DEUTSCHE
BUNDESBANK
EUROSYSTEM

Annual Report
2016

Members of the Executive Board of the Deutsche Bundesbank

Dr Jens Weidmann
President of the Deutsche Bundesbank

Professor Claudia Buch
Vice-President of the Deutsche Bundesbank

Dr Johannes Beermann

Dr Andreas Dombret

Dr Joachim Nagel
(until 30 April 2016)

Carl-Ludwig Thiele

Professor Joachim Wuermeling
(since 1 November 2016)

We mourn the loss of the following members of our staff

Gabriele Conzen	2 February 2016
Eva-Maria Költsch	2 March 2016
Carlo Steil	7 March 2016
Jürgen Cromm	30 April 2016
Peter Clausen	6 May 2016
Heinz-Jörg Thiemann	15 May 2016
Horst Dieter Wendt	18 June 2016
Dietmar Erwin Hubrich	7 July 2016
Corinna Seifert	8 July 2016
Rita Maria Wiedenmann	9 August 2016
Susanne Carola Beer	29 August 2016
Alexander Gluch	6 October 2016
Rolf Helmut Theo Esser	13 October 2016
Kirsten Waldmann	9 December 2016
Rudolf Freier	18 December 2016

We also remember the retired staff members
of the Bank who passed away in 2016.

We will honour their memory.

DEUTSCHE BUNDESBANK

Deutsche Bundesbank
Wilhelm-Epstein-Strasse 14
60431 Frankfurt am Main
Germany

Postal address
Postfach 10 06 02
60006 Frankfurt am Main
Germany

Tel +49 69 9566 0
Fax +49 69 9566 3077

http://www.bundesbank.de

Reproduction permitted only if source is stated.

ISSN 0949-1090 (print edition)
ISSN 1861-5694 (online edition)

The *Annual Report* is published by the Deutsche Bundesbank, Frankfurt am Main, by virtue of section 18 of the Bundesbank Act. It is available to interested parties free of charge.

This is a translation of the original German language version, which is the sole authoritative text.

MIX
Paper from responsible sources
FSC® C004599

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	Figure unknown, not to be published or not meaningful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

Challenges for monetary policy

Low interest rates, moderate economic growth and low inflation rates once again set the underlying conditions for monetary policy in the euro area in 2016. Owing to concerns about second-round effects as well as downside risks to economic activity and the outlook for prices, the Governing Council of the European Central Bank (ECB) took a decision in March 2016 to expand its non-standard monetary policy measures. To this end, the monthly volume of securities purchases was raised from €60 billion to €80 billion and – with effect from June 2016 onwards – bonds issued by non-bank corporations were included in the purchases. At the same time, the rate of interest on the deposit facility – which was already negative – was lowered further to -0.4% and four new targeted longer-term refinancing operations (TLTROs) were announced. In order to set additional incentives for lending, the Governing Council linked the rate of interest on these refinancing operations to the participating banks' lending. Banks can, in fact, receive a bonus, the size of which depends on the strength of the increase in their lending to the private non-financial sector (excluding loans for house purchase).

In contrast to the situation as recently as 2015, doubts about the stability of the euro area were no longer a factor in the financial markets in 2016. Rather, apprehension with regard to growth in the Chinese economy played a dominant role in market activity at the start of the year. The ongoing fall in oil and commodity prices over a period of months along with heightened uncertainty among investors in relation to the emerging market economies also played a part, with the resulting jitteriness leading to strong price fluctuations in some cases. Thanks to economic policy measures taken by the Chinese government and oil prices bottoming out, the situation calmed again.

The second reason for what was at first quite strong volatility in the financial markets was the UK's decision to leave the European Union. Here, too, it quickly became apparent that the financial markets' initial reactions to the outcome of the referendum were probably exaggerated. The financial market players' response was cool-headed on the whole, which is likely to have been due in part to them treating the Brexit scenario with adequate seriousness and making detailed preparations for such an eventuality. Moreover, the improved liquidity regulation and capitalisation of banks was undoubtedly also instrumental in limiting the immediate fallout of the vote on Brexit. A marked depreciation of the pound sterling has nevertheless occurred. This, too, has played a part in the UK economy so far showing little impact from the referendum result. However, the quite sharp depreciation of the pound sterling is ultimately a reflection of markets players' expectation that any losses of growth stemming from a possible future restriction on the free movement of goods, capital and persons between the United Kingdom and the remaining member states of the European Union is likely to be mainly to the detriment of the UK.

The third event – one that did not affect just the financial markets – was the outcome of the US presidential election. Donald Trump's election victory, which came as a surprise for many market participants, and, above all, subsequent speculation about what his programme might be once in government have been shaping market developments – in the USA and beyond – since November 2016. Finally, the financial markets attached greater weight to the stimulus of the debt-financed investment programme announced after the election and to tax cuts than to the possible negative consequences of a protectionist economic policy. The United States erecting trade barriers leading to other countries becoming more protectionist would, I firmly believe, potentially call into question one of the key pillars of our prosperity.

So far, the euro-area economy has revealed itself to be robust in the face of these events and has maintained its modest course of recovery. In the end, gross domestic product (GDP) growth for 2016 stood at 1.7%. The recovery was chiefly supported by domestic demand, with the gradual improvement in the labour market situation being the major contributing factor. The unemployment rate at the end of the year was at its lowest level since August 2009. Domestic demand was likewise underpinned by low oil prices, which boosted consumers' purchasing power, favourable financing conditions for enterprises, and higher corporate profits. At present, there is much to suggest that the recovery will continue this year and in the following years. The Eurosystem's projection for the period from 2017 to 2019 predicts growth in the euro area of 1.6% to 1.7%.

In terms of monetary policy, this means that rising capacity utilisation and a further improvement in the labour market situation are likely to bring about an increase in wages and unit labour costs. The fact that inflation is picking up again in 2017 is, in the short term, only partially due to higher domestic inflationary pressure, however. The main cause of higher inflation rates at present is the rebound in oil prices. The potential risks of deflation, which some were still highlighting only a few months ago, have clearly receded. I already regarded that risk as exaggerated beforehand, since, in my view, a self-perpetuating downward spiral of declining wages and prices was not really to be expected.

Against the backdrop of robust economic recovery combined with moderate domestic inflationary pressure, in December 2016 the Governing Council of the ECB decided to extend the asset purchase programme to the end of 2017 but also, at the same time, to reduce the monthly purchase volume to €60 billion. The Governing Council does not want this construed as a signal that it is starting to taper the programme, but it is an indication that it has now gained greater confidence in the euro area's economic recovery.

I myself have repeatedly stressed that the public sector purchase programme, in particular, involves major inherent risks and side effects. The cost-benefit calculus for government bond purchases differs from that of a central bank's traditional instruments. The central banks in the euro area have now become the member states' largest creditors. As a result, monetary policy gains direct influence on fiscal policy. Owing to the asset purchases, the countries of the euro area pay almost identical rates of interest on that part of their sovereign debt held by the central banks – regardless of their creditworthiness. This is increasingly blurring the lines between monetary policy and fiscal policy. I therefore perceive the danger of the Governing Council coming under pressure to use low interest rates to ensure the sustainability of high levels of debt, even though price stability calls for higher interest rates.

Furthermore, low-interest-rate policy harbours the risk of exaggerations emerging in the financial markets, as superabundant liquidity is an open invitation to take high risks. This is why some euro-area member states have now also taken macroprudential measures to forestall risks in real estate markets, for instance. Another point is that the flat yield curve is placing a strain on profits in the banking sector – strains which are all the heavier, the longer the low-interest-rate environment persists. Having said that, ensuring that banks earn adequate profits is not, of course, the objective of monetary policy. But monetary policy does rely on banks transmitting the monetary policy impulses to the real economy. To do that, the banks have to have sufficient capital.

It is an indisputable fact that an accommodative monetary policy becomes less effective over time, while the side effects increase. For that reason, monetary policy has to be tightened again as soon as the medium-term outlook for price stability allows, without regard to the sustainability of public finances, the situation in which banks find themselves or developments in the financial markets.

Accommodative monetary policy: no substitute for reforms and consolidation

The euro area's member states would therefore be well advised to use the period of low interest rates for implementing economic reforms that boost growth and for consolidating public finances.

Sound public finances are a key prerequisite for a monetary policy that is geared towards price stability. Yet a monetary union with a single monetary policy and 19 largely independent fiscal and economic policies generates a particular incentive to incur debt. This is because the member states can pass on the negative consequences of a high level of debt, at least in part, to the other countries. That is why I regularly call attention to the need to comply with the deficit ceiling laid down in the Stability and Growth Pact.

An annual budget deficit of 3% is, after all, the upper limit, not a target. The member states have, in fact, undertaken a commitment to present a structurally balanced budget over the medium term. They are a long way from achieving that, however. Looking at the overall picture, fiscal policy in the euro area was actually eased in 2016 – and this fiscal easing provided greater relief to governments than did the low interest rates. The fact that the euro-area member states are failing to do more in terms of seizing the opportunity for budgetary consolidation probably also owes something to the fact that the rules of the Stability and Growth Pact are not applied decisively. On the contrary, the European Commission interprets them more and more flexibly. In some countries, annual central government borrowing has been above the ceiling of 3% of GDP for nine years now.

One possibility of returning to a stricter interpretation of the rules would consist in entrusting an independent authority with fiscal surveillance. Unlike the European Commission, it would not be under so much pressure to seek a compromise for political reasons when it comes to assessing whether the member states are complying with the budgetary rules. Ultimately, however, the success of fiscal surveillance and the degree of compliance with the rules also depend on the Council, which decides on sanctions when the rules are broken.

Just as it is up to the national governments to arrange their budgets so that they can cope with rising interest rates, it is equally their task to ensure sustainable growth. This is not something that can be achieved through monetary policy. At most it can smooth the business cycle over the short term if this is required from the perspective of price stability. It cannot lead the economy onto a permanently higher growth path.

Accommodative monetary policy therefore must not be seen in political terms as a substitute for structural reforms. According to the annual OECD *Going for Growth* reports, however, enthusiasm for reform has fallen off significantly in the euro area. And an analysis by the International Monetary Fund (IMF) comes to the conclusion that countries prefer to rely on monetary policy and fiscal policy rather than on structural reforms. Nearly all the industrialised economies have followed the IMF recommendation to loosen monetary policy further. In the area of fiscal policy, the finance ministers have implemented half of the IMF's recommendations. Structural reforms were the only policy area that saw little headway.

In my view, reforms for higher growth are needed in Germany, too, where a demographic wedge is opening up as significantly more older persons are retiring from the labour force than young persons are taking up employment. This, all other things being equal, weakens potential growth. However, this development can be offset, say, by raising the retirement age in step with rising life expectancy, through increased labour-market-oriented immigration and as a result of the long-term unemployed being better integrated into the labour market. Moreover, productivity growth could be boosted by targeted deregulation in the services sector, dismantling barriers to market entry as well as investment in education and in the digital and energy infrastructure.

But for now, the German economy remains in good shape. Last year saw employment climb to yet another record high and jobless numbers continue to dwindle. Labour income levels increased moderately while prices rose even more slowly, lifting real disposable income. All these factors bolstered domestic demand. The economy looks set to remain on an upward trajectory this year and in the next few years, with domestic demand again providing the primary impetus. Demand in the domestic economy is still being propelled by favourable conditions in the labour market and rising real household incomes. The Bundesbank's economists expect calendar-adjusted growth to come to 1.8% in 2017 and to dip slightly in the years after that, though the rate of expansion then will still be outpacing the growth rate of potential output. This should boost capacity utilisation levels and also send industrial investment higher again.

However, investment developments will partly be driven by the outlook for the free movement of goods, services and labour, both in the European Union and worldwide. The UK government has now announced that it is aiming to leave not just the European Union but the single market as well. And the new administration in the United States is going so far as to make protectionist noises. Elsewhere in the world, too, many people at present are mainly seeing the disadvantages which globalisation, and technological progress, unquestionably entail for some. The advantages are drifting ever further out of focus – perhaps that is partly because they are less immediately felt and harder to pinpoint than the drawbacks.

What I think this debate fails to fully consider, however, is that it is international trade and interaction that underpins our prosperity. After all, trade promotes the spread of fresh, productive ideas and new, improved products. It is therefore trade which stimulates productivity, which in turn is what drives wages higher.

But what we economists have perhaps failed to emphasise enough in the past is that it is precisely the less qualified members of the workforce who feel the competitive pressure stemming from international trade.

That is not to say that protectionism and insularity are the right response. A more appropriate course of action would be to enable every citizen to participate in the rewards of globalisation. Better schools and universities, and lifelong learning, can give people the skills and agility they need to capitalise on the benefits which a changing environment can offer.

I, for one, firmly believe that open markets combined with economic structures that are more conducive to growth generate stronger productivity, higher employment and rising incomes. At the end of the day, this – in conjunction with a targeted tax and transfer system that cushions social hardship – goes some way towards restoring confidence in an open and liberal society.

The Bundesbank, together with the Federal Government, will therefore be jointly advocating the concept of international cooperation and backing open goods and factor markets during Germany's presidency of the G20 this year.

Challenges facing the banking sector

2016 was not an easy year for Europe's banks. Uncertainty surrounding the health of individual institutions kept investors, supervisors and politicians on their toes last year. It is beyond doubt that there is still some work to do to tidy up the banking sector in the wake of the financial crisis. That is not least why a rollback of earlier reforms, which is currently being debated in the United States, would be dangerous. The same goes for a potential race to the bottom in financial regulation. Generally speaking, however, European banks have significantly strengthened their capital buffers, and thus their resilience as well, in recent years from 9% on average in 2008 to the current level of 15%.

Yet it is equally true to say that banks' earnings capacity is under threat from the low-interest-rate environment, the overcapacity in the sector and the mounting competition posed by providers of digital financial services, or fintechs for short.

Another concern is the persistently high level of non-performing loans (NPLs) clogging up institutions' balance sheets in some quarters. The ECB's banking supervision arm prepared guidance in September 2016 to ensure consistency in NPL management across all member states of the European Union and to advise institutions subject to ECB supervision to shift particularly high stocks of NPLs to an independent entity for workout. The guidance also compiles best practices in the management of NPLs. This document thus represents an important step forward in the effort to resolve the problem of NPLs. But it is only the first step, and more must follow, such as adequate and timely impairments and write-offs. In addition, more needs to be done in reforming legislation, such as national insolvency frameworks, in member states. Any foot-dragging over these reforms might dampen macroeconomic growth in the euro area for years to come. That is why the Single Supervisory Mechanism (SSM) is right to count credit risk surveillance – notably NPLs and concentration risk – among its supervisory priorities again in 2017, alongside banks' business models, profitability and their risk management.

The new European Single Resolution Mechanism (SRM) has been fully operational since the beginning of 2016. The SRM consists of a new regime and a newly established authority that is mandated with the orderly and, if need be, cross-border resolution of banks that fall under the scope of the SSM. If an institution begins to teeter, the European Union's Bank Recovery and Resolution Directive (BRRD) provides a toolkit that can be used to safeguard the continuation of its critical functions without jeopardising financial stability. The new regime is also designed to shield taxpayers, so public money should only be exposed to loss as a last resort and subject to very strict conditionality once a failing institution's shareholders and creditors have been bailed in.

That, for me, is a core element of the new resolution regime. It puts liability and control in financial markets back on an even keel. Only when investors grasp that taxpayers will not bail them out at the end of the day will they make their investment decisions with the care and attention they deserve. This, on its own, would make the financial system a more stable place, which is why it is so important to implement the new rules strictly from the very outset.

Putting the final touches to banking regulation

The European and global institutions involved in banking regulation spent 2016 wrapping up the tighter standards which the G20 leaders adopted in response to the financial crisis. In areas where amendments had already been implemented, it was a question of tweaking the regulatory framework.

The revisions mainly revolved around the calculation of risk-weighted assets, which are the crucial metric for determining capital requirements. One risk which the regulators making up the Basel Committee on Banking Supervision were looking to mitigate was the danger that institutions using their own internal models might understate their risk as a way of depressing their capital requirements. Much of the work needed to address this particular issue was completed in 2016. The Bundesbank put a great deal of effort into this topic as a member of the Basel Committee. However, the floor for determining capital requirements with the aid of internal models remains a charged issue. One particular point the Bundesbank advocated during these discussions was that even a regime with capital floors should generally preserve the idea of gearing capital requirements to risk.

Regulatory uncertainty is another factor weighing on the outlook for banks, which is why the reliable framework they need for their planning purposes should be created as soon as possible. A suitably long implementation phase will then enable banks to make an orderly transition to the new regime.

Stop the preferential treatment of government bonds

All in all, the rollout of new capital requirements and liquidity standards has made the banking system more resilient. Yet there is one regulatory sphere where more still needs to be done: the treatment of government bonds on bank balance sheets. A banking system can only ever be truly stable if the fate of banks does not hinge on the solvency of their national sovereigns. It is for that reason that the Bundesbank has proposed to put an end to the preferential regulatory treatment which sovereign debt enjoys over instruments issued by private issuers. Introducing adequate risk weights and applying large exposure criteria to government bonds would help give banks – especially those in the euro area – less of an incentive to become so bloated with sovereign debt that their fate is tied to that of their home government. At the same time, this would also act to shore up the credibility of the no-bail-out clause enshrined in the Treaty on the Functioning of the European Union, because if the worst came to the worst, banks would then be better placed to withstand a restructuring of government debt.

Proportionality in banking regulation

I am aware that the complexity and magnitude of the prudential requirements thrust upon institutions have increased significantly in recent years. To some degree, though, that is the price that had to be paid for a more stable financial system. However, the additional administrative workload associated with the new regulations is placing a particular strain on small and medium-sized institutions. With the regulatory reforms being tweaked and the revisions of EU legislation already in progress, the debate on simplifying and easing the workload for these institutions gained traction last year. The Bundesbank has spoken out in favour of exploring, with no set outcome, whether more proportionality can be built into the supervisory standards. I should point out here, however, that there is only leeway in terms of reducing the administrative and reporting burden. Any relief granted should not impinge on the minimum standards for prudential metrics.

Consultation on the macroprudential framework

Macroprudential regulation is another area where supervisory authorities are putting their final touches to the newly created rules. The Bundesbank contributed to a European Commission consultation on the experience with the EU macroprudential policy framework by submitting a statement prepared jointly with the Federal Financial Supervisory Authority (BaFin) and the Federal Ministry of Finance (BMF). This consultation forms part of a review of the macroprudential framework which has gradually evolved in recent years. Stakeholders were invited to assess their experience with the new macroprudential institutions, which include the European Systemic Risk Board (ESRB) and the SSM. One major aspect of the consultation was the coordination and division of responsibilities between the new institutions. Another objective was to leverage the lessons learned from using the macroprudential toolkit in the banking sector in an effort to streamline the processes involved in activating them, eliminate any problems that might arise in distinguishing them from the microprudential toolkit, and identify any tools that have been missing so far or have proven to be superfluous.

The German statement concludes that the subsidiary, federal nature of the macroprudential framework has proven its worth. Risks to financial stability are determined to a large extent by national (economic policy) developments, which is why national macroprudential tools need to be in place to respond to country-specific developments, especially if a single monetary policy is in operation. At the same time, the ECB has the powers it needs to intensify national measures in the banking sector and thus act in the interests of all the other euro-area countries to prevent a situation from arising where too little is done at the national level to counteract mounting systemic risk. After all, Europe's highly interconnected financial systems mean that financial crises ripple out across national borders and can even impair the stability of the euro area as a whole. The outcome is an equitable balance between national flexibility on the one hand and pan-European interests on the other.

Efficient macroprudential policymaking calls for both clear responsibilities and an overarching perspective across sectors and countries. This is a role for which the ESRB, an independent European body of experts in which central banks play a prominent role, is ideally suited. From Germany's perspective, the ESRB's function as a central notification and coordination hub needs to be strengthened by improving data access and providing additional resources.

