DEUTSCHE BUNDESBANK
EUROSYSTEM

Annual Report 2023

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Executive Board and commemorations

From left to right: Sabine Mauderer, Joachim Nagel, Burkhard Balz

Dr Joachim Nagel
President of the Deutsche Bundesbank

Dr Sabine Mauderer

Burkhard Balz

We mourn the loss of the following members of our staff

Michael Gauer – 25 February 2023
Jens Neumann – 27 February 2023
Stefan Hans Dietel – 1 April 2023
Frank Klawun – 24 May 2023
Ute Schulz – 3 June 2023
Klaus Gerhard Faas – 28 July 2023
Bärbel Tost – 12 August 2023
Thomas Torsten Grube – 21 August 2023
Gerhard Ernst Lutz – 6 September 2023
Stefan Kohlar – 6 October 2023
Dirk Hartmann – 15 October 2023
Frank Bormet – 19 October 2023
Konrad Michael Schmid – 27 October 2023
Corina Diehl – 2 November 2023
Raffaele Foschini – 27 November 2023
Stefan Zipp – 1 December 2023
Frank Josef Riedelbauch – 5 December 2023
Regina Brax – 17 December 2023

We also remember the retired staff members
of the Bank who passed away in 2023.

We will honour their memory.

Foreword

Dear Reader

The Bundesbank is committed to a stable currency. We entered 2023 with inflation rates of over 8% in the euro area. With that as our starting point, our New Year's resolutions practically wrote themselves. From the outset, the key monetary policy task of the year was clear: to curb the high inflation. Over the course of the year, inflation rates came down significantly, falling to just under 3% at last report. Although that is still higher than the medium-term target of 2%, the trend is encouraging.

Lower energy prices were the primary reason for the decline, but decisive monetary policy action also played a part. Between July 2022 and September 2023, the Governing Council of the ECB raised its key interest rates by a total of 450 basis points, the strongest increase in the history of monetary union. We are on the right path, but have not yet reached the finish line. I shall therefore remain steadfast in my commitment to price stability.

Given the large bond holdings and high deposits, the sharp rise in interest rates is currently placing considerable financial burdens on the Bundesbank: we are paying higher interest rates on commercial banks' deposits whilst at the same time generating only a low level of interest income from existing bond portfolios. In 2023, our financial buffers offset the losses incurred. As from the current year – 2024 – our financial buffers will likely no longer suffice. In that case, we will report a loss carryforward. This loss carryforward, however, will not prevent us from fulfilling our monetary policy mandate as part of the Eurosystem. The Bundesbank will continue to firmly advocate for price stability. That is something people can rely on. Their trust is our most important asset.

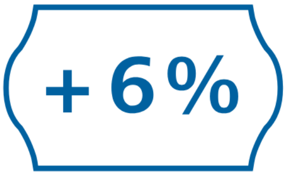
For 25 years, the euro has been our single European currency. In order to continue to meet the needs of Europeans in the future, we are evolving the euro. Digital payments are becoming more and more popular. A digital euro would therefore be a logical and important complement to cash. In 2023, the Governing Council of the ECB decided to start preparatory work for a digital euro. I am convinced that the digital euro will be a key topic for the future, and that the Bundesbank can play a leading role in shaping it. Internally, we have set the strategic course accordingly. The new strategic direction is part of a major modernisation process at the Bundesbank that will preserve our ability to perform our tasks in the best possible way now and going forward.

Evolving the Bundesbank into a future-proof, agile and digital organisation is a joint task for all who work at the Bundesbank. I am very pleased to share this endeavour with such excellent and committed fellow Bundesbankers. On behalf of the entire Executive Board, I would like to warmly thank our entire staff for their magnificent efforts!

Sincerely yours
Joachim Nagel

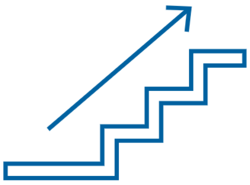
Dr Joachim Nagel
President of the Deutsche Bundesbank

At a glance



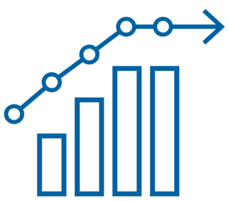
Increase in consumer prices

Price pressures in Germany weakened in 2023. As measured by the Harmonised Index of Consumer Prices (HICP), the annual average inflation rate was 6%, after consumer prices had risen by 8.7% in 2022. Falling energy prices contributed substantially to this reduction in inflation.



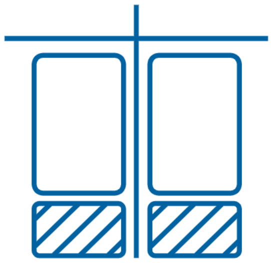
Interest rate staircase

The ECB Governing Council raised key interest rates six times in 2023. Between July 2022 and September 2023, it raised interest rates by a total of 4.5 percentage points, its largest interest rate hiking cycle since the introduction of the euro.



Economy treading water

Last year, high inflation, weak foreign demand and tight monetary policy were a drag on German economic output. Price and calendar-adjusted gross domestic product fell slightly by 0.1%.

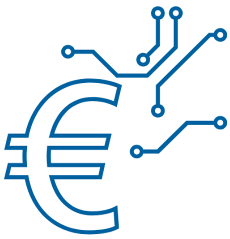


Balance sheet length

The Eurosystem’s balance sheet has contracted by over €1,800 billion, or just over one-fifth, since the beginning of the latest monetary policy tightening cycle. This was mainly attributable to euro area banks, which repaid a large volume of loans from targeted longer-term refinancing operations (TLTROs).

Public finances

Germany’s deficit ratio fell from 2.5% to 2% in 2023. The main reason for the decline was the expiry of temporary crisis measures. The debt-to-GDP ratio likewise declined and continued to approach 60%. In its ruling of 15 November, the Federal Constitutional Court strengthened the binding effect of the debt brake.



Digital euro

In November 2023, the ECB Governing Council decided to continue working on the digital euro in a two-year preparation phase.

Bundesbank round-up

1 Economic activity and price developments

Unusually high inflation continued to shape the setting in 2023. However, the global wave of inflation eased markedly over the course of the year. This wave had been set in motion by the fallout from the COVID-19 pandemic and the economic policy responses to it and intensified by Russia’s war of aggression against Ukraine. [1] In many places, it led to the strongest price increases in decades. Wage growth also accelerated considerably in response to the high inflation rates. This in itself helped push prices up further, particularly in the services sector. Moreover, some enterprises expanded their profit margins in the high inflation environment.

In the industrial countries, consumer price inflation stood at 7.8% on average in 2022 and still amounted to 4.9% in 2023. One major reason for the easing of inflation was the decline in energy prices, which had previously risen sharply. Core inflation, which strips out energy and food prices, also subsided in 2023. Having reached 5.2% in 2022, it still stood at 4.8% in the reporting period.

The global economy expanded moderately last year. One of the reasons was the high level of inflation, which dampened private consumption. Moreover, the tightening of monetary policy in many regions slowed economic growth. However, there was no recession, not least because labour markets were robust. Nor was there any lasting impairment to the financial sector; intermittent turbulence in the spring had no noticeable impact on global economic activity.

According to the projection published by the International Monetary Fund (IMF), the global economy is expected to have grown by 3.1% overall last year, compared with 3.5% in 2022. Global economic activity is set to expand at the same pace this year, with inflationary pressures likely to weaken further. Downside risks to the global economic outlook would emerge, in particular, if inflation did not ease as expected and the tight monetary policy stance had to be sustained for longer than currently assumed. Other risks are posed by the possible continued faltering of growth in China, a potential escalation of the conflicts in Ukraine and the Middle East, and geopolitical tensions in other regions of the world.

1 See Deutsche Bundesbank, Annual Report 2022, p. 11.

These uncertainties underline the importance of maintaining cooperation through international organisations. The decision to increase the financial resources of the International Monetary Fund in December 2023 is aimed at helping to achieve this; see the section entitled “The International Monetary Fund’s own financial resources are being augmented on a lasting basis”. This measure is an important element in ensuring future global financial stability.

Supplementary information

The International Monetary Fund's own financial resources are being augmented on a lasting basis

After many years of negotiations, the International Monetary Fund (IMF) approved a quota increase in December 2023 under the 16th General Review of Quotas. The aim was to maintain its lending capacity beyond the end of 2024. The IMF's financial resources, and thus the funds for its regular financial assistance, consist essentially of the financial contributions of its member countries in the amounts of their quotas. In addition to this quota funding, the IMF can, in times of crisis, draw on multilateral New Arrangements to Borrow (NAB) or Bilateral Borrowing Agreements (BBAs) concluded with financially strong members, provided that certain conditions are met. This enables it to meet increased demand for financial assistance in the event of a crisis.

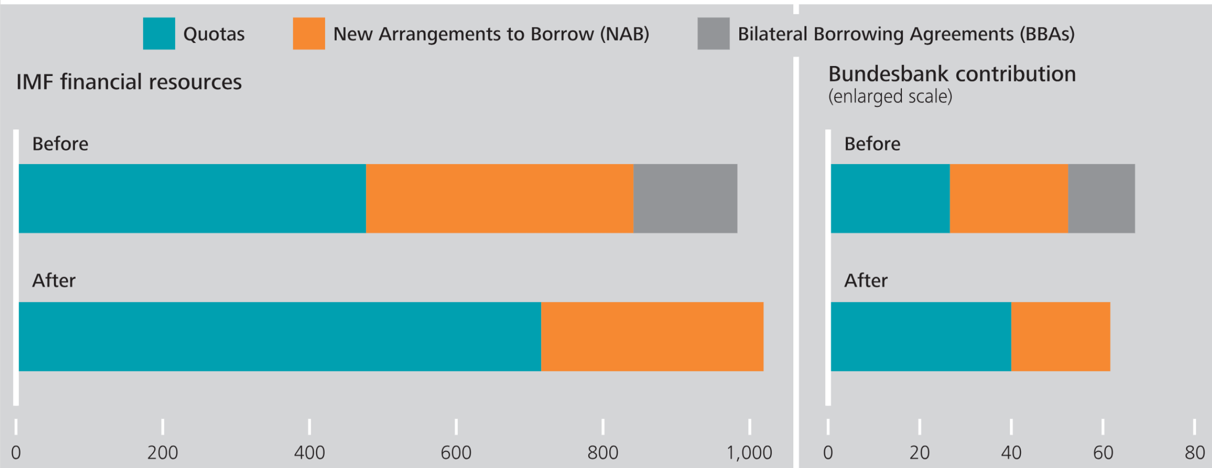
In December 2023, the IMF Board of Governors decided to increase IMF quotas by 50%.[1] This increase in quotas will allow the IMF to maintain its lending capacity at its current level after the scheduled expiry of the BBAs at the end of 2024. Germany's quota will rise accordingly from SDR 26.6 billion to SDR 40 billion (€48.8 billion, as at end-2023). A country's quota share is intended to reflect its relative position in the global economy. It also determines a country's voting rights, its allocated amount of special drawing rights, and its limits on access to financial assistance.

