers in central bank money. The overwhelming majority of German credit institutions are already actively offering real-time transfers or products based on this. For the banking industry, real-time transfers are an opportunity to position themselves better vis-à-vis new providers by offering comprehensive payment solutions usable across Europe that cover various payment scenarios. They are an example of a convenient, quick and secure alternative to crypto tokens, stablecoins and payment services of large internet companies.

In light of the Libra initiative and the advance of digitalisation in payments, there have been increasingly vocal calls for central banks to press ahead with the introduction of central bank digital currency (CBDC). Its introduction could create opportunities but also involve risks. CBDC can be designed in different ways and thus have various effects on the financial system and the economy. If only commercial banks were to have access to CBDC in the form of accounts or tokens, the risks to financial stability and monetary policy would probably be limited. A retail token or central bank accounts for everyone, by contrast, would make CBDC accessible to the general public, which would possibly have a considerable impact on the financial system and might harbour significant risks to financial stability and monetary policy. A large number of open questions remain in this area, which are being given in-depth consideration by the Eurosystem and the Bundesbank. Whether the risks can be contained and whether CBDC can be a worthwhile addition to the existing range of payment instruments is something that can be decided only after further studies.

Further challenges

At present, individuals and enterprises are already able to hold a secure claim on the central bank in the form of cash. And cash remains a popular means of payment in Germany. Last year, the Bundesbank published a study on the costs of various payment instruments at the point of sale.[11] The study showed that the total costs of payment methods to German retailers in the narrower sense amount to €5.7 billion per year. Cash payments, at just under €0.24 per transaction, are the cheapest option. This contrasts with girocard payments, which cost retailers €0.33 per transaction. However one looks at it, credit card payments are more expensive than payments in cash or by girocard. Nevertheless, in terms of sales, card payments – and girocard payments in particular – are cheaper for the retail sector than cash payments. This is because card payments are typically used for larger amounts. Contactless payments were also simulated in the study, as such payments occurred only in small numbers at the time the study was conducted. The outcome of this simulation was that cash payments continue to show the lowest costs per transaction. With regard to speed, the study showed that only contactless payments without PIN were faster than payments in cash.

With regard to the supply of cash, the newly designed €100 and €200 banknotes were rolled out at the end of May 2019. This completed the introduction of the new Europa euro banknote series, which was launched in May 2013. The German general public, along with the resident commercial banks, cash-in-transit companies, cash-operated machine industry and manufacturers of banknote-processing machines and counterfeit detection devices, were informed by the Bundesbank of the introduction and the security features well in advance of each new banknote denomination being issued. This played a key part in a smooth changeover to the new banknote series. The issuance of €500 banknotes was discontinued by the Eurosystem national central banks in the first half of 2019. These notes will continue to be legal tender, however, and can be exchanged at the Eurosystem national central banks for an unlimited period of time.

The other areas of the Bundesbank, too, sought to go on improving their levels of performance in 2019. In the field of statistics, efficient data management is of particular relevance. The aim is for statistical data to be collected only once but used for a variety of legally defined purposes. For example, the daily data from the money market statistics are now also being used to determine the new euro short-term rate (€STR). For this, the Bundesbank collects the data from the agents reporting to it and helps to improve data quality by conducting plausibility checks. The €STR rate was published by the ECB for the first time last October and has replaced EONIA as the reference interest rate, although both rates are being published in parallel for a transitional period until the end of 2021. The Analytical Credit Datasets are also to be used for multiple purposes, namely to prepare and implement monetary policy, for the SSM and for macroprudential oversight. Looking ahead, they are also to be published in aggregated form.

11 See Deutsche Bundesbank, The costs of payments in the retail sector, Monthly Report, June 2019, pp. 65-79.

Stablecoins

Payment systems are currently being affected to a particular extent by digitalisation.[1] For a long time, media attention was focused on crypto tokens such as Bitcoin, the value of which can be highly volatile.[2] The public became increasingly aware of stablecoins last year. Stablecoins are crypto tokens which are designed to maintain a stable value, for example by being backed by claims in fiat currencies. In the simplest case, a stablecoin is backed by claims in a currency. The stablecoin's value is then based on the value of this currency if the issuer promises that the stablecoin will always be exchanged into the backing currency at a fixed exchange rate. The relative stability of its value achieved in this way is intended to make crypto tokens more attractive for payment purposes in networks.

In June 2019, the Libra Association, a consortium backed by Facebook and other enterprises, announced a stablecoin, named Libra, that can be used globally. Following smaller private stablecoin initiatives, this represented the first venture of this kind by a major internet group. According to the published information, the Libra token is likely to be made available for consumers during the course of 2020.[3] There has not yet been any final decision on what specific form it will take.

According to initial reports, the value of a Libra token is to be pegged to a currency basket and backed by a portfolio of sight deposits and short-term government bonds in various currencies. However, this would create an exchange rate risk for holders of Libra tokens. Consumers are to be able to acquire Libra tokens against payment out of their bank accounts from digital trading platforms or authorised resellers and store them in their digital wallets. Redemption is also intended to be possible through the authorised resellers, but there are no plans at present for contractually assured rights for consumers to redeem Libra tokens against a currency from the Libra Association. Users would therefore bear not only the exchange rate risk but also a liquidity risk given the absence of guaranteed redemption of Libra tokens.

The design features known so far do not yet allow any clear-cut regulatory classification of the Libra token under German law. However, in line with the "same risks, same rules" principle, stablecoin arrangements should, as a fundamental principle, meet the same requirements as products of comparable service providers, especially from the payments sector. From an international perspective, it has to be ensured that there is a common understanding of the inherent risks of (global) stablecoins and that comparable and appropriate regulatory standards are developed and consistently applied within the framework of an (international) cooperation of supervision and oversight in

1 See Deutsche Bundesbank (2019), Crypto tokens in payments and securities settlement, Monthly Report, July 2019, pp. 39-59.
2 For some years now, it has been expected that digital tokens can significantly transform processes and structures in payments. These tokens are digital units which, without the involvement of third parties, can be exchanged via technical protocols between network participants. The term "crypto tokens" is used if the technical protocols applied are based on cryptographic procedures. Their use should enable the mandatory logging of the transfer of payment instruments or assets within a network. Strong fluctuations in value, in particular, have prevented the widespread use of crypto tokens such as Bitcoin. See Deutsche Bundesbank (2019), Crypto tokens: current developments and their implications for financial stability, Annual Report 2018, pp. 26-28.
3 The Libra Association outlines the concept of the planned stablecoin in the Libra White Paper. See https://libra-2020.org/white-paper

order to prevent regulations simply being bypassed.

An international working group on stablecoins was set up under the French G7 presidency. It was tasked with assessing the potential implications of stablecoin designs, especially of those with global reach. The working group presented its findings in a closing report in October 2019.[4] These show that global stablecoins, on the one hand, allow quicker and more cost-effective cross-border payments and, in many cases, help to improve access to financial services. On the other hand, they are associated with a large number of risks that have not yet been analysed in greater depth, including in the fields of financial stability, monetary policy as well as consumer and data protection.

Furthermore, private stablecoins must not jeopardise public institutions fulfilling their mandate. From a central bank perspective, it is particularly the potential impact on the conduct of monetary policy with its aim of safeguarding price stability and on financial stability that must be kept in check. Appropriate adjustments would be necessary if existing regulatory and legal frameworks do not fulfil these requirements, as explained in the joint statement of the Council and the European Commission dated 5 December 2019 and elsewhere.[5] According to this statement, no stablecoin arrangement should begin operation in the European Union until all legal, regulatory and supervisory challenges and risks have been adequately identified and addressed.

Nevertheless, the emergence of private stablecoins highlights existing shortcomings in international payments. Above all, payments across and beyond the borders of individual currency areas often still require long settlement times with, in some cases, high costs. Processes in business with international correspondent banks are sometimes complicated and non-transparent. A stronger international standardisation of payment processes and the linking of national payment systems technologically would be ways of improving current transfer channels, for example. To this end, work in international central bank committees is already under way.

We are already well equipped within the euro area. For more than a year now, we have had an efficient and stable infrastructure for the settlement of real-time customer payments in the Eurosystem in the shape of Target Instant Payment Settlement (TIPS). TIPS offers secure, instant and irrevocable settlement of payments in euro around the clock.

Looking ahead, there is, at the same time, the challenge of interlinking existing payment systems with new internet-based technologies (Internet of Things, or IoT). The focus here is on the full automation of processes and transactions including payment settlement, in particular the direct settlement of payments between technical devices (machine-to-machine payments). Smart contracts could play a part, i.e. program codes which, under certain conditions, are executed automatically. Tokenised money could be integrated into this set-up as a means of payment, say in the form of commercial bank digital currency in euro. Fully automated cross-border payment settlement in real time is increasingly becoming the measure of all things.

4 For more information, see G7 Working Group on Stablecoins, Investigating the impact of global stablecoins, October 2019, https://www.bis.org/cpmi/publ/d187.pdf
5 For more information, see https://www.consilium.europa.eu/en/press/press-releases/2019/12/05/joint-statement-by-the-council-and-the-commission-on-stablecoins/

For the fulfilment of our stability mandate, it is vital that the general public have a basic understanding of money, monetary policy and the tasks of the central bank. For that reason, the Bundesbank seeks to strike up a dialogue with members of the general public by holding events such as the “Forum Bundesbank”. This is a platform for our specialists to provide information on and discuss topics of current interest. As part of this series, the Bundesbank visited more than 90 towns and cities last year. The Bundesbank’s Open Day over a weekend in May attracted around 20,000 visitors to our Central Office in Frankfurt am Main. With “See the Bundesbank up close” as its guiding maxim, visitors were greeted by information stands, quizzes and a discovery tour, which meant that, in an entertaining way, they were able to discover what the Bundesbank does. They also had the opportunity to discuss the Bundesbank’s work in a relaxed atmosphere with members of the Bundesbank’s Executive Board. The new Euro20+ event was directly targeted at young people aged 18 to 30. At both the beginning and the end of the year, around 200 students and young professionals discussed key economic policy and social issues relating to the future of Europe and monetary union with members of the Bundesbank’s Executive Board and experts from the Bundesbank, as well as researchers and YouTubers. Also in attendance were guests from European partner countries who contributed their views in the workshops, embodying the spirit of Europe. The audience we reached was not just made up of those attending in person but also more than a million users via social media.

A better understanding of central banks’ tasks is also the goal of our economic education. This is geared, in particular, to students and teachers. We conducted more than 2,400 education events last year with an audience of 44,000 school pupils and others. In addition, I – like other members of the Executive Board – met school pupils to discuss current issues with them. Furthermore, a completely revised edition of the book *“Geld und Geldpolitik”* (Money and Monetary Policy), the key publication in our economic education programme, came out last year. The online version was also completely revised. The Bundesbank’s Money Museum continues to be highly popular, welcoming almost 50,000 visitors through its doors in 2019. That year it also hosted *“MEIN GELD – eine Mitmachausstellung”* (My money – an interactive exhibition), which allowed young people, especially, to explore the use of money in an entertaining manner. The exhibition proved to be so attractive that it has moved on to the Ludwig Erhard Zentrum in Fürth, where it has been on show since November.

Young persons are likewise the focus at the Bundesbank’s University of Applied Sciences. For 40 years, this has been where the Bundesbank has been training its junior staff in a dual study programme. Students learn the theoretical principles and methods as well as the practical professional skills they need for a career path in the Upper Intermediate Service. The blend of theoretical and practical components is a major reason why the University of Applied Sciences in Hachenburg has gained an outstanding reputation. It now has around 4,000 alumni, who are now, as in the past, extremely well regarded in their various fields of activity at the Bundesbank, often holding managerial positions. Given that members of staff who were born during Germany’s post-war “baby boom” period are now retiring from the Bundesbank and with the increasing need for new staff in the Upper Intermediate Service, we no longer have the capacity to train young people in sufficient numbers at our University of Applied Sciences alone. For that reason, the Bundesbank is stepping up its cooperation with other institutions of higher education offering dual-track courses of study. We see to it that digitalisation-related topics feature more strongly in the curriculum. However, the Bundesbank is ensuring that it is not just our junior staff who are ready for the new demands associated with advancing digitalisation but also everyone else who works at the Bundesbank. In a survey, employees’ work were asked to assess their own digital skills and expertise. The findings are being incorporated into the planning of suitable extra professional development measures.

An environment that is in keeping with the times is also of vital importance for our employees' work. The Bundesbank is therefore pressing ahead with the upcoming architectural modernisation and expansion of the Bundesbank's Central Office in Frankfurt. Six design concepts for the future Central Office campus were put on display in an exhibition held in mid-January 2019, with the design by the architectural firm Ferdinand Heide Architekten being singled out for special attention. The Executive Board of the Bundesbank had awarded the contract for developing the overall design of the future campus to this firm in December 2018. On the basis of this urban development model, the Bundesbank was able to achieve fundamental agreement on planning permission from the City of Frankfurt and launch an architectural design competition. In the coming months, 30 renowned national and international architectural firms will be drawing up plans for the construction of additional new buildings on the campus.

Acknowledgements

I would like to take this opportunity to thank all our staff for their commitment, expertise and dependability, not only on behalf of the entire Executive Board but also in a personal capacity. In May of last year, I began my second term of office as Bundesbank President, and I know that I can rely unconditionally on the dedicated work of the Bundesbank's staff in the future as well. Great tasks lie ahead for the Bundesbank as part of the Eurosystem. Together we shall master them, and we shall justify the faith placed in the Bundesbank by the general public. They can rely on the Bundesbank to do its utmost to ensure stable money in Germany and Europe.

Frankfurt am Main, February 2020

Dr Jens Weidmann
President of the Deutsche Bundesbank

Chronology of economic and monetary policy measures

1 January 2019

The basic income tax allowance is raised by €168 to €9,168. The other income tax brackets are shifted. This is intended to compensate for bracket creep resulting from price inflation in 2018. The child tax allowance is raised by €192 to €7,620. The associated increase in child benefits is scheduled for mid-2019.

The contribution rate to the unemployment insurance scheme is lowered by 0.5 percentage point to 2.5%.

The contribution rate to the public long-term care insurance scheme is raised from 2.55% to 3.05% (plus an additional 0.25% in each case for childless persons).

In the statutory pension insurance scheme, "mothers' pensions" are increased. Mothers of children born before 1992 will now receive 2.5 pension entitlement points, up from 2 points, for each child raised, increasing their pension benefits. Pensions for persons with reduced earning capacity are ramped up significantly for new cases. The new "double thresholds" set for the standardised pension level (at least 48%) and the contribution rate (capped at 20%) will apply until 2025. The existing rule on cutting the contribution rate is suspended for the period from 2019 to 2025. Although the reserves are expected to still be significantly above 1.5 times the scheme's monthly expenditure at end-2019, the contribution rate is not lowered.