Developments at the International Monetary Fund

The European Union is not the only place where institutions work in tandem to preserve the stability of the financial system; activities are being coordinated at the global level as well, where the IMF plays an instrumental role. It was for this reason that the Bundesbank granted the IMF a temporary new bilateral credit line of €41.5 billion in October 2016 to replace a credit line in the same amount agreed in 2012. Given persistent global uncertainty, the IMF called on its members again to temporarily grant it new bilateral credit lines. This call was heeded by a great many lenders, including the Bundesbank. Unlike the credit lines granted back in 2012, the new bilateral facilities agreed in 2016 now give creditors formal voting rights. Henceforth, any activation of these credit lines by the IMF requires the approval of at least 85% of creditors in contribution-weighted terms, rather than a simple majority of the IMF's Executive Board as hitherto. The new bilateral credit lines run until the end of 2019 initially, although they can be extended by no more than a year up to the end of 2020 subject to the creditors' consent.

Migration to TARGET2-Securities making progress

Another factor contributing to financial stability is the ability of consumers and enterprises to count on payment systems running without a hitch. The Eurosystem set out to augment the existing electronic individual payment system (TARGET) by rolling out TARGET2-Securities, or T2S for short, in 2015. This Eurosystem project, which introduced a new, harmonised and centralised procedure for settling securities transactions in central bank money, reached two more milestones in 2016. Over the Easter weekend, both Portugal's central securities depository (CSD) and the National Bank of Belgium Securities Settlement Systems (NBB-SSS), each with their respective banks, successfully migrated their securities settlement operations to T2S. This transition was followed in September by the migration of the CSDs of the Euroclear ESES group in France, Belgium and the Netherlands and of Denmark's CSD VP Securities together with its subsidiary VP Lux. Early February 2017 saw the fourth wave of migration, which also included Clearstream Banking AG, and thus the German securities market – the euro area's largest. This means that roughly 90% of T2S's projected securities settlement volume is now being routed through this single shared platform (SSP). The final wave of migration is scheduled for autumn 2017. Furthermore, the Central Bank of Denmark is lined up to be the first non-euro-area central bank to make its currency, the Danish kroner, available for settlement in T2S starting in October 2018.

As Europe's main hub for securities settlement, T2S plays an instrumental role in deepening financial market integration, and this, I believe, also makes this platform a cornerstone for Europe's capital markets union.

Digitisation in the financial sector and the potential of blockchain technology

The Bundesbank and Deutsche Börse AG have jointly unveiled a prototype for a securities settlement system based on blockchain technology – a digital, decentralised register. The prototype is capable of conducting simple delivery versus payment (DVP) securities purchases. It can also be used to settle interest payments on securities and redemptions of maturing securities. The idea behind this joint project is to analyse the technological performance and scalability of blockchain-based applications. This practical body of experience serves as the foundation for addressing the requirements which central banks might need to meet in future in connection with blockchain-based instruments.

However, the digitisation of the financial sector concerns not only the issue of whether blockchain-based applications represent the future of cash and securities settlement, but also the risks and rewards that fintech firms present to banks. Moreover, it will create new opportunities for financial inclusion, particularly in those countries which do not yet have broad access to financial services.

This is why the Bundesbank, in tandem with the Federal Ministry of Finance, has made financial sector digitisation a focal point of the German G20 presidency.

Progress in introducing the new banknotes of the "Europa" series

Two key factors which preserve public confidence in a currency are maintaining the high quality of banknotes and keeping the incidence of counterfeits low. They were behind the Eurosystem's decision in 2013 to begin issuing banknotes of the new "Europa" series, which contain new and improved security features that make them even more secure against counterfeiting. The new €5, €10 and €20 denomination notes issued thus far have now almost fully replaced the first series of banknotes in German payments. The new €50 banknote, the fourth in the new series, will enter into circulation in the spring of 2017. The Bundesbank is responsible for the manufacture of a large portion of the first run of this denomination – some 2.3 billion banknotes. In addition, the Bundesbank supports the manufacturers of counterfeit detection devices and vending machines in their efforts to retrofit their devices to accommodate the new €50 banknote of the “Europa” series in a timely manner. Preparations for the as yet unissued €100 and €200 banknotes of the “Europa” series are now well underway; their introduction is scheduled for late 2018/early 2019. As resolved by the Governing Council of the ECB on 4 May 2016, issuance of the €500 banknote is to be discontinued at that time; however, €500 banknotes will retain their status as legal tender and can be exchanged at Eurosystem central banks indefinitely. I see this as a key signal which is consistent with the Governing Council’s unmitigated commitment to maintaining the status of cash as a medium of payment.

What’s new in coins

Whereas the new €100 and €200 banknotes are still in the preparatory stages, an innovative new development has already been implemented in the world of coins. The €5 collector’s coin “Planet Earth”, which the Bundesbank helped to develop, contains a blue, translucent polymer ring, making it the first coin of its kind in the world. Unsurprisingly, demand for it among the general public was high. A five-part series of polymer ring coins on the theme of “Climate zones of the Earth” will be issued in the years 2017 to 2021.

Transfers of gold

The Bundesbank, as the central bank of Germany, is responsible for managing Germany’s reserve assets. These assets include the country’s gold holdings. In 2012, the Bundesbank decided that half of Germany’s gold reserves should be stored in its own vaults by 2020. This meant transferring gold from overseas storage locations to vaults located in Germany. The transport of 300 tonnes of gold from New York to Germany was completed in 2016. Of the 374 tonnes of gold originally stored in the vaults in Paris, only 91 tonnes are left; these holdings will be relocated in their entirety to Frankfurt am Main before the end of the current year.

Money Museum reopened

Gold, banknotes and coins are now back on display at the Bundesbank’s Money Museum, which reopened in December 2016 after just over two years of renovation. However, the centrepiece of the exhibition is not the history of money, but the importance of stable currency for the economy and society at large, as well as the role of the central bank in this regard. The completely revamped exhibition offers the public a venue where learning becomes an experience, illustrating the themes of monetary policy, the financial and monetary system, banking supervision, cash and cashless payments from a variety of vantage points. It presents numerous interrelationships based on both historical events and present-day examples. Exhibits cover a time span of some 2,600 years, beginning with a Croesus coin dating back to the 6th century BC and ending in an array of current banknotes from all over the world. The article on the Bundesbank’s economic education activities published in this issue of the *Annual Report* provides more detail on the new Money Museum.

New statistics

One of the main events of 2016 in the area of statistics was the collection of new microdata, with the Bundesbank collecting the first reports for the new harmonised Eurosystem insurance statistics. The data are now being processed and will be published in 2017 in aggregated form. Together with BaFin, and true to the motto “collect data only once”, the collection approach and processing routines were developed and meshed closely with the Solvency II reporting regime. Likewise, since July 2016, selected banks have been reporting their money market transactions on a daily basis for the money market statistics. This yields important additional information in order to better understand the structure and development of the money market and to help policymakers to better assess the impact of monetary policy measures. The Eurosystem has developed and implemented a data collection regime for the second series of targeted longer-term refinancing operations (TLTRO II), too. Banks participating in these open market operations are required to provide the Eurosystem with the requisite data.

Strategy 2020

The Bundesbank is seeking to continue to play a central role in the Eurosystem. It is vital that its clear, stability-oriented voice remains a force in the public debate, so that it can help preserve the euro as a stable currency. To this end, in July 2016 the Executive Board of the Bundesbank adopted Strategy 2020. This strategy is designed to gear the Bundesbank's activities towards shared strategic objectives over the medium term and throughout the Bank, and to manage the use of its resources in a goal-oriented fashion. It thus acts as a roadmap, both within the Bank and externally. Overall, the Bundesbank's experience with multi-year strategic cycles has been exceedingly positive. Strategy 2020 is already the Bundesbank's fourth medium-term strategic orientation. Similarly, the importance of strategy work as a tool for target-based management has grown significantly at other central banks in Europe and elsewhere as well as at public institutions in Germany in the past few years.

The Bundesbank's Strategy 2020 differs from the earlier strategic cycles thanks to two key new features. One is that it is preceded for the first time by a dedicated mission statement for the Bundesbank. Together with the Eurosystem's mission statement, it forms the longer-term roadmap for the Bundesbank, constitutes a set of guidelines and articulates the future vision the Bundesbank aspires to over and beyond the strategic cycle, its defining features and how it interprets its mandate.

The other new feature is the formulation of four overarching, universal objectives for the Bank as a whole. We want to safeguard our culture of stability, strengthen our role in the European setting, enhance the Bank's perceived profile, and make it fit for the future and efficient. The overall Bank objectives are intended to make the strategy even more clear and focused. More information can be found in the article on the Bundesbank's strategic orientation published in this issue of the *Annual Report*.

I am aware that strategic planning is but one element in the success of the Bundesbank's work. The expert knowledge and hard work of its staff are the factors that determine the Bundesbank's ability to meet high standards. This year, too, our staff have once again displayed extraordinary commitment and competence in their efforts to fulfil our myriad and important tasks, demonstrating once again that they are the Bundesbank's key asset. On behalf of the entire Executive Board, but also on my own personal behalf, I would like to thank them for going far above and beyond the call of duty. My thanks also go to the staff representation committees for their invariably constructive cooperation.

Frankfurt am Main, February 2017

Dr Jens Weidmann
President of the Deutsche Bundesbank

Strategy 2020

Strategy 2020 is the fourth iteration of the medium-term strategic orientation set for the Bundesbank by its Executive Board. The strategy allows the Bank to gear its tasks and activities across the entire institution towards shared goals over the next few years. It thus acts as a roadmap, both within the Bank and externally. At other central banks and public institutions, too, the importance of strategies as a tool for target-based management has grown significantly in recent years.

Strategy 2020 differs from the earlier strategic cycles in that it has two key new features. First, Strategy 2020 is, for the first time, preceded by a dedicated Bundesbank mission statement. Together with the Eurosystem's mission statement, it forms the long-term roadmap for the Bundesbank. It expresses the Bundesbank's defining features, how it interprets its mandate and the future vision it aspires to over and beyond the individual strategic cycles. The mission statement is thus also intended to guide employees in their day-to-day conduct in the Bank.

The second feature incorporated for the first time was the formulation of four overarching, universal objectives for the Bank as a whole. These lend the strategy clarity and focus, and are designed to foster cooperation across all business units. Each of the four objectives for the Bank as a whole is underpinned by strategic objectives and measures.

Management staff from all quarters of the Bank were involved in developing Strategy 2020, which meant that the process was conducted transparently and openly and resulted in a strategy that enjoys broad support. Leadership conferences were held, amongst other things, to discuss the interim results prepared in various workshops and for the Executive Board and management staff to jointly elaborate the strategic directions to be taken.

A material element of the new strategic cycle is internal and external communication. By way of example, one internal communication measure gave employees the opportunity to ask questions about the new strategic cycle in a chat. As for external communication, the chief task is enriching the Bundesbank's website with information on the mission statement and Strategy 2020.

Over the next four years, the implementation of the strategy will be closely overseen by Controlling, and the progress made will be reported to the Executive Board annually as part of a strategy review. This can also take into account changed conditions, which may necessitate adjustments to the objectives or measures.

Strategy development in the Bundesbank

Years of experience in strategy development

The Bundesbank can now draw on experience gained in three previous strategic cycles, which were launched with the structural reform in 2002. The key objective of the structural reform was to centralise and thus streamline the Bank and to make it more cost-effective. This restructuring had become necessary because the European System of Central Banks (ESCB) and the Eurosystem, of which the Bundesbank has been an integral component since 1998, had been established. The subsequent strategic cycles focused on raising the Bundesbank's profile and directing its energies towards long-term objectives. The current strategic cycle covers the period up to 2020.

Purpose of the strategy

Unlike the private sector, the Bundesbank does not seek to generate profits. Strategy development and strategic orientation therefore focus on ensuring that, in a world of increasingly rapid change, the Bundesbank fulfils its statutory mandate in a purposeful fashion. By formulating a strategy, the Executive Board is able to gear the Bank's actions towards common medium-term strategic objectives across the entire Bank and to manage the use of resources in a targeted way. This establishes a reliable framework and provides guidance internally for employees and externally for business partners and the general public.

Importance of strategies at other central banks and public institutions

The importance of strategies as a tool for target-based management has grown significantly in the last decade, both at central banks worldwide and at public institutions more generally. For many years, representatives of such institutions' controlling units have maintained international and national networks in which to share information and experience relating to questions of strategic management. The Bundesbank plays a role in this exchange at the national level through its involvement in the

A voice from the working group "Management and Control in Public Institutions": managing with targets – the Bundesbank delivers a convincing example

"Companies are managed through targets, public administration is managed through laws, regulations and implementing provisions. While the former look at the results of their actions, the latter focuses on the actions themselves.

Is this cliché still true? For years, public administration has tried to learn from business (new public management), albeit with only moderate success. Introducing target-based management is less of a technical challenge than a fundamental change process, which must get people on board.

Only a few public institutions have made good progress towards target-based management. Some of them, including the Deutsche Bundesbank, are members of the Management and Control working group. The Bundesbank can contribute the experiences it has made with a planning process that starts with setting strategic targets and ends when these are implemented in day-to-day operations. This gives the Bank direction in an environment that is increasingly volatile and can only be managed by making clear decisions on the direction to take. The Bundesbank is therefore leading the way."

Professor Jürgen Weber of the WHU – Otto Beisheim School of Management and co-founder of the working group "Management and Control in Public Institutions"

Views of other central banks on the significance of strategic planning

"In 2015, the European Central Bank's Executive Board decided to introduce a three-year plan laying out the strategic priorities for all the Directorates General. This measure is aimed at achieving better prioritisation and orientation of the current and future activities of each individual business unit. Such a measure also enables us to examine the *status quo* with a critical eye and to concentrate on those activities which are truly important for the organisation. The four-month pilot project was launched successfully in 2016 and will be continued from 2017 as a comprehensive process in an ongoing, rolling three-year cycle."

Michael Diemer, Chief Services Officer, European Central Bank

"In an ever-changing world, medium-term strategic planning helps us to respond to new opportunities and potential threats in order to provide the best possible public service. By providing a clear vision of the Banque de France's activities in the medium term, the Strategy and Perspective Division encourages all managers and staff to take an active role in our transformation. Moreover, all major firms in France are required by law to disclose their main strategic orientation and inform the unions (or works councils) of the underlying figures once a year."

Nathalie Aufauvre, Head of the General Secretariat, Banque de France

"The Central Bank of Ireland recently prepared and published its fifth Three Year Strategic Plan. Our experience is that having a high-level Strategic Plan in place frames the context and environment in which the Bank operates, both in the Eurosystem and domestically. Through the alignment of medium-term strategic initiatives, operational plans and personal objectives with the Strategic Plan, staff can identify more clearly how their own role fits within the organisation and how they can impact on the outcomes we are endeavouring to achieve. Having a Strategic Plan in place helps to prioritise what gets done and, as such, enhances effective decision-making."

Bernie Keppel, Head of Governance and Strategy, Central Bank of Ireland

"At the NBB, strategic scenarios have been drafted for all the Bank's activities. A roadmap divides these scenarios into stages, making it easier to monitor their implementation and carry out the annual assessment, while also enabling adjustments to be made where necessary. The NBB 2020 plan is a preliminary step to the annual budget cycle. The Bank wants to extend the principle of multi-annual governance to the other management instruments over the next few years."

Alec Schotte, Head of Strategy and Organisation in the Controlling Division, Nationale Bank van België/Banque Nationale de Belgique (NBB) working group "Management and Control in Public Institutions".

At the European level, a strategy network was established in 2016 within the Eurosystem's Organisational Development Committee (ODC); this network is chaired by a Bundesbank representative.

The mission statement: a constant framework

Eurosystem's mission statement and Bundesbank's mission statement as framework

As one of 19 national central banks in the Eurosystem, the Bundesbank operates within the overarching framework defined by the common Eurosystem mission statement as well as shared organisational principles and strategic guidelines.

Strategy 2020 is based on newly developed Bundesbank mission statement

Building on this, the Executive Board of the Bank, together with management staff, developed the Bundesbank mission statement prior to the start of the current strategic cycle. It serves as a roadmap and orientation guide over and beyond the current strategic cycle and answers fundamental questions, such as: What does the Bundesbank stand for? What are its defining features? Where does it want to go? Strategy 2020 is based on this mission statement, which comprises a trio of vision, mission and guiding principles.

The Bundesbank's vision

The vision is the big picture of what the Bank is aiming to look like in the long term.

The Bundesbank's mission

The Bundesbank's mission describes in more detail what the Bundesbank's defining features are, and how it interprets its role and mandate.

The Bundesbank's guiding principles

And finally, the guiding principles constitute guidelines for day-to-day actions and describe the Bundesbank's particular strengths.

The Bundesbank's vision

Deutsche Bundesbank

The Bundesbank's mission

Contributing to stability

As an integral part of the ESCB, we contribute to its primary objective – safeguarding price stability – and share responsibility for the stability of the financial system. In addition, we ensure robust payment and settlement systems and assure the national cash supply. We perform tasks in the field of European and national banking supervision, manage Germany's foreign reserves and aspire to anchor our stability culture in the minds of the general public.

Our employees are our greatest asset

Our employees' strong personal and professional skills, their commitment and our research work are what enable us to fulfil our tasks successfully.

Independence

Our actions are always guided by our legally mandated independence and responsibilities, and we respect the rules of an open market economy with free competition. We consider the legal foundations of monetary union enshrined in the Maastricht Treaties to be essential for us to successfully fulfil our tasks.

Deutsche Bundesbank

Development process and special features of Strategy 2020

Stocktaking workshops

Strategy 2020 was developed in a little over a year. On the basis of the mission statement, and building on the experience gained from Strategy 2016, the first step was to assess the state of progress. With external assistance, the strengths and weaknesses as well as opportunities and risks of all business areas were analysed. This was then used to derive proposals for specific areas of action and main strategic directions, also termed strategic policy options. The participants also analysed which issues and business areas required strategic action in the next cycle.

Leadership conference with the Executive Board

The results of the analyses were discussed with the Executive Board at a leadership conference. Particular strategic potential was ascribed mainly to research, financial stability, monetary policy and statistics. Raising the profile of the Bundesbank's analytical capabilities was thus afforded particular attention in Strategy 2020. For many other areas in which the Bank operates, the Executive Board had already made fundamental decisions in the preceding cycle. Against this backdrop, no additional need for

The Bundesbank's guiding principles

We are experts in analysis

Our strong analytical expertise sets our ideas and performance apart within the Eurosystem/ESCB and at the international and national level. Our highly qualified employees and practice-oriented research in key policy areas are crucial to our success.

We are the central bank for Germany

As Germany's central bank, we have a local presence across Germany's regions, where we share our expertise in a number of areas, including payments, cash management, banking supervision, credit assessment, economic education and monetary policy. Our public relations work is making a significant contribution towards anchoring our stability culture in the minds of the general public.

We have strong operational expertise

Our operational expertise and forward-looking approach make us a reliable partner in the Eurosystem and for our customers. As an integral part of the Eurosystem, we provide individual services – including in cooperation with other central banks – to the Eurosystem and use services offered by partner central banks. We therefore have a hand in shaping both the Eurosystem and its products. In accordance with our statutory mandate, we do not crowd private services out of the market.

We are credible in our actions

By acting with credibility, we ensure our independence. We perform our tasks responsibly and transparently. This is the basis for the confidence the population and the markets have in our stability focus. By making decisions that are comprehensible and reasoned, we strengthen our employees' team spirit and their identification with the Bundesbank.