Quotas are being increased proportionally for all member countries, so each country's quota share will remain unchanged. Many emerging market and developing economies called for the quota formula to be adjusted in favour of faster-growing countries, but it was not possible to reach an agreement. The Bundesbank would have fundamentally supported a balanced adjustment of quota shares. Germany' s quota share remains unchanged at 5.6%. Germany therefore remains the fourth-largest IMF shareholder, after the United States, Japan and China. In order for the agreed increase in quotas to become effective, member countries representing 85% of the total quota volume must approve the increase in their individual quotas. It is expected that this will be achieved by mid-November 2024, after which the corresponding payments are to be made to the IMF. As the financial rights and obligations of the Federal Republic of Germany arising from its membership in the IMF are assumed by the Bundesbank, the Bundesbank will pay up Germany's quota increase and report the correspondingly higher value of Germany's IMF position as foreign reserves on its balance sheet.

As part of the review of quotas, it was also decided that there will be a reduction in NAB at the same time as the increase in quotas. This is intended to keep lending capacity constant, as the increase in quotas exceeds the volume of the expiring BBAs. In future, the IMF's financing structure will thus be based to a significantly greater extent on quotas than on NAB. The Bundesbank's contribution to the NAB will decline from SDR 25.8 billion to SDR 21.6 billion. Furthermore, the Bundesbank's BBA with the IMF, which amounts to SDR 14.6 billion (€17.9 billion, as at end-2023), will expire at the end of this year. The Bundesbank's overall contribution to the IMF's financing will thus decline by SDR 5.5 billion. If the increase in quotas has not been implemented by the end of 2024, the Bundesbank would, if necessary, contribute to temporary lines of credit to the IMF in order to prevent a temporary drop in the IMF's financial resources.

IMF financial resources and the Bundesbank's contribution
before and after the 16th General Review of Quotas becomes effective

Special drawing rights (SDR), billion



Source: Preliminary IMF calculations (as at December 2023).
Deutsche Bundesbank

1. From SDR 477.1 billion to SDR 715.7 billion. Special drawing rights (SDRs) are a reserve medium created by the IMF and form part of the Bundesbank's foreign reserves. For more details, see the section entitled Receivables from the IMF.

2023 was a challenging year for the German economy. In addition to the after-effects of the sharp rise in energy costs, weak foreign demand weighed on industrial output. Moreover, high inflation depressed private consumption. High wage increases therefore did not yet lead to a marked rise in consumption expenditure. The Eurosystem's tighter monetary policy also curbed economic activity. Increased financing costs dampened investment, particularly in housing construction. Finally, government consumption fell sharply in the absence of pandemic-related expenditure on items such as vaccination and testing.

Aggregate output

Year-on-year percentage change in GDP, price, seasonally and calendar adjusted

Sources: Federal Statistical Office and Eurostat.
Deutsche Bundesbank

On the other hand, the normalisation of supply chains, the high order backlog in industry and construction and the still stable labour market bolstered activity. According to preliminary data from the Federal Statistical Office, German economic output, measured in terms of price-adjusted and calendar-adjusted gross domestic product (GDP), fell slightly last year by 0.1% on the year. Borne mainly by more buoyant export activity and a pick-up in private consumption, aggregate output will return to an expansionary path this year, rising by 0.4% according to the Bundesbank's December 2023 forecast.

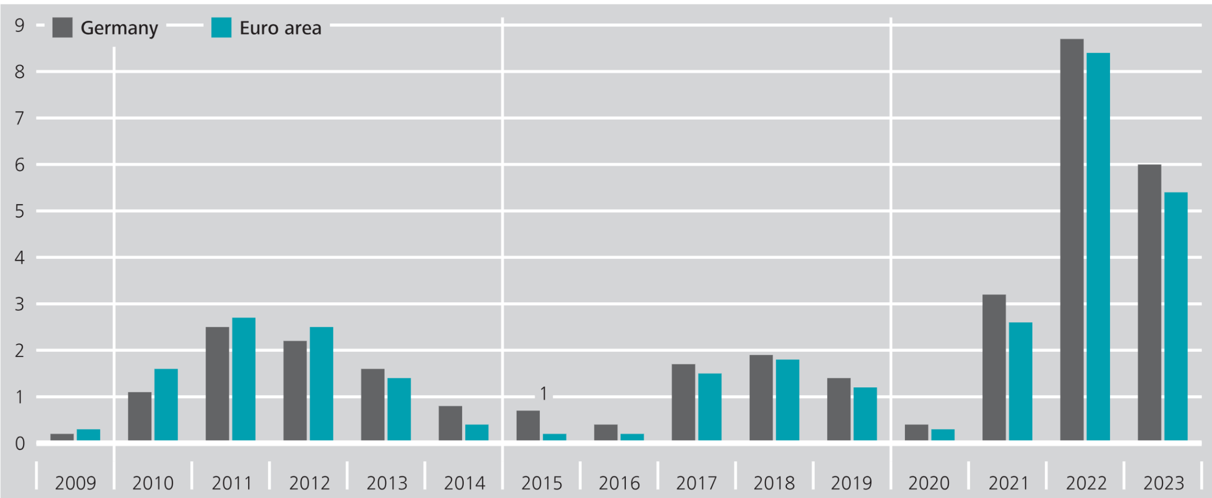
Inflation in Germany as measured by the Harmonised Index of Consumer Prices (HICP) surpassed its peak in October 2022. Driven by falling energy prices, it has weakened considerably since then. Headline inflation in Germany came to an annual average of 6% in 2023, down from 8.7% in 2022. Core inflation, on the other hand, climbed from 3.9% in 2022 to 5.1% last year. According to the Bundesbank's December forecast, headline inflation in Germany is likely to decline further to 2.7% this year and core inflation to 3%.

The euro area economy, too, lost momentum last year. High inflation held back private consumption. Weak foreign demand weighed on industry. In addition, many of the support measures adopted in the wake of the pandemic and the energy crisis expired. Last but not least, the rise in financing costs also curbed the pace of growth. Overall, real GDP growth slowed from a calendar-adjusted average of 3.4% in 2022 to 0.5% in the reporting period. According to the latest Eurosystem projections, the euro area economy could expand somewhat faster in 2024, at 0.8%.

Price pressures in the euro area eased significantly last year. As was the case for Germany, this was driven primarily by a marked decline in energy prices. Headline HICP inflation in the euro area came to an average of 5.4% in 2023, down from 8.4% in 2022. By contrast, core inflation in the euro area rose from 3.9% in 2022 to 4.9% last year. It will still be some time before inflation returns to the target rate of 2%. According to the Eurosystem's latest outlook for prices and costs, HICP inflation will still come to 2.7% this year. Only in 2025 will inflation be close to the inflation target rate, at 2.1%. Core inflation will stand at 2.7% this year and 2.3% next year.

Consumer prices*

Year-on-year percentage change



Sources: Federal Statistical Office and Eurostat. * HICP. **1** Values for 2015 biased upwards by an ad hoc revision to German HICP in 2019.
Deutsche Bundesbank

2 Monetary policy

Given the strong and persistent price pressures in the euro area, the Governing Council of the ECB continued to tighten its monetary policy in 2023, a process it had begun in 2022. Extensive measures were taken to ensure a timely return of inflation to its 2% target; for more details, see the Chronology of monetary policy decisions. These measures affected the key interest rates, in particular, but also the asset purchase programmes. After the Eurosystem ended net asset purchases under the pandemic emergency purchase programme (PEPP) and asset purchase programme (APP) in 2022, it also scaled back reinvestments of principal payments from maturing securities purchased under the APP from the beginning of March 2023, discontinuing APP purchases altogether at the end of June 2023.

With regard to its interest rate decisions, the Governing Council of the ECB announced that it would not decide in advance on a specific interest rate path, but would take a meeting-by-meeting approach based on the incoming economic data instead. Given the persistently unfavourable price outlook, the Governing Council of the ECB raised key interest rates six times in a row in 2023; by 0.5 percentage point each in February and March, and by 0.25 percentage point at each of the next four monetary policy meetings. As a result, the interest rate on the deposit facility, which is currently the most relevant monetary policy interest rate, rose to 4%. The Governing Council of the ECB thus carried out the largest and steepest sequence of interest rate hikes in the history of the Eurosystem, totalling 4.5 percentage points in just over a year. The interest rate hikes decided by the Governing Council pushed up the cost of financing for households and enterprises, thus dampening aggregate demand and helping to ease high price pressures.

In the light of declining inflation rates, the Governing Council of the ECB decided at its October monetary policy meeting not to raise interest rates any further for the time being. This decision was informed by the Council's assumption that current interest rates were at levels that, maintained for a sufficiently long duration, would make a substantial contribution to achieving the price stability target. At its last monetary policy meeting of 2023, the Governing Council decided to keep interest rates on hold. However, it did not rule out further interest rate hikes if required by the price outlook. In order to ensure a timely return to price stability, the Bundesbank believes that the monetary policy stance should not be loosened too early.

Tighter monetary policy affects not only the cost of financing for households, enterprises and general government, but also the central bank's balance sheet. Since the latest round of monetary policy tightening began, the Eurosystem's balance sheet has contracted by around one-fifth, or just over €1.8 trillion in absolute terms. This was mainly because a large volume of targeted longer-term refinancing operations (TLTROs) matured or were repaid early by euro area banks. The ECB Governing Council' s adjustment of the previously very favourable interest rate conditions for this type of refinancing operation provided incentives for early repayments from the end of November 2022 onwards. The reduction of the balance sheet was supplemented by the discontinuation of reinvestments under the APP. The Governing Council decided that, from the second half of 2024 onwards, maturing securities under the PEPP will no longer be reinvested in full; by the end of 2024, it intends to discontinue purchases under the PEPP altogether.

The monetary policy tightening that commenced in 2022 shrank more than just the Eurosystem's balance sheet. The profitability of euro area central banks also deteriorated significantly as a result of the rise in key interest rates. The Eurosystem's holdings of bonds are predominantly long-term investments, whose relatively low returns have so far been largely unaffected by the interest rate reversal. By contrast, the interest rate hikes directly increase the Eurosystem's interest expenditure, as banks are paid higher rates on their deposits with central banks. It was for this reason that the Bundesbank already reported a result of zero in its profit and loss account for 2022. In 2023, the tight monetary policy stance once again weighed on the Bundesbank's profitability; see the section entitled "Interest rate risk on the central bank balance sheet".

Supplementary information

Interest rate risk on the central bank balance sheet

Central banks in all G7 countries significantly decreased their policy rates and made large-scale bond purchases following the financial crisis. In doing so, they counteracted historically low inflation rates for the benefit of price stability. Both short-term and longer-term market interest rates fell as a result, boosting economic activity and helping central banks to achieve their objective of price stability.

The Eurosystem has been making asset purchases under various monetary policy purchase programmes since 2009. These include, in particular, the asset purchase programme (APP) launched in 2015 and the pandemic emergency purchase programme (PEPP) launched in 2020. The holdings of securities purchased by the Eurosystem for monetary policy purposes amounted to €4.7 trillion as at 31 December 2023, of which €1.0 trillion was attributable to the Bundesbank.

As balance sheets have expanded, the financial risks they contain have also increased considerably. The Bundesbank already highlighted these risks at an early stage.[1] While risk considerations feed into monetary policy decision-making, certain risks cannot be avoided in fulfilling the price stability mandate. In the current environment, these include interest rate risk, in particular.

Prior to the commencement of asset purchases for monetary policy purposes, the Bundesbank's balance sheet contained virtually no interest rate risk. The vast majority of the interest-bearing items on the assets side of the balance sheet had short maturities and were balanced out, in particular, by the non-interest-bearing banknotes in circulation. However, the asset purchases for monetary policy purposes have resulted in a large volume of fixed interest items with longer maturities on the assets side. At the same time, liabilities with short maturities, i.e. interest-bearing deposits of banks and other depositors with the Bundesbank, formed as balance sheet counterparts.