From now on, the supplementary contribution set by individual statutory health insurance institutions will no longer be paid by members alone; instead, employers will cover half of the costs for their employees, and the statutory pension insurance scheme will cover half of pension recipients' costs. The supplementary contribution rate deemed necessary by the Federal Ministry of Health to cover its costs is lowered by 0.1 percentage point to 0.9%. The actual supplementary contribution, by contrast, stands at around 1.0% on average.

15 January 2019

British MPs reject the agreement on the United Kingdom's withdrawal from the European Union (EU), negotiated in November 2018, by a resounding majority.

29 January 2019

A majority of British MPs vote to renegotiate the terms of the EU withdrawal agreement.

31 January 2019

In its Annual Economic Report for 2019, the Federal Government anticipates real gross domestic product (GDP) growth of 1.0% (no notable calendar effects). According to the report, economic growth will be weaker than in the previous year. While domestic expansionary forces are likely to remain strong this year, the global economic outlook has deteriorated.

7 March 2019

The Governing Council of the European Central Bank adjusts the calendar-based element of its guidance on future key interest rate developments ("forward guidance"). It now expects key interest rates to remain unchanged at least through the end of 2019, and in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term. The Governing Council also decides to launch a new series of seven targeted longer-term refinancing operations (TLTRO-III). The operations will be conducted from September 2019 to March 2021. They are intended to ensure that bank lending conditions remain favourable and to contribute to the smooth transmission of monetary policy. Aside from this, the Governing Council extends its policy of full allotment in all its refinancing operations, stating that they will continue to be conducted as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of the reserve maintenance period starting in March 2021.

15 March 2019

The version of a constitutional amendment agreed upon within the parliamentary mediation committee is approved by the Bundestag and subsequently the Bundesrat. At the heart of the new provisions is an expansion of investment grants from central government to the federal states. Local education infrastructure, public transport and social housing construction are set to benefit from this. In return, the Federal Government is granted increased monitoring rights.

20 March 2019

The Federal Government approves the benchmark figures for the 2020 federal budget and for the medium-term fiscal plan up to 2023. Once again, it does not envisage any net borrowing. The refugee reserve had increased to €35 billion at budget outturn for 2018. It is intended that this will be released by 2022 in order to offset planned deficits.

21 March 2019

The EU heads of state or government grant the British government's request to postpone the United Kingdom's withdrawal from the EU, which was originally planned to take place on 29 March 2019. Prior to this, the UK Parliament had repeatedly rejected the withdrawal agreement negotiated with the EU in November 2018, but was also opposed to a no-deal Brexit.

10 April 2019

The EU grants the British government's request to further postpone Brexit. 31 October 2019 is set as the absolute latest withdrawal date.

17 April 2019

The Federal Government presents an updated stability programme for Germany. It anticipates a surplus in the general government budget of ¾% of GDP in 2019 and 2020 and of ½% of GDP in each of the following years up to 2023. It estimates figures of similar magnitudes for the structural surplus (adjusted for cyclical influences and specific temporary effects). The debt ratio is projected to fall from 58¾% in 2019 to 51¼% in 2023.

23 April 2019

The general government deficit and debt figures reported by the EU Member States are published after validation by Eurostat, the European Union's statistics agency. They reveal that the German government recorded a surplus of 1.7% of GDP and a debt-to-GDP ratio of 60.9% in 2018. For 2019, the Federal Government anticipates a surplus of 0.9% of GDP and a decline in the debt ratio to 58.6%.

28 May 2019

The new €100 and €200 banknotes are introduced in the 19 euro area countries, thus completing the Europa series.

1 June 2019

Philip Lane becomes a new member of the ECB Executive Board.

6 June 2019

The ECB Governing Council now expects policy rates to remain unchanged at least through the first half of 2020. Additionally, it sets the interest rate for each TLTRO-III operation at an initial level of 10 basis points above the average rate applied to the Eurosystem's main refinancing operations over the life of the respective TLTRO. Where the bank-specific benchmark for net lending is exceeded, this can be as low as the average interest rate on the deposit facility plus 10 basis points.

7 June 2019

The Bundesbank anticipates real GDP growth of 0.6% for 2019, 1.2% for 2020 and 1.3% for 2021 in calendar-adjusted terms (unadjusted for calendar effects, a higher growth rate of 1.6% is expected for 2020). According to this projection, the German economy will expand at a slower rate than potential output for the time being. They are not expected to move in tandem again until 2021. However, capacity utilisation is set to be distinctly higher than normal across the whole of the projection horizon. The inflation rate as measured by the Harmonised Index of Consumer Prices (HICP) is likely to decline markedly to 1.4% in 2019. In the next two years, price growth is anticipated to accelerate to 1.5% and 1.7%, respectively. Excluding energy and food, inflation will probably pick up from 1.5% in 2019 to 1.6% in 2020 and to 1.7% in 2021.

14 June 2019

Following the recommendation of the European Commission, the Economic and Financial Affairs (ECOFIN) Council closes the excessive deficit procedure for Spain. Spain had deviated from the reference value for the deficit ratio since 2008. The procedure began in April 2009. The correction deadline was extended three times. On account of low interest rates and exceptionally favourable economic conditions, the deficit ratio finally fell below the 3% ceiling in 2018. The procedure was thus concluded, meaning that at the current juncture, no countries are subject to an excessive deficit procedure.

18 June 2019

The Stability Council and its independent advisory board anticipate that Germany will comply with the upper limit of 0.5% of GDP for the structural general government deficit in the planning period up to 2023. The Council concludes that the federal states in receipt of consolidation assistance (Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein) have again adhered to the requirements for reducing their structural deficits in 2018. The funds for this purpose, totalling €0.8 billion, can thus be disbursed at mid-year.

26 June 2019

The Federal Government approves the draft federal budget for 2020 and the medium-term fiscal plan up to 2023, which does not foresee any new net borrowing. However, relatively high global expenditure cuts are planned. Moreover, once the global revenue shortfalls are factored in, the budgetary buffers are no longer sufficient to cover the costs of the projects envisaged in the coalition agreement. For example, there are not enough funds to increase defence expenditure with the aim of approaching the target of 1.5% of GDP.

1 July 2019

The monthly child benefit allowance is increased by €10 per child.

For low-income earners with "midi-jobs", the transitional area within which reduced social security contributions apply is extended. The upper limit will now be €1,300 rather than €850. Reduced contribution rates for the statutory pension insurance scheme are no longer to result in reduced entitlements. Thus, the same number of pension entitlement points are given as if the full contributions were made.

3 July 2019

The European Commission informs the ECOFIN Council that it does not recommend opening an excessive deficit procedure against Italy. As recently as June it had been in favour of launching such a procedure, as Italy had not satisfied the debt criterion in 2018. However, the competent Economic and Financial Committee was willing to take account of additional aspects. The Italian government consequently agreed upon further measures for 2019 on 1 July. The Commission deemed these sufficient to justify forgoing an excessive deficit procedure.

25 July 2019

The ECB Governing Council extends its forward guidance on policy rates to include an indication that they could be lowered further in future. It now expects key interest rates to remain at their present or lower levels at least through the first half of 2020.

30 July 2019

The German Federal Constitutional Court conducts a hearing on four constitutional complaints relating to the ECB's bond purchase programme. In 2017, the Second Senate had referred a number of questions to the Court of Justice of the European Union regarding the legitimacy of the bond purchase programme for a preliminary ruling. In response, the Court of Justice of the European Union ruled in 2018 that the programme was compatible with EU law. The Federal Constitutional Court must now pass a conclusive verdict on the constitutional complaints. Its decision is to be announced on 24 March 2020.

12 September 2019

The ECB Governing Council adopts an extensive package of monetary policy measures. It lowers the interest rate on the deposit facility by 10 basis points to an all-time low of -0.50%, but keeps the interest rate on main refinancing operations and the rate on the marginal lending facility unchanged. At the same time, it now expects key interest rates to remain at their present or lower levels until it has seen the inflation outlook robustly converge to a level sufficiently close to, but below, 2% within its projection horizon. This convergence should also be consistently reflected in underlying inflation dynamics. Furthermore, the Governing Council decides to restart net purchases under the asset purchase programme (APP) at a monthly pace of €20 billion. It expects these net purchases to run for as long as is necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key ECB interest rates. As a further measure, the Governing Council adjusts the conditions for the TLTRO-III. It extends the maturity of the individual operations from two to three years. Furthermore, it removes the previously announced interest rate premium of 10 basis points. Finally, the Governing Council introduces a two-tier system for reserve remuneration. Under this system, a part of banks' holdings of excess liquidity on current accounts with the Eurosystem is remunerated at 0% instead of at the negative deposit facility rate. The exempt tier is determined as a multiple of the respective institution's minimum reserve requirements. The multiplier is the same for all institutions and is initially set at a value of six. The two-tier system will enter into force in the seventh maintenance period of 2019, starting on 30 October.

20 September 2019

The Federal Government's climate cabinet agrees on key points for reducing emissions of environmentally harmful gases such as carbon dioxide in Germany in the coming decades. Germany's aim is to be climate-neutral by 2050. To this end, starting in 2021, companies will also have to buy certificates for carbon dioxide emissions in the heating sector (insofar as they are not covered by the European Union Emissions Trading System) and transport sector. Certificate prices will be raised incrementally up to 2025, after which they will be dictated by the market, initially within a price corridor. Incentives to cut emissions will be launched and air traffic tax will be raised significantly from 2020.

25 September 2019

The first of a total of seven TLTRO-III operations is conducted. It sees 28 institutions take up an overall volume of €3.4 billion. At the same time,

€31.8 billion is paid back on the second series of targeted longer-term refinancing operations (TLTRO-II) under the voluntary repayment option.

2 October 2019

The ECB publishes the euro short-term rate (€STR) for the first time as the new short-term benchmark rate for the unsecured money market.

The Federal Government approves a supplementary federal budget for 2020 to finance the agreed climate action programme. Planned measures include, in particular, more equity for Deutsche Bahn and an increase in international climate action financing. This expenditure will be offset primarily by a cut in federal funding for the energy and climate fund and a slight reduction in the precautionary global revenue shortfall item.

15 October 2019

The Federal Government submits its draft budgetary plan for Germany's 2020 general government budget to the European Commission. Compared with the stability programme published in April, higher general government surpluses of 1¼% and ¾% of GDP are envisaged for 2019 and 2020, respectively. The structural budget surplus is revised perceptibly upwards for 2019 (1¼% of GDP), while the estimate for 2020 remains unchanged (½% of GDP). The debt ratio is expected to decline slightly more slowly to 59¾% in 2019 and 57¾% in 2020.

17 October 2019

The European Union and the United Kingdom conclude negotiations for a modified EU withdrawal agreement. Under the terms of the agreement, Northern Ireland will remain closely aligned with EU rules for at least four years once the transition period has ended. The draft deal requires the approval of both the UK Parliament and the European Parliament.

21 October 2019

The general government deficit and debt figures reported by the EU Member States are published after validation by Eurostat. According to these data, in 2018 Germany recorded a general government surplus of 1.9% of GDP coupled with a year-end government debt ratio of 61.9%. The revision of the national accounts carried out in the meantime produced a slightly lower GDP figure. As a result, the debt ratio was higher. For 2019, the Federal Government anticipates a surplus of 1.3% of GDP and a decline in the debt ratio to 59.7%.

28 October 2019

At the request of the UK government, the European Union agrees to a further Brexit extension. The United Kingdom's withdrawal from the European Union is now set for 31 January 2020.

1 November 2019

Christine Lagarde becomes the new President of the ECB.

6 November 2019

In its Annual Report, the German Council of Economic Experts writes that the German economy is in a downturn. However, the Council is so far not proceeding on the assumption of a broad, sharp recession. At the same time, it foresees a slow revival in economic activity in 2020, driven primarily by domestic impulses. In calendar-adjusted terms, real GDP growth of 0.5% is expected for 2019 and 2020, respectively. The positive calendar effect gives rise to higher growth of 0.9% for 2020. Economic growth would thus be below potential. The output gap is expected to be closed in 2020.

20 November 2019

The European Commission provides its assessment of the draft budgetary plans for 2020. In eight euro area countries, it sees a risk of non-compliance with requirements under the Stability and Growth Pact. In no country with planned measures is the expected level of non-compliance as high as it is in Italy. According to the Commission, Italy is at risk of a significant deviation from the adjustment path towards the medium-term budgetary objective and faces non-compliance with the debt reduction benchmark in 2019 and 2020.

29 November 2019

The Bundestag approves the federal budget for 2020. A balanced budget with no net borrowing is achieved by withdrawing €10½ billion from the refugee reserve. Combined, cyclical effects and financial transactions put pressure on the budget to the tune of just under €1 billion. A relatively high deficit of €6 billion is anticipated for the off-budget entities (particularly the energy and climate fund, which is the main financing instrument for the climate action programme). The debt brake limit is undershot by €6½ billion owing to reserve withdrawals in the federal budget.

5 December 2019

The European Commission agrees unconditionally with the measures taken to strengthen the equity position of NordLB. Its owners agreed on a recapitalisation package worth a total of €3.6 billion.

13 December 2019

The Bundesbank projects real economic growth of 0.5% in 2019, 0.6% in 2020 and 1.4% in 2021 and 2022, respectively (all figures in calendar-adjusted terms). Unadjusted for calendar effects, growth rates for 2020 and 2022 are 1.0% and 1.3%, respectively. Based on these projections, the German economy will gradually emerge from its current lull. The previously high level of aggregate capacity utilisation will decrease significantly in 2019 and 2020. In the last two years of the projection horizon, economic output could grow more or less in line with potential output, with the economy running at or around normal capacity levels. Consumer price inflation as measured by the HICP will fall considerably, hitting 1.4% in 2019. A further slight decline to 1.3% is expected for 2020, after which inflation is likely to rebound to 1.6% and 1.9% in 2021 and 2022, respectively. Excluding energy and food, inflation will probably pick up from 1.4% in 2019 to 1.5% in 2020 and remain at this level in 2021. In 2022, it could rise further to 1.6%.

Legislation to reduce the solidarity surcharge, which was first introduced in 1995, enters into force. This raises the exemption limit for the surcharge significantly from 2021, at which point it will only be levied when annual income tax exceeds €16,956 for individual filers and €33,912 for joint filers. In the 2020 tax year, this corresponds to taxable income above just over €61,700 and €123,400, respectively. The constitutional legitimacy of the surcharge is contentious.

18 December 2019

The second of a total of seven TLTRO-III operations is conducted. It sees 122 institutions take up an overall volume of €97.7 billion. At the same time, €146.8 billion is paid back on TLTRO-II operations under the voluntary repayment option.

20 December 2019

The compromise on tax measures to combat climate change reached by the mediation committee is approved by the Bundestag and subsequently the Bundesrat. The federal states will be compensated by central government for the associated revenue shortfalls. The Federal Government pledges to adopt new legislation to raise the prices already agreed for CO_2 certificates in the period from 2021 to 2026. The price per tonne is to be set at €25 (instead of €10) for 2021, which will climb to €55 (instead of €35) by 2025. A corridor of €55 to €65 (previously €35 to €60) is envisaged for 2026.