We embrace a culture of openness and cooperation

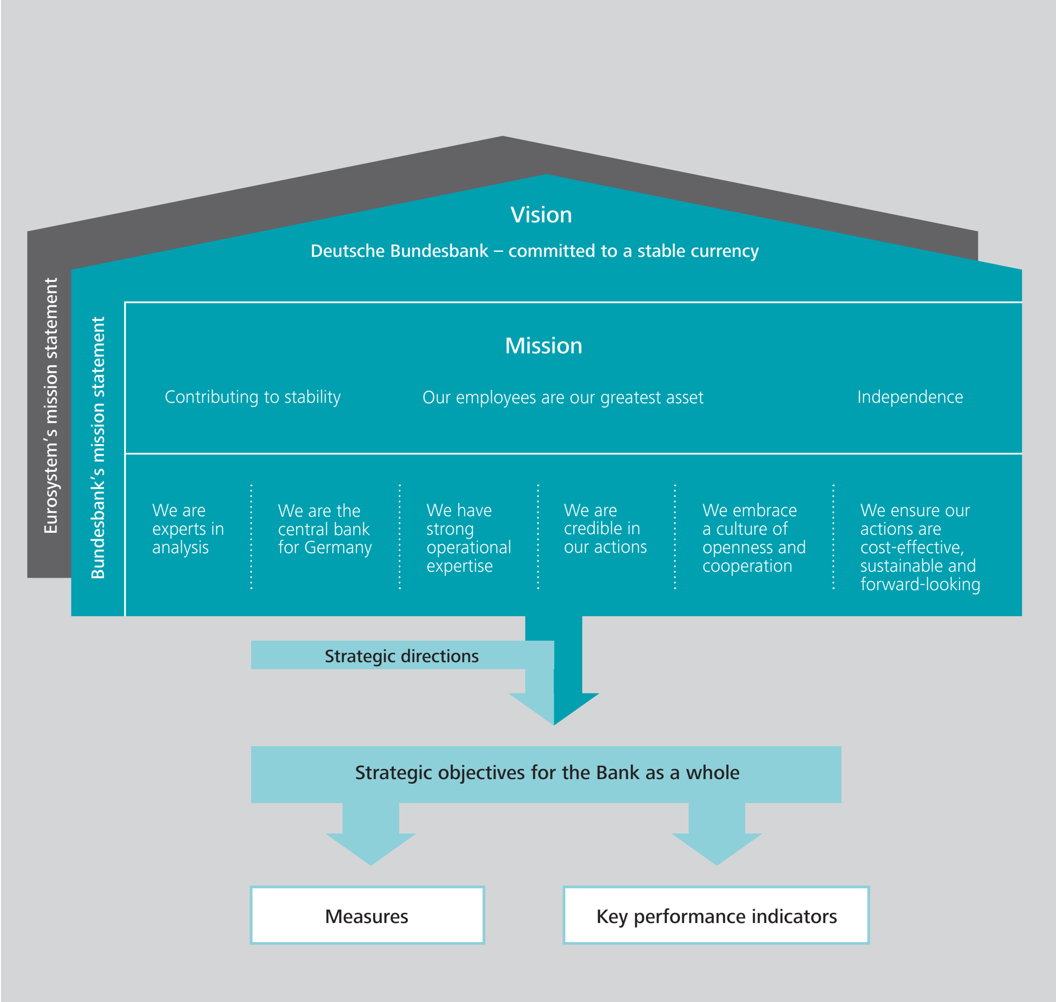
At the Bundesbank, we embrace a culture of openness by promoting respect and trust across all business areas and by actively implementing our management principles, with all parts of the Bank working towards its common goals. This makes us a trustworthy partner for our customers and a valued employer.

We ensure our actions are cost-effective, sustainable and forward-looking

We are effective and efficient at fulfilling our statutory duties. At the same time, our actions follow the principle of sustainability.

Deutsche Bundesbank

Overview of the strategy with the mission statement as the framework



Deutsche Bundesbank

further strategic action was identified in those areas. With regard to cash management, for example, earlier decisions are being implemented with the construction of the new "superbranch" and the commissioning of new banknote processing machines. Moreover, the Executive Board reaffirmed that smooth operations in all areas of the Bundesbank are crucial to its success.

Following on from the leadership conference, the Executive Board adopted main strategic directions at the start of 2016 and tasked the business units with proposing strategic objectives, measures and key performance indicators (KPIs) on this basis to flesh out the strategy. The Executive Board and management staff discussed the resultant strategic objectives and measures at a closed leadership conference, and the strategic objectives were then adopted by the Executive Board. From this basis, work began on developing appropriate KPIs.

Involving and gaining support of management staff

The inclusion of management staff from all areas of the Bundesbank in the process of developing the strategy was key to ensuring its broad support and making the process transparent and open. The last strategic cycle had already revealed how crucial it was that the strategy was supported by the Executive Board and management staff as well as all employees. This allowed it to be translated into reality successfully.

Focus on four overarching, universal objectives for the Bank as a whole

A new feature of Strategy 2020 is that all 27 strategic objectives relating to specific business areas were mapped to four overarching objectives for the Bank as a whole. These are:

- Safeguard a culture of stability
- Strengthen our role in the European setting
- Enhance the Bank's perceived profile
- Make the Bank fit for the future and efficient.

This enabled the Bank to bundle the business area-specific strategic objectives at the Bank-wide level, to clarify the direction of its strategic actions in the current strategic cycle, and to strengthen cooperation across all business units. As a result, Strategy 2020 is more clear, focused and streamlined than its predecessors.

Strategy 2020 in depth

Strategy 2020 includes Bank-wide objectives, strategic objectives, measures and KPIs

Each of the four universal objectives for the Bank as a whole, with the 27 business area-specific strategic objectives, is underpinned by concrete measures. These are intended to illustrate how the business units aim to achieve the strategic objectives at the current point in time.

Four objectives for the Bank as a whole

In the following, individual examples are used to illustrate the specific strategic objectives mapped to each of the four objectives for the Bank as a whole and to show how these strategic objectives contribute to achieving those Bank-wide objectives.

Safeguard a culture of stability

The business area of monetary policy has a key role to play in the objective for the Bank as a whole to "safeguard a culture of stability". This anchors the Bundesbank's advocacy of a stability-oriented monetary policy framework as a strategic objective. Amongst other elements, this will entail using analytical evidence to garner support for independent monetary policymaking among the general public and both national and international institutions. In this process, applying a narrow interpretation of the Bundesbank's mandate will allow it to maintain sufficient distance from fiscal policy. To help achieve this, the Bank aims, for instance, to foster a better understanding of the specific effects of monetary policy. In addition, monetary and economic policy topics that are likely to have a major bearing on the Eurosystem in the future are to be incorporated *ex ante* into annual workload schedules.

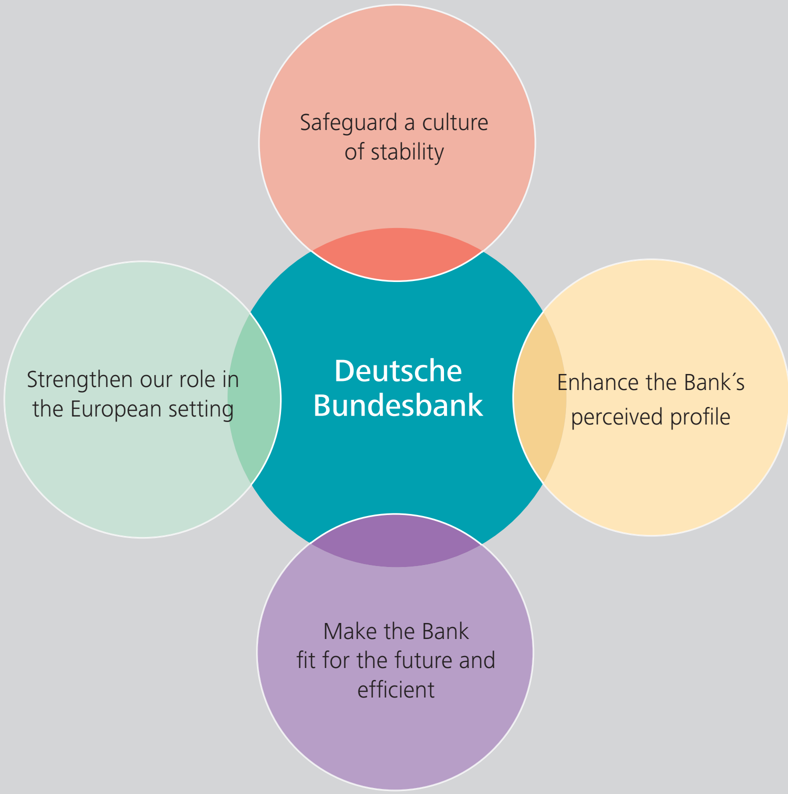
Strengthen our role in the European setting

A number of specific strategic objectives for various business areas expand on the objective for the Bank as a whole to "strengthen our role in the European setting". For example, one strategic objective from the business area of payments is for the Bundesbank – as one of the 4CB (alongside the central banks of France, Italy and Spain) – to develop and operate payment and securities settlement systems (TARGET2, TARGET2-Securities), amongst other projects. In April 2016, the Governing Council of the ECB set up the Market Infrastructure Board, or MIB. This is the management body for project and operational activities relating to market infrastructures and back office applications provided by the Eurosystem in payments, securities settlement and collateral management. The Bundesbank has set itself the objective of participating as a strong partner in the 4CB and on the MIB in designing, developing and operating market infrastructures and adding value in the field of collateral management, thereby reinforcing the Bundesbank's position within the 4CB and the Eurosystem. The Bundesbank stands ready to take on further tasks in its role as a service provider.

Enhance the Bank's perceived profile

One of the strategic aims implementing the objective for the Bank as a whole to "enhance the Bank's perceived profile" is, for instance, to improve the quality of the Bank's research publications and raise its profile among the general public and in political decision-making processes. The Bank aims to achieve this, notably, through its "Research Brief", a new publication

Four objectives for the Bank as a whole



Deutsche Bundesbank

featuring regular contributions from all areas of the Bank involved in research. In addition, it aspires to liaise more closely with market participants and experts; the Financial Stability Forum, which is organised by the Bank, provides a platform for the regular exchange of views in that particular field.

Make the Bank fit for the future and efficient

The Bundesbank has to compete for talented, highly motivated staff and will be substantially affected by demographic change. To address this, it intends to be mindful of demographic developments in its staffing policy so as to ensure that all business areas can recruit sufficient qualified staff at all times and its existing employees' performance and fitness for work is maintained. As well as making greater use of modern HR marketing tools and continuing to expand and refine health promotion measures for employees, this process will also encompass all measures which encourage a corporate culture that values equal opportunities and cooperation, such as the aim of increasing the proportion of women in managerial positions.

The Bundesbank is also taking concrete steps to help protect the environment and prevent climate change. Its environmental guideline and environmental strategy, which are embedded in the strategy for the Bank as a whole, form the cornerstone of the strategic objective to use environmental resources sustainably and lower their consumption.

KPIs as a management tool

Appropriate KPIs have an important role to play in monitoring how the objectives for the Bank as a whole and individual strategic objectives are being implemented. It is necessary to ensure that these KPIs are closely connected to the objectives and to illustrate as explicitly as possible how specific measures are contributing towards the fulfilment of an objective. For this reason, both input indicators (eg use of resources) and output indicators (eg performance or activity figures) are employed. Ideally, however, outcome indicators should be used (impact indicators, eg evaluation by a relevant target group); these provide very meaningful information on how well the objective has been met.

Quantitative and qualitative indicators both play an important part in the Bundesbank's assessment of progress towards achieving its objectives. Particularly as the Bundesbank does not have an overarching profit target, a great deal of attention is paid to qualitative indicators. As part of the Strategy 2020 process, KPIs are being devised in cooperation with the Bank's business units. The benefits of this approach are that it takes full advantage of the units' expertise, increases acceptance and raises awareness of the indicators' importance.

Strategy 2020: outlook and implementation

Communication key to turning mission statement and strategy into reality

To successfully turn the mission statement and strategy into reality, it is important to communicate the key messages behind them to the Bank's employees. Unlike in the previous strategic cycles, the Executive Board took the first step of agreeing a mission statement for Strategy 2020, which staked out key parameters. Involving management staff at an early stage laid solid groundwork for communicating the strategy to employees later on. Staff were given numerous opportunities to ask questions while the strategy was still under development, eg at events attended by the President of the Bundesbank. Once the Executive Board had adopted Strategy 2020, new methods for communicating with employees were applied alongside conventional routes such as the staff magazine and the intranet. For example, there was a staff awareness campaign spanning several weeks in which posters presenting the mission statement and the individual guiding principles were displayed. Another innovation was that President Weidmann fielded questions from employees about Strategy 2020 in a live chat held shortly after its adoption.

Annual strategy review provides Executive Board with overview of implementation progress and offers opportunity for adjustments

In the coming years, a strategy review will be performed annually, providing the Executive Board with an overview of the progress made in implementing the strategy across the Bank. This will include both a review of Strategy 2020 as a whole and a detailed look at the individual objectives and measures. The strategy review will also identify any areas requiring further action; strategic readjustments may be needed. This means that the strategy is not set in stone. Where necessary, it can be adapted over time, say, if the external environment changes.

Coordination between strategic and operational control is key

As in the previous strategic cycles, it will remain important to continually monitor the implementation and refinement of Strategy 2020 through strategic planning in Controlling. The strategy's successful implementation will also hinge largely on close coordination between strategic and operational control. The strategy will provide vital input for the annual operational planning process. In turn, the results of the target/performance analysis will feed into the ongoing strategy review.

"Sharing central bank knowledge" – the Deutsche Bundesbank's economic education activities

The Deutsche Bundesbank reaches out to the general public through a diverse range of printed materials, online resources and public events, providing information about its legal mandate, the tools it uses and the extent to which it achieves its objectives. This type of information has long been sought after, particularly by schools, especially since monetary policy is on the upper secondary school curriculum in several of Germany's federal states. This is why, a number of years ago, the Bundesbank developed a range of educational resources and events tailored primarily to the needs of teachers and schoolchildren.

This economic education programme provides a basic grounding in the areas of money, monetary stability, central banks and the financial system. It aims to enable the general public to gain a better understanding of the importance of price stability as well as the tasks of the Bundesbank and the Eurosystem. The focus is on "central bank knowledge", which is essentially derived from the Bundesbank's core areas of responsibility: monetary policy, the financial and monetary system, banking supervision, cash management and cashless payments.

The Bundesbank has recently redesigned its economic education programme, improving its substance and significantly expanding its volume. As part of this overhaul, the Bundesbank's Money Museum was reopened to the public in December 2016 following a major revamp of its layout and contents.

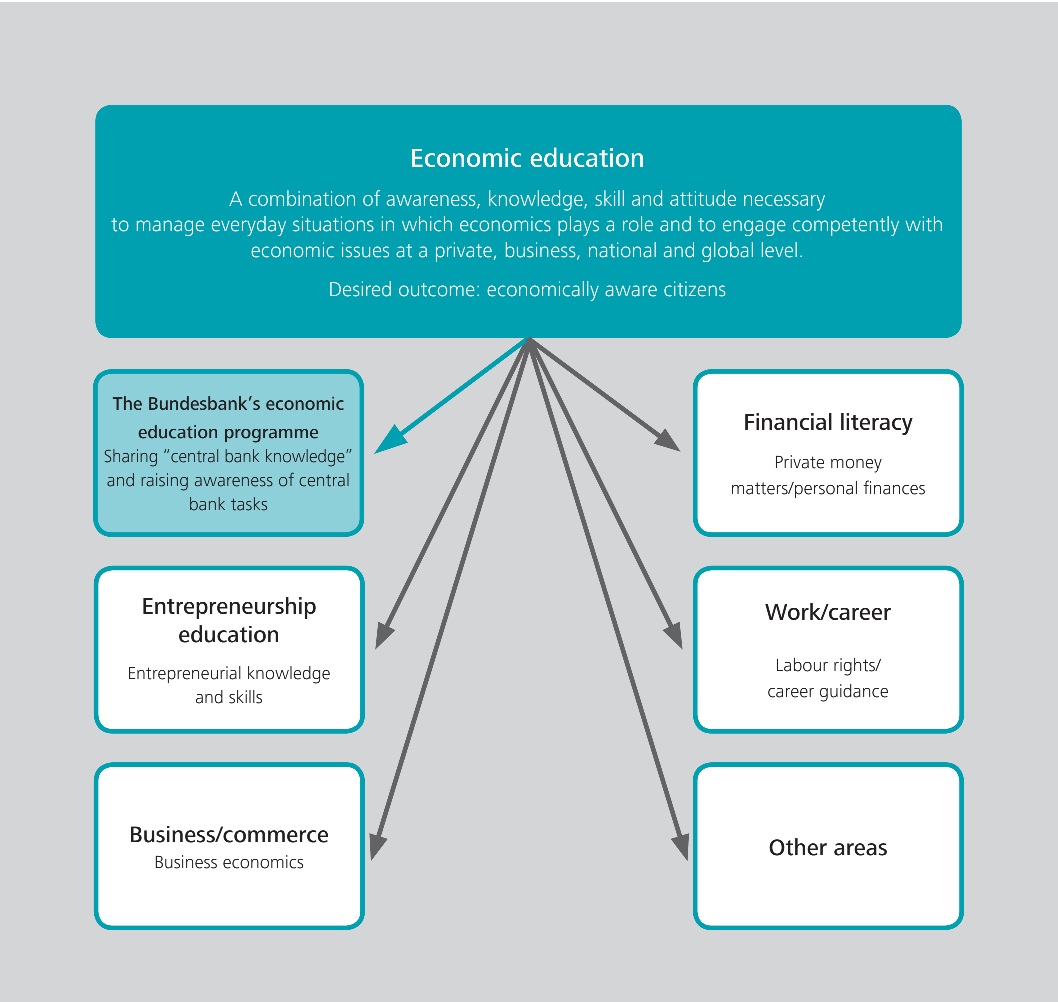
Aims and contents of economic education activities

Central bank's stability-oriented policy also needs public support if long-term price stability is to be maintained

The Eurosystem central banks have a legal mandate to maintain price stability in the euro area over the medium term. The Bundesbank's economic education programme is designed to help fulfil this mandate. That is because one of the most important factors in preserving long-term price stability is knowing that the general public understands and supports the stability orientation of monetary policy and trusts the central bank's work. Building and maintaining this trust can be achieved more readily if the public has an idea of the central bank's tasks, goals and tools, as well as the extent to which it achieves its objectives – and, not least, if it understands which economic policy objectives fall outside the central bank's remit.

The Bundesbank's economic education activities therefore use a variety of approaches to give its different target groups a basic grounding in the topics of money, monetary stability, central banking and the financial system. The desired outcome is a deeper public understanding of the importance of monetary stability as well as the tasks of the Bundesbank and the Eurosystem. At the same time, the Bun-

Areas of economic education



Deutsche Bundesbank

desbank's outreach activities help it fulfil the accountability and reporting obligations it has towards the general public as an independent central bank. Economic education differs from the Bundesbank's other communication activities in two respects, one being that it largely involves conveying basic knowledge, the other that it is tailored to specific target groups.

"Central bank knowledge" is one area of economic education

The focus of the Bundesbank's economic education activities is on sharing "central bank knowledge" – that is to say, the subject matter is mainly geared to the Bank's core areas of responsibility, which are monetary policy, the financial and monetary system, banking supervision, the provision of cash, and cashless payments. By sharing central bank knowledge, the Bundesbank covers one specific area of economic education (see the chart on page 34).

The Bundesbank's economic education programme does not directly cover financial literacy, which deals with private money matters, or the topics of investor and consumer protection. However, it does explain issues and instruments which have a bearing on these areas (for example, What is a share? What is a loan?) if the context requires.