The various maturity profiles have given rise to an open euro interest rate position, i.e. interest rate risk. This risk has materialised as a result of the necessary policy rate hikes in response to excessively high inflation rates. While the APP and PEPP holdings generate only low levels of interest income, the interest expense incurred by short-term deposits is growing as interest rates rise. This combination of long-term monetary policy holdings generating a low level of remuneration and short-term deposits remunerated at higher levels is giving rise to considerable burdens in the Bundesbank's profit and loss account. These burdens are reflected in the profit and loss item "Net interest income". They have also proportionally affected profit and loss item 5 "Net result of pooling of monetary income". This is because the risk and returns arising from some securities held for monetary policy purposes are pooled across the Eurosystem as monetary income. The burdens arising from the ECB's securities holdings in 2023 constitute an exception: the ECB Governing Council decided that the ECB's losses for 2023 would not be assumed by the national central banks. This means that the ECB's current losses are not reflected in the Bundesbank's 2023 annual accounts. Looking further ahead, though, these losses will also proportionally weigh on the Bundesbank's profit and loss account.

In the past, the Bundesbank took precautionary measures against the backdrop of rising financial risks. Starting in 2010, it gradually increased its provisions for general risks to absorb potential losses. Risk provisioning was also the reason why the Bundesbank did not distribute profits for the 2020 and 2021 financial years. To offset the loss recorded in the 2022 annual accounts, a withdrawal of €1 billion was made from the provisions for general risks. To offset the loss for 2023, the remaining €19.2 billion in provisions for general risks will be released in full. The residual loss for the year will be offset by making corresponding withdrawals from the reserves.

The interest income from APP and PEPP holdings will remain low in the years ahead, while short-term deposits will generate a substantial interest expense owing to the higher key interest rates. Therefore, as things currently stand, the burdens in the Bundesbank's profit and loss account are likely to be considerable over the next few years as well, although they will tend to shrink in size as APP and PEPP holdings mature. The exact magnitude of future burdens will depend on various factors, which are subject to a high degree of uncertainty. These include future changes in the key interest rates, in the size and structure of the Bundesbank's balance sheet and in its other income. Against this background, the magnitude and duration of potential future burdens varies greatly with the assumptions made in each case. Should further burdens be incurred over the coming years, the Bundesbank will report a growing loss carryforward. Profits for future financial years would then have to be used to reduce the loss carryforward.

The Bundesbank's balance sheet is sound. The Bundesbank has considerable assets, which are significantly in excess of its obligations. The degree to which the Bundesbank's balance sheet is sound is reflected, amongst other things, in its sizeable revaluation reserves. At the end of 2023, they amounted to almost €200 billion; see "Capital and reserves". In addition, the Bundesbank anticipates that its financial burdens will pass and that it will subsequently make profits again.

Even given the visible prospect of a loss carryforward, the Bundesbank thus remains able to fully discharge its tasks. It is committed to its primary objective of maintaining price stability. In view of this objective, the actions and the balance sheet of a central bank cannot be compared to the actions or balance sheet of a private credit institution. The Eurosystem and the Bundesbank must, and will, do everything necessary to ensure price stability, even if this puts a temporary strain on their own profitability.

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1. See, in particular, Deutsche Bundesbank, Management of financial risks, Annual Report 2012, pp. 127 f.;
Deutsche Bundesbank, The development of government interest expenditure in Germany and other euro-area countries, Monthly Report, July 2017, pp. 33 ff.;
Deutsche Bundesbank, Government finances: Central bank bond purchases increase sensitivity to interest rate changes, Monthly Report, June 2021, pp. 39 ff.;
and Deutsche Bundesbank, Interest rate risk on the central bank balance sheet, Annual Report 2022, pp. 16 f.

3 Fiscal policy

Public finances in Germany improved last year. The government deficit ratio fell from 2.5% in 2022 to 2% in 2023. The government debt ratio reached 64.8% in the third quarter of 2023, compared with 66.1% at the end of 2022. Public finances benefited from the gradual phasing out of the temporary COVID-19 support measures. This outweighed the mounting burdens presented by the likes of the support measures related to the energy crisis, defence, higher interest expenditure or unfavourable economic developments. However, excluding temporary crisis measures and cyclical effects, the deficit has risen.

The ruling of the Federal Constitutional Court of 15 November 2023 strengthens the binding effect of the debt brake. [2] This specifies, in particular, that emergency loans must not be transferred into special funds for use in future fiscal years. The ruling relates to central government, but is also relevant to state governments. The Bundesbank pointed out constitutional risks to budgetary and financial planning in this respect. [3] Having numerous, large-scale off-budget entities may impair the transparency and monitoring of public finances. [4] Ultimately, only binding fiscal rules can ensure sound public finances. But this does not preclude a stability-oriented reform of the rules. [5]

The deficit ratio will continue to decline this year and next, with the debt ratio thus likely to continue to approach 60%. The deficit ratio is falling because temporary energy crisis measures are expiring, especially this year, and because adverse cyclical factors will subside over the course of the year. In structural terms, however, the deficit ratio will probably continue to rise. Expenditure on defence is likely to grow, in

2 See Deutsche Bundesbank, Federal Constitutional Court issues ruling on debt brake, Monthly Report, November 2023, pp. 69–71.

3 See, for example, Deutsche Bundesbank, Public finances, Monthly Report, May 2023, pp. 57–75 (in this case, p. 63). The Advisory Board to the Stability Council had also flagged risks; see, for example, Independent Advisory Board to the Stability Council, 20th statement on compliance with the limit for the structural general government financing deficit pursuant to Section 51(2) of the German Budgetary Principles Act (HGrG), May 2023, p. 23.

4 See, in particular, Deutsche Bundesbank (2023), The growing significance of central government's off-budget entities, Monthly Report, June 2023, pp. 63–82.

5 See Deutsche Bundesbank, Central government's debt brake: options for stability-oriented further development, Monthly Report, April 2022, pp. 49–66.

particular. This will be compounded by other burdens, such as the abolition of the renewable energy (EEG) levy, collective labour agreements and rising pension payments. How central and state governments adapt their plans to the Federal Constitutional Court ruling remains to be seen, especially for 2025.

Last year, public finances in Germany and the EU were still heavily influenced by the energy crisis, to begin with. Central governments continued to provide substantial support to households and enterprises. Given the bottlenecks in the supply of energy, it was particularly important that such assistance measures entailed incentives to save energy – in Germany, for instance, these incentives were successfully incorporated into the energy price brakes. Generally speaking, it would have been beneficial to direct the measures more precisely towards those in need. This would have weighed less heavily on public finances, helping to make monetary policy more effective in curbing inflation.

Despite the easing of the energy crisis, Germany and the other euro area Member States face fiscal challenges. These include the foreseeable rise in the interest rate burden, the fallout from geopolitical conflicts, the decarbonisation of the economy and demographic developments. Sound public finances will be key to successfully overcoming these challenges. They also facilitate stability-oriented monetary policy. Credible fiscal rules will help to maintain confidence in sound public finances.

The existing EU fiscal rules have not been sufficiently firm in promoting sound public finances. Several Member States have very high debt ratios, some well above 100%, and high deficit ratios that are significantly in excess of 3%, even without crisis measures. Last year, there was intense debate about a reform of the fiscal rules, with the Bundesbank also putting forward stability-oriented proposals. On 20 December, the Economic and Financial Affairs Council (ECOFIN) agreed on changes to the rules.

From the Bundesbank's point of view, the reform does not remedy the main weaknesses of the existing rules. It is important to implement the reformed rules sufficiently stringently that high debt ratios do actually fall rapidly and deficit ratios reach sustainable levels. In this context, it is helpful for the procedure for a deficit ratio above 3% to remain essentially unchanged, even after the reform. The new rules agreed by ECOFIN also include other essential targets and objectives, such as the safety margin with regard to the 3% ceiling. Whether the targets are achieved, however, depends on plans that are intended to be in place for many years and which are strongly assumption-based. Another concern is that each Member State should negotiate its fiscal plan bilaterally with the European Commission. In addition, there is still discretionary scope to ease the rules in many areas. Unfortunately, this reform will not make the EU fiscal rules any simpler or more transparent. This will place the onus for implementing them strictly all the more firmly on the European Commission and ECOFIN.

4 Banking supervision and financial stability

The banking turmoil in the United States and Switzerland in the spring of 2023 caused significant stress in terms of its scale and scope. In the United States, several regional banks had to be liquidated in March of last year after interest rate and liquidity risk materialised.[6] In Switzerland, years of mismanagement at Credit Suisse – in particular deficiencies in corporate governance, business strategy and risk management – ultimately resulted in the bank being taken over by UBS. In response to these events, the Basel Committee on Banking Supervision (BCBS) published a report highlighting the importance of "full and consistent" implementation of all elements of Basel III in all member jurisdictions. It also announced that it would review the functioning of individual regulations. These include liquidity standards, the treatment of interest rate risk, the role of additional tier 1 (AT1) instruments and the scope of application of Basel III. The Financial Stability Board (FSB) also published a report highlighting potential areas in which the resolution framework could be improved.

At the beginning of December of last year, EU legislators agreed on a legislative text to implement the internationally agreed Basel III reforms in the European Union. The revised EU banking package (Capital Requirements Regulation and Capital Requirements Directive, CRR/CRD) will increase banks' resilience and strengthen their supervision and risk management. In particular, the Basel III reforms aim to make the way banks calculate their risks more transparent and comparable.

In addition to implementing the Basel III reforms, the revised EU banking package contains various other issues that should be seen as responses to current challenges. One example is the harmonisation, as a consequence of Brexit, of EU supervision of third country banks' branches in the EU. In addition, banking regulation will now incorporate environmental, social and governance (ESG) risks.[7] The final legal

6 See also Deutsche Bundesbank, The failure of the United States' Silicon Valley Bank, Financial Stability Review 2023, pp. 27 f.

7 For more on such ESG risks, see also Deutsche Bundesbank, Sustainability risks in banking supervision, Monthly Report, April 2023, pp. 75–95.

text has yet to be formally adopted by the European Parliament and the Council. Publication in the Official Journal of the EU is expected in the spring of 2024. The new CRR rules will then apply from 1 January 2025, and the new CRD provisions will have to be transposed into national law by the specified deadlines.

The macro-financial environment in 2023 was challenging for the German financial system: the historically sharp rise in interest rates marks a turning point. In addition, economic developments in Germany were subdued. Moreover, the structural change ahead requires adjustments not merely in the real economy but also in the financial system. The transition to net zero, demographic developments and the increasing digitalisation of all areas of life, in particular, will involve fundamental change.

So far, the German financial system has proved stable, but adjustment to the new macro-financial environment is not yet complete. Last year, net interest income buoyed profitability in the banking sector. Whether net interest income comes back down again in 2024 will depend on how banks' interest income develops in relation to their interest expenditure. For instance, lower loan demand makes it more difficult to offset rising interest costs with higher interest rates on new loans. Higher financing costs and lower credit growth are intended monetary policy effects. This is a necessary interim step in order to dampen aggregate demand and thereby price pressures. Given the sharply higher lending rates and weak economic activity, the risks associated with loans to enterprises are likely to increase in the coming quarters as individual enterprises' debt sustainability declines. Some firms are already experiencing heightened default risk, particularly in the commercial real estate sector.