1 January 2020

Isabel Schnabel and Fabio Panetta become new members of the Executive Board of the ECB.

The debt brake enters into force at the state government level. Article 109(3) of Germany's Basic Law (*Grundgesetz*) generally prohibits the federal states from (structural) new borrowing.

The basic income tax allowance is raised by €240 to €9,408. The other income tax brackets are shifted. This is intended to compensate for bracket creep resulting from price inflation in 2019. The child tax allowance is raised by €192 to €7,812. Combined with the 2019 rise, this corresponds to the full annual effect of the increase in child benefits that came into effect in mid-2019.

The contribution rate to the unemployment insurance scheme is lowered by 0.1 percentage point to 2.4%.

The Federal Ministry of Health sets the supplementary contribution rate deemed necessary to cover relevant expenditure at 1.1% for the health insurance institutions. By contrast, the average actual supplementary contribution rates of individual health insurance institutions are likely to remain virtually unchanged at around 1.0% in view of their large reserves.

In the statutory health insurance scheme, a monthly tax allowance of €159 for occupational pension contributions is introduced. This replaces the previous tax allowance, under which the full amount was due if an occupational pension exceeded €159. The health fund's reserves will be used to compensate health insurance institutions' expected revenue shortfall of €1.2 billion in 2020.

13 January 2020

The Federal Ministry of Finance presents the provisional outturn for the 2019 federal budget. According to the figures, a surplus of just over €13 billion was recorded. A deficit of €6 billion had been planned. Tax revenue and other revenue were up by €3½ billion and €2½ billion, respectively, compared with budget estimates. Expenditure was €13 billion lower than planned, due in no small part to lower interest payments. As a result of the surplus, the refugee reserve is topped up to €48 billion.

23 January 2020

The ECB Governing Council launches a review of its monetary policy strategy. The quantitative formulation of price stability, together with the approaches and instruments by which price stability is achieved, will figure prominently in this exercise. In addition, the Governing Council will review the effectiveness and the potential side effects of the monetary policy toolkit developed over the past decade. The review will also take into account how other considerations, such as financial stability, employment and environmental sustainability, can be relevant in pursuing the ECB's mandate. The Governing Council will examine how the economic and monetary analyses through which the ECB assesses the risks to price stability should be updated, also in view of ongoing and new trends.

31 January 2020

The United Kingdom exits the European Union. The EU withdrawal agreement, which had been renegotiated back in October 2019, was ratified by both parties in January. EU law will still generally apply to the United Kingdom during a transition period, which is scheduled to end on 31 December 2020. However, the United Kingdom will no longer be represented in EU institutions.

In its Annual Economic Report for 2020, the Federal Government anticipates real GDP growth of 1.1% (0.7% in calendar-adjusted terms). According to the report, the German economy will gradually recover from its lull. However, Germany's economy will essentially remain two-speed in nature. A robust domestic economy will be counterbalanced by sluggish industrial activity. That said, industrial output is likely to slowly recover again as global trade picks back up.

14 February 2020

The Federal Statistical Office reports real economic growth of 0.6% for 2019 (no notable calendar effects).

28 February 2020

The Bundesbank publishes its annual accounts for financial year 2019. The profit of €5,851 million is transferred to central government.

Annual accounts of the Deutsche Bundesbank for 2019

Balance sheet of the Deutsche Bundesbank as at 31 December 2019

Assets

			31.12.2018
		€ million	€ million
1 Gold and gold receivables		146,562	121,445
of which: gold receivables €341,200.36			*(0)*
2 Claims on non-euro area residents denominated in foreign currency			
2.1 Receivables from the IMF	20,693		(19,896)
2.2 Balances with banks and security investments, external loans and other external assets	32,039		(31,796)
		52,732	51,693
3 Claims on euro area residents denominated in foreign currency		1,362	1,644
4 Claims on non-euro area residents denominated in euro		1,065	1,943
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro			
5.1 Main refinancing operations	1,911		(1,890)
5.2 Longer-term refinancing operations	73,950		(87,648)
5.3 Fine-tuning reverse operations	–		(–)
5.4 Structural reverse operations	–		(–)
5.5 Marginal lending facility	0		(894)
		75,861	90,432
6 Other claims on euro area credit institutions denominated in euro		2,248	120
7 Securities of euro area residents denominated in euro			
7.1 Securities held for monetary policy purposes	568,254		(571,829)
7.2 Other securities	–		(–)
		568,254	571,829
8 Claims on the Federal Government		4,440	4,440
9 Intra-Eurosystem claims			
9.1 Participating interest in the ECB	2,254		(1,948)
9.2 Claims equivalent to the transfer of foreign reserves to the ECB	10,644		(10,430)
9.3 Net claims related to the allocation of euro banknotes within the Eurosystem	–		(–)
9.4 Other claims within the Eurosystem (net)	895,458		(966,324)
		908,356	978,702
10 Items in course of settlement		1	2
11 Other assets			
11.1 Coins	1,004		(1,078)
11.2 Tangible and intangible fixed assets	918		(874)
11.3 Other financial assets	11,852		(12,053)
11.4 Off-balance-sheet instruments revaluation differences	13		(7)
11.5 Accruals and prepaid expenditure	4,648		(5,206)
11.6 Sundry	528		(313)
		18,964	19,532
		1,779,846	1,841,781

Liabilities

				31.12.2018
			€ million	€ million
1	Banknotes in circulation		313,774	289,587
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro			
	2.1 Current accounts	480,230		(421,415)
	2.2 Deposit facility	80,001		(151,385)
	2.3 Fixed-term deposits	–		(–)
	2.4 Fine-tuning reverse operations	–		(–)
	2.5 Deposits related to margin calls	–		(6)
			560,231	572,806
3	Other liabilities to euro area credit institutions denominated in euro		3,614	4,300
4	Liabilities to other euro area residents denominated in euro			
	4.1 General government deposits	51,737		(65,590)
	4.2 Other liabilities	36,200		(57,950)
			87,937	123,540
5	Liabilities to non-euro area residents denominated in euro		179,986	280,798
6	Liabilities to euro area residents denominated in foreign currency		0	0
7	Liabilities to non-euro area residents denominated in foreign currency		–	–
8	Counterpart of special drawing rights allocated by the IMF		14,880	14,656
9	Intra-Eurosystem liabilities			
	9.1 Liabilities related to the issuance of ECB debt certificates	–		(–)
	9.2 Net liabilities related to the allocation of euro banknotes within the Eurosystem	435,764		(401,094)
	9.3 Other liabilities within the Eurosystem (net)	–		(–)
			435,764	401,094
10	Items in course of settlement		0	1
11	Other liabilities			
	11.1 Off-balance-sheet instruments revaluation differences	–		(–)
	11.2 Accruals and income collected in advance	918		(781)
	11.3 Sundry	2,164		(1,940)
			3,082	2,721
12	Provisions		24,785	25,598
13	Revaluation accounts		144,220	118,499
14	Capital and reserves			
	14.1 Capital	2,500		(2,500)
	14.2 Reserves	3,220		(3,246)
			5,720	5,746
15	Distributable profit		5,851	2,433
			1,779,846	1,841,781

Profit and loss account of the Deutsche Bundesbank for the year 2019

				2018
			€ million	€ million
1.1	Interest income	5,936		(6,161)
1.2	Interest expense	– 1,293		(– 1,241)
1	Net interest income		4,643	4,920
2.1	Realised gains/losses arising from financial operations	816		(208)
2.2	Write-downs on financial assets and positions	– 35		(– 120)
2.3	Transfer to/from provisions for general risks, foreign exchange risks and price risks	1,500		(– 1,475)
2	Net result of financial operations, write-downs and risk provisions		2,281	– 1,387
3.1	Fees and commissions income	100		(91)
3.2	Fees and commissions expense	– 45		(– 41)
3	Net income from fees and commissions		56	50
4	Income from participating interests		491	393
5	Net result of pooling of monetary income		– 119	– 194
6	Other income		155	191
	Total net income		7,505	3,973
7	Staff costs		933	849
8	Administrative expenses		485	434
9	Depreciation of tangible and intangible fixed assets		107	92
10	Banknote production services		122	47
11	Other expenses		32	36
	Profit for the year		5,825	2,516
12	Allocation to/withdrawal from reserves owing to the restriction on distribution pursuant to Section 253(6) of the German Commercial Code (*Handelsgesetzbuch*)		26	– 82
	Distributable profit		5,851	2,433

Frankfurt am Main, 11 February 2020

DEUTSCHE BUNDESBANK
Executive Board

Dr Jens Weidmann Professor Claudia Buch

Burkhard Balz Dr Johannes Beermann Dr Sabine Mauderer Professor Joachim Wuermeling

Unqualified independent auditor's report for statutory audits of annual financial statements

To the Deutsche Bundesbank, Frankfurt am Main

Auditor's opinion on the annual financial statements

We have audited the annual financial statements of the Deutsche Bundesbank, Frankfurt am Main, consisting of the balance sheet as at 31 December 2019 and the profit and loss account for the business year from 1 January 2019 to 31 December 2019.

In our opinion, based on the findings of our audit, the said annual financial statements comply, in all material respects, with the legal requirements and the principles for the accounting of the Deutsche Bundesbank approved by the Executive Board pursuant to Section 26(2) of the Bundesbank Act and give a true and fair view of the net assets and financial position of the Deutsche Bundesbank as at 31 December 2019 and the results of operations for the business year from 1 January 2019 to 31 December 2019 in accordance with German principles of proper accounting.

Pursuant to Section 322(3) sentence 1 of the German Commercial Code (*Handelsgesetzbuch* – HGB), we declare that our audit has not led to any reservations with regard to the regularity of the annual financial statements.

Basis for the auditor's opinion on the annual financial statements

We conducted our audit of the annual financial statements in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the *Institut der Wirtschaftsprüfer* [Institute of Public Auditors in Germany] (IDW) as well as, on a supplementary basis, the International Standards on Auditing (ISAs). Our responsibilities pursuant to these provisions, principles and standards are further described in the "Auditor's responsibilities for the audit of the annual financial statements" section of our report. We are independent of the Deutsche Bundesbank in accordance with German commercial and professional laws and regulations, and we have fulfilled our other German ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information

The Executive Board is responsible for other information. Other information comprises any and all information in the Annual Report with the exception of the annual financial statements and the auditor's report.

Our opinion on the annual financial statements does not cover this other information, and we therefore do not express an auditor's opinion or draw any other form of audit conclusion regarding this other information.

In connection with our audit, we have the responsibility to read the other information and to evaluate whether

– there are material inconsistencies between the other information and the annual financial statements or the findings of our audit, or

– the other information otherwise appears to contain a material misstatement.

If we conclude, on the basis of our audit, that the other information contains a material misstatement, we are obliged to draw attention to this matter. We have nothing to report in this regard.

Responsibilities of the Executive Board for the annual financial statements

The Executive Board is responsible for the preparation of the annual financial statements in accordance with the legal requirements and the principles for the accounting of the Deutsche Bundesbank approved by the Executive Board pursuant to Section 26(2) of the Bundesbank Act and for ensuring that the annual financial statements give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank in accordance with German principles of proper accounting. Moreover, the Executive Board is responsible for such internal control as it determines necessary in accordance with German principles of proper accounting to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the Executive Board is responsible for assessing the Deutsche Bundesbank's ability to continue as a going concern. It is also responsible for disclosing, as applicable, matters related to going concern and using the going-concern basis of accounting, provided there are no factual or legal impediments thereto.

The Executive Board is responsible for overseeing the Deutsche Bundesbank's financial reporting process for the preparation of the annual financial statements.

Auditor's responsibilities for the audit of the annual financial statements

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion on the annual financial statements.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the *Institut der Wirtschaftsprüfer* as well as, on a supplementary basis, the ISAs will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also

– identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the overriding of internal control.

– obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Deutsche Bundesbank's internal control.

– evaluate the appropriateness of the accounting policies used by the Executive Board as well as the reasonableness of accounting estimates and related disclosures made by the Executive Board.

– conclude on the appropriateness of the Executive Board's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the

Deutsche Bundesbank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Deutsche Bundesbank to cease to continue as a going concern.

– evaluate the overall presentation, structure and content of the annual financial statements and whether the annual financial statements represent the underlying transactions and events in a manner that gives a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank in accordance with German principles of proper accounting.

We communicate with the Executive Board regarding, amongst other matters, the planned scope and timing of the audit and significant audit findings, including any deficiencies in internal control that we identify during our audit.

Frankfurt am Main, 18 February 2020

KPMG AG
Wirtschaftsprüfungsgesellschaft

Dielehner	Müller
Wirtschaftsprüfer	Wirtschaftsprüfer

Overview of the Deutsche Bundesbank's accounting policies

General accounting principles
Reflection of economic reality, thus giving a true and fair view of the Bundesbank's net assets, financial position and results of operations; prudence; recognition of post-balance-sheet events; materiality; going-concern basis; accruals principle; consistency and comparability.

Recognition of spot transactions
Spot transactions denominated in gold and foreign currency shall be accounted for from the trade date to determine the average cost and the realised gains and realised losses. Recognition of these spot transactions and of spot transactions in securities shall be based on the cash/settlement approach.

Valuation rules
Gold, foreign currency instruments, securities and financial instruments shall be valued at mid-market rates and prices as at the balance sheet date. Securities held to maturity shall be valued at amortised cost; write-downs are charged if impairment is expected to be permanent. The same applies to non-marketable securities and securities held for monetary policy purposes by virtue of a decision adopted by the Governing Council of the ECB.

No distinction shall be made between price and currency revaluation differences for gold, but a single gold revaluation difference shall be accounted for, based on the euro price per defined unit of weight of gold derived from the euro/US dollar exchange rate as at the balance sheet date.

Revaluation shall take place on a currency-by-currency basis for foreign currency instruments (including off-balance-sheet transactions).

In the case of securities, each revaluation shall take place on a code-by-code basis (same ISIN number/type).

Repurchase agreements
A repurchase agreement (repo) shall be recorded as a collateralised inward deposit on the liabilities side of the balance sheet, while the assets serving as collateral remain on the assets side of the balance sheet. A reverse repurchase agreement (reverse repo) shall be recorded as a collateralised outward loan on the assets side of the balance sheet for the amount of the loan.

In the case of lending transactions, the assets shall remain on the transferor's balance sheet. Lending transactions where collateral is provided in the form of cash shall be accounted for in the same manner as that prescribed for repurchase operations.

Income recognition
Realised gains and realised losses can arise only in the case of transactions which reduce a securities or foreign currency position. They shall be derived from a comparison of the transaction value with the acquisition value as calculated using the average cost method; they shall be taken to the profit and loss account.