Target groups of the Bundesbank's economic education

Target groups of the Bundesbank's economic education: teachers, schoolchildren and students

The Bundesbank's economic education programme consists of lectures and educational materials, the latter available in printed format or online for download from the Bundesbank's website. In target group terms, the programme mainly reaches out to teachers, trainee teachers, schoolchildren and students of economics. That said, the learning resources, certain lectures, and the Money Museum adjacent to the Bundesbank's Central Office in Frankfurt am Main are available for use by the general public, too.

Main target group: teachers

Teachers are the main target group of the Bundesbank's economic education activities, given their role as multipliers who pass on the central bank knowledge they acquire to large numbers of schoolchildren over the course of their careers. Working together with teachers therefore allows the Bundesbank to maximise the benefit of its educational resources, which can be best achieved by focusing on teachers covering monetary policy topics. Besides reaching out to incumbent school teaching staff, the Bundesbank's programme is also aimed at trainee teachers who are either still at university or in practical training.

Depending on which federal state they are in, German schools treat the subjects of economics, finance and currencies with different levels of importance and cover them in different areas of the curriculum. As a result, monetary policy is not part of teacher training courses everywhere in Germany, or makes up just a fraction of the syllabus. Against this backdrop, the Bundesbank's economic education programme allows teachers to find out for themselves about central banking or brush up on their existing knowledge.

Another important target group: the younger generation

Young people are the second major target group for the Bundesbank's economic education activities. The focus here is on students in upper secondary education, given that central banking-related topics (especially monetary policy) are mostly taught to these older schoolchildren at both general secondary schools and vocational schools. Learning resources are also available for primary and lower secondary school pupils, although these levels have not been a focus of the Bank's lectures in the past.

Another group at which the Bundesbank's range of economic education services is aimed are students whose courses cover aspects of monetary policy. Both students of economics-related subjects, and also those studying economics as a non-core subject, such as law students, normally need extra information and also use the educational resources provided by the Bundesbank.

Economic education in an international context and in the field of research

Much like the Bundesbank, many other central banks offer educational materials that are specifically designed for use in a school classroom setting. Such services are provided by virtually all Eurosystem central banks, including the European Central Bank, as well as by the US Federal Reserve and the Swiss National Bank, for example. The available materials range from comics to textbooks with worksheets, and include online games along with educational films accessible via the internet.

While some other central banks are also active in the area of financial literacy, the Bundesbank has focused its range of educational media on conveying central bank knowledge. The Bundesbank does, nonetheless, monitor developments at both the national and international level in the field of general financial education. In this connection, the Bundesbank – just like the Federal Financial Supervisory Authority (BaFin) – is a member of the International Network on Financial Education (INFE) under the aegis of the Organisation for Economic Co-operation and Development (OECD). This network was established in 2008 and currently counts just under 100 public institutions from more than 70 countries as full members. The INFE draws up international recommendations and guidelines on financial education. Furthermore, the INFE coordinates international comparative studies to determine, for example, the level of financial literacy in various countries.

Questions relating to general knowledge about financial matters are also of relevance to the field of economic research. This is the context in which the Bundesbank's Research Centre dedicates itself to this topic. The Bank's Research Centre investigates, for example, what relationship exists between the level of financial literacy and households' investment and savings decisions.

Economic education activities performed by Central Office and Regional Offices

Central Office plans and coordinates education activities and develops resources

Both the Bundesbank's Central Office in Frankfurt am Main and the Regional Offices are responsible for the Bank's economic education activities. Central Office manages the strategic planning and coordination of education activities and is responsible for developing and updating educational resources and their quality assurance. Its tasks also include designing the overarching public image for the Bundesbank's economic education activities and running the Money Museum, including the lecture service.

Regional Offices organise lectures and network in their regions

The Bundesbank's nine Regional Offices plan, design and run the lectures that form part of the Bank's economic education services in their local area. Their tasks notably include networking with schools, higher education institutions and educational establishments, which also include ministries of education and educational authorities, as well as teacher training institutions. Germany has a very heterogeneous education system because education falls within the remit of each state government. The decentralised approach which the Bundesbank takes to its economic education activities means that it can make suitable allowances for the diverse idiosyncrasies of each federal state when planning and holding lectures and teacher training seminars. The Bank can therefore deliver events that are tailored to suit the particular needs in a specific region.

Cooperation with teacher training institutions

To support these activities, the Bundesbank's Central Office and Regional Offices work with a large number of universities in the field of teacher training and cooperate with economic institutions. It has arrangements with universities in Berlin, Bonn, Frankfurt, Kiel, Leipzig and Saarbrücken, for example. In addition, it maintains a wide range of contacts with teacher training institutions in the respective federal states.

Cooperation with teacher training institutions (selection)

- Akademie für Lehrerfortbildung und Personalführung, Dillingen an der Donau
- Akademie für Politische Bildung, Tutzing
- Landesinstitut für Lehrerbildung und Schulentwicklung (LI Hamburg)
- Institut für Lehrerfort- und -weiterbildung in Mainz und in Saarbrücken
- Institut für Qualitätsentwicklung an Schulen Schleswig-Holstein (IQSH)
- Landesakademie für Fortbildung und Personalentwicklung an Schulen, Esslingen
- Landesinstitut für Schulqualität und Lehrerbildung Sachsen-Anhalt (LISA)
- Multiplikatorennetzwerk ökonomische Bildung in Hessen
- Sächsische Bildungsagentur (SBA)
- Thüringer Institut für Lehrerfortbildung, Lehrplanentwicklung und Medien (Thillm)

Deutsche Bundesbank

Networking with institutions for economic education and teachers

Another way in which the Bundesbank works with other providers of education programmes is by networking with the relevant institutions for economic education. These include the Institute for Economic Education (IÖB) in Oldenburg, the Center for Economic Education (ZÖBIS) in Siegen and the Association for Economic Education in Secondary Schools (VÖBAS), to name just a few. The Bundesbank also boasts its very own stand at didacta, Germany's major annual education fair, to help it stay in touch with teachers. What is more, the Bank showcases its economic education programme at the Frankfurt and Leipzig Book Fairs, as well as at a variety of consumer fairs. Teachers can also sign up for the Bank's regular newsletter to find out about the latest economic education activities and upcoming events.

Wide range of educational resources on offer

"Geld und Geldpolitik" – the Bundesbank's flagship economic education publication

All the Bundesbank's educational resources, be they in print or electronic format, are developed and produced centrally. The offering comprises resources that, for the most part, are specifically designed for use in schools. The entire repertoire of resources can be found on the Bundesbank's website,[1] meaning that they are also available to the general public. The Bank's flagship educational resource is *Geld und Geldpolitik* (Money and monetary policy), a book aimed at pupils in upper secondary education. This cornerstone of the Bundesbank's work in economic education can be traced back to previous publications that have been undergoing continual improvement since 1970. The book teaches its readers about cash, book money, banking and financial supervision, European monetary policy and its institutions, and the international financial and monetary system. It explains the basics, provides historical context and discusses more recent developments in the wake of the financial and sovereign debt crisis. In addition, each chapter is accompanied by teaching materials that can be used in the classroom in conjunction with the book. An online version of this book, which tackles topics in greater depth and contains links to other websites for further reading, is also available.

Resources for lower secondary and primary schools

The resources available to lower secondary schoolchildren currently comprise modular worksheets and factsheets on topics such as money, monetary stability and monetary union, with even more resources scheduled for rollout in 2017. As for primary school pupils, the

1 www.bundesbank.de/education

Bank's offering includes the publication *Mein Euro – Spiel- und Rechengeld* (My euro – play and counting money), which comes complete with worksheets. There is also a reading book entitled *Dem Geld auf der Spur* (All eyes on the money trail).

Additional resources available on the website

In addition, the educational section of the Bundesbank's website is home to a variety of statistical charts containing economic and monetary policy data for use in the classroom. These include, for instance, charts on consumer price inflation, exchange rate changes and policy rate developments. The charts are updated quarterly and can be downloaded directly from the website, so teachers can readily incorporate them into their own teaching materials. Teachers are also welcome to download infographics featured in the *Geld und Geldpolitik* book, which provide a condensed overview of various topics – the composition of the ECB Governing Council being just one example – and likewise put them straight to use in a classroom setting.

Yet another resource on the Bundesbank's website is its extensive glossary, which contains around 700 terms and acronyms from the field of central banking. Many glossary entries include links to related entries and in-depth Bundesbank articles.

Animated educational films shine light on complex topics

Another resource that the Bundesbank's website uses to explain complex and abstract topics from the world of central banking as clearly as possible are animated educational films, for which a unique graphic concept was developed. Furthermore, the website features interactive applications such as an inflation/deflation calculator and a quiz.

Media package on price stability produced with federal states' media institute

Every now and then, the Bundesbank teams up with other public sector institutions to produce educational resources. Working together with the FWU Institut für Film und Bild in Wissenschaft und Unterricht, the joint educational media institute for Germany's federal states, the Bundesbank developed a media package on the topic of price stability, which comprises a film and supplementary teaching resources. The film follows two young people who find themselves in situations where their lives are directly affected not only by money and price stability but also by monetary policy measures undertaken by the Eurosystem. As well as including both a German and English-language version of the film, the media package includes a barrier-free version with an audio description track. Produced in 2015, the media package won the Comenius EduMedia Award, a prestigious prize for digital educational media awarded by the Society for Pedagogy, Information and Media (GPI).

"Kinderfunkkolleg Geld" in cooperation with Hessischer Rundfunk

Germany's public broadcaster in the federal state of Hesse, Hessischer Rundfunk, also ranks among the Bundesbank's cooperation partners. As part of the hr2 radio station's "Kinderfunkkolleg", a course of audio lectures for children covering various topics, the two partners developed the 25-part series "Kohle, Cash und Pinkepinke" (Dosh, cash and dough) on various money-related topics, which was broadcast once a fortnight starting in October 2015 and was made starring children, for children. These episodes are also available for download as podcasts on a separate website, which, as well as boasting a wide range of teaching materials, is home to audio puzzles, reports on school media projects and glossary entries.[2]

Lectures and seminars

Lectures form second pillar of Bundesbank's economic education programme

Expanding on the Bundesbank's diverse and varied range of educational resources are its lectures and seminars, which form the second pillar of its economic education programme. These events are offered nationwide and individually tailored to each target audience's requirements, not least as a result of Germany's education system differing from state to state. The topics that these events should ideally cover and the audience's educational background

2 www.kinderfunkkolleg-geld.de

The new Money Museum: a unique venue which makes learning an experience

The Bundesbank established the Money Museum back in 1999 as a venue dedicated to economic education. Its presentation of the topic of monetary policy and use of an attractive repertoire of multimedia were so pioneering that it inspired a great many other central banks to emulate these approaches. Since opening its doors, the Bundesbank's Money Museum has welcomed around 40,000 visitors a year, most of whom are schoolchildren.

After more than ten years of faithful service, elements of the exhibition were slowly beginning to show their age, not just in terms of their content and design, but also with regard to the technology. This prompted the Bundesbank's Executive Board to decide in 2011 that the Bank's Money Museum needed to be overhauled. In December 2013, following a public call for tenders, the Executive Board awarded a contract to Stuttgart-based museum planning

Photograph: Uwe Nölke

Photograph: Uwe Nölke

specialists Milla & Partner to design and build an exhibition space that best implemented the Money Museum approach developed by the Bank's Directorate General Economic Education. After three years of intensive cooperation between Bundesbank experts and more than a dozen external firms, Bundesbank President Jens Weidmann reopened the Money Museum, as planned, on 16 December 2016.

The Money Museum invites visitors to learn the basics about money, its history and the tasks and responsibilities of central banks. Its overriding message is the importance of stable money for the economy and society at large. In its new and revamped form, the exhibition presents the Bundesbank as a central bank that, within the context of the Eurosystem, performs essential tasks to safeguard the functional viability of money – nationally, throughout Europe and around the world. Thematically, the exhibition does not mirror the structure of the Bundesbank as an institution but looks at money from the vantage point of a central bank. It reflects critically on a number of issues on the basis of examples taken from history.

The Money Museum lets the general public learn and experience for themselves what money and central banks stand for. Central banking topics can be somewhat abstract, so the exhibition makes them more approachable by embedding them in everyday situations that visitors will probably encounter in real life (for example, a bank branch, a supermarket or a bureau de change). Individual display cases present topics specifically for children. More than 40 interactive media stations use playful approaches to present exhibition content (including quizzes, memory games and puzzles) and impart more detailed knowledge.

Photograph: Uwe Nölke

Most of the exhibition is accessible to persons with disabilities. A conscious decision was made to position wall captions, images and graphics at different heights, and key statements are written in large, high-contrast type. There is an audio guide to the exhibition for the visually impaired, and the entire exhibition is captioned in German and English.

The exhibition is ideal for self-directed visits. By arrangement, visitors can enhance their museum experience by making use of educational services such as guided tours, discovery tours and workshops, and a lecture service for school groups and students. Since its renovation, the Money Museum now houses three lecture rooms for presentations and discussions, as well as a museum education room.

The tour leads visitors through the four themed areas: “Cash”, “Book money”, “Monetary policy” and “Global money”. In each one, the left-hand side of the outer wall of the tour route explains the current and general context and illustrates the central bank’s tasks in that particular field. The interior wall, meanwhile, explores the theme from a historical perspective. At the entrance of each themed area is what is known as a “supersign”, which offers a “speed read” of the key issues and messages in each area. The museum boasts dedicated rooms (cabinets) which present individual topics in greater detail and provide an immersive experience for visitors.

One of the exhibition’s highlights is a 12.5 kilogramme bar of gold which visitors are permitted to touch and lift. At the heart of the exhibition tour lies a 360° cinema. Three films use stimulating and thought-provoking elements to immerse visitors in different experiences and challenge them to reflect on, question and discuss what they see.

are determined upfront. This format aims to enable participants to pose questions and critically discuss topics. As well as taking place on Bundesbank premises, events are also hosted by external venues such as schools, universities and teacher training institutions. Teacher training seminars tend to last anywhere between half a day and a full day, whereas events for schoolchildren typically consist of a 90-minute talk, including time for discussion. Meanwhile, events for students are normally offered in conventional formats such as lectures and seminars spanning one or several days.

High demand for lectures

In 2016, total attendance figures across more than 1,600 economic education events reached around 52,000. Now that the Money Museum has reopened following its closure for renovation, lectures will also resume at the Bundesbank's Central Office in 2017. As a result, it is safe to assume that total attendance figures at such events are likely to rise further.

Further to the established lecture programme, Bundesbank President Dr Jens Weidmann has been meeting with teachers from all over Germany once a year since 2013 to exchange views on current monetary policy issues and the manner in which they are taught in the classroom. Dr Weidmann has also been regularly meeting with schoolchildren in a similar format since 2014.

Generation €uro Students' Award competition

Another of the Bundesbank's tasks in the field of education is the coordination at the national level of the Generation €uro Students' Award competition, an initiative set up by the European Central Bank. In this competition, teams of school pupils from euro-area countries tackle questions on monetary policy. The German final of this competition is held at the Bundesbank's Central Office, with the subsequent European final being hosted by the European Central Bank.

Quality assurance

Internal evaluation

The Bundesbank has measures in place to assure the quality of its economic education activities. Working groups from the Regional Offices and Central Office prepare standardised presentation slides on lecture topics for which demand is greatest. As well as making it possible to leverage synergies when preparing lectures, this approach also safeguards their professional quality, ensures that presentations have a consistent look and guarantees that they are updated on an ongoing basis. On top of this, all lectures are evaluated internally by means of participant surveys, which enables speakers to receive direct feedback from their audiences.

External evaluation

Evaluation specialists from Univation – Institut für Evaluation Dr. Beywl & Associates GmbH assessed the range of economic education services offered by the Bundesbank at the end of 2015/start of 2016. This exercise set out to explore whether the existing economic education services were properly tailored to their target groups, had the desired reach and met their outlined objectives. An external academic advisory committee made up of distinguished university lecturers from the field of economic education also played a role in the evaluation.

This external evaluation concluded that the Bank's range of services should be maintained and refined, affirming that the Bundesbank's economic education services are expedient, rated highly by the target groups and bear the hallmarks of the Bank's expert status and neutrality. It also confirmed that the programme stood out on account of the high degree of expertise provided, its up-to-date content and its real-world applicability. The reach of the Bank's economic education services and the extent to which the respective target groups are familiar with them were noted as points with potential for further development. In addition, the provision of teaching and learning materials was cited as another area with room for improvement. There are plans to repeat this external evaluation every five years.

Chronology of economic and monetary policy measures

1 January 2016

The Single Resolution Mechanism (SRM) becomes operational and the Single Resolution Board (SRB) receives full authority to resolve credit institutions. This is intended to supplement the Single Supervisory Mechanism (SSM) to ensure the orderly resolution of failing cross-border banks. The Bank Recovery and Resolution Directive (BRRD) is also to be brought into play as a bail-in tool. It stipulates the minimum loss absorption requirement for shareholders and creditors in the event of a resolution, and was to have been transposed into the national legislation of EU member states by 1 January 2016.

The rates set by the individual statutory health insurance institutions for the additional contributions to be paid solely by insured persons rise significantly on average. The previous level of 0.8% goes up to 1.1%.

The basic income tax allowance is raised by €180 to €8,652. There is also a rightward shift in the other tax brackets. The child tax allowance is increased by €96 to €7,248 and the monthly child benefit allowance is increased by €2 per child.

27 January 2016

In its *Annual Economic Report* for 2016, the Federal Government anticipates real gross domestic product (GDP) growth of 1.7%. This growth is projected to be primarily driven by the domestic economy, particularly consumption expenditure and housing construction investment, and stimulated by a further increase in employment and substantial income growth.

24 February 2016

The Bundesbank publishes its annual accounts for the 2015 financial year. The profit of €3,189 million is transferred to central government.

7 March 2016

Cyprus terminates the adjustment programme agreed with the International Monetary Fund (IMF) in May 2013 ahead of schedule, but continues to be reviewed within the framework of the Post-Program Monitoring process. The IMF provided around €1 billion of financial assistance in total.

10 March 2016

The Governing Council of the European Central Bank (ECB) adopts another package of monetary policy measures. It cuts the rate on the deposit facility by 10 basis points to -0.40%. The main refinancing rate and the marginal lending facility rate are lowered by 5 basis points each to 0% and 0.25% respectively.

Another component of the adopted package of measures is the expansion of the volume of the monthly purchases under the expanded asset purchase programme (APP) by €20 billion to €80 billion as of April 2016. These purchases are intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term.

In addition, the APP is expanded to include a corporate sector purchase programme (CSPP), under which investment-grade euro-denominated bonds will be purchased from non-banks domiciled in the euro area. These CSPP purchases are scheduled to begin in June 2016.

Furthermore, the ECB Governing Council adopts a new series of four targeted longer-term refinancing operations (TLTRO II) in total. These operations will be carried out on a quarterly basis and are scheduled to begin in June 2016. Participating banks will be able to borrow a total amount of up to 30% of their outstanding loans to the non-financial private sector (excluding loans to households for house purchase) as at 31 January 2016, less any amount which is still outstanding under the first two operations in the first series of targeted longer-term refinancing operations (TLTRO I). Each operation will have a maturity of four years. The interest rate will be fixed for the entire term of each operation at the rate applicable to the main refinancing operations (MROs) at the time of allotment.

23 March 2016

The Federal Government approves the benchmark figures for the 2017 central government budget and for the fiscal plan up to 2020. Compared with the fiscal plan of summer 2015, the expenditure framework is noticeably expanded – not least due to the migration of refugees – in spite of interest charges being markedly lower than estimated. There is to be no net borrowing during the period as a whole. It is, however, planned to use the entire remainder of the refugee reserve funds of €6½ billion in the 2017 budget. For 2018, a global cut in expenditure in this amount is envisaged.

30 March 2016

The seventh of a total of eight TLTRO I operations is settled. This operation sees 19 institutions take up an overall volume of €7.3 billion.