The financial system has to be resilient enough to cope with increased risks and heightened uncertainty. Besides real economic and financial risk, this also includes operational risk, such as, for instance, cyber risks. In view of potential future strains, banks should use their currently good earnings situation to further shore up their resilience. Overall, the package of macroprudential measures adopted in 2022 continues to make an important contribution to making the banking system more resilient.[8)]

Commensurate with the risk situation, the Federal Financial Supervisory Authority (BaFin) and the Bundesbank have defined supervisory priorities as part of the National Supervisory Programme 2024-26. Four areas are of particular relevance for institutions under national supervision this year: first, the economic environment and high inflation; second, interest rate developments; third, IT security; and fourth, the

8 See also Deutsche Bundesbank, Financial Stability Review 2023.

commercial real estate market. Priorities set under the Single Supervisory Mechanism (SSM) were also taken into account. In the medium term, the National Supervisory Programme also incorporates other supervisory priorities: digital transformation in conjunction with demographic change, governance, and climate change, sustainability and economic transformation.

5 Payments

Cash remains the most commonly used means of payment in Germany. In a study, 93% of respondents agreed that they would, in future, like to continue to have the option of whether to use cash or a cashless method wherever they make a payment. [9] Demand for banknotes increases especially in times of emergency and crisis. With geopolitical crises on the rise, it is therefore particularly important to ensure a reliable supply of cash. “Secure cash supply – even in a crisis” was thus the title of a symposium hosted by the Bundesbank in Berlin in June 2023. The particular importance cash holds over and above its function as a pure means of payment was discussed.

The Bundesbank will continue to promote an exchange of ideas on issues relating to cash. In February 2024, it organised the inaugural National Cash Forum. The purpose of this forum is to give participants in the cash cycle the opportunity to exchange information on developments in cash in an ongoing and structured manner. A functioning cash cycle requires, amongst other things, a network of cash sources, which must also be able to cope with spikes in demand. Credit institutions’ branches and ATMs play a very prominent role in supplying the population with cash. Currently, however, cash is also increasingly being withdrawn at the point of sale.

Another issue is the sustainability of cash. The Bundesbank has participated in a Eurosystem study on the sustainability of banknotes. On the basis of the insights the study provided, the Bundesbank will strive to render the cash life cycle even more sustainable going forward.

The Bundesbank is also involved in the Eurosystem’s project to develop a third series of euro banknotes. Two Europe-wide surveys ascertained public preferences on possible themes for the new euro banknotes. German consumers took part in particularly large numbers. Based on the results of the two surveys, the Governing Council of the ECB decided to move forward with “European culture” and “Rivers and birds” as possible themes for future euro banknotes. The ECB is expected to decide in 2026 on the final designs of the new banknotes and on when to produce and issue them.

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9 See Deutsche Bundesbank (2024), The outlook for cash – a systematic look at the future of cash, Monthly Report, January 2024, pp. 31–49.

Despite the continued importance of cash, the share of cashless payments has edged up over the past few years. [10] Especially during the COVID-19 pandemic, consumers paid more frequently using electronic payment methods such as cards or smartphone payment apps. In Germany, for example, the girocard procedure has moved forward considerably. Instant payments are also likely to become increasingly established in conventional retail outlets and in e-commerce. EU law will, in fact, require all banks effecting payment transactions to offer instant payments from 2025 onwards. The Bundesbank expressly supports the Eurosystem's call for a private digital payment solution that can be used throughout Europe. Progress was made in 2023 with the European Payments Initiative (EPI), which is supported by a large part of the German banking industry. A first workable product is expected for 2024.

The desire to preserve the anchor role of central bank-issued currency in the digital world is one reason for the increasingly strong interest in central bank digital currencies (CBDCs) around the world. 93% of the central banks surveyed worldwide reported in a survey conducted by the Bank for International Settlements that they were looking at CBDC. [11] There are two forms of CBDC and the Eurosystem has projects dedicated to both of them, with the Bundesbank closely involved in both.

Wholesale CBDC is intended for transactions between commercial banks. The question the Eurosystem is looking at here is how financial market participants can securely settle the cash leg of transactions in central bank currency if assets are held and transferred using distributed ledger technology (DLT) or on blockchain platforms. With DLT, the centralised databases currently used for the transfer of cash and assets would be replaced by a decentralised network. In April 2023 the Governing Council of the ECB decided that conceptual considerations should be followed in 2024 by a trial period with interested market players in order to gain a better, practice-based understanding. Alternative approaches besides the issuance of CBDC are also being discussed. For example, the Bundesbank will bring to the table its trigger solution, which provides a bridge between the DLT approach and the TARGET payment system.

Retail CBDC is defined as default-free and risk-free digital central bank money for households and enterprises. In this context, the Eurosystem launched the digital euro project in 2021. Last year, the project entered the preparation phase; see the section entitled "A digital euro for everyone".

10 See Deutsche Bundesbank (2022), Payment behaviour in Germany in 2021, p. 25.

11 See Bank for International Settlements, BIS Annual Economic Report 2022, p. 102.

Supplementary information

A digital euro for everyone

In mid-October 2023, the ECB Governing Council decided to proceed to the preparation phase of the digital euro project. The digital euro would be a risk-free, central bank-issued digital currency and thus an electronic equivalent to cash. The first part of the preparation phase began on 1 November 2023 and is scheduled to last two years. During this time, the digital euro rulebook will be finalised. Providers that could potentially develop a platform and infrastructure for the digital euro will also be identified. In addition, greater testing will be carried out during this phase in order to refine the concept of the digital euro even further. The digital euro should meet both the requirements of the Eurosystem as well as the needs of its users, for example in terms of user experience, data privacy, financial inclusion, and environmental footprint. In this context, the ECB will continue to engage closely with the public and other stakeholders. After this two-year period has elapsed, the ECB Governing Council will decide whether to proceed to the next stage of the preparation phase.

The decision by the ECB Governing Council followed the conclusion of the Eurosystem investigation phase, which began in October 2021. Its objective was to analyse options for how the digital euro should be designed and made available. Based on these investigations, and with the involvement of market representatives, a possible concept for the digital euro was drafted. According to this concept, the digital euro would be provided via supervised intermediaries, such as banks, and would be accessible to individuals and enterprises.

The digital euro would complement euro cash, not replace it. Based on the same principles as cash, the digital euro could be used for all payments across the entire euro area. These include payments between individuals, payments at the point of sale, transactions with public authorities, as well as online transactions. It would be possible to use the digital euro both online and offline throughout the euro area. The digital euro would be free to use for end users and would offer the highest degree of privacy.

Households and enterprises should not be able to shift large volumes of deposits out of the banking sector and into the digital euro as a risk-free CBDC. This is because this could entail risks for the financial system. For this reason, it is planned that there will be a cap on the amount of digital euro that users will be able to hold. The exact cap is to be determined at a later point in time.

The transition to the preparation phase does not mean that any decision has been made as to whether to actually develop and implement the digital euro. The ECB Governing Council will only be able to deliberate on this possible decision once the necessary European Union legislative processes have been completed. At the end of June 2023, the European Commission presented a draft regulation for the potential issuance of a digital euro. Amongst other things, this legislative proposal envisages that the digital euro, like euro cash, will be granted the status of legal tender. The draft regulation is currently being examined by the Council of the European Union and the European Parliament. Based on current estimates, the digital euro could see phased introduction in four to five years' time at the earliest.

The digital euro would represent an additional means of payment in the future. It is not intended to replace private payment solutions, but to complement them. In this way, consumers are free to choose how they make their digital payments. Furthermore, they will be able to conveniently manage their liquidity if payment service providers integrate the digital euro into their apps and link it to their customers' current accounts.

Last year, the Bundesbank also participated in other major projects to enhance the cashless payment infrastructure. The Eurosystem's new TARGET platform went live in March 2023. It consolidates the technical and functional features of TARGET2 in payments and TARGET2-Securities (T2S) in securities settlement. Credit institutions and market infrastructures such as central counterparties benefit from various improvements offered by the new TARGET platform relating to, say, liquidity management, cost efficiency and resilience to cyberattacks.

In addition to consolidating TARGET2 and T2S, the Eurosystem has also moved forward with the Eurosystem Collateral Management System (ECMS), which will constitute a unified Eurosystem platform for managing monetary policy collateral. Project work on the ECMS entered the user test phase in the summer of 2023, with the Bundesbank supporting its counterparties intensively. The "ECMS Customer Forum – User testing", which was set up in September 2023, has an important role to play in this context. It allows participants to exchange ideas and to share test experiences on a regular basis. In November 2023, the Governing Council of the ECB decided to reschedule the launch of the ECMS from April to November 2024 in order to give all stakeholders sufficient time to prepare.

Cyberattacks are an increasing challenge for German financial sector enterprises. To test the resilience of particularly significant financial industry enterprises to cyberattacks, the Bundesbank employed TIBER-DE (Threat Intelligence-Based Ethical Red Teaming) again in 2023. Hacking exercises were used to attack companies and expose any vulnerabilities in their IT infrastructure. This allows businesses to identify protective measures in need of further improvement. The TIBER approach has proved very useful in Europe and has been incorporated into the European regulation on digital operational resilience for the financial sector, in the Digital Operational Resilience Act (DORA). DORA prescribes mandatory threat-led cyber tests for important enterprises as of 2025. The Bundesbank will continue to provide operational support to enterprises in the German financial sector and support them in their efforts to improve their cybersecurity.

6 Bundesbank round-up continued

The Bundesbank itself must also avert cyberattacks, and such attacks actually increased significantly last year. In particular, there was a general rise in ransomware and distributed denial-of-service attacks against financial market infrastructures.[12)] In order to address the ever more technically sophisticated attacks, the Bundesbank stepped up its efforts to further strengthen the resilience of its IT infrastructure and to equip it for future challenges.

In response to the current challenges, the Bundesbank has stepped up its interaction with policymakers. It opened a representative office in the newly founded House of the Euro in Brussels, thereby strengthening the Bundesbank's foreign network. The ECB and national central banks are working closely together there to ensure Eurosystem positions are included in European discussions at an early stage. The Capital City Reception, which takes place once a year, is an opportunity to engage with policymakers in Berlin. Last year, it again brought together many high-ranking representatives from the spheres of banking, associations, government ministries and academia as well as numerous members of the German parliament. The dialogue with civic organisations that began in 2020 when the Bundesbank reviewed its monetary policy strategy has also become an established annual event in Berlin.

Moreover, the Bundesbank further expanded its dialogue with the general public in 2023. It did so using both tried-and-tested and new formats. For the first time, the Bundesbank was present at the digital society festival "re:publica 23" in Berlin with an information stand, numerous lectures and discussion rounds. Established communication and education formats were successfully continued. In 2023, more than 16,000 people attended the Bundesbank's open days in Hamburg and Munich to learn more about the Bundesbank's tasks in a fun and engaging way. The Bundesbank was also involved in the festivities to celebrate German reunification in Hamburg, presenting an exhibition on the history of German monetary union that attracted thousands of visitors. Meanwhile, visitor numbers at the Bundesbank's Money Museum in Frankfurt am Main returned to their high pre-COVID levels. The museum was also a

12 Ransomware is malware that typically encrypts victims' data. It then demands a ransom payment for decryption. In distributed denial-of-service attacks, a very large number of requests are sent to a server in a coordinated action in order to overwhelm it.

key contributor to the exhibition “Inflation 1923. War, Money, Trauma” that ran at the Historical Museum Frankfurt from May to September 2023.