Revaluation gains and losses shall accrue from the revaluation of assets at market values compared to their acquisition value as calculated using the average cost method. Unrealised gains shall not be recognised as income but recorded in a revaluation account.

Unrealised losses shall be taken to the profit and loss account if they exceed previous revaluation gains registered in the revaluation account. Unrealised losses taken to the profit and loss account in prior periods shall not be reversed in subsequent years against new unrealised gains. Unrealised losses in any one security, in any currency or in gold holdings shall not be netted against unrealised gains in other securities, currency or gold.

The average cost method shall be used on a daily basis to compute the acquisition cost of assets subject to exchange rate and/or price movements. The average acquisition cost of the assets shall be reduced by unrealised losses taken to the profit and loss account at year-end.

In the case of securities, the difference between the acquisition and redemption value (premium or discount) shall be amortised over the remaining contractual life of the securities in accordance with the internal rate of return method, presented as part of interest income (amortisation) and included in the acquisition value (amortised cost).

Accruals denominated in foreign currency shall be translated at the mid-market rate on each business day and change the respective foreign currency position.

Accounting rules for off-balance-sheet instruments
Foreign exchange forward transactions, forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date shall be included in the net foreign currency position as from the trade date.

Interest rate swaps, futures, forward rate agreements and other interest rate instruments shall be accounted for and valued on an item-by-item basis.

Profits and losses arising from off-balance-sheet instruments shall be recognised and treated in a similar manner to those from on-balance-sheet instruments.

Tangible and intangible fixed assets
Tangible and intangible fixed assets shall be valued at cost less depreciation and amortisation. Depreciation and amortisation shall be calculated on a straight-line basis and applied over the expected economic life of the asset. A distinction shall be made as follows:

– computers, related hardware and software, and motor vehicles: 4 years;
– equipment, furniture and plant in building: 10 years;
– building and refurbishment expenditure: 25 years;
– depreciation shall not apply to land.

Tangible and intangible fixed assets costing less than €10,000 after deduction of value added tax shall be written off in full in the year of acquisition.

Provisions
With the exception of the provisions for Eurosystem monetary policy operations, provisions shall be accounted for in accordance with the regulations set forth in the Commercial Code (*Handelsgesetzbuch*). Pursuant to Section 26(2) of the Bundesbank Act (*Bundesbankgesetz*), it shall be possible to create provisions for general risks associated with domestic and foreign business.

Transitional arrangements
The assets and liabilities shown on the closing Deutsche Mark balance sheet as at 31 December 1998 shall be revalued as at 1 January 1999. Unrealised gains arising on or before 1 January 1999 shall be recorded separately from the unrealised gains which arise after 1 January 1999. The market rates/prices applied by the Bundesbank on the euro-denominated opening balance sheet as at 1 January 1999 shall be deemed to be the average acquisition rates/prices as at 1 January 1999. The revaluation accounts for unrealised gains accruing on or before 1 January 1999 shall be released only in connection with revaluation losses and in the event of disposals after 1 January 1999.

General information on the annual accounts

Legal basis

Sections 26 and 27 of the Bundesbank Act (*Gesetz über die Deutsche Bundesbank*) form the legal basis for the annual accounts and distribution of profit. The provisions on accounting laid down in Section 26(2) sentence 2 of the Bundesbank Act allow the Bundesbank to apply the ECB's accounting policies.

Accounting policies of the Deutsche Bundesbank

The Governing Council of the ECB adopted policies for the ECB's annual accounts in accordance with Article 26.2 of the Statute of the ESCB. The Bundesbank decided to adopt these policies as its own accounting policies.[1] An overview of the Deutsche Bundesbank's accounting policies can be found on the preceding pages. The annual accounts of the Bundesbank thus follow the harmonised accounting and financial reporting rules of Eurosystem operations, both in terms of the structure of the balance sheet and the profit and loss account, and with regard to the valuation and accounting policies applied.

Creation of reserves owing to the restriction on distribution pursuant to Section 253(6) of the Commercial Code

Pursuant to Section 253 of the German Commercial Code (*Handelsgesetzbuch*), provisions for post-employment benefit obligations must be discounted at the average market rate corresponding to their residual maturity calculated over the past ten financial years. The relief resulting from application of the ten-year rather than the seven-year observation period must be calculated annually and may not be distributed. In accordance with Section 253(6) sentence 2 of the Commercial Code, the distribution of profits shall be restricted to the part that exceeds the amount for which distribution is restricted less any disposable reserves. However, the Bundesbank does not have any such reserves. The amount for which distribution is restricted itself has to be treated as reserves, and transfers to them and withdrawals from them are taken to profit and loss once the profit for the year has been determined as part of the appropriation of profit. The resulting amount is reported as distributable profit (net profit).

Recognition of euro banknotes and …

The ECB and the national central banks of the euro area countries, which together comprise the Eurosystem, issue banknotes denominated in euro. The following allocation procedure was approved for recognition of the euro banknotes in circulation in the financial statements of the individual central banks in the Eurosystem.[2] The respective share of the total value of euro banknotes in circulation due to each central bank in the Eurosystem is calculated on the last business day of each month in accordance with the key for allocating euro banknotes. The ECB is allocated an 8% share of the total value of the euro banknotes in circulation, whereas the remaining 92% is allocated to the national central banks in proportion to their respective paid-up shares in the capital of the ECB. As at 31 December 2019, the Bundesbank had a 26.4% share in the fully paid-up capital of the ECB and, therefore, a 24.3% share of the euro banknotes in circulation in accordance with the banknote allocation key. The value of the Bundesbank's share in the total amount of euro banknotes issued by the Eurosystem is shown in item 1 "Banknotes in circulation" on the liabilities side of the balance sheet.

… of intra-Eurosystem balances arising from the allocation of euro banknotes

The difference between the value of the euro banknotes allocated to each central bank of the Eurosystem in accordance with the banknote allocation key and the value of the euro banknotes that the central bank actually puts into circulation gives rise to remunerated intra-Euro-

1 As last published in Deutsche Bundesbank Notice No 10001/2020.
2 Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (ECB/2010/29), as last amended by the Decision of the European Central Bank of 29 November 2018 (ECB/2018/31).

system balances.[3] If the value of the euro banknotes actually issued is greater than the value according to the banknote allocation key, the difference is recorded on the balance sheet as an intra-Eurosystem liability in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem". If the value of the euro banknotes actually issued is less than the value according to the banknote allocation key, the difference is recorded in asset sub-item 9.3 "Net claims related to the allocation of euro banknotes within the Eurosystem". These balances are remunerated at the respective rate on the main refinancing operations.

In the year of the cash changeover and in the following five years, the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are adjusted in order to avoid significant changes in national central banks' relative income positions as compared to previous years. The adjustments are based on the difference between the average value of the banknotes that each national central bank had in circulation in the reference period and the average value of the banknotes that would have been allocated to each of them during that period in accordance with the ECB's capital key. The adjustments are reduced in annual increments until the first day of the sixth year after the cash changeover year. Thereafter, income from euro banknotes in circulation is allocated fully in proportion to the national central banks' paid-up shares in the ECB's capital. In the year under review, the adjustments resulted from the accession of the Latvian central bank in 2014 and the Lithuanian central bank in 2015. The adjustment resulting from the accession of the Latvian central bank ceased as at 31 December 2019; correspondingly, the adjustment resulting from the accession of the Lithuanian central bank will cease with effect from 31 December 2020. The interest expense and interest income arising from the remuneration of the intra-Eurosystem balances are cleared through the accounts of the ECB and disclosed under item 1 "Net interest income" of the Bundesbank's profit and loss account.

ECB's interim profit distribution

The ECB's income from the 8% share of the euro banknotes in circulation as well as from securities purchased by the ECB as part of the securities markets programme (SMP), the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP) and the public sector purchase programme (PSPP) is distributed to the national central banks of the Eurosystem as interim profit in the same financial year in which the income arises, unless the ECB's net profit is less than this income or the Governing Council of the ECB decides to retain the amount for allocation to the ECB risk provision.[4] For financial year 2019, the aforementioned ECB income in the amount of €1,431 million (2018: €1,191 million) was distributed among the national central banks as interim profit. The Bundesbank's share of €378 million (2018: €305 million) is included in item 4 "Income from participating interests" of its profit and loss account.

Change to the ECB's capital key on 1 January 2019

Pursuant to the provisions laid down in Article 29.3 of the Statute of the ESCB, the key establishing the respective subscriptions of the ESCB national central banks to the ECB's capital is to be adjusted every five years. Accordingly, the ECB's capital key was adjusted with effect from 1 January 2019. As a result of this adjustment, the Bundesbank's share in the ECB's subscribed capital rose from 18.0% to 18.4%, the Bundesbank's share in the fully paid-up capital of the ECB went up from 25.6% to 26.4%, and the participating interest in the ECB (asset sub-item 9.1 "Participating interest in the ECB") increased from a nominal €1,948 million to €1,988 million and, including the Bundesbank's

3 Decision of the European Central Bank of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2016/36).
4 Decision of the European Central Bank of 15 December 2014 on the interim distribution of the income of the European Central Bank (recast) (ECB/2014/57), as last amended by the Decision of the European Central Bank of 28 November 2019 (ECB/2019/36).

share of the ECB's net equity as at 1 January 2019 (in particular the ECB's revaluation reserve and the ECB risk provision), to €2,254 million. The Bundesbank's claim arising from the transfer of foreign reserves to the ECB (asset sub-item 9.2 "Claims equivalent to the transfer of foreign reserves to the ECB") also grew, from €10,430 million to €10,644 million.

Change to the ECB's capital key on 1 February 2020

Following the United Kingdom's withdrawal from the EU, the ECB's capital key was adjusted with effect from 1 February 2020. This adjustment increases the Bundesbank's share of the ECB's subscribed capital from 18.4% to 21.4% and thus raises its participating interest in the ECB (asset sub-item 9.1 "Participating interest in the ECB") from a nominal €1,988 million to €2,321 million. The contribution of capital associated with this adjustment will take place in three stages. A partial transfer payment of €11 million was made on 1 February 2020. Two further transfer payments, each in the amount of €161 million, shall be effected at the end of 2021 and at the end of 2022. The Bundesbank's share in the fully paid-up capital of the ECB remains unchanged at a rounded 26.4%. The Bundesbank's claim arising from the transfer of foreign reserves to the ECB (asset sub-item 9.2 "Claims equivalent to the transfer of foreign reserves to the ECB") declined slightly, from €10,644 million to €10,635 million.

Preparation and auditing of financial statements

The Executive Board prepared the Deutsche Bundesbank's financial statements for financial year 2019 on 11 February 2020. The financial statements were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, whom the Executive Board had engaged as external auditors on 27 January 2015 in accordance with Section 26(3) of the Bundesbank Act. The auditors issued an unqualified audit opinion on 18 February 2020 confirming that the Bundesbank's financial statements for 2019 – consisting of the balance sheet and the profit and loss account – comply, in all material respects, with the legal requirements and the accounting policies of the Deutsche Bundesbank approved by the Executive Board and give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank. After studying the external auditors' unqualified audit opinion, the Executive Board decided that publication of the financial statements and the transfer of the Bundesbank's profit to the Federal Government would take place on 28 February 2020.

Notes on the individual balance sheet items

Assets

1 Gold and gold receivables

As at 31 December 2019, the Bundesbank's physical holdings (bars) of fine gold amounted to 3,366,500 kg or 108 million fine ounces (ozf). These are supplemented by an additional 8 kg of gold receivables that were generated by the settlement of margins in the context of gold transactions. The gold was valued at market prices at the end of the year (1 kg = €43,535.45 or 1 ozf = €1,354.104). Compared with the previous year's price of 1 kg = €36,039.73 or 1 ozf = €1,120.961, this represents an increase of 20.8%. The gold holdings declined by just 0.1% (3,251 kg or 0.1 million ozf) in the year under review. This was due to the sale of gold to the Federal Government at market prices for the purpose of minting gold coins. The resulting income in the amount of €113 million is shown in sub-item 2.1 "Realised gains/losses arising from financial operations" in the profit and loss account.

2 Claims on non-euro area residents denominated in foreign currency

This item comprises the receivables from the International Monetary Fund (IMF) as well as balances with banks and security investments,

Gold reserves by storage location

Storage location	31.12.2019		31.12.2018		Year-on-year change			
	Tonnes	€ million	Tonnes	€ million	Tonnes	%	€ million	%
Deutsche Bundesbank, Frankfurt	1,710	74,448	1,710	61,630	– 0	– 0.0	12,818	20.8
Federal Reserve Bank, New York	1,236	53,820	1,236	44,553	–	–	9,266	20.8
Bank of England, London	420	18,294	423	15,261	– 3	– 0.8	3,033	19.9
Total	3,367	146,562	3,370	121,445	– 3	– 0.1	25,117	20.7

Deutsche Bundesbank

loans and other foreign currency claims on non-euro area residents.

2.1 Receivables from the IMF

Sub-item 2.1 contains the receivables from the IMF which are financed and held by the Bundesbank and which arise from the Federal Republic of Germany's membership of the IMF. The receivables, which total 16,771 million special drawing rights (SDRs) (€20,693 million), are made up of the drawing rights within the reserve tranche, the allocated special drawing rights and loans under the New Arrangements to Borrow (NAB).

The drawing rights within the reserve tranche correspond to the amounts actually paid to the IMF in gold, special drawing rights, foreign currency and national currency under the German quota. The drawing rights held in the reserve tranche represent the difference between the German quota of SDR 26,634 million (€32,865 million) and the euro balances amounting to €27,633 million (SDR 22,394 million) at the IMF's disposal at the end of the year. In 2019, these rose on balance by SDR 719 million to SDR 4,240 million (€5,232 million).

Receivables from the IMF

Item	31.12.2019		31.12.2018		Year-on-year change			
	SDR million	€ million	SDR million	€ million	SDR million	%	€ million	%
German quota	26,634	32,865	26,634	32,371	–	–	494	1.5
less Euro balances	22,394	27,633	23,113	28,091	– 719	– 3.1	– 459	– 1.6
Drawing rights within the reserve tranche	4,240	5,232	3,521	4,279	719	20.4	953	22.3
Special drawing rights	11,867	14,642	11,830	14,378	37	0.3	265	1.8
New Arrangements to Borrow	664	819	1,020	1,239	– 356	– 34.9	– 420	– 33.9
Total	16,771	20,693	16,370	19,896	400	2.4	797	4.0

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Special drawing rights – by means of which freely usable currencies as per the IMF definition can be obtained at any time – in the amount of SDR 12,059 million were allocated free of charge. A corresponding counterpart is shown as liability item 8 "Counterpart of special drawing rights allocated by the IMF". In 2019, the holdings of special drawing rights went up by SDR 37 million to SDR 11,867 million (€14,642 million).