31 March 2016

Cyprus completes the adjustment programme of the European Stability Mechanism (ESM) agreed in April 2013 as scheduled. A total of around €6.3 billion (roughly one-third of Cyprus' GDP) was paid out by the ESM.

13 April 2016

The Federal Cabinet presents an updated stability programme for Germany. It assumes real GDP growth of 1.7% in 2016, 1.5% in 2017 and 1.6% annually in the years thereafter up to 2020. The plans for the general government budget do not project any deficit until 2020 in either unadjusted or structural terms. The debt ratio is expected to fall to 59½% in 2020.

21 April 2016

The general government deficit and debt figures reported by the EU member states in their spring notifications are published under the European budgetary surveillance procedure, after validation by Eurostat. These figures reveal that Germany recorded a government surplus of 0.7% of GDP and a debt ratio of 71.2% in 2015. For 2016, the Federal Government's budget envisages a slight deficit of 0.1% of GDP and a decline in the debt ratio to 68.2%.

4 May 2016

The Governing Council of the ECB decides to stop producing and issuing the €500 banknote. It will, however, remain legal tender and always retain its value, and it can be exchanged at national central banks of the Eurosystem indefinitely.

3 June 2016

The Bundesbank anticipates real GDP growth of 1.7% in 2016, 1.4% in 2017 and 1.6% in 2018 (in calendar-adjusted terms, this equates to 1.6% in 2016 and 2017 and 1.7% in 2018). According to this projection, the German economy will consistently expand at a faster rate than production capacity. Against the backdrop of above-average aggregate capacity utilisation, consumer price inflation as measured by the Harmonised Index of Consumer Prices (HICP) is expected to rise from 0.2% in 2016 to 1.5% in 2017 and 1.7% in 2018. Excluding energy, the inflation rate would climb from 1.0% in 2016 to 1.5% in 2017 and 1.8% in 2018.

8 June 2016

In the course of the national monitoring of structural general government fiscal deficit, the Stability Council finds that the regular ceiling of

0.5% of GDP is being adhered to in Germany. The independent advisory board shares this assessment. The Stability Council also concludes that the federal states in receipt of consolidation assistance (Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein) have fulfilled their obligations to reduce their structural deficits in 2015 and thus approves the disbursement of a total of €800 million in assistance on 1 July 2016. However, Bremen in particular is called upon to increase its efforts to consolidate its budget.

16 June 2016

The Federal Government promises state and local governments further support to cushion the additional outlays resulting from the refugee situation. In particular, the accommodation costs for asylum seekers entitled to a basic allowance are to be fully reimbursed by central government.

21 June 2016

The Federal Constitutional Court establishes in its ruling on the ECB's Outright Monetary Transactions (OMT) programme that no major constitutional objections exist against the policy decision concerning the technical conditions of the OMT programme and its possible implementation subject to the restrictive conditions put in place by the European Court of Justice (ECJ) in its ruling of 16 June 2015. It announces that, if interpreted in accordance with the ruling of the ECJ, the OMT policy decision does not manifestly exceed the competences of the ECB, nor does it contravene the standardised ban on the monetary financing of governments laid out in Article 123 of the Treaty on the Functioning of the European Union (TFEU). The court does, however, stipulate that the implementation of the OMT programme must satisfy the conditions formulated by the ECJ in order to be compatible with EU law. If interpreted in accordance with the ECJ's judgment, the court does not perceive there to be a threat to the budgetary powers of the Bundestag or the constitutional identity of the Basic Law at the current juncture.

22 June 2016

The Governing Council of the ECB decides to reinstate the waiver permitting marketable debt instruments issued or fully guaranteed by the Greek government to be used as collateral in Eurosystem monetary policy operations. The waiver is granted on the basis of Greece's participation in an aid programme of the EU and the IMF.

23 June 2016

A majority of UK voters vote for the country to leave the European Union in a referendum. To initiate the exit process, the UK must activate Article 50 of the Treaty on the Functioning of the European Union (TFEU).

29 June 2016

The eighth and final operation in the TLTRO I series, launched in June 2014, is settled. This operation sees 25 institutions take up an overall volume of €6.7 billion. At the same time, the first of a total of four TLTRO II operations is settled, in which 514 institutions borrow an overall amount of €399.3 billion. Banks also have the option on this date to make early repayments of their outstanding volumes from the first seven TLTRO I operations. A total of €367.9 billion in outstanding TLTRO I loans is repaid on this occasion. Taken together, the net liquidity effect of the repayments under the earlier TLTRO I operations, the eighth TLTRO I and the first TLTRO II thus comes to €38.2 billion.

30 June 2016

HSH Nordbank transfers a portfolio of non-performing loans to the tune of €5 billion (as at 31 December 2015) to the "bad bank" HSH Portfoliomanagement AöR, a public sector special-purpose entity established by the federal states of Hamburg and Schleswig-Holstein, at a market price of €2.4 billion. Following a deduction of approximately €1.3 billion, borne by HSH Nordbank itself, the resulting loss of €2.6 billion is settled under the second loss guarantee provided by the state governments.

1 July 2016

Pensions increase by 4.25% in western Germany and 5.95% in eastern Germany. A revision of national accounts data increases the adjustment, having curbed pension growth accordingly in 2015.

A law passed in November 2016 retroactively enacts amendments to the Inheritance and Gift Tax Act (*Erbschaft- und Schenkungsteuergesetz*). The Federal Constitutional Court deemed elements of this law to be unconstitutional at the end of 2014 and called for it to be amended by mid-2016. In light of the requirements specified in the ruling, the new regulations are intended to make the preferential tax treatment afforded to transfers of business assets more clearly contingent on the preservation of jobs and a needs test. Here, distinctions are made, *inter alia*, according to the value of the business assets and – with regard to family businesses – company agreement. The capitalisation factor used to value the assets is lowered, thereby reducing their value. The Federal Ministry of Finance is authorised to adjust this factor in line with interest rate developments by statutory order in future.

6 July 2016

The Federal Government approves the draft central government budget for 2017 and the fiscal plan up to 2020. Again, no new net borrowing is planned. Compared with the benchmark figures, the expenditure framework is expanded once more, particularly in light of the moderate upward revision of tax revenue expectations. However, the global cuts in expenditure planned for 2018 still amount to €3 billion. The global revenue shortfalls listed as risk provisions in the fiscal plan cover imminent tax transfers for the municipal relief measures planned for 2018. However, they no longer fully offset additional future expenses linked to refugee migration and the reform of federal financial relations.

7 July 2016

Central government promises to pay the state governments an additional integration sum to the value of €2 billion annually, initially for the period 2016 to 2018, to cushion the outlays resulting from the refugee situation.

12 July 2016

Following the recommendation of the European Commission, the Council of the European Union finds that Spain and Portugal have not taken effective action to correct their excessive deficits in a timely manner. In accordance with the regulations of the Stability and Growth Pact, amended during the financial crisis, financial penalties are to be imposed. In August 2016, the Commission proposes a penalty payment in the amount of zero, to which the Council does not object. The Commission does not suggest a possible suspension of the budgetary commitments planned for Spain and Portugal from 1 January 2017 under the European structural and investment funds. The new conditions under the deficit procedure are less demanding, and the deadlines for correction are extended once more for both countries (Spain is even granted two years). In November 2016, the Commission comes to the conclusion that these more lenient conditions are being fulfilled by Spain and Portugal.

14 September 2016

The Federal Cabinet passes the Draft Act on the Contribution of the Federal Government towards the Costs of Integration and on the Further Easing of the Burden on State and Local Government (*Gesetzentwurf zur Beteiligung des Bundes an den Kosten der Integration und zur weiteren Entlastung von Ländern und*

Kommunen), which is intended to implement the agreements of 16 June and 7 July 2016.

27 September 2016

The ECB and the People's Bank of China extend the bilateral currency swap agreement established in 2013 for another three years. The agreement will have a maximum size of 350 billion Chinese renminbi and €45 billion.

28 September 2016

The second of a total of four TLTRO II operations is settled. It sees 249 institutions take up an overall volume of €45.3 billion. Simultaneously, €9.4 billion is paid back on earlier TLTRO I operations under the voluntary repayment option.

12 October 2016

The Federal Cabinet agrees upon a draft law on changes to income tax for 2017 and 2018, intended to bring rates into line with the expected prior-year rate of inflation and raise tax allowances. Moreover, it aims to increase child benefit payments. The total annual relief is estimated to be just over €6 billion.

14 October 2016

Central government and the federal states agree on the reform of federal financial relations from 2020 (based largely on a federal revenue-sharing proposal presented by the state governments in December 2015). In particular, it aims to abolish the state government revenue-sharing scheme (in the narrower sense). Under these plans, differences in the states' financial capacity will be evened out in future via distribution of the state government share in value added tax revenue – which is to be increased at the expense of central government – and via more substantial general supplementary central government grants. The special assistance received by eastern Germany for infrastructure reconstruction will be gradually phased out by 2020 according to the current rules. Other special requirements will continue to be catered for, and new requirements are also to receive special consideration, particularly where especially financially weak local governments are concerned. Central government also plans to provide Bremen and Saarland with higher, open-ended budgetary restructuring assistance totalling €800 million annually. All in all, central government relief for state government comes to €9½ billion. The regulations are intended to apply indefinitely, but can be terminated by central government or by a minimum of three state governments after 2030. In return for this relief, the divestiture funds of €2½ billion established in 2006 are not to be extended beyond 2019. The agreement also includes plans to shift the administration of German motorways (planning, construction and operation) to central government, and to create a new infrastructure company for this purpose. Central government investment grants to financially weak local governments for education are also to be extended. Finally, the Stability Council is also to be responsible for monitoring central and state government compliance with debt rules in the future.

17 October 2016

The Federal Government submits its draft budgetary plan for the 2017 general government budget to the European Commission. In comparison to the stability programme published in April, noticeably higher general government net lending/borrowing of ½% of GDP is envisaged in 2016; this is expected to fall to ¼% of GDP in 2017. The structural balance rates are also higher than in April, at ¾% in 2016 and ½% in 2017. After standing at 71.2% in 2015, the debt ratio is projected to fall to 68¼% in 2016 and 66% in 2017.

19 October 2016

The European Commission finishes staffing the newly-founded advisory body, the European

Fiscal Board. It is composed of five members who are independent of the Commission, but is assigned to the Commission for administrative purposes. The remit of the Board is to assess the implementation of fiscal rules *ex post*, and also to conduct an evaluation of the fiscal stance of the euro area as a whole. However, its statements are not intended to influence the current application of fiscal rules. The Committee is to publicly report on its activities once a year.

21 October 2016

The general government deficit and debt figures reported by the EU member states in their autumn notifications are published under the European budgetary surveillance procedure, after validation by Eurostat. This confirmed the results for Germany from April (2015: government surplus amounting to 0.7% of GDP and debt ratio of 71.2%). For 2016, the Federal Government's updated plans foresee a surplus of 0.6% of GDP and a fall in the debt ratio to 68.2%.

2 November 2016

As regards the agreement with the state governments to make monthly flat-rate payments of €670 per asylum seeker, the Federal Government decides to bring forward the final settlement for 2016 and presents the rules governing the amount of the advance payment in 2017. Additional value added tax revenue transfers to state governments are planned to the tune of €2½ billion in 2016 and just over €1 billion in 2017.

In its *Annual Economic Report*, the German Council of Economic Experts forecasts real GDP growth of 1.3% in 2017 (1.6% in calendar-adjusted terms). Private consumption and housing construction are expected to make the greatest contribution to growth, mainly on account of the labour market conditions, which remain favourable. Corporate investment, by contrast, is only likely to experience moderate growth. The effects of the Brexit vote on German economic activity are expected to be minimal, according to the Council's forecast for 2017.

16 November 2016

The European Commission publishes a notice which explains its recommendations to the Council concerning the fiscal aspects of the euro area's economic policy for 2017 and 2018. It highlights the need to steer the economy and proposes an expansionary fiscal stance for the euro area. However, this is evidently not compatible with the requirements which the individual member states need to meet under the European fiscal regulations.

25 November 2016

The Bundestag approves the Federal budget for 2017. Compared with the government draft from the summer, the since-approved tax transfers to the state governments and the newly-planned income tax reduction were compensated for by a downward revision of transfers to the EU budget in the wake of the new ruling on own funds (with a retroactive relief payment of €3 billion). Increased spending in connection with the migration of refugees, in particular, was offset by reducing appropriations for interest expenditure and unemployment benefit II payments as well as a global cut in spending amounting to €2 billion. Structural new borrowing is estimated to amount to €½ billion. This results from a cyclical burden of €2 billion and a deficit from financial transactions of €½ billion (improving the fiscal balance) being deducted and a deficit in the extra budgets of just over €3 billion (worsening the fiscal balance) being budgeted for. The debt brake ceiling of €10½ billion is therefore clearly undershot. However, if the budgeted liquidation of reserves of €6½ billion (counted towards the balance) is factored in, thus following the approach of the European fiscal rules, the gap is considerably reduced.

30 November 2016

The Federal Cabinet approves a draft supplementary central government budget for 2016. The increase of €3½ billion in the fund to promote municipal investment is to be made possible through the corresponding reduction in interest expenditure appropriations.

5 December 2016

Following on from the arrangements of May 2016, the Eurogroup agrees on a further haircut for Greece. To achieve this, maturities are extended and the original penalty interest rates for 2017 dispensed with. Moreover, Greece's interest rate risk is to be reduced by switching from variable to fixed interest rates for some of the assistance loans.

6 December 2016

The Federal Constitutional Court confirms that the reform of Germany's phasing-out of nuclear energy in 2011 is for the most part compatible with the Basic Law.

8 December 2016

The Governing Council of the ECB decides to extend the term of the APP and adjust the technical parameters. Purchases are intended to continue at their current monthly volume of €80 billion until March 2017. From April, the net monthly purchase of assets of €60 billion will run until December 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its inflation aim.

To ensure the smooth implementation of asset purchases, the technical APP parameters will also be adjusted from January 2017. First, the Eurosystem will additionally purchase securities with a residual maturity of between one and two years; second, purchases of securities with a yield to maturity below the deposit rate will be allowed insofar as this is necessary for the implementation of the programme.

The Bundestag passes the flexible pension act, which is intended to facilitate access to an early partial pension and remove disincentives to work past the standard retirement age from 1 July 2017. From as early as 1 January 2017, persons who draw a full pension before reaching the standard retirement age will be subject to pension insurance payments on supplementary income, thereby obtaining further pension entitlements. Until now, supplementary income has been exempt from pension insurance contributions, and the half of the contributions made solely by the employer did not increase the pension amount.

9 December 2016

The Bundesbank expects real GDP growth of 1.5% in 2017, 1.6% in 2018 and 1.5% in 2019 (1.8%, 1.6% and 1.5% in calendar-adjusted terms). The pace of growth is projected to exceed the growth rate of production potential in all three years, meaning that aggregate capacity utilisation levels will be significantly higher at the end of the projected period than in the long-term average. HICP consumer price inflation could rise to 1.4% in 2017, 1.7% in 2018 and 1.9% in 2019.

12 December 2016

In agreement with its independent advisory board, the Stability Council establishes that, on the basis of the plans submitted, Germany will adhere to the ceiling for the structural general government fiscal deficit of 0.5% of GDP until 2020. The updated results of the fiscal surveillance show that the federal states of Berlin and Schleswig-Holstein are no longer at risk of budgetary hardship, and their budgetary consolidation process is formally completed, in contrast to the federal states of Bremen and Saarland.

14 December 2016

The Federal Cabinet passes draft legislation for the agreement on financial relations among central and state governments from 2020. The budgetary restructuring assistance for Bremen and Saarland is to be partially conditional on repayment requirements. In addition, central government is to receive further opportunities to exert its influence, for example on investment promotion programmes. The Stability Council's judgments on central and state government compliance with debt brake stipulations are to be made in accordance with European fiscal rules.

15 December 2016

The Governing Council of the ECB decides that the asset-backed securities purchase programme (ABSPP) should be fully implemented by national central banks rather than relying on the support of external asset managers. As of 1 April 2017, Nationale Bank van België/Banque Nationale de Belgique, Banque de France, the Deutsche Bundesbank, Banca d'Italia, De Nederlandsche Bank and Banco de España will act as asset managers executing purchases on behalf of the Eurosystem.

16 December 2016

The Bundesrat approves the act on the reorganisation of responsibility for nuclear waste disposal. Central government thereby assumes responsibility for the storage of nuclear waste from the nuclear power plant operators. In return, a payment of €17½ billion to a federal institution is prescribed. By making additional payments totalling just over €6 billion, the operators are exempted from the obligation to input additional funds if costs increase. Before this ruling comes into force, the European Commission must certify that the regulations are permissible under state aid law.

21 December 2016

The third of a total of four TLTRO II operations is settled. It sees 200 institutions take up an overall volume of €62.2 billion. Simultaneously, €14.2 billion is paid back on earlier TLTRO I operations under the voluntary repayment option.

1 January 2017

The public long-term care insurance scheme contribution rate is raised from 2.35% to 2.55% (plus an additional 0.25% in each case for childless persons). This contrasts with increased expenditure resulting from the second Act to Strengthen Long-term Care (*Zweites Pflegestärkungsgesetz*), which also plans a comprehensive reform of the range of benefits, replacing the former three-level care requirement classification with a five-level system. In particular, greater assistance will be available in the case of dementia-related conditions.

In 2017, the health insurance institutions are to receive a one-off relief payment of €1½ billion from the health insurance fund's liquidity reserve. As a result, the average additional contribution to be paid solely by insured persons remains practically unchanged at 1.1%.

The basic income tax allowance is raised by €168 to €8,820, child tax allowance is increased by €108 to €7,356, and monthly child benefits rise by €2 per child. Moreover, the other income tax brackets are shifted slightly to the right, by 0.7%, meaning that they only become effective when there is a corresponding increase in income. On balance, at least the estimated effect of bracket creep owing to inflation in 2016 should be eliminated for all income categories. Amongst other things, bracket creep is regarded as an increase in the average tax burden caused by income rising at the rate of inflation while tax brackets remain unchanged.

12 January 2017

The Federal Ministry of Finance presents the provisional outturn for the 2016 central government budget. According to these figures, a surplus of €6 billion was achieved, particularly once the additional special-purpose transfers to the fund to promote municipal investment are factored in. Due to lower expenditure, particularly in the area of interest, and additional receipts, primarily in the area of non-tax receipts, an improvement of €12½ billion on the original plans was achieved. The structural outturn is reported as -0.1% of GDP, factoring in the negative impact of a transfer of €6 billion to the reserves. The permanent debt brake limit of -0.35% of GDP, which is to be applied for the first time, has thus clearly been adhered to.

For 2016, the Federal Statistical Office publishes a provisional value for the general government fiscal surplus of 0.6% of GDP, pursuant to the Maastricht definition of the national accounts.

25 January 2017

In its *Annual Economic Report* for 2017, the Federal Government anticipates real GDP growth of 1.4% (1.6% in calendar-adjusted terms). This is likely to be driven primarily by domestic impulses once again, especially private and government consumption expenditure and housing construction investment. International trade, by contrast, is likely to remain subdued, dampening the prospects for exports and private investment in machinery and equipment.

14 February 2017

The Federal Statistical Office reports real economic growth of 1.9% for 2016.

15 February 2017

The Federal Cabinet approves amendments to pension legislation, which are to be implemented before the general election. These notably include the gradual harmonisation of pension legislation in eastern Germany and further improvements in benefits for recipients of pensions for reduced earning capacities. The occupational pension scheme reform, which is part of the package originally announced in November, has yet to take place.

16 February 2017

The Bundestag passes the supplementary budget for 2016 without adjustments to the draft. The proposal of the Federal Ministry of Finance to put the surplus towards repayments rather than the refugee reserve fund is not implemented.

23 February 2017

The Bundesbank presents its annual accounts for the 2016 financial year. The profit of €399 million is transferred to central government.