Last year, the Bundesbank also expanded its digital media offerings. Numerous Bundesbank events were streamed live on the internet. These included the Bundesbank Invited Speakers Series, a new series of talks organised by the Research Centre featuring international guests from academia and from the scientific community. The range of digital materials and new media formats on offer for economic education has also been continuously expanded. The Bundesbank e-book “Understanding money” (Geld verstehen digital) was awarded the prestigious Comenius-EduMedia medal. The e-book features a diverse mix of media and interactive applications and answers everyday questions on all things money-related.

The Bundesbank also set its course for the future in areas other than information technology. As part of a comprehensive modernisation programme dubbed “Wandel” (Change), it is realigning its strategy and steering capacity. This process includes a review of its organisational structure and leadership culture. The aim is to allow an even faster response to complex and changing requirements going forward and to help the Bundesbank fulfil its role as an important and formative partner within the Eurosystem and in European banking supervision as best as possible. The desired changes are to be implemented by the end of 2027. Amongst other things, this includes improving the conditions for data analysis and comprehensively addressing sustainability issues. With a view to meeting the first objective, the role of Chief Data Officer was newly created in April 2023, while the second objective was addressed by the creation of a cross-sectional division, details of which are given in the section entitled “Bundesbank enshrines sustainability as a cross-sectional issue”, which also takes a look at selected work on sustainability-related issues.

Supplementary information

Bundesbank enshrines sustainability as a cross-sectional issue

Sustainability is a key issue for the Bundesbank, affecting all of its areas of activity. To do justice to this far-reaching cross-sectional issue and pool knowledge and expertise, the Bundesbank created a separate Sustainability Hub in August 2023. As the central division for relevant expertise, strategy and coordination, it works in close cooperation with other business units to advance projects and analyses in the area of sustainability.

Research is one important element. The Spring Conference held by the Bundesbank’s Research Centre in May 2023 focused on the topic of “Climate Change and Central Banks”. It showcased the latest findings on issues at the interface between economics and biodiversity, climate change and price stability, as well as climate change and innovation. The interactions between climate change and financial markets feature prominently in the Bundesbank’s research programme, as reflected by numerous Bundesbank discussion papers covering topics such as green bonds, transition risk and the impact of natural disasters on the banking sector.[1]

Climate risk stress tests, like those the Bundesbank performed on the financial sector in 2023, as in 2021, are another important element. These stress tests examined the vulnerability of individual banks, insurers and funds and of the German financial system as a whole to risks arising from the transition to a climate-neutral economy. They found that carbon-intensive firms in particular may be vulnerable to losses stemming from credit and market risk. These would be manageable for the financial system, but would place an additional burden on financial institutions in any economic or financial crises. In its credit assessment for monetary policy purposes, moreover, the Bundesbank enhanced its methodology for taking account of climate-related risks for enterprises.

The Bundesbank also lends its expertise to the Network for Greening the Financial System (NGFS). Central banks and supervisory authorities have joined forces in this global network. The fourth, revised vintage of the NGFS climate scenarios was published in November 2023. Most notably, this iteration contains an enhanced methodology for taking account of acute physical risks and increased geographical granularity. The selection of scenarios was also updated to be better able to reflect developments in climate, economic and energy policy. In addition, the NGFS issued various publications last year on the development of short-term scenarios and the analysis of nature-related financial risks, as well as an initial stocktake on financial institutions' transition plans and a practice-oriented blended finance handbook.

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1. See Giovanardi, F., M. Kaldorf, L. Radke and F. Wicknig, The preferential treatment of green bonds, Deutsche Bundesbank Discussion Paper No 51/2022;
   Meinerding, C., Y. S. Schüler and P. Zhang, Shocks to transition risk, Deutsche Bundesbank Discussion Paper No 04/2023 as well as Shala, I. and B. Schumacher, The impact of natural disasters on banks' impairment flow – Evidence from Germany, Deutsche Bundesbank Discussion Paper No 36/2022.

Chronology of monetary policy decisions

Monetary policy decisions made between 2015 and 2022 can be found at bundesbank.de

2 February 2023

The Governing Council of the European Central Bank (ECB Governing Council) stays the course in raising interest rates significantly at a steady pace and in keeping them at levels that are sufficiently restrictive to ensure a timely return of inflation to its 2% medium-term target. To this end, it decides to raise the three key ECB interest rates by 50 basis points. The interest rate on the deposit facility now stands at 2.5%. The interest rates on the main refinancing operations and the marginal lending facility stand at 3% and 3.25%, respectively. In view of the underlying inflation pressures, the Governing Council intends to raise interest rates by another 50 basis points at its monetary policy meeting in March. It will then evaluate the subsequent path of its monetary policy.

The Governing Council also decides on the modalities for reducing holdings of securities under the asset purchase programme (APP). As communicated in December 2022, the APP portfolio will decline by € 15 billion per month on average from the beginning of March until the end of June 2023. The subsequent pace of portfolio reduction will be determined over time. Partial reinvestments will be conducted broadly in line with current practice.

16 March 2023

According to the new macroeconomic projections, inflation will remain too high for too long. The ECB Governing Council therefore decides to raise the three key ECB interest rates by another 50 basis points. The interest rate on the deposit facility now stands at 3%. The interest rates on the main refinancing operations and the marginal lending facility stand at 3.5% and 3.75%, respectively. In view of the elevated level of uncertainty due to financial market tensions, the Governing Council once again stresses the importance of a data-dependent approach to policy rate decisions. These decisions will be based on the assessment of the inflation outlook in light of the incoming economic and financial data, the dynamics of underlying inflation and the strength of monetary policy transmission.

4 May 2023

In light of the ongoing high inflation pressures, the ECB Governing Council decides to raise the three key ECB interest rates by 25 basis points. The interest rate on the deposit facility now stands at 3.25%. The interest rates on the main refinancing operations and the marginal lending facility stand at 3.75% and 4%, respectively. The Governing Council's future decisions will ensure that the key interest rates will be brought to levels sufficiently restrictive to achieve a timely return of inflation to the 2% medium-term target. These levels will be maintained for as long as necessary. The Governing Council will continue to follow a data-dependent approach to determining the appropriate level and duration of restriction.

At the same time, it announces that it will continue to reduce its APP portfolio at a measured and predictable pace. In line with these principles, the Governing Council expects to fully discontinue the reinvestments under the APP as of July 2023.

15 June 2023

Although inflation has been coming down, the new macroeconomic projections indicate that it will remain too high for too long. The ECB Governing Council therefore decides to raise the three key ECB interest rates by another 25 basis points. The interest rate on the deposit facility now stands at 3.5%. The interest rates on the main refinancing operations and the marginal lending facility stand at 4% and 4.25%, respectively.

The Governing Council also confirms that it will discontinue the reinvestments under the APP as of July 2023.

27 July 2023

The developments since the last meeting support the expectation of the ECB Governing Council that inflation will drop further over the remainder of the year but will stay above target for an extended period. The Governing Council decides to raise the three key ECB interest rates by 25 basis points. The interest rate on the deposit facility now stands at 3.75%. The interest rates on the main refinancing operations and the marginal lending facility stand at 4.25% and 4.5%, respectively.

The Governing Council also decides to set the remuneration of minimum reserves at 0%. This decision will improve the efficiency of monetary policy by preserving its effectiveness while reducing the overall amount of interest that needs to be paid on reserves in order to implement the appropriate stance.

14 September 2023

On the basis of the new macroeconomic projections, the ECB Governing Council still expects inflation to remain too high for too long. In order to reinforce progress towards a timely return of inflation to the target, the Governing Council decides to raise the three key ECB interest rates by 25 basis points. The interest rate on the deposit facility now stands at 4%. The interest rates on the main refinancing operations and the marginal lending facility stand at 4.5% and 4.75%, respectively.

Based on its current assessment, the Governing Council considers that the key ECB interest rates have reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target. The Governing Council's future decisions will ensure that the key ECB interest rates will be set at sufficiently restrictive levels for as long as necessary. It will continue to follow a data-dependent approach to determining the appropriate level and duration of restriction.

26 October 2023

The ECB Governing Council still expects inflation to stay too high for too long, and domestic price pressures remain strong. At the same time, inflation dropped markedly in September, including due to strong base effects, and most measures of underlying inflation have continued to ease. The Governing Council therefore decides to keep the three key ECB interest rates unchanged.

14 December 2023

The ECB Governing Council again decides to keep the three key ECB interest rates unchanged. While inflation has dropped in recent months, it is likely to pick up again temporarily in the near term. According to the latest macroeconomic projections, inflation is expected to decline gradually over the course of 2024, before approaching the Governing Council's 2% target in 2025.

The Governing Council additionally decides to advance the normalisation of the Eurosystem's balance sheet. It intends to continue to reinvest, in full, the principal payments from maturing securities purchased under the pandemic emergency purchase programme (PEPP) during the first half of 2024. The Governing Council intends to reduce the PEPP portfolio by € 7.5 billion per month on average over the second half of the year and to discontinue reinvestments under the PEPP at the end of 2024. It will continue applying flexibility in reinvesting redemptions in the PEPP portfolio, with a view to countering risks to the monetary policy transmission mechanism related to the pandemic.

Annual accounts of the Deutsche Bundesbank for 2023

Tables

Abbreviations and symbols

. Figure not meaningful
0 Less than 0.5 but more than nil
– Nil

Discrepancies in the totals are due to rounding.

Balance sheet of the Deutsche Bundesbank as at 31 December 2023

Assets

		€ million	31.12.2022 € million
1 Gold and gold receivables		201,335	184,036
of which: gold receivables €234,152.79			*(0)*
2 Claims on non-euro area residents denominated in foreign currency			
2.1 Receivables from the IMF	57,548		(58,047)
2.2 Balances with banks and security investments, external loans and other external assets	33,376		(34,406)
		90,924	92,453
3 Claims on euro area residents denominated in foreign currency		0	38
4 Claims on non-euro area residents denominated in euro		5,153	3,386
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro			
5.1 Main refinancing operations	2,744		(1,110)
5.2 Longer-term refinancing operations	69,515		(235,873)
5.3 Fine-tuning reverse operations	–		(–)
5.4 Structural reverse operations	–		(–)
5.5 Marginal lending facility	–		(519)
		72,259	237,502
6 Other claims on euro area credit institutions denominated in euro		5,824	8,294
7 Securities of euro area residents denominated in euro			
7.1 Securities held for monetary policy purposes	1,009,071		(1,072,976)
7.2 Other securities	–		(–)
		1,009,071	1,072,976
8 Claims on the Federal Government		4,440	4,440
9 Intra-Eurosystem claims			
9.1 Participating interest in the ECB	2,578		(2,578)
9.2 Claims equivalent to the transfer of foreign reserves to the ECB	10,635		(10,635)
9.3 Net claims related to the allocation of euro banknotes within the Eurosystem	–		(–)
9.4 Other claims within the Eurosystem (net)	1,088,189		(1,266,872)
		1,101,402	1,280,085
10 Items in course of settlement		1	2
11 Other assets			
11.1 Coins	810		(812)
11.2 Tangible and intangible fixed assets	795		(863)
11.3 Other financial assets	10,258		(10,003)
11.4 Off-balance-sheet instruments revaluation differences	0		(0)
11.5 Accruals and prepaid expenditure	12,835		(8,452)
11.6 Sundry	894		(249)
		25,592	20,379
		2,516,001	2,903,591