The NAB are multilateral credit lines with the IMF, which serve as a backstop for use in the event of a systemic crisis. Following the increase in quotas, these lines of credit were deactivated in 2016. However, the IMF may continue to use NAB resources to finance any IMF programmes to which it had committed during the NAB activation period. The Bundesbank's NAB credit arrangement amounts to SDR 12.9 billion. At the end of the reporting year, this resulted in receivables from the IMF of SDR 664 million (€819 million). The additional bilateral credit line of €41.5 billion pledged by the Bundesbank to the IMF was not drawn down, as adequate IMF liquidity was available. There were, therefore, no receivables arising from bilateral loans at the end of the year.

If all items on the assets side and the liabilities side of the balance sheet are taken into account, the net holdings of special drawing rights amounted to SDR 4,717 million, compared with SDR 4,318 million in the previous year. The valuation is based on the reference rate of SDR 1 = €1.2339 (2018: SDR 1 = €1.2154) calculated by the ECB at the end of the year for all central banks participating in the Eurosystem.

2.2 Balances with banks and security investments, external loans and other external assets

The balances with banks and security investments, loans and other foreign currency claims reported under sub-item 2.2 amounted to €32,039 million at the end of 2019, compared with €31,796 million in the previous year. These include, in particular, US dollar holdings in the amount of US$32,866 million (€29,256 million), representing a decline of US$476 million on the year. The sub-item also contains holdings in yen (¥203,243 million, equivalent to €1,667 million), Australian dollars (A$1,780 million, equivalent to €1,113 million) and a small amount of other currencies. The holdings are interest-bearing. If all items on the assets side and the liabilities side of the balance sheet are taken into account, the net US dollar holdings valued at market prices amounted to US$32,990 million (2018: US$33,442 million), the net yen holdings to ¥203,320 million (2018: ¥203,364 million) and the net Australian dollar holdings to A$1,793 million (2018: A$1,734 million). The foreign currency holdings were valued at the respective end-of-year market rate. In the case of

Balances with banks and security investments, external loans and other external assets

	31.12.2019	31.12.2018	Year-on-year change	
Item	€ million	€ million	€ million	%
Current account balances and overnight deposits	1,845	5,132	– 3,287	– 64.0
Claims arising from reverse repurchase agreements	134	–	134	.
Fixed-term deposits and deposits redeemable at notice	1,691	5,895	– 4,204	– 71.3
Marketable securities				
Government bonds				
US dollar	21,766	16,803	4,963	29.5
Yen	372	350	21	6.1
Australian dollar	853	1,006	– 154	– 15.3
Supranational, sovereign and agency (SSA) bonds	5,210	2,459	2,751	111.9
Other	169	150	19	12.4
Total	32,039	31,796	242	0.8

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the US dollar holdings, this was €1 = US$1.1234 (2018: €1 = US$1.1450), for the holdings of yen €1 = ¥121.94 (2018: €1 = ¥125.85) and for the Australian dollar holdings €1 = A$1.5995 (2018: €1 = A$1.6220).

3 Claims on euro area residents denominated in foreign currency

This item contains US$1,530 million (€1,362 million) of US dollar claims on credit institutions resulting from refinancing operations in the context of the standing swap agreement with the Federal Reserve Bank (2018: €1,644 million). In order to carry out these operations, based on the swap agreement, the ECB receives US dollars from the Federal Reserve Bank in return for euro; the ECB then allocates these to the national central banks, which pass them on to euro area credit institutions. The TARGET2 liabilities resulting from the swap transactions between the ECB and the Bundesbank lower the TARGET2 settlement balance shown in asset sub-item 9.4 "Other claims within the Eurosystem (net)".

4 Claims on non-euro area residents denominated in euro

Claims on non-euro area counterparties arising from bilateral repo transactions amounting to €1,065 million (2018: €1,943 million) are shown in this item. These claims resulted from the reverse repos transacted simultaneously with the repos, in which securities in the PSPP portfolio were lent against Federal securities on a cash-neutral basis; the transactions had a maximum term of seven days. The corresponding liabilities from the repos are shown under liability item 5 "Liabilities to non-euro area residents denominated in euro".

5 Lending to euro area credit institutions related to monetary policy operations denominated in euro

The volume and structure of liquidity-providing monetary policy operations carried out by the Bundesbank as part of the Eurosystem are shown in this item (main and longer-term refinancing operations and the marginal lending facility). At the end of the reporting year, the outstanding volume of the Eurosystem's monetary policy operations amounted to €624,232 million (2018: €734,381 million), of which the Bundesbank accounted for €75,861 million (2018: €90,432 million). Pursuant to Article 32.4 of the Statute of the ESCB, risks from these operations, provided they materialise, are shared among the Eurosystem national central banks in proportion to the prevailing shares in the capital of the ECB. Losses arise only if the counterparty to a monetary policy operation defaults and the collateral it has provided proves insufficient upon realisation. The national central banks may accept certain types of collateral excluded from risk sharing on their own responsibility. The Bundesbank does not accept such collateral.

Main refinancing operations are regular weekly transactions with a standard one-week maturity, the purpose of which is to provide liquidity. In the reporting year, main refinancing operations continued to be conducted as fixed rate tenders with full allotment. At the end of the year, the main refinancing operations amounted to €1,911 million, which was €21 million more than at the end of the previous year. On a daily average, the outstanding volume of main refinancing operations came to €671 million (2018: €730 million).

In the year under review, the regular longer-term refinancing operations with maturities of three months were carried out as fixed rate tenders with full allotment at the average main refinancing rate. As at 31 December 2019, take-up of these totalled €119 million (2018: €407 million). Early repayments reduced the targeted longer-term refinancing operations completed in 2016 and 2017 as part of the second series of operations (TLTRO-II) from €87,241 million in the previous year to €69,467 million. The interest on these operations, which have a maturity of four years, is charged at an individual rate geared to the respective counterparty's eligible net lending. This rate lies between the main refinancing rate and the deposit facility rate prevailing at the time of allotment. In addition, two TLTROs from the third series (TLTRO-III), each with a term of three years, were carried out for the first time from September 2019. The interest on these operations, which total €4,364 million, is charged at an individual rate geared to the respective counterparty's eligible net lending. This rate lies between the main refinancing rate and the deposit facility rate prevailing over the life of the respective operation, and will only be determined when the operation matures. As a result, the interest accrued in 2019 has been calculated at the lower deposit facility rate for reasons of prudence. The total volume of longer-term refinancing operations at year-end 2019 came to €73,950 million, which was €13,698 million down on the figure at the end of 2018; on a daily average, the volume amounted to €84,836 million (2018: €91,430 million).

The marginal lending facility is a standing facility which counterparties may use to obtain overnight liquidity at a pre-specified interest rate. Recourse to this facility was only minimal at year-end 2019 (2018: €894 million). Average daily use came to €25 million (2018: €13 million).

6 Other claims on euro area credit institutions denominated in euro

This item, amounting to €2,248 million (2018: €120 million), consists, in particular, of fixed-term deposits totalling €1,625 million that are held at credit institutions and arise from funds received in connection with central bank services (see liability item 5 "Liabilities to non-euro area residents denominated in euro"). Claims on euro area counterparties arising from bilateral repo transactions amounting to €623 million (2018: nil) are also shown in this item. These claims resulted from the reverse repos transacted simultaneously with the repos, in which securities in the PSPP portfolio were lent against Federal securities on a cash-neutral basis; the transactions had a maximum term of seven days. The corresponding liabilities from the repos are shown under liability item 3 "Other liabilities to euro area credit institutions denominated in euro".

7 Securities of euro area residents denominated in euro

This item contains the holdings of securities denominated in euro resulting from purchases made within the framework of the Eurosystem purchase programmes announced by the ECB Governing Council, which are shown under sub-item 7.1 "Securities held for monetary policy purposes". These holdings are carried at amortised cost, irrespective of whether the securities are held to maturity. In the reporting year, net purchases restarted in November, after a ten-month reinvestment phase, under the CBPP3, the PSPP and the corporate sector purchase programme (CSPP) announced by the ECB Governing Council on 4 September 2014, 22 January 2015 and 10 March 2016, respectively. By contrast, bonds purchased under the terminated programmes CBPP, SMP and CBPP2 matured.

Securities held for monetary policy purposes

Item	31.12.2019		31.12.2018		Year-on-year change			
	Balance sheet value € million	Market value € million	Balance sheet value € million	Market value € million	Balance sheet value € million	%	Market value € million	%
SMP portfolio								
Greece	254	263	1,533	1,604	− 1,280	− 83.4	− 1,340	− 83.6
Ireland	354	367	999	1,058	− 646	− 64.6	− 691	− 65.3
Portugal	342	357	817	865	− 476	− 58.2	− 508	− 58.8
Italy	6,067	6,432	8,686	9,261	− 2,619	− 30.2	− 2,830	− 30.6
Spain	1,853	1,951	2,554	2,782	− 701	− 27.4	− 831	− 29.9
Total	8,869	9,370	14,590	15,570	− 5,721	− 39.2	− 6,200	− 39.8
CBPP portfolio	627	645	1,409	1,464	− 781	− 55.5	− 819	− 55.9
CBPP2 portfolio	935	995	1,328	1,413	− 393	− 29.6	− 419	− 29.6
CBPP3 portfolio	61,818	62,997	62,806	63,127	− 987	− 1.6	− 130	− 0.2
PSPP portfolio	451,279	468,012	448,697	453,765	2,582	0.6	14,247	3.1
CSPP portfolio	44,726	45,786	43,000	42,542	1,726	4.0	3,244	7.6
Total	568,254	587,806	571,829	577,882	− 3,575	− 0.6	9,923	1.7

Deutsche Bundesbank

At year-end, the Eurosystem national central banks' SMP holdings amounted to €44,216 million (2018: €67,654 million), their CBPP3 holdings to €241,934 million (2018: €240,656 million) and their CSPP holdings to €184,505 million (2018: €178,050 million). The Eurosystem national central banks' PSPP holdings of securities issued by supranational institutions stood at €225,169 million (2018: €224,507 million); the Bundesbank itself did not acquire any holdings. Pursuant to Article 32.4 of the Statute of the ESCB, all risks from the SMP, CBPP3, CSPP and the above-mentioned PSPP holdings, provided they materialise, are shared among the Eurosystem national central banks in proportion to the prevailing shares in the capital of the ECB, as is the case with the income received. Risks and income from the covered bonds purchased under the Eurosystem programmes CBPP and CBPP2, by contrast, remain with the individual national central banks holding them. The same applies to the government bonds purchased under the PSPP (including regional government bonds and bonds issued by eligible agencies located in the euro area). The Bundesbank purchases only German bonds under the PSPP.

The Governing Council of the ECB decided that (with the exception of CSPP securities from one issuer) there was no need to recognise any impairment losses on securities contained in the SMP, CSPP and PSPP holdings and in the three CBPP portfolios as at 31 December 2019, as it is expected that all payment obligations relating to the bonds and debt securities contained in Eurosystem central banks' holdings will continue to be met as agreed. The Eurosystem provision for monetary policy operations adopted by the ECB Governing Council in the previous year for any required impairment of the aforementioned CSPP securities has been reviewed and adjusted in these Annual accounts and is included in liability item 12 "Provisions".

8 Claims on the Federal Government

This item shows the equalisation claims on the Federal Government and the non-interest-bearing debt register claim in respect of Berlin; both date back to the currency reform of 1948. They form the balance sheet counterpart of the amounts paid out at that time in cash per capita and per enterprise and of the initial provision of credit institutions and public corporations with central bank money. Equalisation claims yield interest at a rate of 1% per annum. In conjunction with Article 123 of the Treaty on the Functioning of the European Union (the Lisbon Treaty), it has been stipulated that the equalisation claims and the debt register claim are to be redeemed in ten annual instalments, starting in 2024.

9 Intra-Eurosystem claims

The Bundesbank's claims on the ECB and on the national central banks participating in the Eurosystem are consolidated in this item.

Sub-item 9.1 shows the Bundesbank's participating interest in the ECB. Pursuant to Article 28 of the Statute of the ESCB, the ESCB national central banks are the sole subscribers to the capital of the ECB. An adjustment was made to the key for subscription of the ECB's capital with effect from 1 January 2019 (see "General information on the annual accounts"). The Bundesbank's participating interest in the ECB amounted to a nominal €1,988 million as at 31 December 2019; including the Bundesbank's increased share of the ECB's net equity, effective from 1 January 2019, it came to €2,254 million.

Sub-item 9.2 contains the Bundesbank's euro-denominated claims equivalent to the transfer of foreign reserves to the ECB. At the beginning of 1999, the central banks participating in the Eurosystem transferred foreign reserve assets (15% in gold and 85% in foreign currency) to the ECB in accordance with Article 30 of the Statute of the ESCB. Adjustments to the key for subscription of the ECB's capital also resulted in adjustments to the Bundesbank's claims equivalent to the transfer of foreign reserves to the ECB. These claims amounted to €10,644 million as at 31 December 2019 (2018: €10,430 million). As the transferred gold does not earn any interest, the claims are remunerated at 85% of the prevailing main refinancing rate.

Tangible and intangible fixed assets

€ million

Item	Acquisition and production costs 31.12.2018	Additions	Disposals	Accumulated depreciation	Book value 31.12.2019	Book value 31.12.2018	Depreciation in 2019
Land and buildings	2,154	36	– 1	– 1,569	620	624	– 40
Furniture and equipment including computer equipment	905	107	– 36	– 684	292	245	– 59
Software	143	10	–	– 147	6	5	– 9
Total	3,202	153	– 36	– 2,400	918	874	– 107

Deutsche Bundesbank

Sub-item 9.3 "Net claims related to the allocation of euro banknotes within the Eurosystem" shows the claims which arise from applying the euro banknote allocation key. As in 2018, the Bundesbank did not have a claim at the end of 2019 but a liability, which is shown in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

A daily net balance vis-à-vis the ECB is derived from settlement balances between the central banks of the ESCB which result from cross-border payments as recorded in the Eurosystem's TARGET2 high-value payment system. At the end of the year, the Bundesbank's net claim on the ECB was €70,971 million lower at €895,219 million, which is contained in sub-item 9.4 "Other claims within the Eurosystem (net)". The net balances (with the exception of unremunerated intra-Eurosystem balances resulting from the swap transactions between the ECB and the Bundesbank – see asset item 3 "Claims on euro area residents denominated in foreign currency") are remunerated at the respective main refinancing rate. On a daily average, the remunerated net claim amounted to €881,424 million (2018: €902,812 million). This item also contains liabilities of €138 million arising from the allocation of monetary income to the national central banks (see profit and loss item 5 "Net result of pooling of monetary income") and the €378 million claim on the ECB arising from the interim distribution of profit (see "General information on the annual accounts").

10 Items in course of settlement

This item contains the asset items arising from payments still being processed within the Bundesbank.