Annual accounts of the Deutsche Bundesbank for 2016

Balance sheet of the Deutsche Bundesbank as at 31 December 2016

Assets

			31.12.2015
		€ million	€ million
1 Gold and gold receivables		119,253	105,792
of which: gold receivables €307,546.21			(0)
2 Claims on non-euro-area residents denominated in foreign currency			
2.1 Receivables from the IMF	21,519		(20,317)
2.2 Balances with banks, portfolio investment, external loans and other external assets	34,993		(33,423)
		56,512	53,740
3 Claims on euro-area residents denominated in foreign currency		1,788	–
4 Claims on non-euro-area residents denominated in euro		438	–
5 Lending to euro-area credit institutions related to monetary policy operations denominated in euro			
5.1 Main refinancing operations	1,807		(9,127)
5.2 Longer-term refinancing operations	63,518		(48,630)
5.3 Fine-tuning reverse operations	–		(–)
5.4 Structural reverse operations	–		(–)
5.5 Marginal lending facility	149		(339)
		65,474	58,095
6 Other claims on euro-area credit institutions denominated in euro		3,025	3,540
7 Securities of euro-area residents denominated in euro			
7.1 Securities held for monetary policy purposes	357,700		(172,275)
7.2 Other securities	–		(–)
		357,700	172,275
8 Claims on the Federal Government		4,440	(4,440)
9 Intra-Eurosystem claims			
9.1 Participating interest in the ECB	1,948		(1,948)
9.2 Claims arising from the transfer of foreign reserves to the ECB	10,430		(10,430)
9.3 Claims related to the allocation of euro banknotes within the Eurosystem (net)	–		(–)
9.4 Other claims within the Eurosystem (net)	754,534		(584,551)
		766,912	596,929
10 Items in course of settlement		1	1
11 Other assets			
11.1 Coins	1,003		(963)
11.2 Tangible and intangible fixed assets	770		(788)
11.3 Other financial assets	10,921		(12,376)
11.4 Off-balance-sheet instruments revaluation differences	–		(0)
11.5 Accruals and prepaid expenses	4,477		(2,727)
11.6 Sundry items	299		(305)
		17,471	17,159
		1,393,014	1,011,969

Liabilities

			31.12.2015
		€ million	€ million
1 Banknotes in circulation		264,907	254,844
2 Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro			
2.1 Current accounts	284,948		(155,149)
2.2 Deposit facility	126,402		(53,584)
2.3 Fixed-term deposits	–		(–)
2.4 Fine-tuning reverse operations	–		(–)
2.5 Deposits related to margin calls	–		(8)
		411,350	208,740
3 Other liabilities to euro-area credit institutions denominated in euro		466	–
4 Liabilities to other euro-area residents denominated in euro			
4.1 General government deposits	32,458		(11,647)
4.2 Other liabilities	73,371		(60,242)
		105,828	71,889
5 Liabilities to non-euro-area residents denominated in euro		117,016	27,179
6 Liabilities to euro-area residents denominated in foreign currency		4	35
7 Liabilities to non-euro-area residents denominated in foreign currency		1,218	571
8 Counterpart of special drawing rights allocated by the IMF		15,371	15,349
9 Intra-Eurosystem liabilities			
9.1 Liabilities related to the issuance of ECB debt certificates	–		(–)
9.2 Liabilities related to the allocation of euro banknotes within the Eurosystem (net)	327,262		(297,786)
9.3 Other liabilities within the Eurosystem (net)	–		(–)
		327,262	297,786
10 Items in course of settlement		1	2
11 Other liabilities			
11.1 Off-balance-sheet instruments revaluation differences	18		(–)
11.2 Accruals and income collected in advance	109		(53)
11.3 Sundry items	1,965		(2,004)
		2,092	2,058
12 Provisions		21,879	19,608
13 Revaluation accounts		119,658	105,720
14 Capital and reserves			
14.1 Capital	2,500		(2,500)
14.2 Reserves	3,064		(2,500)
		5,564	5,000
15 Distributable profit		399	3,189
		1,393,014	1,011,969

Profit and loss account of the Deutsche Bundesbank for the year 2016

			2015
		€ million	€ million
1.1 Interest income	3,704		(3,260)
1.2 Interest expense	– 386		(– 962)
1 Net interest income		3,319	2,299
2.1 Realised gains/losses arising from financial operations	874		(956)
2.2 Write-downs on financial assets and positions	– 198		(– 82)
2.3 Transfers to/from provisions for general risks, foreign exchange risks and price risks	– 1,750		(780)
2 Net result of financial operations, write-downs and risk provisions		– 1,073	1,654
3.1 Income from fees and commissions	58		(58)
3.2 Expenses relating to fees and commissions	– 28		(– 26)
3 Net income from fees and commissions		30	32
4 Income from participating interests		339	282
5 Net result arising from allocation of monetary income		25	133
6 Other income		134	228
Total net income		2,773	4,627
7 Staff costs		1,123	722
8 Other administrative expenses		396	460
9 Depreciation of tangible and intangible fixed assets		94	101
10 Banknote printing		159	111
11 Other expenses		39	43
Profit for the year		963	3,189
12 Allocations to/withdrawals from reserves owing to the restriction on distribution pursuant to section 253 (6) of the German Commercial Code (*Handelsgesetzbuch*)		– 564	–
Distributable profit		399	3,189

Frankfurt am Main, 7 February 2017

DEUTSCHE BUNDESBANK
Executive Board

Dr Jens Weidmann Professor Claudia Buch

Dr Johannes Beermann Dr Andreas Dombret Carl-Ludwig Thiele 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 2016 and the profit and loss account for the business year from 1 January 2016 to 31 December 2016.

Pursuant to section 322 (3) sentence 1 clause 2 HGB ["Handelsgesetzbuch": "German Commercial Code"], we declare that, 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 2016 and the results of operations for the business year from 1 January 2016 to 31 December 2016 in accordance with German principles of proper accounting.

Pursuant to section 322 (3) sentence 1 clause 1 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 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 and principles as well as any supplementary 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.

Supplementary information in the Annual Report

The Executive Board is responsible for supplementary information. Supplementary 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 supplementary information and it has not been audited.

Our responsibilities for the audit of the annual financial statements lie in reading supplementary information critically and evaluating whether there are any inconsistencies between the supplementary information and the annual financial statements or the findings of our audit, or any material misstatements. If, during our audit, we establish that supplementary information contains material misstatements, we are obliged to draw attention to these matters. 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 is 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.

As part of 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, 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, among 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, 16 February 2017

KPMG AG
Wirtschaftsprüfungsgesellschaft

Mock
Wirtschaftsprüfer

Müller
Wirtschaftsprüfer

Overview of the principles for the accounting of the Deutsche Bundesbank

General accounting principles
Record of economic reality, thus reflecting the Bundesbank's assets and liabilities, financial position and profitability; prudence; account to be taken of post-balance-sheet events that affect the balance sheet; materiality; going-concern principle; accruals principle (income and expense to be recognised in the accounting period in which they are earned or incurred); consistency and comparability.

Recording of spot transactions
Spot transactions in gold and foreign currencies shall be taken into account as from the trade date for ascertaining the average acquisition costs and the realised gains and losses. The balance sheet recording of these spot transactions and of spot transactions in securities shall be based on the date of payment (settlement date).

Balance sheet valuation rules
Gold, foreign currency instruments, securities and financial instruments shall be valued at mid-market rates and prices on the balance sheet date. Securities held to maturity shall be valued at amortised cost; if the impairment is expected to be permanent, an extraordinary write-down is to be carried out. The same is true of 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 on the basis of the euro price per defined unit of weight of gold derived from the euro-US dollar exchange rate on the balance sheet date.

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

In the case of securities, each revaluation shall be 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 item that has been given as collateral remains 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 security lending transactions, the assets shall remain on the balance sheet of the transferor. Security lending transactions as part of which cash collateral is provided are to be treated in the same way as repos.

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

Unrealised gains and unrealised losses arise as a result of the revaluation through a comparison of the market value with the acquisition value as calculated using the average cost method. Unrealised gains shall not be recognised as income but shall be transferred directly to a revaluation account.

Unrealised losses shall be taken into the profit and loss account if they exceed previous unrealised gains registered in the corresponding revaluation account. Unrealised losses recorded in the profit and loss account in previous years shall not be reversed in subsequent years in the event of new unrealised gains. There shall be no netting of unrealised losses in any one security, in any currency or in gold holdings against unrealised gains in other securities, currency or gold.

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

In the case of securities, the difference between the acquisition value and the redemption value (premium or discount) shall be distributed over the contractual residual maturity in accordance with the internal rate of return method, treated as part of the interest income (amortisation in accordance with the internal rate of return method) and recognised at acquisition value (amortised cost).

Accrual and deferral items covering foreign currency holdings shall be converted 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, the 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 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.

Gains 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, which 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: four years
– Equipment, furniture and installed equipment: ten years
– Building and refurbishment expenditure: 25 years
– Depreciation shall not apply to land

Tangible and intangible fixed assets, the acquisition value of which, after deduction of value added tax, is less than €10,000 shall be fully amortised in the year in which they were acquired.

Provisions

With the exception of the provisions for Eurosystem monetary policy operations, the regulations set forth in the Commercial Code (*Handelsgesetzbuch*) continue to apply to the reporting of provisions in the balance sheet. Pursuant to section 26 (2) of the Bundesbank Act (*Bundesbankgesetz*), the creation of liability items for general risks associated with domestic and foreign business is possible.

Transitional arrangements

The assets and liabilities shown in the closing Deutsche Mark balance sheet of 31 December 1998 shall be revalued on 1 January 1999. Unrealised gains arising on or before 1 January 1999 are to be recorded separately from the unrealised gains which arise after 1 January 1999. The market rates/prices applied by the Bundesbank in the euro-denominated opening balance sheet of 1 January 1999 shall be deemed to be the average acquisition rates/prices as at 1 January 1999. The revaluation items for unrealised gains accruing on or before 1 January 1999 shall be dissolved only in connection with decreases in value 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 the distribution of profit. In accordance with the provisions on accounting laid down in section 26 (2) sentence 2 of the Bundesbank Act, the Bundesbank may apply the accounting principles governing the annual accounts of the ECB.

Accounting principles of the Deutsche Bundesbank

The Governing Council of the ECB adopted the principles it applies to its annual accounts in accordance with Article 26.2 of the ESCB Statute. The Bundesbank decided to adopt those principles as the "accounting principles of the Deutsche Bundesbank".[1] An overview of the principles for the accounting of the Deutsche Bundesbank is given on the preceding pages. The annual accounts of the Bundesbank are in alignment with the harmonised rules applied in the Eurosystem, both in terms of the structure of the balance sheet and the profit and loss account, and with regard to the balance sheet valuation and accounting principles.

Creation of a reserve owing to the restriction on distribution pursuant to section 253 (6) Commercial Code

An amendment to section 253 of Germany's Commercial Code (*Handelsgesetzbuch*) in 2016 means that provisions for post-employment benefit obligations must be discounted at the average market rate corresponding to their residual maturity calculated over the past ten rather than the past seven financial years, as was previously the case. The savings in terms of provisions that arise relative to the previous approach 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 forbidden 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 the transfer to reserves takes place in the profit and loss account once the profit for the year has been determined as part of the appropriation of profit. The residual amount is reported as distributable profit (net profit).

Balance sheet entry 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 recording 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 2016, the Bundesbank had a 25.6% share in the fully paid-up capital of the ECB and, therefore, a 23.5% 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

1 Published as a revised edition in Deutsche Bundesbank Notice No 10001/2017 of 3 February 2017.
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 27 November 2014 (ECB/2014/49).

into circulation gives rise to remunerated intra-Eurosystem 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 in the balance sheet as an intra-Eurosystem liability in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)". 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 "Claims related to the allocation of euro banknotes within the Eurosystem (net)". These balances are remunerated at the respective rate of 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 to national central banks' relative income positions from those in previous years. The adjustments are made by taking into account 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 them during that period in accordance with the ECB's capital key. The adjustments are reduced in annual stages until the first day of the sixth year after the year of the cash changeover. 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 Estonian central bank in 2011, the Latvian central bank in 2014 and the Lithuanian central bank in 2015. The adjustment relating to the accession of the Estonian central bank ended on 31 December 2016; the other adjustments will be phased out by 31 December 2019 and 2020 respectively. The interest income and interest expense arising from the remuneration of the intra-Eurosystem balances are cleared through the accounts of the ECB and are shown in the profit and loss account of the Bundesbank in item 1 "Net interest income".

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 the financial year 2016, €966 million of the aforementioned ECB income (2015: €812 million) was distributed among the national central banks as interim profit in January 2017. The Bundesbank's share of €247 million (2015: €208 million) is shown under item 4 "Income from participating interests" in its profit and loss account.

Preparation and auditing of financial statements

The Executive Board drew up the Deutsche Bundesbank's financial statements for the financial year 2016 on 7 February 2017. The financial statements were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main. The Executive Board had appointed the firm as external auditors on 27 January 2015 in accordance with section 26 (3) of the Bundesbank Act. The auditors confirmed without qualification on 16 February 2017 that the Bundesbank's financial statements for 2016 – consisting of the balance sheet and the profit and loss account – comply, in all material re-

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 2 July 2015 (ECB/2015/25).

spects, with the legal requirements and the principles for the accounting 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' report, the Executive Board decided to publish the financial statements and transfer the Bundesbank's profit to the Federal Government on 23 February 2017.

Notes on the individual balance sheet items

Assets

1 Gold and gold receivables

As at 31 December 2016, the Bundesbank's physical holdings (bars) of fine gold amounted to 3,377,967 kg or 109 million ounces (ozf). These are supplemented by an additional 9 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 = €35,303.00 or 1 ozf = €1,098.046). Compared with the previous year's price of 1 kg = €31,289.91 or 1 ozf = €973.225, this represents an increase of 12.8%. The gold holdings declined by just 0.1% (3,045 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 €103 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 claims on the International Monetary Fund (IMF) as well as balances with banks, portfolio investment, loans and other foreign currency claims on non-euro-area residents.

2.1 Receivables from the IMF

Sub-item 2.1 contains the claims on the IMF which are financed and held by the Bundesbank and which arise from Germany's membership of the IMF. The claims, which total SDR 16,883 million (€21,519 million), are made up of the drawing rights within the reserve tranche, the allocated special drawing rights (SDR) and loans under the New Arrangements to Borrow (NAB).

Gold reserves by storage location

Storage location	31.12.2016		31.12.2015		Year-on-year change			
	Tonnes	€ million	Tonnes	€ million	Tonnes	%	€ million	%
Deutsche Bundesbank, Frankfurt	1,619	57,157	1,402	43,883	217	15.4	13,274	30.2
Federal Reserve Bank, New York	1,236	43,643	1,347	42,160	– 111	– 8.2	1,483	3.5
Bank of England, London	432	15,240	435	13,603	– 3	– 0.7	1,637	12.0
Banque de France, Paris	91	3,213	196	6,146	– 105	– 53.7	– 2,933	– 47.7
Total	3,378	119,252	3,381	105,792	– 3	– 0.1	13,461	12.7

Deutsche Bundesbank

Receivables from the IMF

Item	31.12.2016		31.12.2015		Year-on-year change			
	SDR million	€ million	SDR million	€ million	SDR million	%	€ million	%
German quota	26,634	33,949	14,566	18,539	12,069	82.9	15,410	83.1
less Euro balances	23,638	30,129	12,992	16,535	10,646	81.9	13,593	82.2
Drawing rights within the reserve tranche	2,997	3,820	1,574	2,003	1,423	90.4	1,817	90.7
Special drawing rights	11,719	14,938	11,931	15,185	– 211	– 1.8	– 248	– 1.6
New Arrangements to Borrow	2,167	2,762	2,458	3,129	– 292	– 11.9	– 367	– 11.7
Total	16,883	21,519	15,963	20,317	920	5.8	1,202	5.9

Deutsche Bundesbank

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 represent the difference between the German quota of SDR 26,634 million (€33,949 million) and the euro balances amounting to €30,129 million (SDR 23,638 million) at the IMF's disposal at the end of the year. The German quota was increased by SDR 12,069 million to SDR 26,634 million with effect from 25 February 2016 in line with the IMF quota reform which entered into force in January 2016. Of this sum, 25% was paid in special drawing rights and 75% in euro. In 2016, there was a net rise of SDR 1,423 million to SDR 2,997 million (€3,820 million) in the holdings of drawing rights within the reserve tranche.

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 2016, the holdings of special drawing rights declined by SDR 211 million to SDR 11,719 million (€14,938 million).

The New Arrangements to Borrow (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 the year under review. However, the IMF may continue to use NAB resources to finance any programmes to which it had committed during the 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 2,167 million (€2,762 million). The additional bilateral credit line of €41.5 billion pledged by the Bundesbank to the IMF was not drawn upon, 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 4,825 million, compared with SDR 3,904 million in 2015. The valuation is based on the reference rate of SDR 1 = €1.2746 (2015: SDR 1 = €1.2728) calculated by the ECB at the end of the year for all central banks participating in the Eurosystem.

Balances with banks, portfolio investment, external loans and other external assets

Item	31.12.2016 € million	31.12.2015 € million	Year-on-year change € million	Year-on-year change %
Current account holdings and overnight deposits	2,589	1,651	938	56.8
Claims arising from reverse repurchase agreements	1,218	2,068	– 850	– 41.1
Fixed-term deposits and deposits redeemable at notice	2,799	1,791	1,007	56.2
Marketable securities				
Government bonds				
US dollar	24,105	24,867	– 763	– 3.1
Yen	397	449	– 51	– 11.4
Australian dollar	1,107	1,054	53	5.0
Supranational, sovereign and agency (SSA) bonds	2,635	1,394	1,241	89.0
Other	142	148	– 6	– 3.9
Total	34,993	33,423	1,570	4.7

Deutsche Bundesbank

2.2 Balances with banks, portfolio investment, external loans and other external assets

The balances with banks, portfolio investment, loans and other foreign currency claims which are shown in sub-item 2.2 amounted to €34,993 million at the end of 2016, compared with €33,423 million on 31 December 2015. These include, in particular, US dollar holdings in the amount of US$33,975 million (€32,232 million), representing an increase of US$444 million on the year. The sub-item also contains holdings in yen (¥203,187 million equivalent to €1,647 million), Australian dollars (A$1,622 million equivalent to €1,111 million) and, to a limited extent, 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$32,801 million (2015: US$32,959 million), the net yen holdings to ¥203,295 million (2015: ¥203,007 million) and the net Australian dollar holdings to A$1,644 million (2015: A$1,609 million). The foreign currency holdings were valued at the respective end-of-year market rate; in the case of the US dollar holdings, this was €1 = US$1.0541 (2015: €1 = US$1.0887), for the holdings of yen €1 = ¥123.40 (2015: €1 = ¥131.07) and for the Australian dollar holdings €1 = A$1.4596 (2015: €1 = A$1.4897).

3 Claims on euro-area residents denominated in foreign currency

This item contains US$1,885 million (€1,788 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 (2015: no holdings). 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 swap transactions between the ECB and the Bundesbank lower the TARGET2 settlement balances 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 the bilateral repo transactions executed since September 2016 are shown in this item. These claims amounted to €438 million and resulted from repos and simultaneous reverse repos, in which securities in the PSPP portfolio were lent against Federal securities on a cash-neutral basis with maturities of up to seven days; the corresponding liabilities 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, structural operations and the marginal lending facility). At the end of the reporting year, the Eurosystem's corresponding outstanding volume of monetary policy operations amounted to €595,873 million (2015: €558,989 million), of which the Bundesbank accounted for €65,474 million (2015: €58,095 million). Pursuant to Article 32.4 of the ESCB Statute, 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 involved in 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 €1,807 million, which was €7,320 million less than on 31 December 2015. On a daily average, the outstanding volume of main refinancing operations came to €2,221 million (2015: €4,253 million).