Liabilities

		€ million	31.12.2022 € million
1 Banknotes in circulation		377,036	381,257
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro			
2.1 Current accounts	52,994		(66,583)
2.2 Deposit facility	1,056,837		(1,132,287)
2.3 Fixed-term deposits	–		(–)
2.4 Fine-tuning reverse operations	–		(–)
2.5 Deposits related to margin calls	24		(1,184)
		1,109,855	1,200,055
3 Other liabilities to euro area credit institutions denominated in euro		14,518	21,289
4 Liabilities to other euro area residents denominated in euro			
4.1 General government deposits	25,955		(132,215)
4.2 Other liabilities	18,454		(45,418)
		44,410	177,633
5 Liabilities to non-euro area residents denominated in euro		161,000	333,608
6 Liabilities to euro area residents denominated in foreign currency		1	88
7 Liabilities to non-euro area residents denominated in foreign currency		31	–
8 Counterpart of special drawing rights allocated by the IMF		45,695	47,048
9 Intra-Eurosystem liabilities			
9.1 Liabilities related to the issuance of ECB debt certificates	–		(–)
9.2 Net liabilities related to the allocation of euro banknotes within the Eurosystem	543,670		(518,852)
9.3 Other liabilities within the Eurosystem (net)	–		(–)
		543,670	518,852
10 Items in course of settlement		0	0
11 Other liabilities			
11.1 Off-balance-sheet instruments revaluation differences	–		(–)
11.2 Accruals and income collected in advance	7,047		(6,693)
11.3 Sundry	1,200		(567)
		8,247	7,260
12 Provisions		11,233	29,248
13 Revaluation accounts		197,145	181,712
14 Capital and reserves			
14.1 Capital	2,500		(2,500)
14.2 Reserves	661		(3,041)
		3,161	5,541
15 Distributable profit		–	–
		2,516,001	2,903,591

Profit and loss account of the Deutsche Bundesbank for the year 2023

				2022
			€ million	€ million
	1.1 Interest income	55,053		(12,077)
	1.2 Interest expense	-68,960		(-8,124)
1	Net interest income		-13,907	3,954
	2.1 Realised gains/losses arising from financial operations	546		(2)
	2.2 Write-downs on financial assets and positions	-153		(-922)
	2.3 Transfers to/from provisions for general risks	19,199		(972)
2	Net result of financial operations,write-downs and risk provisions		19,592	53
	3.1 Fees and commissions income	104		(113)
	3.2 Fees and commissions expense	-63		(-59)
3	Net income from fees and commissions		41	55
4	Income from participating interests		17	28
5	Net result of pooling of monetary income		-5,193	-2,204
6	Other income		190	126
	Total net income		740	2,012
7	Staff costs		2,100	1,239
8	Administrative expenses		796	662
9	Depreciation of tangible and intangible fixed assets		119	143
10	Banknote production services		76	113
11	Other expenses		30	26
	Loss for the year		-2,381	-172
12	Allocation to/withdrawal from reserves		2,381	172
	Distributable Profit		–	–

Frankfurt am Main, 13 February 2024

DEUTSCHE BUNDESBANK
Executive Board

Dr Joachim Nagel

Burkhard Balz

Dr Sabine Mauderer

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 2023 and the profit and loss account for the business year from 1 January 2023 to 31 December 2023.

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 2023 and the results of operations for the business year from 1 January 2023 to 31 December 2023 in accordance with German principles of proper accounting.

Pursuant to Section 322(3) sentence 1 of the German Commercial Code (*Handelsgesetzbuch* – HGB) in conjunction with Section 26(2) sentence 3 of the Bundesbank Act, we declare that our audit has not led to any reservations with regard to the regularity of the annual financial statements.

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

We conducted our audit of the annual financial statements in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the *Institut der Wirtschaftsprüfer* [Institute of Public Auditors in Germany] (IDW). Our responsibilities pursuant to these provisions and principles 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 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 on the annual financial statements.

Other information

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

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

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

- there are material inconsistencies between the other information and the annual financial statements or the findings of our audit, or
- the other information otherwise appears to contain a material misstatement.

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

Responsibilities of the Executive Board for the annual financial statements

The Executive Board is responsible for the preparation of the annual financial statements in accordance with the legal requirements and the principles for the accounting of the Deutsche Bundesbank approved by the Executive Board pursuant to Section 26(2) of the Bundesbank Act and for ensuring that the annual financial statements give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank in accordance with German principles of proper accounting. Moreover, the Executive Board is responsible for such internal control as it determines necessary in accordance with German principles of proper accounting to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud (i.e. the manipulation of accounting records and misappropriation of assets) 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* will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements.

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

- identify and assess the risks of material misstatement in the annual 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 opinions. 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 of the annual financial statements 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 going-concern basis of accounting used by the Executive Board 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 in each case. 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 including the notes and whether the annual financial statements represent the underlying transactions and events in a manner that gives a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank in accordance with German principles of proper accounting.

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

Frankfurt am Main, 20 February 2024

Baker Tilly GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft
(Düsseldorf)

Professor Thomas Edenhofer
Wirtschaftsprüfer

Ralph Hüsemann
Wirtschaftsprüfer

Overview of the Deutsche Bundesbank's accounting policies

General accounting principles

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

Recognition of spot transactions

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

Valuation rules

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

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

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

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

Repurchase agreements

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

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

Income recognition

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

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

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

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

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

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

Accounting rules for off-balance-sheet instruments

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

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

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

Tangible and intangible fixed assets

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

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

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

Provisions

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

Transitional arrangements

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

General information on the annual accounts

Legal basis

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

Accounting policies of the Deutsche Bundesbank

The Governing Council of the ECB adopted policies for the ECB's annual accounts in accordance with Article 26.2 of the Statute of the ESCB. The Bundesbank decided to adopt these policies as its own accounting policies.[13] An overview of the Deutsche Bundesbank's accounting policies can be found above. The annual accounts of the Bundesbank thus follow the harmonised accounting and financial reporting rules of Eurosystem operations, both in terms of the structure of the balance sheet and the profit and loss account, and with regard to the valuation and accounting policies applied.

Cost accounting at the Bundesbank

The Bundesbank is furthermore required, pursuant to Section 26(4) sentence 1 of the Bundesbank Act, to prepare a cost account to assist it in its management and administrative tasks. In compliance with this legislation, the Bank draws up a standard cost account and an investment plan before the start of each financial year. The harmonised Eurosystem accounting policies for internal accounting adopted by the Governing Council of the ECB and compiled in the Committee on Controlling (COMCO)

13 As last published in Deutsche Bundesbank Notice No 10001/2024.

manual are also taken into account in this regard. At the end of the financial year, the Bank makes a comparative analysis of the budgeted figures and the actual costs and investment. This analysis is reviewed separately by the external auditors.

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

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

Recognition of euro banknotes and …

The ECB and the national central banks of the euro area countries, which together comprise the Eurosystem, issue banknotes denominated in euro. The following allocation procedure was approved for recognition of the euro banknotes in circulation in the financial statements of the individual central banks of the Eurosystem.[14] 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 2023, the Bundesbank had a 26.1% share in the fully paid-up capital of the ECB and, therefore, a 24.1% share of the euro banknotes in circulation in accordance with the banknote allocation key. The value of

14 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 7 December 2023 (ECB/2023/35).

the Bundesbank's share in the total amount of euro banknotes issued by the Eurosystem is shown in item 1 "Banknotes in circulation" on the liabilities side of the balance sheet.

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

The difference between the value of the euro banknotes allocated to each central bank of the Eurosystem in accordance with the banknote allocation key and the value of the euro banknotes that the central bank actually puts into circulation gives rise to remunerated intra-Eurosystem balances. [15] If the value of the euro banknotes actually issued is greater than the value according to the banknote allocation key, the difference is recorded on the balance sheet as an intra-Eurosystem liability in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem". If the value of the euro banknotes actually issued is less than the value according to the banknote allocation key, the difference is recorded in asset sub-item 9.3 "Net claims related to the allocation of euro banknotes within the Eurosystem". These balances are remunerated at the respective rate on the main refinancing operations.

In the year of the cash changeover and in the following five years, the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are adjusted in order to avoid significant changes in national central banks' relative income positions as compared to previous years. The adjustments are based on the difference between the average value of the banknotes that each national central bank had in circulation in the reference period and the average value of the banknotes that would have been allocated to each of them during that period in accordance with the ECB's capital key. The adjustments are reduced in annual increments until the first day of the sixth year after the cash changeover year. Thereafter, income from euro banknotes in circulation is allocated fully in proportion to the national central banks' paid-up shares in the ECB's capital. The adjustment in the reporting year resulted from the accession of the Croatian National Bank with effect from 1 January 2023 and will expire accordingly with effect from 31 December 2028. The interest income and expense arising from the

15 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), as last amended by the Decision of the European Central Bank of 12 November 2020 (ECB/2020/55).

remuneration of the intra-Eurosystem balances is cleared through the accounts of the ECB and disclosed under item 1 “Net interest income” of the Bundesbank’s profit and loss account.

ECB’s interim profit distribution

The ECB’s income from the 8% share of the euro banknotes in circulation as well as from securities purchased by the ECB as part of the securities markets programme (SMP), the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP) and the public sector purchase programme (PSPP) as well as the pandemic emergency purchase programme (PEPP) 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.[16] The ECB is not reporting any profit but a loss for financial year 2023, so no interim profit was distributed. The ECB has reported a loss carryforward on its balance sheet for 2023, with the result that the ECB losses are not reflected in the Bundesbank’s annual accounts for 2023. That loss carryforward will, however, place a (pro rata) burden on future annual results of the Bundesbank because ECB profit distributions will not be made or because losses incurred by the ECB will be assumed by the national central banks in future periods (subject to a decision taken by the ECB Governing Council pursuant to Article 33.2 of the Statute of the ESCB).

Change to the ECB’s capital key with effect from 1 January 2023

Effective 1 January 2023, the Eurosystem grew in size as a result of the accession of the Croatian National Bank, which thereupon paid up its capital share in the ECB in full. This reduced the Bundesbank’s share in the fully paid-up capital of the ECB from 26.3615% to 26.1494%.

16 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 12 November 2020 (ECB/2020/56).

Change to the ECB’s capital key with effect from 1 January 2024

The provisions laid down under Article 29.3 of the Statute of the ESCB require the key for subscription to the ECB’s capital by the ESCB national central banks to be adjusted every five years. Accordingly, an adjustment was made to the ECB’s capital key with effect from the beginning of 2024. As a result of this adjustment, the Bundesbank’s share in the ECB’s subscribed capital increased with effect from 1 January 2024 from 21.4% to 21.8%, the Bundesbank’s share in the fully paid-up capital of the ECB went up from 26.1494% to 26.6301%, and the participating interest in the ECB (asset sub-item 9.1 "Participating interest in the ECB ") increased from a nominal €2,321 million to €2,357 million. The Bundesbank’s claim arising from the transfer of foreign reserves to the ECB (asset sub-item 9.2 “Claims equivalent to the transfer of foreign reserves to the ECB”) also grew, from €10,635 million to €10,802 million.