11 Other assets

The Bundesbank's holdings of euro coins are shown in sub-item 11.1 "Coins". New coins are received from the Federal mints at their nominal value for the account of the Federal Government, which holds the coin prerogative.

Sub-item 11.2 "Tangible and intangible fixed assets" amounted to €918 million, compared with €874 million in the previous year. It comprises land and buildings, furniture and equipment including computer equipment, and software.

Sub-item 11.3 "Other financial assets" amounted to €11,852 million, compared with €12,053 million in the previous year. It contains the Bundesbank's own funds portfolio as a counterpart to its capital, statutory reserves, provisions for general risks and long-term provisions for civil servant pensions and healthcare assistance. The own funds portfolio is invested not in government securities but exclusively in fixed rate covered bonds denominated in euro, which are generally held to maturity and are, therefore, valued at amortised cost. The duration is based on commonly used indices. As at 31 December 2019, the value of the own funds portfolio measured at amortised cost amounted to €11,801 million, of which German Pfandbriefe accounted for €7,294 million, French covered bonds for €2,640 million, Finnish covered bonds for €884 million, Dutch covered bonds for €719 million and Belgian covered bonds for €264 million. The total market value of the own funds portfolio stood at €12,189 million.

This item also includes €51 million in participating interests held by the Bundesbank. The Bundesbank's participating interest in the BIS, Basel, was unchanged at €50 million at the end of the year; it holds 50,100 shares, with 25% of their par value being paid-in capital. As in the previous year, the participating interest in the cooperative society S.W.I.F.T., La Hulpe (Belgium), amounted to €1 million.

Sub-item 11.4 "Off-balance-sheet instruments revaluation differences" essentially comprises the net result from the valuation of the US dollar forward liabilities to the ECB arising from the euro/US dollar swap agreement with the ECB in the amount of €13 million (2018: €7 million) (see asset item 3 "Claims on euro area residents denominated in foreign currency").

Sub-item 11.5 "Accruals and prepaid expenditure" contains accruals and prepaid expenditure as at 31 December 2019. This chiefly consists of (accrued) coupon interest due in the new financial year from securities which were acquired or transacted in the financial year just ended.

Liabilities

1 Banknotes in circulation

The total value of euro banknotes issued by the central banks in the Eurosystem is distributed among these banks on the last business day of each month in accordance with the key for allocating euro banknotes (see "General information on the annual accounts"). According to the banknote allocation key applied as at 31 December 2019, the Bundesbank has a 24.3% share of the value of all the euro banknotes in circulation. During the year under review, the total value of banknotes in circulation within the Eurosystem rose from €1,231.1 billion to €1,292.7 billion, or by 5.0%. Taking into account the allocation key, the Bundesbank had euro banknotes in circulation worth €313,774 million at the end of the year, compared with €289,587 million a year previously. The value of the euro banknotes actually issued by the Bundesbank increased in 2019 by 8.5% from €690,682 million to €749,538 million. As this was more than the allocated amount, the difference of €435,764 million (2018: €401,094 million) is shown in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

Sub-item 2.1 "Current accounts" contains the deposits of credit institutions, amounting to €480,230 million (2018: €421,415 million), which are also used to meet the minimum reserve requirement and to settle payments. The main criterion for including these deposits in this sub-item is that the relevant counterparties appear in the list of institutions which are subject to the Eurosystem's minimum reserve regulations. The balances held to fulfil the minimum reserve requirement amounted to €36,366 million on an annual average. These balances are remunerated at the average main refinancing rate in the respective maintenance period. Until 29 October 2019, any deposits exceeding this amount were subject to negative interest equivalent to the deposit facility rate. From 30 October 2019, a two-tier system for calculating the remuneration of these balances was applied. Under this system, deposits determined as a multiple (set by the Governing Council of the ECB; currently six) of the balance held to fulfil the minimum reserve requirements are exempt from negative remuneration. Negative remuneration at the rate applicable on the deposit facility is applied only to the remaining deposits. On a daily average, the current account deposits increased from €452,716 million in 2018 to €481,324 million in 2019.

Sub-item 2.2 "Deposit facility", amounting to €80,001 million (2018: €151,385 million), contains overnight deposits remunerated at the deposit facility rate (a negative interest rate was applied in the year under review). On a daily average, the deposit facility amounted to €144,973 million, compared with €185,762 million in 2018.

Sub-item 2.5 "Deposits related to margin calls" contains cash collateral deposited by credit institutions in order to increase underlying assets. As at 31 December 2019, no holdings were reported under this item (2018: €6 million).

3 Other liabilities to euro area credit institutions denominated in euro

This item contains liabilities to euro area credit institutions arising from bilateral repo transactions. In these repo transactions, securities in the PSPP portfolio are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. As at the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €2,792 million (2018: €4,150 million), and securities lending against Federal securities resulted in liabilities of €623 million (2018: nil); the corresponding claims are reported in asset item 6 "Other claims on euro area credit institutions denominated in euro". In addition, this item contains liabilities in the amount of €199 million (2018: €150 million) arising from account balances pledged for deposit protection pursuant to the Deposit Guarantee Act (*Einlagensicherungsgesetz*) in conjunction with the Regulation on the Financing of the Compensation Scheme (*Entschädigungseinrichtungs-Finanzierungsverordnung*).

4 Liabilities to other euro area residents denominated in euro

Sub-item 4.1 "General government deposits" encompasses the balances of the Federal Government, its special funds, the state governments and other public depositors. The deposits of other public depositors constitute balances held by social security funds and local authorities. On 31 December 2019, general government deposits amounted to €51,737 million in all (2018: €65,590 million). On a daily average, the volume amounted to €59,217 million (2018: €64,815 million).

Sub-item 4.2 "Other liabilities" amounted to €36,200 million, compared with €57,950 million a year earlier. It mainly comprises deposits of financial intermediaries and individuals. The decrease of €21,750 million in sub-item 4.2 as at the reporting date is primarily due to lower deposits of the European Stability Mechanism (ESM). In addition, liabilities to euro area counterparties that are not credit institutions arising from bilateral repo transactions were included in this sub-item for the first time as at 31 December 2019. In these repo transactions, securities in the PSPP portfolio are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. At the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €2,041 million. On a daily average, the sub-item amounted to €44,253 million (2018: €57,379 million).

5 Liabilities to non-euro area residents denominated in euro

This balance sheet item, amounting to €179,986 million (2018: €280,798 million), contains the balances of non-euro area central banks, monetary authorities, international organisations and commercial banks held, inter alia, to settle payments. These include fixed-term deposits of central banks accepted as part of the Bundesbank's central bank services, which are then invested in the money market (see asset item 6 "Other claims on euro area credit institutions denominated in euro"). As at 31 December 2019, deposits of €149,357 million were attributable to non-euro area central banks and monetary authorities, of which €52,174 million was attributable to central banks within the European Union. On a daily average, the volume amounted to

€102,180 million (2018: €111,761 million). Liabilities to non-euro area counterparties arising from bilateral repo transactions are also recorded in this item. In these repo transactions, securities in the PSPP portfolio are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. As at the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €623 million (2018: €5,354 million), and securities lending against Federal securities resulted in liabilities of €1,065 million (2018: €1,943 million); the corresponding claims are reported in asset item 4 "Claims on non-euro area residents denominated in euro".

6 Liabilities to euro area residents denominated in foreign currency

This item contains US dollar deposits of banks resident in the euro area and of the Federal Government.

7 Liabilities to non-euro area residents denominated in foreign currency

Foreign currency-denominated liabilities to banks outside the euro area are recorded in this item. These are liabilities in US dollars which have arisen from securities repurchase agreements (repos). As in the previous year, this item contained no holdings as at 31 December 2019.

8 Counterpart of special drawing rights allocated by the IMF

The counterpart of the special drawing rights (SDRs) allocated by the IMF free of charge corresponds to the allocations of SDRs to the Federal Republic of Germany from 1970 to 1972, from 1979 to 1981 and in 2009, which together totalled SDR 12,059 million (see asset sub-item 2.1 "Receivables from the IMF").

9 Intra-Eurosystem liabilities

The Bundesbank's liabilities to the ECB and to the other central banks participating in the Eurosystem are consolidated in this item.

Sub-item 9.1 contains "Liabilities related to the issuance of ECB debt certificates". The ECB issued no debt certificates in 2019.

Sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem" contains the liabilities arising from the application of the euro banknote allocation key (see liability item 1 "Banknotes in circulation"). As at the end of the year, these liabilities amounted to €435,764 million in total (2018: €401,094 million). The 8% share of the total value of euro banknotes in circulation attributable to the ECB (€1,292.7 billion) resulted in a liability of €27,285 million for the Bundesbank (according to its capital share of 26.4%). In addition, the difference between the Bundesbank's actual banknote issuance of €749,538 million and its notional share (again according to the capital share) in the allocation of the remaining 92% of euro banknotes in circulation to the balance sheets of the national central banks resulted in a liability of €408,479 million. The main reason for the total increase of €34,670 million in the year under review was the Bundesbank's still disproportionately high share of banknote issuance, which is largely due to net outflows of banknotes to other countries through tourism, to give one example.

The net liabilities arising from other assets and liabilities within the Eurosystem would be shown in sub-item 9.3 "Other liabilities within the Eurosystem (net)". As at the end of 2019, the Bundesbank had a net claim, which is shown on the assets side under sub-item 9.4 "Other claims within the Eurosystem (net)" and outlined there.

10 Items in course of settlement

This item contains the liability items arising from payments still being processed within the Bundesbank.

11 Other liabilities

As at the end of 2019, as in the previous year, no holdings were reported under sub-item 11.1 "Off-balance-sheet instruments revaluation differences". These holdings are shown in asset sub-item 11.4.

Sub-item 11.2 "Accruals and income collected in advance" contains the accrued and collected income calculated as at 31 December 2019. This consists mainly of (accrued) interest expenses which are due in future financial years but were incurred in 2019 in connection with the negative remuneration of credit institutions' refinancing (TLTRO-II and TLTRO-III).

Sub-item 11.3 "Sundry" mainly comprises the liabilities arising from Deutsche Mark banknotes still in circulation. Deutsche Mark banknotes are no longer legal tender. However, the Bundesbank has publicly undertaken to redeem Deutsche Mark banknotes that are still in circulation for an indefinite period. The Deutsche Mark banknotes still in circulation belong to the series BBk I/Ia and BBk III/IIIa. In accordance with the accounting policies, the liabilities arising from Deutsche Mark banknotes still in circulation will continue to be reported until it is virtually certain that claims are no longer to be expected. In keeping with this, the reported liabilities arising from Deutsche Mark banknotes in circulation now comprise only notes of the BBk III/IIIa series in the amount of €1,786 million (2018: €1,806 million). In addition, there are still banknotes in circulation belonging to the BBk I/Ia series, which has already been derecognised, amounting to €1,192 million. Deposits of Deutsche Mark banknotes in 2019 totalled €26 million, of which €20 million consisted of the BBk III/IIIa series banknotes and €6 million of the BBk I/Ia series banknotes (see profit and loss item 11 "Other expenses").

12 Provisions

The provisions for general risks are created pursuant to the regulations governing the Bundesbank's annual accounts laid down in Section 26(2) of the Bundesbank Act. They are established to hedge against general risks associated with domestic and foreign business. The level of funds to be allocated to the provisions for general risks is reviewed annually using value-at-risk and expected shortfall calculations, amongst others. These calculations consider the holdings of risk-bearing assets, their risk content, foreseeable changes to the risk situation, expected financial conditions in the coming year, and the statutory reserves (€2.5 billion). The Bundesbank's risks, which are determined using a model-based approach, relate, in particular, to exchange rate risk, default risk of the asset purchase programmes and credit risk arising from refinancing loans. Interest rate risk has also been taken into account since 2016. The associated increase in the general risk provisions, which was spread over three years, was completed in 2018. Compared with the previous year, the risk level is slightly lower overall. The decision of the ECB Governing Council in March 2019 on the variable remuneration of the new series of targeted longer-term refinancing operations (TLTRO-III) and the termination of the fixed interest TLTRO-II resulted in a decline in the open interest rate position and hence a reduced level of interest rate risk. However, counterparty credit risk has also decreased, particularly owing to maturities in the SMP portfolio. Taking into account all of the aforementioned factors, the existing risk provisions were prudently reduced by €1,500 million owing to the current risk assessment. The provisions for general risks thus amounted to €16,400 million as at 31 December 2019. The risk assessment does not take account of the risks arising from the Bundesbank's TARGET2 claim on the ECB and from the issuance of euro banknotes. The Bundesbank could hypothetically be affected (in the case of the TARGET2 claim, only indirectly as an ECB shareholder) by the risk to which the Eurosystem would be exposed if a euro area country were to leave the single currency area and its central bank failed to settle its TARGET2 liability to the ECB or its banknote liabilities to the ECB (8% share) and the national central banks. It considers this scenario to be unlikely to materialise, however, which means that credit risk arising from Eurosystem liquidity-providing operations is ultimately the key factor.

In accordance with the Eurosystem's accounting policies, the ECB Governing Council decided in the previous year to establish a provision for the required impairment of one issuer's CSPP securities. Consistent with Article 32.4 of the Statute of the ESCB, the provision for monetary policy operations is set aside by each of the national central banks of the Eurosystem in proportion to their subscribed capital share. As part of the annual impairment test of securities

Provisions

Provisions for	31.12.2019 € million	31.12.2018 € million	Year-on-year change € million	Year-on-year change %
General risks	16,400	17,900	– 1,500	– 8.4
Monetary policy operations	23	41	– 18	– 44.5
Direct pension commitments	6,033	5,501	532	9.7
Indirect pension commitments (supplementary pension funds for public sector employees)	594	556	38	6.8
Healthcare subsidy commitments to civil servants	1,601	1,460	142	9.7
Partial retirement scheme	10	12	– 2	– 20.2
Staff restructuring schemes	40	54	– 14	– 26.4
Other	85	74	11	14.6
Total	24,785	25,598	– 813	– 3.2

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held for monetary policy purposes, the Governing Council of the ECB reviewed the adequacy of the provision established in the previous year and decided to reduce it from €161 million to €89 million as at 31 December 2019 (Bundesbank share in this provision as at 31 December 2019: €23 million). The income of €18 million accruing to the Bundesbank on account of the reduction in the provision is shown in profit and loss item 5 "Net result of pooling of monetary income".