In the year under review, 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. In addition, two targeted longer-term refinancing operations of the first series (TLTRO I), which will mature in September 2018, were conducted at the main refinancing rate applicable at the time. On account of voluntary and mandatory repayments, the residual volume of these and other TLTRO I operations conducted in previous years was reduced to €5,619 million as at 31 December 2016. Furthermore, three targeted longer-term refinancing operations of the second series (TLTRO II) totalling €57,051 million were conducted for the first time starting in June 2016, each with a maturity of four years. Depending on the evolution of each counterparty's eligible lending activities, these operations are remunerated at an individual rate which lies between the main refinancing rate and the deposit facility rate applicable at the time the transactions were conducted. The relevant rate will only be determined in 2018 and will apply retroactively to the entire term of the operation, which means that, for precautionary reasons, the interest accrued on these transactions in 2016 is calculated using the lower deposit facility rate. Each counterparty's potential recourse to these operations is limited according to the scope of their lending to the real economy. The volume of all longer-term refinancing operations combined amounted to €63,518 million at the end of 2016 and was, therefore, €14,889 million higher than in the previous year. Increased recourse to the TLTROs, which reached a total of €62,670 million (2015: €39,368 million), more than offset the decline in volume caused by the limited uptake of the three-month tenders (€848 million, compared with €9,262 million in 2015). On a daily average, the volume of longer-term refinancing operations amounted to €47,850 million (2015: €36,306 million).

The marginal lending facility is a standing facility which counterparties may use to obtain overnight liquidity at a predetermined interest rate. At the end of 2016, recourse to this facility amounted to €149 million (2015: €339 million). The extent to which it was being used on a daily average came to €19 million (2015: €28 million).

6 Other claims on euro-area credit institutions denominated in euro

This item, amounting to €3,025 million (2015: €3,540 million), consists, in particular, of fixed-term deposits which 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").

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 2016, purchases were made under the CBPP3, 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.

At the end of 2016, the Eurosystem national central banks' SMP holdings amounted to €94,803 million (2015: €114,080 million), their CBPP3 holdings to €186,965 million (2015: €131,883 million) and their CSPP holdings to €51,069 million. The Eurosystem national central banks' PSPP holdings of securities issued by supranational institutions stood at €139,639 million (2015: €59,760 million), although the Bundesbank itself did not acquire any holdings. Pursuant to Article 32.4 of the ESCB Statute, all risks from the SMP, CBPP3, CSPP and the abovementioned 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 no write-downs were required for securities contained in the SMP, CSPP and PSPP holdings and in the three CBPP portfolios as at 31 December 2016, 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.

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

Securities held for monetary policy purposes

Item	31.12.2016		31.12.2015		Year-on-year change			
	Balance sheet value € million	Market value € million	Balance sheet value € million	Market value € million	Balance sheet value € million	Balance sheet value %	Market value € million	Market value %
SMP portfolio								
Greece	2,620	2,638	2,942	2,952	– 322	– 11.0	– 314	– 10.6
Ireland	1,368	1,594	1,774	2,063	– 405	– 22.8	– 469	– 22.7
Portugal	1,941	2,112	2,623	2,916	– 682	– 26.0	– 804	– 27.6
Italy	12,003	13,618	14,313	16,451	– 2,310	– 16.1	– 2,833	– 17.2
Spain	4,236	4,783	6,018	6,713	– 1,782	– 29.6	– 1,930	– 28.8
Total	22,168	24,745	27,670	31,095	– 5,502	– 19.9	– 6,350	– 20.4
CBPP portfolio	3,589	3,804	4,774	5,120	– 1,184	– 24.8	– 1,316	– 25.7
CBPP2 portfolio	2,052	2,211	2,900	3,083	– 849	– 29.3	– 872	– 28.3
CBPP3 portfolio	48,224	48,610	32,703	32,623	15,521	47.5	15,988	49.0
PSPP portfolio	269,646	272,057	104,227	103,719	165,418	158.7	168,338	162.3
CSPP portfolio	12,021	11,926	–	–	12,021	.	11,926	.
Grand total	357,700	363,354	172,275	175,640	185,425	107.6	187,713	106.9

Deutsche Bundesbank

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 the year 2024.

9 Intra-Eurosystem claims

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

Sub-item 9.1 shows the Bundesbank's participating interest in the ECB. Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. On 31 December 2016, the Bundesbank's participating interest in the ECB was unchanged at €1,948 million.

Sub-item 9.2 contains the Bundesbank's euro-denominated claims arising from 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 ESCB Statute. Adjustments to the key for subscribing to the ECB's capital also result in adjustments to the Bundesbank's claims arising from the transfer of foreign reserves to the ECB. On 31 December 2016, these claims amounted to €10,430 million, unchanged on the 2015 figure. As the transferred gold does not earn any interest, the claims are remunerated at 85% of the prevailing main refinancing rate.

Sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)" shows the claims which arise from applying the euro banknote allocation key. Like at the end of 2015, the Bundesbank had no claims at the end of 2016 and instead recorded liabilities, which are shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

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 large-value payment system. The German banking system received extensive central bank money via TARGET2 in 2016. At the end of the year, the Bundesbank's net claim on the ECB thus rose by €170,053 million to €754,263 million and is shown under sub-item 9.4 "Other claims within the Eurosystem (net)". The net balances (with the exception of non-interest-bearing 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 interest-bearing net claim amounted to €653,013 million (2015: €550,928 million). This item also contains the claims of €25 million arising from the allocation of monetary income to the national central banks (see profit and loss item 5 "Net result arising from allocation of monetary income") and the €247 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 €770 million, compared with €788 million in 2015. It comprises land and buildings, furniture and equipment and computer software.

Tangible and intangible fixed assets

€ million

Item	Purchase/ production costs 31.12.2015	Additions	Disposals	Accumulated depreciation	Book value 31.12.2016	Book value 31.12.2015	Depreciation in 2016
Land and buildings	2,279	29	– 25	– 1,671	612	626	– 42
Furniture and equipment	805	49	– 26	– 672	157	160	– 49
Computer software	142	3	– 0	– 143	2	3	– 4
Total	3,227	81	– 51	– 2,486	770	788	– 94

Deutsche Bundesbank

Sub-item 11.3 "Other financial assets" amounted to €10,921 million, compared with €12,376 million in 2015. It contains the Bundesbank's own funds portfolio (euro portfolio) as a counterpart to the capital, statutory reserves, provisions for general risks and long-term provisions for pensions and healthcare assistance. The own funds portfolio is not invested 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. On 31 December 2016, the value of the own funds portfolio at amortised cost amounted to €10,869 million, of which German Pfandbriefe accounted for €8,425 million and French covered bonds for €2,444 million. The total market value of the own funds portfolio stood at €11,364 million.

This item also includes €52 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 2016; it holds 50,100 shares, with 25% of their par value being paid-in capital. As in 2015, the participating interest in the cooperative society SWIFT, La Hulpe (Belgium), amounted to €2 million.

Sub-item 11.5 "Accruals and prepaid expenses" contains the accrued and prepaid expenditure calculated as at 31 December 2016. This chiefly consists of (accrued) interest income due in 2017 from securities and from the negative remuneration of credit institutions' deposits which were acquired or transacted in 2016.

Liabilities

1 Banknotes in circulation

The total value of euro banknotes issued by the Eurosystem central banks 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 on 31 December 2016, the Bundesbank has a 23.5% share of the value of all euro banknotes in circulation. During the year under review, the total value of banknotes in circulation within the Eurosystem rose from €1,083.5 billion to €1,126.2 billion, or by 3.9%. Taking into account the allocation key, the Bundesbank had euro banknotes in circulation worth €264,907 million at the end of the year, compared with €254,844 million at the end of 2015. The value of the euro banknotes actually issued by the Bundesbank in 2016 increased by 7.2% from €552,630 million to €592,169 million. As this was more than the allocated amount, the difference of €327,262 million (2015: €297,786 million) is shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

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 €284,948 million (2015: €155,149 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 €32,003 million on an annual average. Minimum reserve balances are remunerated at the average main refinancing rate in the respective maintenance period. In the year under review, any deposits exceeding this amount were subject to negative interest equivalent to the deposit facility rate. On a daily average, the current account deposits increased from €119,415 million in 2015 to €209,729 million in 2016.

Sub-item 2.2 "Deposit facility", amounting to €126,402 million (2015: €53,584 million), contains overnight deposits at the deposit facility rate (a negative interest rate applied in the year under review). On a daily average, the deposit facility amounted to €89,458 million, compared with €32,540 million in 2015.

Sub-item 2.5 "Deposits related to margin calls" contained cash collateral of €8 million in 2015 deposited by credit institutions in order to increase underlying assets. As at 31 December 2016, no holdings were reported in this item.

3 Other liabilities to euro-area credit institutions denominated in euro

This item contains liabilities to euro-area credit institutions arising from the bilateral repo transactions executed since September 2016. In these repo transactions, securities purchased under the PSPP 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. The liabilities of €405 million reported on 31 December 2016 result exclusively from securities lending against cash as collateral. In addition, since August 2016 this item has contained liabilities in the amount of €60 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 2016, general government deposits totalled €32,458 million (2015: €11,647 million). This increase results, in particular, from higher Federal Government deposits.

Sub-item 4.2 "Other liabilities" amounted to €73,371 million, compared with €60,242 million on 31 December 2015. It mainly comprises deposits of financial intermediaries and individuals. The increase is primarily due to a rise in deposits of the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF).

5 Liabilities to non-euro-area residents denominated in euro

This balance sheet item, amounting to €117,016 million (2015: €27,179 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"). In addition, the liabilities to non-euro-area counterparties arising from the bilateral repo transactions executed since September 2016 are also reported here. In these repo transactions, securities purchased under the PSPP 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 €3,939 million, and securities lending against Federal securities resulted in liabilities of €438 million; the claims associated with the latter 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, amounting to €4 million (2015: €35 million), contains US dollar deposits of banks domiciled in the euro area and of the Federal Government.

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

The foreign-currency-denominated liabilities to banks outside the euro area are recorded in this item. These are liabilities in US dollars, amounting to €1,218 million (2015: €571 million), which have arisen from securities repurchase agreements (repos).

8 Counterpart of special drawing rights allocated by the IMF

The counterpart of the special drawing rights allocated by the IMF free of charge corresponds to the allocations of special drawing rights 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 combined in this item.

Sub-item 9.1 contains "Liabilities related to the issuance of ECB debt certificates". The ECB did not issue any such paper in 2016.

Sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)" contains the liabilities arising from the application of the euro banknote allocation key (see liability item 1 "Banknotes in circulation"). At the end of the year, these liabilities amounted to €327,262 million in total (2015: €297,786 million). The 8% share of the total value (€1,126.2 billion) of euro banknotes in circulation attributable to the ECB resulted in a liability of €23,036 million for the Bundesbank (according to its capital share of 25.6%). In addition, the difference between the Bundesbank's actual banknote issuance of €592,169 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 €304,226 million. The main reason for the total increase of €29,476 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)". At the end of 2016, 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 in the explanatory notes above.

10 Items in course of settlement

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

11 Other liabilities

Sub-item 11.1 "Off-balance-sheet instruments revaluation differences" essentially comprises the result of the valuation of the US dollar forward liabilities to the ECB arising from the euro/US dollar swap agreement with the ECB (see asset item 3 "Claims on euro-area residents denominated in foreign currency").

Sub-item 11.2 "Accruals and income collected in advance" contains the accrued and collected income calculated as at 31 December 2016. This consists mainly of (accrued) interest expenditure which is due in future financial years but was incurred in 2016 and which arose in connection with the negative remuneration of credit institutions' refinancing (especially TLTRO II).

Sub-item 11.3 "Sundry items" comprises mainly the liabilities arising from the Deutsche Mark banknotes still in circulation. Although Deutsche Mark banknotes are no longer legal tender, 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 accounting principles, 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 liabilities arising from Deutsche Mark banknotes in circulation now comprise only notes of the series BBk III/IIIa in the amount of €1,849 million (2015: €1,876 million). In addition, there are still banknotes in circulation belonging to the series BBk I/Ia, which has already been written off, amounting to €1,210 million. Deposits of Deutsche Mark banknotes in 2016 totalled €34 million, of which €28 million consisted of the BBk III/IIIa series banknotes and €7 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 (*Gesetz über die Deutsche Bundesbank*). 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. In doing so, the holdings of risk-weighted assets, their risk content, foreseeable changes to the risk situation, the financial situation expected for the coming year, and the statutory reserves (€2.5 billion) are taken into account. The Bundesbank's risks, which are determined using models, relate, in particular, to exchange rate risk, default risk of the asset purchase programmes and credit risk arising from refinancing loans plus, for the first time, interest rate risk. The purchases of long-term securities (at very low interest rates) for monetary policy purposes and the new targeted longer-term refinancing operations (four-year maturity at a negative interest rate) have given rise to excess liquidity, resulting in a growing balance sheet mismatch between long-term assets and short-term liabilities (maturity mismatch) and hence mounting interest rate risk. Furthermore, the decisions of the ECB Governing Council in financial year 2016 on the expanded asset purchase programme (APP) and the CSPP give rise to additional credit risk for the Bundesbank, which is only partly offset by the diminishing default risk stemming from the securities purchased under the terminated SMP. Taking into account all of the aforementioned factors, the existing risk provisions were topped up by €1,750 million as at 31 December 2016 owing to the current risk assessment. The provisions for general risks thus amounted to €15,350 million as at 31 December 2016. A further increase in the risk provisions is expected in the 2017 annual accounts, as only half of the interest rate risk was included in the 2016 annual accounts in view of the current forward guidance issued by the ECB Governing Council, according to which the key ECB interest rates will remain at present or lower levels for an extended period of time far exceeding the time horizon of net asset purchases. The risk analysis 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 is 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. The Bundesbank considers this scenario to be unlikely to materialise, however, which means that the credit risks arising from

Provisions

Provisions for	31.12.2016	31.12.2015	Year-on-year change	
	€ million	€ million	€ million	%
General risks	15,350	13,600	1,750	12.9
Direct pension commitments	4,620	4,241	378	8.9
Indirect pension commitments (supplementary pension funds)	477	485	− 8	− 1.6
Healthcare subsidy commitments to civil servants	1,241	1,056	185	17.5
Partial retirement scheme	24	38	− 14	− 37.1
Staff restructuring schemes	103	125	− 22	− 17.8
Other	64	62	2	2.7
Total	21,879	19,608	2,271	11.6

Deutsche Bundesbank

Eurosystem operations to provide liquidity are ultimately the key factor.

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 an actuarial expert opinion based on current mortality tables (2005 G mortality tables issued by Dr Klaus Heubeck) pursuant to the entry age normal method (*Teilwertverfahren*) (for employees) and pursuant to the present value method (*Barwertverfahren*) (for pensioners and ex-civil servants with portable pension entitlements), with a discount rate of 3.91% used for post-employment benefit obligations and of 3.21% for healthcare subsidy commitments to civil servants in the reporting year (2015: uniform rate of 3.81%). For financial year 2016, it is estimated that there was a wage and salary trend of 2.5% (2015: 2%), an unchanged career trend of 0.5% as well as a pension trend of 2.5% (2015: 2%) for civil servants and of 1%, as in the previous year, for public sector employees. The cost trend for healthcare subsidy commitments to civil servants amounted to 3.25%, compared with 3% in the previous year. 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 (2015: for the past seven years) or, for healthcare subsidy commitments to civil servants, again for the past seven years pursuant to the Regulation on the Discounting of Provisions (*Rückstellungsabzinsungsverordnung*). Pursuant to section 253 (6) of the German Commercial Code, the difference of €564 million resulting from the application of the ten-year period, extended from seven years, to calculate the average market rate is subject to a restriction on distribution and will be transferred to a reserve.

The provisions for the partial retirement scheme and for payment commitments arising from staff restructuring schemes that had already been carried out by the balance sheet date are calculated using a discount rate of 1.67% (2015: 2.16%) on the basis of an actuarial expert opinion based on current mortality tables in accordance with the present value method, or in accordance with the entry age normal method in the case of the outstanding settlement amount for the partial retirement scheme. A wage and salary trend of 2.5% (2015: 2%) 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 €264 million from marking up the provisions (including the effects of changing the discount rate) are contained in profit and loss sub-item 1.2 "Interest expense". Profit and loss item 7 "Staff costs" contains a net allocated amount of €304 million, with the utilisation of €207 million standing against a total allocated amount of €511 million, which was €375 million higher than in 2015. Other changes in the provision levels give rise, on balance, to utilisation-related relief of €40 million in profit and loss item 11 "Other expenses" and to an allocation-related expense of €12 million in profit and loss item 8 "Other administrative expenses". The reversal of provisions resulted in income of €20 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 on 1 January 1999 (revaluation items "old") and the unrealised gains arising from market valuation on 31 December 2016 (revaluation items "new").

Revaluation items "old"

A revaluation item "old" now remains only for the item gold. It represents the difference between the market value of gold on 1 January 1999 and the lower value of gold prior to that date. In the balance sheet as at 31 December 1998, the value for gold was 1 ozf = DM143.8065 (€73.5271), while the market value on 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 dissolved under certain circumstances. Besides a dissolution in the case of valuation losses on the gold item, a proportionate dissolution also takes place in the event of net reductions if the end-of-year gold holdings are below their lowest end-of-year level since 1999.

The reduction of 3,045 kg or 0.1 million ozf in the gold holdings resulted in a dissolution amount of €17 million in the year under review. This amount is included in profit and loss sub-item 2.1 "Realised gains/losses arising from financial operations".

Revaluation items "new"

In the case of gold holdings, the net positions in each foreign currency and the securities portfolios in each category of security (securities

Revaluation accounts

Item	Revaluation items "old"	Revaluation items "new"	Total 31.12.2016	Total 31.12.2015	Year-on-year change	
	€ million	€ million	€ million	€ million	€ million	%
Gold	18,772	92,496	111,267	97,799	13,468	13.8
US dollars	–	7,665	7,665	7,129	537	7.5
SDRs	–	321	321	481	– 159	– 33.2
Yen	–	243	243	149	95	63.5
Australian dollars	–	55	55	33	23	69.4
Securities denominated in foreign currency	–	106	106	130	– 24	– 18.7
Total	18,772	100,887	119,658	105,720	13,938	13.2

Deutsche Bundesbank

identification number), the positive difference between their market value on 31 December 2016 and their value in terms of the average amortised acquisition cost from 1 January 1999 is shown in the revaluation items "new".

As regards gold, the acquisition cost is 1 ozf = €246.369. At the end of 2016, the market value of the gold item exceeded its acquisition value, leading to a revaluation item of €92,496 million (2015: €79,011 million). In the case of the net foreign exchange items in US dollars, special drawing rights, yen and Australian dollars, the market values at year-end were also above their acquisition values (€1 = US$1.4001, €1 = SDR 0.8278, €1 = ¥144.82 and €1 = A$1.5352), with the result that there were revaluation items.

The valuation gains from foreign-currency-denominated securities shown in the balance sheet result almost exclusively from US Treasury notes (€100 million). However, for a portion of the US Treasury notes, the relevant acquisition values were higher than their corresponding market values on the balance sheet 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, liable capital amounts to €2.5 billion and is attributable to the Federal Government. As in the previous year, the statutory reserves pursuant to the Bundesbank Act are in line with the fixed upper limit of €2.5 billion laid down in section 27 number 1 of the Bundesbank Act. The difference of €564 million arising from the discounting of post-employment benefit obligations, which is subject to a restriction on distribution pursuant to section 253 (6) of the German Commercial Code (see "General information on the annual accounts", liability item 12 "Provisions" and profit and loss item 12 "Allocations to/withdrawals from reserves owing to the restriction on distribution pursuant to section 253 (6) of the German Commercial Code (*Handelsgesetzbuch*)"), will be transferred to (other) reserves for the first time.