Preparation and auditing of financial statements

The Executive Board prepared the Deutsche Bundesbank’s financial statements for financial year 2023 on 13 February 2024. The financial statements were audited by Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft (Düsseldorf), whom the Executive Board engaged as external auditors on 1 September 2020 in accordance with Section 26(3) of the Bundesbank Act. The auditors issued an unqualified audit opinion on 20 February 2024 confirming that the Bundesbank’s financial statements for 2023 – consisting of the balance sheet and the profit and loss account – comply, in all material respects, with the legal requirements and the accounting policies of the Deutsche Bundesbank approved by the Executive Board and give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank. After studying the external auditors’ unqualified audit opinion, the Executive Board decided that publication of the financial statements would take place on 23 February 2024.

Notes on the individual balance sheet items

Assets

1 Gold and gold receivables

Table 1: Gold reserves by storage location

Storage location	31.12.2023		31.12.2022		Year-on-year change			
	Tonnes	€ million	Tonnes	€ million	Tonnes	%	€ million	%
Deutsche Bundesbank, Frankfurt	1,710	102,693	1,710	93,800	– 0	– 0.0	8,893	9.5
Federal Reserve Bank, New York	1,236	74,238	1,236	67,809	–	–	6,429	9.5
Bank of England, London	406	24,404	409	22,427	– 2	– 0.6	1,976	8.8
Total	**3,353**	**201,335**	**3,355**	**184,036**	**– 2**	**– 0.1**	**17,299**	**9.4**

As at 31 December 2023, the Bundesbank's physical holdings (bars) of fine gold amounted to 3,352,671 kg, or 108 million fine ounces (ozf). These are supplemented by an additional 4 kg of gold receivables that were generated by the settlement of margins in the context of gold transactions. The gold was valued at the market price at the end of the year (1 kg = €60,052.06, or 1 ozf = €1,867.828). Compared with the previous year's price (1 kg = €54,851.58, or 1 ozf = €1,706.075), this represents an increase of 9.5%. The gold holdings declined by 0.1% (2,496 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 of €135 million is shown in sub-item 2.1 "Realised gains/losses arising from financial operations" in the profit and loss account.

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

This item comprises the receivables from the International Monetary Fund (IMF) as well as balances with banks and security investments, loans and other foreign currency claims on non-euro area residents.

2.1 Receivables from the IMF

Sub-item 2.1 contains the receivables from the IMF which are financed and held by the Bundesbank and which arise from the Federal Republic of Germany's membership of the IMF. The receivables, which total 47,338 million special drawing rights (SDRs) (€57,548 million), are made up of the drawing rights within the reserve tranche, the holdings of special drawing rights and loans under the New Arrangements to Borrow (NAB).

Table 2: Receivables from the IMF

	31.12.2023		31.12.2022		Year-on-year change			
Item	SDR million	€ million	SDR million	€ million	SDR million	%	€ million	%
German quota	26,634	32,379	26,634	33,338	–	–	– 959	– 2.9
Less euro balances	19,437	23,629	19,184	24,013	253	1.3	– 383	– 1.6
Drawing rights within the reserve tranche	7,198	8,750	7,450	9,326	– 253	– 3.4	– 575	– 6.2
Special drawing rights	40,114	48,766	38,801	48,567	1,313	3.4	199	0.4
New Arrangements to Borrow	26	32	123	154	– 97	– 78.9	– 123	– 79.5
Total	**47,338**	**57,548**	**46,375**	**58,047**	**963**	**2.1**	**– 499**	**– 0.9**

The drawing rights within the reserve tranche correspond to the amounts actually paid to the IMF in gold, special drawing rights, foreign currency and national currency under the German quota. The drawing rights held in the reserve tranche represent the difference between the German quota of SDR 26,634 million (€32,379 million) and the euro balances amounting to €23,629 million (SDR 19,437 million) at the IMF's disposal at the end of the year. In 2023, these declined on balance by SDR 253 million to SDR 7,198 million (€8,750 million).

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 37,587 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 2023, the holdings of special drawing rights went up by SDR 1,313 million (€199 million).

The NAB are multilateral credit lines with the IMF, which serve as a backstop for use in the event of a systemic crisis. They were not activated by the IMF in 2023, which means that the Bundesbank was not drawn upon. The Bundesbank's NAB credit line amounts to SDR 25.8 billion. At the end of the reporting year, this resulted in receivables from the IMF of SDR 26 million (€32 million) from earlier drawdowns. The new temporary bilateral credit line of €17.9 billion additionally pledged by the Bundesbank to the IMF as a further backstop was not drawn down, as adequate IMF liquidity was available. There were, therefore, no receivables arising from bilateral loans at the end of the year.

If all items on the assets side and the liabilities side of the balance sheet are taken into account, the net holdings of special drawing rights amounted to SDR 9,751 million, compared with SDR 8,788 million in the previous year. Valuation is based on the reference rate of SDR 1 = €1.2157 (2022: SDR 1 = €1.2517) calculated by the ECB at the end of the year for all central banks participating in the Eurosystem.

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

Balances with banks and security investments, loans and other foreign currency claims reported under sub-item 2.2 amounted to €33,376 million as at the end of 2023, compared with €34,406 million in the previous year. These include, in particular, US dollar holdings in the amount of US$32,098 million (€29,048 million), representing an increase of US$218 million on the year. The sub-item also contains holdings in yen (¥202,774 million, equivalent to €1,297 million), Australian dollar (A$1,819 million, equivalent to €1,118 million), Canadian dollar (C$2,393 million, equivalent to €1,634 million) and Chinese yuan (renminbi) (2,157 million yuan, equivalent to €275 million), and a small amount of other currencies. The holdings are interest-bearing. The foreign currency holdings were valued at the respective end-of-year market rate.

Table 3: Balances with banks and security investments, external loans and other external assets

	31.12.2023	31.12.2022	Year-on-year change	
Item	€ million	€ million	€ million	%
Current account balances and overnight deposits	2,796	3,666	– 870	– 23.7
Fixed-term deposits and deposits redeemable at notice	4,335	4,632	– 297	– 6.4
Reverse repos	955	–	955	.
Marketable securities				
Government bonds				
US dollar	18,714	18,676	38	0.2
Yen	286	307	– 21	– 6.9
Australian dollar	845	780	65	8.4
Canadian dollar	1,500	1,515	– 15	– 1.0
Chinese yuan (renminbi)	274	282	– 8	– 2.7
Supranational, sovereign and agency (SSA) bonds	3,497	4,352	– 856	– 19.7

Subtotal	25,116	25,912	– 796	– 3.1
Other	175	196	– 22	– 11.0
Total	**33,376**	**34,406**	**– 1,031**	**– 3.0**

Table 4: Net foreign exchange positions in selected currencies

Balance of all reported asset and liability items in foreign currency at market rates (net foreign exchange position) in	31.12.2023		31.12.2022		Year-on-year change
	Million (currency)	Market rate	Million (currency)	Market rate	Million (currency)
US dollar	32,232	1.1050	32,011	1.0666	221
Yen	202,886	156.33	202,713	140.66	173
Australian dollar	1,825	1.6263	1,756	1.5693	69
Canadian dollar	2,404	1.4642	2,299	1.4440	105
Chinese yuan (renminbi)	2,180	7.8509	2,115	7.3582	65

3 Claims on euro area residents denominated in foreign currency

In 2022, this item contained €38 million worth of US dollar claims on credit institutions resulting from refinancing operations in the context of the standing swap agreement between the ECB and the Federal Reserve Bank (Fed). There are no such claims as at year-end 2023. The provision of US dollar liquidity results in TARGET liabilities to the ECB, which reduce the TARGET claim reported in asset sub-item 9.4 “Other claims within the Eurosystem (net)”.

4 Claims on non-euro area residents denominated in euro

This item shows the loans amounting to €2,939 million granted to foreign central banks as part of the ECB’s liquidity lines (2022: €2,925 million). These bilateral swap and repo lines cover the euro liquidity needs of financial institutions in non-euro area countries via their central banks. Claims on non-euro area counterparties arising from bilateral repo transactions amounting to €2,214 million (2022: €461 million) are also shown in this item. These claims resulted from reverse repos transacted simultaneously with repos, in which securities in the PSPP portfolio as well as PEPP public sector holdings are lent against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. The corresponding liabilities from the repos are shown under liability item 5 “Liabilities to non-euro area residents denominated in euro”.

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

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

Item	31.12.2023 € million	31.12.2022 € million	Year-on-year change € million	%
Main refinancing operations	2,744	1,110	1,634	147.2
Longer-term refinancing operations				
Regular operations (3 months)	317	267	50	18.7
Targeted operations – third series (TLTRO III)	69,198	235,306	– 166,108	– 70.6
Pandemic emergency operations (PELTROs)	–	300	– 300	– 100.0
Subtotal	69,515	235,873	– 166,358	– 70.5
Marginal lending facility	–	519	– 519	– 100.0
Total	**72,259**	**237,502**	**– 165,243**	**– 69.6**

The volume and structure of the liquidity-providing monetary policy operations carried out by the Bundesbank as part of the Eurosystem (main and longer-term refinancing operations and the marginal lending facility) are shown in this item. As at the end of the reporting year, the outstanding volume of the Eurosystem's monetary policy operations amounted to €410,290 million (2022: €1,324,347 million), of which the Bundesbank accounted for €72,259 million (2022: €237,502 million). Pursuant to Article 32.4 of the Statute of the ESCB, risks from these operations, provided they materialise, are shared among the Eurosystem national central banks in proportion to the prevailing shares in the capital of the ECB. Losses arise only if the counterparty to a monetary policy operation defaults and the collateral it has provided proves insufficient upon realisation.

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 €2,744 million, which was €1,634 million more than at the end of the previous year. On a daily average, the outstanding volume of main refinancing operations came to €820 million (2022: €334 million).

In the year under review, the regular longer-term refinancing operations with maturities of three months were carried out as fixed rate tenders with full allotment at the average main refinancing rate. As at 31 December 2023, take-up of these totalled €317 million (2022: €267 million).

In addition, targeted longer-term refinancing operations from the third series (TLTRO III), which each have a term of three years, were carried out between September 2019 and December 2021. The interest on these operations is charged at an individual rate geared to the respective counterparty's eligible net lending. This rate lies between the average main refinancing rate and deposit facility rate prevailing over the life of the respective operation. In response to the COVID-19 crisis, the Governing Council of the ECB decided to lower the minimum interest rate over the period from 24 June 2020 to 23 June 2022 to 50 basis points below the deposit facility rate, but in any case to a maximum of -1%. Furthermore, the Governing Council decided on 27 October 2022 to index the interest rate on all outstanding TLTRO III operations to the average applicable key ECB interest rates over the period from 23 November 2022 until their maturity date or early repayment date and to offer three additional voluntary early repayment dates. After the maturing of the first six operations and early repayments in the reporting year, the outstanding volume at the end of the year totalled €69,198 million (2022: €235,306 million).

Furthermore, additional pandemic emergency longer-term refinancing operations (PELTROs) were conducted in 2020 and 2021 as fixed rate tenders with full allotment at an interest rate that is 25 basis points below the average rate applied in main refinancing operations over the life of the respective PELTRO; the last of these operations matured in January 2023 (2022: €300 million).

The total volume of longer-term refinancing operations outstanding at year-end 2023 came to €69,515 million, which was €166,358 million below the figure at the end of 2022; on a daily average, the volume amounted to €157,612 million (2022: €399,759 million).