The provisions for post-employment benefit obligations (direct pension commitments and indirect pension commitments as a result of the Bundesbank's obligation to act as guarantor for pension payments out of the supplementary pension funds for public sector employees) as well as for healthcare subsidy commitments to civil servants are valued on the basis of actuarial expert opinions prepared using current mortality tables (Heubeck 2018 G mortality tables) according to the entry age normal method (*Teilwertverfahren*) (for current staff) and according to the present value method (*Barwertverfahren*) (for pensioners and ex-civil servants with portable pension entitlements), with a discount rate of 2.75% for post-employment benefit obligations and of 2.11% for healthcare subsidy commitments to civil servants being used in the reporting year (2018: 3.19% and 2.45%, respectively). For financial year 2019, as in 2018, it is estimated that there was a wage trend of 2.5%, a career trend of 0.5% as well as a pension trend of 2.5% for civil servants and of 1% for public sector employees. The cost trend for healthcare subsidy commitments to civil servants was estimated at 3.25%. The discount rate used for post-employment benefit obligations is, in each case, a matched-maturity average market interest rate for the past ten years or, for healthcare subsidy commitments to civil servants, for the past seven years pursuant to the Regulation on the Discounting of Provisions (*Rückstellungsabzinsungsverordnung*). Pursuant to Section 253(6) of the Commercial Code, the amount saved by applying the ten-year rather than the seven-year period for calculating the average market interest rate for post-employment benefit obligations is subject to a restriction on distribution. In 2018, the ten-year rate (3.19%) and the seven-year rate (2.45%) resulted in an interest margin of 74 basis points, representing a difference of €746 million. The provision was increased accordingly by €82 million. In the reporting year, the interest margin was just 64 basis points (2.75% vs. 2.11%). This resulted in a lower saving of €720 million; the difference of €26 million on the previous year will be withdrawn from reserves.

The provisions for the partial retirement scheme and for payment commitments arising from staff restructuring schemes that had already been carried out as at the reporting date are valued using a discount rate of 0.57% (2018: 0.87%) based on actuarial expert opinions prepared using current mortality tables according to the present value method, or according to the entry age normal method in the case of the outstanding settlement amount for the partial retirement scheme. As in 2018, a wage trend of 2.5% is taken into consideration. The discount rate is based on a matched-maturity average market rate for the past seven years pursuant to the Regulation on the Discounting of Provisions.

The other provisions are created for remaining holiday entitlement, overtime worked and positive balances of flexible working hours and long-term working hours accounts as well as for other uncertain liabilities.

Expenses in the amount of €756 million from marking up the provisions (including the effects of the change in the discount rates) are contained in profit and loss sub-item 1.2 “Interest expense”. Profit and loss item 7 “Staff costs” shows a net allocation of €3 million, with a total allocated amount of €283 million standing against a total utilisation of €281 million. Other changes in provisioning gave rise, on balance, to utilisation-related relief of €17 million in profit and loss item 11 “Other expenses” and to an allocation-related expense of €7 million in profit and loss item 8 “Administrative expenses”. The reversal of provisions resulted in income of €44 million in profit and loss item 6 “Other income”.

13 Revaluation accounts

This item contains the disclosed hidden reserves from the initial valuation at the time of the changeover to market valuation as at 1 January 1999 (revaluation items “old”) and the unrealised gains arising from market valuation as at 31 December 2019 (revaluation items “new”).

Revaluation items “old”

A revaluation item “old” now remains only for gold. This item represents the difference between the market value of gold as at 1 January 1999 and the lower book value of gold prior to that date. On the balance sheet as at 31 December 1998, the book value for gold was 1 ozf = DEM 143.8065 (€73.5271), while the market value as at 1 January 1999 was 1 ozf = €246.368. Although the valuation gains arising from the initial valuation of the gold holdings are not eligible for distribution, they will be released under certain circumstances. Besides being released in the case of valuation losses on the gold position, a proportionate release will also take place in the event of net reductions if the end-of-year gold holdings are below their lowest end-of-year level since 1999.

Revaluation accounts

	Revaluation items “old”	Revaluation items “new”	Total as at 31.12.2019	Total as at 31.12.2018	Year-on-year change	
Item	€ million	€ million	€ million	€ million	€ million	%
Gold	18,708	119,897	138,604	113,479	25,125	22.1
US dollar	–	4,827	4,827	4,636	192	4.1
SDR	–	144	144	79	65	81.8
Japanese yen	–	260	260	209	50	24.1
Australian dollar	–	15	15	–	15	.
Securities in foreign currency	–	369	369	96	274	285.2
Total	18,708	125,513	144,220	118,499	25,721	21.7

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The reduction of 3,251 kg, or 0.1 million ozf, in the gold holdings resulted in the release of €18 million in the year under review, which was taken to profit and loss sub-item 2.1 "Realised gains/losses arising from financial operations".

Revaluation items "new"

The revaluation items "new" show, for the gold holdings, the net positions in each foreign currency and the securities portfolios in each category of security (securities identification number), the positive difference in each case between the market value on 31 December 2019 and their value at average amortised cost since 1 January 1999.

As regards gold, this acquisition cost is 1 ozf = €246.369. As at the end of 2019, the market value of the gold position exceeded its acquisition value, leading to a revaluation item of €119,897 million (2018: €94,754 million). In the case of the net foreign exchange positions in US dollars, Japanese yen, SDRs and Australian dollars, the market values at year-end were also above their acquisition values (€1 = US$1.3476, €1 = ¥144.45, €1 = SDR 0.8310 and €1 = A$1.6214, respectively), resulting in revaluation items.

The valuation gains on foreign currency-denominated securities shown on the balance sheet result predominantly from US Treasury notes (€342 million). However, for a small portion of the US Treasury notes, the relevant acquisition values were higher than their corresponding market values on the reporting date, resulting in valuation losses (see profit and loss sub-item 2.2 "Write-downs on financial assets and positions"). In principle, securities denominated in euro are carried at amortised cost.

14 Capital and reserves

In accordance with Section 2 of the Bundesbank Act, the Bank's capital, amounting to €2.5 billion, is owned by the Federal Republic of Germany. As in the previous year, the statutory reserves pursuant to the Bundesbank Act are at the fixed upper limit of €2.5 billion laid down in Section 27 No 1 of the Bundesbank Act. The difference arising from the discounting of post-employment benefit obligations, which is subject to a restriction on distribution pursuant to Section 253(6) of the Commercial Code (see "General information on the annual accounts", liability item 12 "Provisions" and profit and loss item 12 "Allocation to/withdrawal from reserves owing to the restriction on distribution pursuant to Section 253(6) of the Commercial Code (*Handelsgesetzbuch*)"), decreased for the first time, by €26 million. This difference against the previous year will be withdrawn from (other) reserves, which now total €720 million (2018: €746 million).

15 Distributable profit

The profit and loss account for 2019 closed with a profit for the year of €5,825 million; in addition, €26 million was withdrawn for the first time from the reserves established on account of the restriction on distribution pursuant to Section 253(6) of the Commercial Code (following a transfer of €82 million in 2018; see "General information on the annual accounts", liability item 12 "Provisions" and profit and loss item 12 "Allocation to/withdrawal from reserves owing to the restriction on distribution pursuant to Section 253(6) of the German Commercial Code (*Handelsgesetzbuch*)"). Pursuant to Section 27 of the Bundesbank Act, the resulting distributable profit of €5,851 million will be transferred in full to the Federal Government as the statutory reserves were at their maximum level of €2.5 billion at the end of the year.

Notes on the profit and loss account

1 Net interest income

This item shows interest income, net of interest expense. Net interest income was lower than in the previous year, dropping by €277 million to €4,643 million.

1.1 Interest income

Interest income in foreign currency rose from €837 million in 2018 to €943 million in 2019 owing to exchange rate changes. Interest income in euro decreased by €331 million year on year to €4,993 million. Interest income from the negative remuneration of credit institutions' balances declined slightly as a result of the introduction of a two-tier system for calculating the remuneration of balances not subject to minimum reserve requirements (see liability sub-item 2.1 "Current accounts"). During the reporting year, as in the previous year, no income arose from the TARGET2 claim on the ECB as a consequence of the lowering of the main refinancing rate to 0% as from March 2016. Income from securities held for monetary policy purposes relating to the terminated purchase programmes (SMP and CBPP/CBPP2) declined by €296 million to a total of €682 million on account of the annual average decrease in holdings of €5.5 billion. In the current programmes (CBPP3, PSPP and CSPP), purchases are made for the most part above par because of the low market yields. The large difference between the acquisition value and the redemption value is amortised over the residual maturity as a negative component of interest income (alongside the remuneration from coupons), leaving only a low level of remuneration on balance. Owing to the annual average increase in holdings of €1.5 billion, interest income in the CBPP3 portfolio rose from €187 million in 2018 to €211 million. For the PSPP portfolio, a slightly higher average rate of interest in the reporting year gave rise to a positive net result (€113 million) for the first time; of this, €128 million was attributable to fixed income securities (2018: -€217 million) and -€14 million to inflation-linked bonds (2018: €181 million). In the CSPP portfolio, owing to the annual average increase in holdings of €4.6 billion and a rise in the average rate of interest to 0.60% (2018: 0.50%), interest income climbed by €68 million. Given virtually unchanged holdings and an average interest rate of 0.95% (2018: 1.15%), the Bundesbank's own funds portfolio saw its interest income contract by €18 million. Interest income arising from the negative remuneration of euro balances held by domestic and foreign depositors fell by €139 million because of decreased average holdings. Bilateral repo transactions (see liability item 3 "Other liabilities to euro area credit institutions denominated in euro", liability sub-item 4.2 "Other liabilities" and liability item 5 "Liabilities to non-euro area residents denominated in euro") resulted in interest income of €38 million (2018: €73 million).

1.2 Interest expense

There was a year-on-year increase of €53 million to €1,293 million in interest expense. Monetary policy refinancing operations gave rise to an interest expense of €338 million from TLTRO-II (average interest rate: 0.39%) and TLTRO-III (accrued at the deposit facility rate; see asset item 5 "Lending to euro area credit institutions related to monetary policy operations denominated in euro"). Owing to the lowering of the main refinancing rate to 0% as from March 2016, there was, as in the previous year, no interest expense for the remuneration of the intra-Eurosystem balances arising from the allocation of euro banknotes, despite the fact that liabilities were around €31 billion higher on an annual average (see "General information on the annual accounts"). Expenses arising from the marking up of staff provisions went up by €36 million owing to reductions in the discount rates (see liability item 12 "Provisions"). Bilateral repo transactions (see asset item 4 "Claims on non-euro area residents denominated in euro" and asset item 6 "Other claims on euro area credit institutions denominated in euro") result-

Net interest income

Item	2019	2018	Year-on-year change	
	€ million	€ million	€ million	%
Interest income in foreign currency				
IMF	201	171	30	17.3
Reverse repo transactions	79	61	18	30.5
Securities	602	550	51	9.4
Other	62	56	6	11.4
Total	943	837	106	12.7
Interest income in euro				
Deposits of credit institutions (negative interest)	2,366	2,448	– 83	– 3.4
TARGET2 claim on the ECB	–	–	–	.
SMP portfolio	614	884	– 270	– 30.5
CBPP and CBPP2 portfolio	67	93	– 26	– 27.6
CBPP3 portfolio	211	187	24	12.9
PSPP portfolio	113	– 35	148	.
CSPP portfolio	260	192	68	35.3
Claims arising from the transfer of foreign reserves to the ECB	–	–	–	.
Own funds portfolio (financial assets)	110	128	– 18	– 14.2
Euro balances of domestic and foreign depositors (negative interest)	1,166	1,305	– 139	– 10.7
Repo transactions (negative interest)	38	73	– 35	– 48.3
Other	47	47	0	0.2
Total	4,993	5,324	– 331	– 6.2
Total interest income	5,936	6,161	– 225	– 3.6
Interest expense in foreign currency				
IMF	148	135	13	9.8
Repo transactions	6	12	– 5	– 44.1
Other	2	7	– 5	– 74.0
Total	157	154	3	1.7
Interest expense in euro				
Refinancing operations (negative interest)	338	330	7	2.2
Liabilities arising from the allocation of euro banknotes	–	–	–	.
Claims arising from central bank services (negative interest)	20	15	4	28.9
Marking up of staff provisions	756	719	36	5.1
Reverse repo transactions (negative interest)	24	22	2	9.6
Other	0	0	– 0	– 39.7
Total	1,137	1,087	50	4.6
Total interest expense	1,293	1,241	53	4.3
Net interest income	4,643	4,920	– 277	– 5.6

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Net result of financial operations, write-downs and risk provisions

Item	2019	2018	Year-on-year change	
	€ million	€ million	€ million	%
Realised gains/losses				
Gold	113	127	– 14	– 10.9
Foreign currency	392	268	125	46.6
Securities	311	– 186	497	.
Total	816	208	608	291.6
Write-downs				
Foreign currency	– 0	– 59	59	100.0
Securities	– 35	– 61	26	42.2
Total	– 35	– 120	85	70.6
Transfer to/from provisions for general risks, foreign exchange risks and price risks	1,500	– 1,475	2,975	.
Net result	2,281	– 1,387	3,668	.

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ed in an interest expense of €24 million (2018: €22 million).

2 Net result of financial operations, write-downs and risk provisions

Realised net income from foreign currency transactions reported in sub-item 2.1 mainly concerns transactions involving US dollars (€373 million) and special drawing rights (€18 million). Realised gains on sales of securities primarily relate to US Treasury notes (€246 million; 2018: €187 million in realised losses).

Write-downs in sub-item 2.2 chiefly result from valuation losses on US Treasury notes.

Sub-item 2.3 "Transfer to/from provisions for general risks, foreign exchange risks and price risks" contains the decrease of €1,500 million in the provision for general risks (see liability item 12 "Provisions").

3 Net income from fees and commissions

Net income from fees and commissions came to €56 million, compared with €50 million in the previous year.

4 Income from participating interests

This item contains the Bundesbank's income from its participating interests in the ECB and the BIS. The total income of €491 million (2018: €393 million) includes, in particular, the Bun-

Net income from fees and commissions

Item	2019	2018	Year-on-year change	
	€ million	€ million	€ million	%
Income				
Cashless payments	26	22	3	15.4
Cash payments	7	7	– 0	– 1.3
Securities business and security deposit business	43	38	5	13.9
Other	24	23	1	2.9
Total	100	91	9	10.2
Expense				
Securities business and security deposit business	36	33	3	9.4
Other	9	8	0	6.1
Total	45	41	4	8.8
Net income from fees and commissions	56	50	6	11.4

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desbank's share of the ECB's profit distributions for financial years 2018 and 2019. The share of the ECB's interim profit distribution for financial year 2019 is €378 million (2018: €305 million for financial year 2018); a further €98 million came from the (remaining) profit distribution for financial year 2018 which took place in February 2019 (2018: €73 million for financial year 2017).

5 Net result of pooling of monetary income

This item comprises expenditure of €119 million overall in 2019. Risk provisioning for Eurosystem monetary policy operations resulted in income of €18 million (2018: expenditure of €24 million; see liability item 12 "Provisions"). Expenditure from the pooling of monetary income amounted on balance to €138 million (2018: €171 million).

Monetary income of the Eurosystem national central banks is pooled in accordance with a decision taken by the Governing Council of the ECB.[5] Since 2003, the amount of monetary income allocated to each national central bank has been measured on the basis of the actual income that derives from the earmarked assets that each holds as a counterpart to its liability base.