15 Distributable profit

The profit and loss account for the year 2016 closed with a profit for the year of €963 million, from which €564 million will be transferred to (other) reserves for the first time on account of the restriction on distribution pursuant to section 253 (6) of the German Commercial Code (see "General information on the annual accounts", liability item 12 "Provisions" and profit and loss item 12 "Allocations to/withdrawals 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 remaining distributable profit of €399 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 2016.

Notes on the profit and loss account

1 Net interest income

This item shows interest income less interest expense. Net interest income was greater than in the previous year, rising by €1,020 million to €3,319 million. One of the key causes of this was balance sheet growth, in particular. The deposits of credit institutions and of other domestic and foreign depositors increased significantly on account of the current purchase programmes (CBPP3, PSPP and CSPP) and liquidity flowing in from abroad via TARGET2. The increased income stemming from the negative remuneration of these deposits also resulted

Net interest income

Item	2016	2015	Year-on-year change	
	€ million	€ million	€ million	%
Interest income in foreign currency				
IMF	17	10	7	70.8
Reverse repo transactions	14	6	8	137.1
Securities	361	334	28	8.2
Other	14	4	10	261.4
Total	406	354	52	14.8
Interest income in euro				
Refinancing operations	–	40	– 40	.
Deposits of credit institutions (negative interest)	1,047	248	799	322.3
TARGET2 claim on the ECB	63	279	– 217	– 77.6
SMP portfolio	1,366	1,684	– 318	– 18.9
CBPP and CBPP2 portfolio	204	255	– 51	– 20.1
CBPP3 portfolio	109	50	59	117.2
PSPP portfolio	– 78	– 11	– 67	– 625.0
CSPP portfolio	2	–	2	.
Claims arising from the transfer of foreign reserves to the ECB	1	4	– 4	– 79.5
Own funds portfolio (financial assets)	195	253	– 58	– 22.9
Euro balances of domestic and foreign depositors (negative interest)	338	58	280	486.5
Other	51	45	5	11.9
Total	3,298	2,907	392	13.5
Total interest income	3,704	3,260	444	13.6
Interest expense in foreign currency				
IMF	13	8	5	66.1
Other	4	1	3	447.3
Total	16	8	8	98.3
Interest expense in euro				
Refinancing operations (negative interest)	54	–	54	.
Liabilities arising from the allocation of euro banknotes	31	142	– 111	– 78.2
Claims arising from central bank services (negative interest)	18	6	12	211.5
Marking up of staff provisions	264	789	– 524	– 66.5
Other	2	17	– 15	– 90.2
Total	369	953	– 584	– 61.3
Total interest expense	386	962	– 576	– 59.9
Net interest income	3,319	2,299	1,020	44.4

Deutsche Bundesbank

from the higher negative interest rate on the deposit facility, which almost doubled on an annual average. Income growth was held back by the reduction in the main refinancing rate to 0% in March 2016 and by the maturity-based decrease in securities held for monetary policy purposes from the terminated purchase programmes (SMP and CBPP/CBPP2), particularly since the current purchase programmes do not make a comparable contribution to net interest income owing to their low remuneration.

1.1 Interest income

Interest income in foreign currency rose from €354 million in 2015 to €406 million in 2016 owing to higher yields. Interest income in euro increased by €392 million year-on-year to €3,298 million. In 2015, monetary policy refinancing operations gave rise to interest income of €40 million; although the scale of refinancing operations rose from 2015 by around €10 billion on an annual average, the reduction in the main refinancing rate to 0% in March 2016 and the remuneration of the TLTRO II operations introduced in mid-2016 at a rate below the main refinancing rate resulted in an interest expense on balance (see profit and loss sub-item 1.2 "Interest expense"). Interest income from the negative remuneration of credit institutions' deposits (in the reporting year, less interest payments on minimum reserves in the amount of €3 million – see profit and loss sub-item 1.2 "Interest expense") increased by €799 million on account of excess reserves being €146 billion higher on an annual average and the negative interest rate rising from 0.21% to 0.38% on average in 2016. Income arising from the TARGET2 claim on the ECB fell by €217 million. This was mainly due to the main refinancing rate being cut from 0.05% to 0% in March 2016 (given an increase in the TARGET2 claim of around €102 billion on an annual average). Income from securities held for monetary policy purposes relating to the terminated purchase programmes (SMP and CBPP/CBPP2) declined by €369 million to a total of €1,570 million on account of the annual average decrease in holdings of €8 billion. In the current programmes (CBPP3, PSPP and CSPP), purchases are made significantly above par because of the low market yields. The large difference between the acquisition value and the redemption value is accounted for by allocating it over the residual maturity as a negative portion of interest income (alongside coupon rates), so that on balance there is only low remuneration. In the CBPP3 portfolio, the average rate of interest was 0.26%, compared with 0.24% in the previous year; owing to the annual average increase in holdings of €21 billion, interest income rose from €50 million in 2015 to €109 million. For the PSPP portfolio, lower market yields led to negative remuneration of -€116 million (2015: -€7 million) for fixed-income securities, whereas the higher inflation adjustment resulted in positive remuneration of €38 million (2015: €4 million) for inflation-linked bonds, producing interest income of -€78 million on balance. In the CSPP portfolio, on the other hand, securities remunerated at positive rates (€6 million) just outweighed those remunerated at negative rates (-€4 million), resulting in interest income of €2 million on balance. On the back of the smaller holdings and lower average interest rate (1.70% compared with 2.11% in 2015), the Bundesbank's own funds portfolio saw its interest income contract by €58 million to €195 million. Interest income arising from the negative remuneration of euro balances held by domestic and foreign depositors rose by €280 million, particularly because the negative interest rate was higher on average but also because of increased average holdings.

1.2 Interest expense

There was a year-on-year decrease of €576 million to €386 million in interest expense in 2016. For the first time, monetary policy refinancing operations gave rise to an interest expense of €54 million on balance (2015: interest income of €40 million), as the interest accrued for TLTRO II operations at the deposit facility rate meant that the interest expense figure (€78 million) outweighed interest income (€25 million) from other refinancing operations. Owing to the 0% main refinancing rate from March 2016 onwards (cut from the previous rate of 0.05%), the interest expense for intra-Eurosystem balances arising from the allocation of euro banknotes fell by €111 million, despite the fact that liabilities were around €27 billion higher on an annual average (see "General information on the annual accounts"). Expenses from the marking up of staff provisions declined by €524 million because of changes in the discount rates. In 2016, these were remunerated at the average market rate of the past ten years (instead of seven years, as before) for the first time (see liability item 12). The interest payments totalling €16 million for liabilities related to minimum reserves that were contained in interest expense in 2015 were, for the first time, included as a deduction item in interest income from the negative remuneration of credit institutions' deposits in this reporting year (see profit and loss sub-item 1.1 "Interest income").

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

The realised net income from foreign currency transactions reported in sub-item 2.1 mainly concerns transactions involving US dollars (€454 million) and special drawing rights (€192 million). Realised gains on sales of securities primarily relate to US Treasury notes (€102 million).

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

Sub-item 2.3 "Transfers to/from provisions for general risks, foreign exchange risks and price risks" contains the increase of €1,750 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 €30 million, compared with €32 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 as well as the share of the final liquidation balance sheet of Liquiditäts-Konsortialbank GmbH (in liquidation) attributable to the Bundesbank. The total income of €339 million (2015: €282 million) includes, in particular, the Bundesbank's share of the ECB's profit distribution for the financial years 2015 and 2016. The share of the ECB's interim distribution of profit for financial year 2016 is €247 million (previous year: €208 million for financial year 2015); a further €69 million came from the (remaining) profit distribution for financial year 2015 which took place in February 2016 (previous year: €38 million for financial year 2014).

5 Net result arising from allocation of monetary income

This item comprises income of €25 million overall in 2016 (2015: €133 million).

The monetary income of the Eurosystem national central banks is allocated in accordance with a decision taken by the Governing Council

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

Item	2016	2015	Year-on-year change	
	€ million	€ million	€ million	%
Realised gains/losses				
Gold	103	104	– 0	– 0.4
Foreign currency	647	602	45	7.6
Securities	124	250	– 127	– 50.6
Total	874	956	– 82	– 8.6
Write-downs				
Foreign currency	– 0	– 0	0	66.7
Securities	– 198	– 82	– 115	– 139.8
Total	– 198	– 82	– 115	– 139.7
Transfers to/from provisions for general risks, foreign exchange risks and price risks	– 1,750	780	– 2,530	.
Grand total	– 1,073	1,654	– 2,727	.

Deutsche Bundesbank

Net income from fees and commissions

Item	2016	2015	Year-on-year change	
	€ million	€ million	€ million	%
Income				
Cashless payments	23	23	0	1.7
Cash payments	9	9	– 0	– 3.5
Securities business and security deposit business	14	12	2	19.7
Other	12	14	– 3	– 18.3
Total	58	58	– 0	– 0.3
Expense				
Securities business and security deposit business	20	18	1	7.9
Other	9	8	1	6.3
Total	28	26	2	7.4
Grand total	30	32	– 2	– 6.6

Deutsche Bundesbank

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 which arises 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 “Liabilities related to the allocation of euro banknotes within the Eurosystem (net)” and the TARGET2 net liability contained in liability sub-item 9.3 “Other liabilities within the Eurosystem (net)”. All interest paid or – owing to the negative interest rates – received on these items decreases/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 arising from the transfer of foreign reserves to the ECB”, asset sub-item 9.3 “Claims related to the allocation of euro banknotes within the Eurosystem (net)”, 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 sharing the risk and returns arising from these instruments among the national central banks.

If the value of a national central bank’s earmarked assets is above or below the value of its liability base, the difference is offset by applying to the value of the difference the applicable interest rate for the main refinancing instrument. At the end of each financial year, the total monetary income transferred by all national central banks is distributed among the

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).

national central banks in proportion to their respective paid-up shares in the fully paid-up capital of the ECB. The 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 interest rate of the main refinancing instrument; second, the quota share of these earmarked assets or liabilities on the balance sheet of the respective national central bank must be higher or lower than its share in the ECB's capital.

The allocation of monetary income resulted in net income of €25 million for the Bundesbank (2015: €133 million). This balance represents the difference between the €2,508 million in monetary income paid by the Bundesbank into the common pool and the Bundesbank's claim of €2,533 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 €134 million, compared with €228 million in 2015. This decrease was mainly due to the year-on-year reduction in the contributions of the Eurosystem national central banks to the costs of developing and running Eurosystem projects, which totalled €56 million (2015: €117 million, of which €81 million was for the Eurosystem project TARGET2-Securities, which was reported in this item after the system went live in June 2015). In addition, €20 million was attributable to rental income (as in 2015) and another €20 million (2015: €9 million) to the reversal of provisions (see liability item 12 "Provisions") as well as €4 million (2015: €36 million) to proceeds from the sale of land and buildings.

7 Staff costs

Staff costs rose from €722 million to €1,123 million year-on-year. In particular, expenditure relating to staff provisions (see liability item 12 "Provisions") was, on balance, €375 million higher than the previous year owing to increased transfers. Excluding this effect, staff costs rose by around 4.4%. This was mainly attributable to the general pay rises for salaried staff and civil servants as well as slightly 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 2016, the President of the Bundesbank received a pensionable salary of €362,348.84, a special non-pensionable remuneration of €76,693.78 and a standard expenses allowance of €5,112.96, amounting to

Staff costs

	2016	2015	Year-on-year change	
Item	€ million	€ million	€ million	%
Salaries and wages	534	507	27	5.3
Social security contributions	81	77	3	4.5
Expenditure on retirement pensions	508	138	370	268.1
Total	1,123	722	400	55.4

Deutsche Bundesbank

a total of €444,155.58. The Vice-President of the Bundesbank received a pensionable salary of €289,879.08, a special non-pensionable remuneration of €61,355.03 and a standard expenses allowance of €3,067.80, amounting to a total of €354,301.91 for 2016. There was one change in the composition of the Executive Board in 2016. For the period from 1 January 2016 until his departure on 30 April 2016, the previous Executive Board member received a pensionable salary of €71,947.92, a special non-pensionable remuneration of €15,338.76 and a standard expenses allowance of €852.16, amounting to €88,138.84 in total. His successor (in office since 1 November 2016) received a pensionable salary of €36,365.36, a special non-pensionable remuneration of €7,669.38 and a standard expenses allowance of €426.08, amounting to a total of €44,460.82 in 2016. For 2016, the other three members of the Executive Board each received a pensionable salary of €217,409.36, a special non-pensionable remuneration of €46,016.27 and a standard expenses allowance of €2,556.48, amounting to a total of €265,982.11 each.

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 €10,992,540.16 in 2016.

8 Other administrative expenses

Other administrative expenses decreased from €460 million in 2015 to €396 million. This decline was mainly caused by the lower share of development expenditure for Eurosystem IT projects, which was down on the year at a total of €47 million (2015: €114 million). In addition, this item notably includes expenses of €103 million for computer hardware and software (2015: €93 million) and of €81 million for office buildings (2015: €88 million).

9 Depreciation of tangible and intangible fixed assets

The depreciation of land and buildings, of furniture and equipment and of computer software amounted to €94 million, compared with €101 million in 2015 (see asset sub-item 11.2 "Tangible and intangible fixed assets").

10 Banknote printing

Expenditure on banknote printing increased by €48 million year-on-year to €159 million owing to the increased procurement of higher-denominated banknotes in the reporting year.

11 Other expenses

Other expenses amounted to €39 million compared with €43 million in 2015, and contained, in particular, expenditure on residential buildings amounting to €20 million and on staff restructuring schemes in the amount of €10 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 €7 million (see liability sub-item 11.3 "Sundry items").

12 Allocations to/withdrawals 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 German Commercial Code, the difference of €564 million arising from the application of the ten-year period, extended from seven years, 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") and will be transferred to a reserve established for this purpose.

Annex

The Deutsche Bundesbank: key figures

Staff[1]	2015	2016
Core staff (full-time equivalents)	9,636	9,775
– contraction since 31 December 2001[2]	5,164 (= 34.9%)	5,025 (= 34.0%)

Locations/core staff (full-time equivalents)[1]	2015	2016
Central Office	1 / 4,623	1 / 4,731
Regional Offices	9 / 2,524	9 / 2,594
Branches	35 / 2,489	35 / 2,450

Annual accounts[1]	2015	2016
Distributable profit	€3,189 million	€399 million
Net interest income	€2,299 million	€3,319 million
Balance sheet total	€1,011,969 million	€1,393,014 million
Foreign reserve assets (total)	€159.5 billion	€175.8 billion
– foreign currency	€33.4 billion	€35.0 billion
– receivables from the IMF	€20.3 billion	€21.5 billion
– gold	(3,381 t) €105.8 billion	(3,378 t) €119.3 billion
Allocation across the various storage locations		
Frankfurt	(1,402 t) €43.9 billion	(1,619 t) €57.2 billion
New York	(1,347 t) €42.2 billion	(1,236 t) €43.6 billion
London	(435 t) €13.6 billion	(432 t) €15.2 billion
Paris	(196 t) €6.1 billion	(91 t) €3.2 billion

ECB capital key[1]	2015	2016
Share of subscribed capital	17.9973%	17.9973%
Share of paid-up capital	25.5674%	25.5674%
Amount of the participating interest in the ECB	€1.95 billion	€1.95 billion
Foreign reserve assets transferred to the ECB	€10.43 billion	€10.43 billion

Money market transactions	2015	2016
Open market operations in the euro area[3]		
– Main refinancing operations	€92.89 billion	€49.12 billion
– Longer-term refinancing operations[4]	€433.54 billion	€481.09 billion
of which counterparties of the Bundesbank	€40.56 billion	€50.07 billion
– Banks participating in the main refinancing operations (average) / *of which* via the Bundesbank	127 / 38	93 / 38
Standing facilities[3]		
– Marginal lending facility in the euro area	€0.29 billion	€0.13 billion
– Deposit facility in the euro area	€114.18 billion	€326.03 billion
Asset purchase programmes (Bundesbank's share)[1]		
CBPP3 portfolio	€32.7 billion	€48.2 billion
PSPP portfolio	€104.2 billion	€269.6 billion
CSPP portfolio	€0 billion	€12.0 billion

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

Cash payments	2015	2016
Volume of euro banknotes in circulation (Eurosystem)[1]	€1,083.4 billion	€1,126.2 billion
Volume of coins in circulation (Eurosystem)[1]	€26.0 billion	€26.9 billion
Returned DM banknotes and coins	DM107.7 million	DM104.8 million
Unreturned DM banknotes and coins	DM12.82 billion	DM12.72 billion

Incidence of counterfeit money in Germany	2015	2016
Euro banknotes (number)	95,400	82,200
Euro coins (number)	34,100	33,000

Cashless payments	2015	2016
Payments via the Bundesbank (number of transactions)	3,868.9 million	4,321.0 million
of which via RPS	3,821.9 million	4,274.5 million
of which via TARGET2-BBk	43.9 million	43.7 million
Payments via the Bundesbank (value)	€162.6 trillion	€158.3 trillion
of which via RPS	€3.2 trillion	€3.1 trillion
of which via TARGET2-BBk	€158.2 trillion	€153.9 trillion
Share of TARGET2-BBk transactions in EU-wide TARGET system	~ 50%	~ 50%

Banking supervision	2015	2016
Number of institutions to be supervised	3,388	3,285
On-site inspections	222	196
Inspection reports processed	5,182	4,780
Meetings with senior management	2,251	1,994

Cooperation with foreign central banks	2015	2016
Training and advisory events	240	204
– number of participants (total)	3,431	2,862
– number of participating countries (total)	98	82

Selected economic publications (editions/circulation)	2015	2016
Annual Report	1 / 8,500	1 / 8,000
Financial Stability Review	1 / 7,700	1 / 8,700
Monthly Report	12 / 7,500	12 / 7,500
Statistical Supplements	52 / 1,170	52 / 1,170
Research Centre Discussion Papers	48 / 300	52 / 300
Publications in academic journals	54	67

External communication/public relations	2015	2016
Visitors to the Money Museum[5]	0	2,295
Written answers to queries	13,895	12,877
Press releases	312	332
Visits to the website (www.bundesbank.de)	6,224,535	5,974,933
Training sessions on counterfeit prevention	1,850	1,900
– number of participants	39,500	39,800

5 The money museum was closed due to renovation in 2015 and up until 16 December 2016.

Branches of the Deutsche Bundesbank on 1 April 2017

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 2016*

Item	Staff numbers[1]				Year-on-year changes			
	Total	Regional Offices	Branches	Central Office	Total	Regional Offices	Branches	Central Office
Civil servants	5,689	1,524	1,108	3,057	193	60	– 32	165
Salaried staff	5,533	1,454	1,567	2,512	28	27	– 3	4
Total	11,222	2,978	2,675	5,569	221	87	– 35	169
of which Trainees	615	138	0	477	49	2	0	47
Remainder Core staff	10,607	2,840	2,675	5,092	172	85	– 35	122
Memo item Core staff *pro rata* (full-time equivalents)	9,774.8	2,593.6	2,449.9	4,731.3	138.5	69.2	– 39.5	108.8

	End-2016	End-2015
* Not included:		
Members of staff on secondment	216	216
Members of staff on unpaid leave	255	249
Members of staff in the second phase of the partial retirement scheme	360	497
1 Of which part-time employees	2,607	2,434
Of which staff with temporary contracts	167	126

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

– Dr Andreas Dombret:
  Member of the Board of Directors, BIS (until 30 April 2016);
  Alternate, Board of Directors, BIS (since 1 May 2016);
  Alternate, Board of Trustees, Monetary Stability Foundation

– Dr Joachim Nagel, Board member until 30 April 2016:
  Alternate, Board of Directors, BIS

– Mr Carl-Ludwig Thiele:
  Member of the Board of Trustees, Monetary Stability Foundation

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