The liability base contains, in particular, the following items: liability item 1 "Banknotes in circulation", liability item 2 "Liabilities to euro area credit institutions related to monetary policy operations denominated in euro", liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem" and the TARGET2 net liability contained in liability sub-item 9.3 "Other liabilities within the Eurosystem (net)". All interest paid on these items or received on them owing to the negative remuneration decreases or increases the amount of monetary income to be transferred by the national central bank concerned.

A national central bank's earmarked assets consist mainly of the following items: asset item 5 "Lending to euro area credit institutions related to monetary policy operations denominated in euro", asset sub-item 7.1 "Securities held for monetary policy purposes", asset sub-item 9.2 "Claims equivalent to the transfer of foreign reserves to the ECB", asset sub-item 9.3 "Net claims related to the allocation of euro banknotes within the Eurosystem", the TARGET2 net claim contained in asset sub-item 9.4 "Other claims within the Eurosystem (net)" and a limited amount of the national central banks' gold holdings corresponding to their share in the fully paid-up capital of the ECB. It is assumed that no income is generated from the gold and that the covered bonds purchased under the CBPP and CBPP2 as well as the government bonds (including regional government bonds and bonds issued by eligible agencies located in the euro area) purchased under the PSPP generate income commensurate with the applicable main refinancing rate, as the ECB Governing Council has ruled out the possibility of pooling the risk and returns arising from these instruments among the national central banks.

If the value of a national central bank's earmarked assets exceeds or falls short of the value of its liability base, the difference is offset by applying the main refinancing rate to the value of the difference. At the end of each financial year, the total monetary income transferred by all national central banks is allocated to the national central banks in proportion to their respective shares in the fully paid-up capital of the ECB. The transfer and allocation can cause redistribution effects among the national central banks under two conditions in practice. First, earmarked assets or liabilities as part of the liability base must have an interest rate that is different from the main refinancing rate (such as, for instance, the excess reserves remunerated at the deposit facility rate or TLTRO-II and TLTRO-III operations remunerated at individual rates). Second, the pro rata share of these earmarked assets or liabilities on the balance sheet

5 Decision of the European Central Bank of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (ECB/2016/36).

of the respective national central bank must be higher or lower than its share in the ECB's capital. For example, the Bundesbank's share of the Eurosystem's total stock of remunerated excess reserves, at an average of around 33%, is well above the Bundesbank's capital share of 26.4%, which leads to disproportionately high interest income (see profit and loss sub-item 1.1 "Interest income"), which is monetary income paid into the common pool. With regard to the TLTRO-II and TLTRO-III, the Bundesbank's share, at around 14% and 4%, is considerably lower than the Bundesbank's capital share, resulting in a relatively low interest expense (see profit and loss sub-item 1.2 "Interest expense").

On aggregate, the pooling of monetary income resulted in a net expense of €138 million for the Bundesbank (2018: €171 million). This balance represents the difference between the €3,115 million (2018: €3,381 million) in monetary income paid by the Bundesbank into the common pool and the Bundesbank's claim of €2,977 million (2018: €3,211 million) – corresponding to the Bundesbank's share of the ECB's paid-up capital – on the common pool.

6 Other income

Other income amounted to €155 million, compared with €191 million in 2018. Of this, €67 million (2018: €86 million) was attributable to the contributions of the Eurosystem national central banks to the costs of developing and running Eurosystem services, €44 million (2018: €34 million) to the reversal of provisions (see liability item 12 "Provisions"), €19 million to rental income (2018: €21 million) and €2 million to proceeds from the sale of land and buildings (2018: €29 million).

7 Staff costs

Staff costs rose from €849 million to €933 million year on year. Expenditure on post-employment benefits was €51 million higher, mainly due to higher transfers to staff provisions (see liability item 12 "Provisions"). Excluding transfers to staff provisions, staff costs rose by 5.7%. This was attributable to the general pay rises for salaried staff and civil servants as well as higher staff numbers.

The remuneration received by each member of the Executive Board is published in the Annual Report in accordance with item 9 of the "Code of Conduct for the members of the Executive Board of the Deutsche Bundesbank". For 2019, the President of the Bundesbank received a pensionable salary of €392,211.75, special non-pensionable remuneration of €76,693.78 and a standard expenses allowance of €5,112.96, amounting to a total of €474,018.49. The Vice-President of the Bundesbank received a pensionable salary of €313,769.46, special non-pensionable remu-

Staff costs

Item	2019	2018	Year-on-year change	
	€ million	€ million	€ million	%
Salaries and wages	618	591	27	4.6
Social security contributions	92	85	7	7.7
Expenditure on post-employment benefits	223	173	51	29.2
Total	933	849	85	10.0

Deutsche Bundesbank

neration of €61,355.03 and a standard expenses allowance of €3,067.80, amounting to a total of €378,192.29 for 2019. The other members of the Executive Board each received a pensionable salary of €235,327.20, special non-pensionable remuneration of €46,016.27 and a standard expenses allowance of €2,556.48, amounting to a total of €283,899.95 for the year 2019.

Total remuneration payments to serving and former members of the Executive Board, former members of the Bundesbank's Directorate and of the Executive Boards of the Land Central Banks, including their surviving dependants, amounted to €11,210,398.30 in 2019.

8 Administrative expenses

Administrative expenses increased from €434 million in 2018 to €485 million. This item shows not only operating expenditure but also, in particular, expenditure of €163 million on computer hardware and software (2018: €128 million) and of €97 million on office buildings (2018: €89 million) as well as expenditure of €51 million on Eurosystem services (2018: €76 million).

9 Depreciation of tangible and intangible fixed assets

The depreciation of land and buildings, of furniture and equipment including computer equipment and of software amounted to €107 million, compared with €92 million in 2018 (see asset sub-item 11.2 "Tangible and intangible fixed assets").

10 Banknote production services

Expenditure on banknote production services rose by €75 million to €122 million, mainly due to partial deliveries made in the reporting year from print contracts actually attributable to 2018.

11 Other expenses

Other expenses amounted to €32 million (2018: €36 million) and contained, in particular, expenditure on residential buildings amounting to €23 million as well as expenditure on the encashment of the BBk I/Ia series Deutsche Mark banknotes, which are no longer shown on the balance sheet, in the amount of €6 million (see liability sub-item 11.3 "Sundry").

In 2019, the Bundesbank's donations totalled €912,787.59, including €645,122.89 for research projects, €156,164.70 for other specific projects, €74,000.00 for scholarships and prize money, and €37,500.00 for institutional financial assistance.

12 Allocation to/withdrawal from reserves owing to the restriction on distribution pursuant to Section 253(6) of the German Commercial Code (Handelsgesetzbuch)

Pursuant to Section 253(6) of the Commercial Code, the relief of €720 million (2018: €746 million) resulting from application of the ten-year rather than the seven-year period for calculating the average market interest rate at which to discount post-employment benefit obligations is subject to a restriction on distribution (see "General information on the annual accounts" and liability item 14 "Capital and reserves"). Since this non-distributable amount is €26 million lower than in the previous year, a withdrawal from reserves in this amount took place for the first time as at the end of financial year 2019 (2018: transfer of €82 million).

Annex

The Deutsche Bundesbank: key figures

Staff[1]	2018	2019
Core staff (full-time equivalents)	10,105	10,193
– Contraction since 31 December 2001[2]	4,695 (= 31.7%)	4,607 (= 31.1%)

Locations/core staff (full-time equivalents)[1]	2018	2019
Central Office	1 / 4,980	1 / 5,066
Regional Offices	9 / 2,695	9 / 2,705
Branches	35 / 2,429	35 / 2,422

Annual accounts[1]		2018	2019
Distributable profit		€2,433 million	€5,851 million
Net interest income		€4,920 million	€4,643 million
Balance sheet total		€1,841,781 million	€1,779,846 million
Foreign reserve assets (total)		€173.1 billion	€199.3 billion
– Foreign currency		€31.8 billion	€32.0 billion
– Receivables from the IMF		€19.9 billion	€20.7 billion
– Gold		(3,370 t) €121.4 billion	(3,367 t) €146.6 billion
Allocation across the various storage locations			
	Frankfurt	(1,710 t) €61.6 billion	(1,710 t) €74.4 billion
	New York	(1,236 t) €44.6 billion	(1,236 t) €53.8 billion
	London	(423 t) €15.3 billion	(420 t) €18.3 billion

ECB capital key[1]	2018	2019
Share of subscribed capital	17.9973%	18.3670%
Share of paid-up capital	25.5674%	26.3827%
Amount of the participating interest in the ECB	€1.95 billion	€1.99 billion
Foreign reserve assets transferred to the ECB	€10.43 billion	€10.64 billion

Money market transactions	2018	2019
Open market operations in the euro area[3]		
– Main refinancing operations	€3.60 billion	€4.38 billion
– Longer-term refinancing operations[4]	€745.66 billion	€696.64 billion
of which counterparties of the Bundesbank	€91.43 billion	€84.84 billion
– Banks participating in the main refinancing operations (average) / of which via the Bundesbank	35 / 16	30 / 8
Standing facilities[3]		
– Marginal lending facility in the euro area	€0.10 billion	€0.09 billion
– Deposit facility in the euro area	€659.42 billion	€524.86 billion
Asset purchase programmes (Bundesbank's share)[1]		
CBPP3 portfolio	€62.8 billion	€61.8 billion
PSPP portfolio	€448.7 billion	€451.3 billion
CSPP portfolio	€43.0 billion	€44.7 billion

1 On 31 December. **2** Core staff (full-time equivalents) on 31 December 2001 (year before the structural reform began): 14,800. **3** Daily average of the individual amounts outstanding. **4** Including targeted longer-term refinancing operations (TLTROs).

Cash payments	2018	2019
Volume of euro banknotes in circulation (Eurosystem)[1]	€1,231.1 billion	€1,292.7 billion
Volume of coins in circulation (Eurosystem)[1]	€29.0 billion	€30.0 billion
Returned DEM banknotes and coins	DEM 93.4 million	DEM 84.5 million
Unreturned DEM banknotes and coins	DEM 12.54 billion	DEM 12.45 billion
Incidence of counterfeit money in Germany	**2018**	**2019**
Euro banknotes (number)	58,000	55,200
Euro coins (number)	33,100	42,100
Cashless payments	**2018**	**2019**
Payments via the Bundesbank (number of transactions)	4,851.6 million	5,397.6 million
of which via RPS	4,766.4 million	5,302.6 million
of which via TARGET2-BBk	82.3 million	92.2 million
– payment transactions in T2 and TIPS[5]	46.7 million	47.5 million
– settlement of securities transactions in T2S	35.6 million	44.7 million
Payments via the Bundesbank (value)	€189.5 trillion	€224.7 trillion
of which via RPS	€3.3 trillion	€3.5 trillion
of which via TARGET2-BBk	€184.5 trillion	€219.6 trillion
– payment transactions in T2 and TIPS[5]	€167.6 trillion	€180.1 trillion
– settlement of securities transactions in T2S	€16.9 trillion	€39.5 trillion
Share of TARGET2-BBk transactions in EU-wide TARGET2 system (number of payment transactions)	~ 53%	~ 54%
Banking supervision	**2018**	**2019**
Number of institutions to be supervised	3,126	3,039
On-site inspections	202	203
Cooperation with foreign central banks	**2018**	**2019**
Training and advisory events	210	254
– Number of participants (total)	2,830	4,149
– Number of participating countries (total)	95	98
Selected economic publications (editions/circulation)	**2018**	**2019**
Annual Report	1 / 7,700	1 / 7,700
Financial Stability Review	1 / 8,000	1 / 7,000
Monthly Report	12 / 7,500	12 / 7,500
Statistical Supplements	52 / 1,170	60 / –[6]
Research Centre Discussion Papers	57 / 300	49 / 300
Publications in academic journals	82	85
External communication/public relations	**2018**	**2019**
Visitors to the Money Museum	53,329	49,376
Economic education events / number of participants	2,377 / 72,850	2,444 / 73,893
Written answers to queries	12,027	11,431
Press releases	321	357
Training sessions on counterfeit prevention / number of participants	2,500 / 50,000	2,300 / 49,000

5 Since 30 November 2018. **6** Only available in electronic form.

Branches of the Deutsche Bundesbank on 31 December 2019

Locality number	Bank location	Locality number	Bank location
720	Augsburg	860	Leipzig
		545	Ludwigshafen
100	Berlin		
480	Bielefeld	810	Magdeburg
430	Bochum	550	Mainz
		700	Munich
870	Chemnitz		
370	Cologne	150	Neubrandenburg
		760	Nuremberg
440	Dortmund		
300	Düsseldorf	280	Oldenburg
		265	Osnabrück
820	Erfurt		
360	Essen	750	Regensburg
		640	Reutlingen
500	Frankfurt/Main	130	Rostock
680	Freiburg		
		590	Saarbrücken
260	Göttingen	600	Stuttgart
450	Hagen	630	Ulm
200	Hamburg		
250	Hanover	694	Villingen-Schwenningen
660	Karlsruhe	790	Würzburg
570	Koblenz		

Deutsche Bundesbank

Staff of the Deutsche Bundesbank on 31 December 2019*

Item	Staff numbers[1] Total	Regional offices	Branches	Central Office	Year-on-year changes Total	Regional offices	Branches	Central Office
Civil servants	6,059	1,578	1,025	3,456	145	30	-25	140
Salaried staff	5,708	1,506	1,638	2,564	18	-3	27	-6
Total	11,767	3,084	2,663	6,020	163	27	2	134
of which: trainees	697	117	26	554	60	11	11	38
Remainder: core staff	11,075	2,967	2,642	5,466	103	16	-9	96
Memo item: core staff pro rata (full-time equivalents)	10,193.3	2,704.8	2,422.4	5,066.1	88.1	9.5	-7.0	85.6

	End-2019	End-2018
* Not included:		
Members of staff on secondment	111	129
Members of staff on unpaid leave	253	244
Members of staff in the second phase of the partial retirement scheme	45	126
1 Of which: part-time employees	3,067	2,888
Of which: staff with temporary contracts	288	227

Deutsche Bundesbank

Offices held by members of the Executive Board of the Deutsche Bundesbank

Pursuant to the Code of Conduct for members of the Executive Board of the Deutsche Bundesbank, the Annual Report shall disclose details of offices held by Board members on supervisory boards or similar inspection bodies of business enterprises.[1]

The Board members hold the offices indicated below.

– Dr Jens Weidmann, President:
  Chairman of the Board of Directors, BIS;
  Member of the Financial Stability Board (FSB);[2]
  Vice-President of Deutsches Aktieninstitut[2]

– Professor Claudia Buch, Vice-President:
  Member of the Board of Trustees, Monetary Stability Foundation

– Professor Joachim Wuermeling:
  Alternate, Board of Directors, BIS

1 Membership of other official bodies is not listed.
2 Ex officio.