The marginal lending facility is a standing facility which counterparties may use to obtain overnight liquidity at a pre-specified interest rate. At the end of 2023, no recourse was made to this facility (2022: €519 million). Average daily use came to €67 million (2022: €12 million).

6 Other claims on euro area credit institutions denominated in euro

This item, amounting to €5,824 million (2022: €8,294 million), consists, in particular, of claims on euro area counterparties arising from bilateral repo transactions amounting to €4,424 million (2022: €6,296 million). These claims resulted from reverse repos transacted simultaneously with repos, in which securities in the PSPP portfolio as well as PEPP public sector holdings are lent against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. The corresponding liabilities from the repos are shown under liability item 3 "Other liabilities to euro area credit institutions denominated in euro". This item also includes fixed-term deposits held at credit institutions amounting to €1,400 million (2022: €1,999 million), which 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

Table 6: Securities held for monetary policy purposes

	31.12.2023		31.12.2022		Year-on-year change			
	Balance sheet value	Market value	Balance sheet value	Market value	Balance sheet value		Market value	
Portfolio	€ million	€ million	€ million	€ million	€ million	%	€ million	%
SMP – Portugal	–	–	15	15	– 15	– 100.0	– 15	– 100.0
APP								
CBPP3	74,481	68,856	77,764	69,119	– 3,283	– 4.2	– 263	– 0.4
PSPP	513,505	465,552	562,345	493,180	– 48,840	– 8.7	– 27,628	– 5.6
CSPP	71,848	65,992	79,051	69,450	– 7,203	– 9.1	– 3,458	– 5.0
Subtotal	659,834	600,399	719,161	631,748	– 59,327	– 8.2	– 31,349	– 5.0
PEPP								
PEPP covered bonds	1,352	1,202	1,419	1,204	– 67	– 4.7	– 3	– 0.2
PEPP public sector securities	339,622	303,713	343,730	293,795	– 4,108	– 1.2	9,917	3.4
PEPP corporate sector securities	8,264	7,553	8,652	7,486	– 387	– 4.5	67	0.9
Subtotal	349,238	312,468	353,800	302,486	– 4,563	– 1.3	9,981	3.3
Total	**1,009,071**	**912,867**	**1,072,976**	**934,250**	**– 63,904**	**– 6.0**	**– 21,383**	**– 2.3**

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. With net asset purchases under the asset purchase programme (APP, with the individual sub-programmes CBPP3, PSPP, CSPP and ABSPP) already having been discontinued in mid-2022, these holdings were gradually reduced between March 2023 and the end of June 2023, in line with the Governing Council’s decision of 2 February 2023 (by an average of €15 billion per month for the Eurosystem). On 15 June 2023, the Governing Council decided that it would discontinue reinvestments under the APP as of July 2023. Furthermore, the Governing Council decided on 18 March 2020 to launch a new temporary €750 billion pandemic emergency purchase programme (PEPP) until the end of 2020, covering all the assets eligible under the APP. The Governing Council’s decisions of 4 June 2020 and 10 December 2020 increased the overall envelope for the PEPP to a total of up to €1,850 billion, whilst its decision of 16 December 2021 reduced net asset purchases under the PEPP in the first quarter of 2022 and discontinued them at the end of March 2022. The Bundesbank's holdings under the securities markets programme (SMP) reached maturity in the reporting year.

As at year-end, the Eurosystem national central banks' SMP holdings amounted to €1,901 million (2022: €2,143 million), their CBPP3 holdings to €262,090 million (2022: €276,857 million), their CSPP holdings to €323,921 million (2022: €344,119 million) and their PSPP holdings of securities issued by supranational institutions (of which the Bundesbank itself did not acquire any holdings) to €255,261 million (2022: €275,228 million). As at 31 December 2023, the Eurosystem national central banks' PEPP holdings amounted to €5,197 million in the covered bonds portfolio (2022: €5,283 million), to €45,989 million in the corporate sector portfolio (2022: €46,074 million) and to €154,332 million (2022: €145,687 million) in the portfolio of securities issued by supranational institutions (of which the Bundesbank itself did not acquire any holdings). Consistent with Article 32.4 of the Statute of the ESCB, all risks from the SMP, CBPP3, CSPP and the above-mentioned PSPP and PEPP 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 resulting from the government bonds purchased under the PSPP and PEPP (including regional government bonds and bonds issued by eligible agencies located in the euro area), on the other hand, are borne or are collected, respectively, by the individual national central banks holding these bonds. For its PSPP and PEPP public sector portfolio, the Bundesbank purchases only bonds issued by German issuers.

The Governing Council of the ECB decided that there was no need to recognise any impairment losses on securities contained in the SMP, CSPP, PSPP, CBPP3 and PEPP portfolios as at 31 December 2023 (with the exception of one PEPP corporate sector security), as it is expected that all payment obligations relating to the bonds and debt securities contained in Eurosystem central banks' holdings will continue to be met as agreed. The Bundesbank's share in the Eurosystem provision for monetary policy operations decided by the Governing Council owing to the need to recognise an impairment loss on the above-mentioned PEPP corporate sector security is disclosed under liability item 12 "Provisions" and amounts to €11 million.

8 Claims on the Federal Government

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

9 Intra-Eurosystem claims

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

Sub-item 9.1 shows the Bundesbank's participating interest in the ECB. Pursuant to Article 28 of the Statute of the ESCB, the ESCB national central banks are the sole subscribers to the capital of the ECB. The Bundesbank's participating interest in the ECB amounted to a nominal €2,321 million as at 31 December 2023; including the Bundesbank's share of the ECB's net equity, effective from 1 February 2020, it came to €2,578 million (see "General information on the annual accounts").

Sub-item 9.2 contains the Bundesbank's euro-denominated claims equivalent to the transfer of foreign reserves to the ECB. At the beginning of 1999, the central banks participating in the Eurosystem transferred foreign reserve assets (15% in gold and 85% in foreign currency) to the ECB in accordance with Article 30 of the Statute of the ESCB. Adjustments to the key for subscription of the ECB's capital also result in adjustments to the Bundesbank's claims equivalent to the transfer of foreign reserves to the ECB. As at 31 December 2023, these claims amounted to €10,635 million, unchanged from the previous year. 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 "Net claims related to the allocation of euro banknotes within the Eurosystem" shows the claims which arise from applying the euro banknote allocation key. As in 2022, the Bundesbank did not have a claim as at the end of 2023 but a liability, which is shown in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

The cross-border payments processed in TARGET result in the automatic and direct creation of a single liability to, or claim on, the ECB at the end of each business day. As at the end of the year, the Bundesbank's claim on the ECB was €175,705 million lower at €1,093,371 million, which is contained in sub-item 9.4 "Other claims within the Eurosystem (net)". This is remunerated at the respective main refinancing rate, with the exception of the unremunerated intra-Eurosystem liabilities resulting from the swap transactions between the ECB and the Bundesbank (see asset item 3 "Claims on euro area residents denominated in foreign currency"). On a daily average, the remunerated claim amounted to €1,086,088 million (2022: €1,193,119 million). This item also contains liabilities of €5,182 million arising from the allocation of monetary income among the national central banks (see profit and loss item 5 "Net result of pooling of monetary income").

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.

Table 7: Tangible and intangible assets

Item	Acquisition and production costs 31.12.2022 € million	Additions € million	Disposals € million	Accumulated depreciation € million	Book value 31.12.2023 € million	Book value 31.12.2022 € million	Depreciation in 2023 € million
Land and buildings	2,226	29	– 60	– 1,698	497	537	– 30
Furniture and equipment including computer equipment	1,155	57	– 67	– 853	293	320	– 84
Software	171	4	– 0	– 168	6	6	– 5
Total	**3,552**	**90**	**– 128**	**– 2,719**	**795**	**863**	**– 119**

Sub-item 11.2 "Tangible and intangible fixed assets" amounted to €795 million, compared with €863 million in the previous year. It comprises land and buildings, furniture and equipment including computer equipment, and software.

Table 8: Own funds portfolio

Portfolio	31.12.2023 Balance sheet value € million	31.12.2023 Market value € million	31.12.2022 Balance sheet value € million	31.12.2022 Market value € million	Year-on-year change Balance sheet value € million	Balance sheet value %	Market value € million	Market value %
Euro-denominated covered bonds issued in								
Germany	4,277	4,070	5,048	4,688	– 771	– 15.3	– 618	– 13.2
France	1,673	1,570	2,129	1,969	– 456	– 21.4	– 399	– 20.2
Finland	631	582	813	739	– 182	– 22.4	– 157	– 21.3
Netherlands	452	423	649	599	– 197	– 30.4	– 176	– 29.4
Belgium	331	308	330	295	1	0.2	13	4.4
Total	**7,363**	**6,954**	**8,969**	**8,290**	**– 1,606**	**– 17.9**	**– 1,336**	**– 16.1**

Sub-item 11.3 “Other financial assets” amounted to €10,258 million, compared with €10,003 million in the previous year. It contains the Bundesbank’s own funds portfolio as a counterpart to its capital, reserves and long-term provisions for civil servant pensions and healthcare assistance. The own funds portfolio is invested not in government securities but exclusively in fixed rate covered bonds denominated in euro, which are generally held to maturity and are, therefore, valued at amortised cost.

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

Claims on euro area counterparties other than credit institutions arising from bilateral repo transactions amounting to €2,844 million (2022: €983 million) are also shown in this item. These claims resulted from reverse repos transacted simultaneously with repos, in which securities in the PSPP portfolio as well as PEPP public sector holdings are lent against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. The corresponding liabilities from the repos are shown under liability sub-item 4.2 “Other liabilities”.

Sub-item 11.5 “Accruals and prepaid expenditure” contains accruals and prepaid expenditure as at 31 December 2023. This chiefly consists of (accrued) interest income due in the new financial year from securities, the TARGET claim on the ECB and refinancing operations for credit institutions acquired or transacted in the financial year just ended.

Liabilities

1 Banknotes in circulation

The total value of euro banknotes issued by the central banks of the Eurosystem is distributed among these banks on the last business day of each month in accordance with the key for allocating euro banknotes (see "General information on the annual accounts"). According to the banknote allocation key applied as at 31 December 2023, the Bundesbank has a 24.1% share of the value of all the euro banknotes in circulation. During the year under review, the total value of banknotes in circulation within the Eurosystem declined from €1,572.0 billion to €1,567.7 billion, or by 0.3%. Taking into account the allocation key, the Bundesbank had euro banknotes in circulation worth €377,036 million as at the end of the year, compared with €381,257 million a year previously. The value of the euro banknotes actually issued by the Bundesbank increased in 2023 by 2.3% from €900,109 million to €920,705 million. As this was more than the allocated amount, the difference of €543,670 million (2022: €518,852 million) is shown in liability sub-item 9.2 "Net liabilities related to the allocation of euro banknotes within the Eurosystem".

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

Sub-item 2.1 "Current accounts" contains the deposits of credit institutions, amounting to €52,994 million (2022: €66,583 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 €45,106 million on an annual average. In the reporting year, these balances were remunerated at the deposit facility rate applicable in the respective maintenance period up until 19 September 2023 and subsequently, in accordance with the ECB Governing Council's decision of 27 July 2023, at 0%; balances on current accounts in excess of the minimum reserve requirement have already been remunerated at 0% since July 2022. On a daily average, current account deposits decreased from €807,856 million in 2022 to €50,217 million in 2023.

Sub-item 2.2 “Deposit facility”, amounting to €1,056,837 million (2022: €1,132,287 million), contains overnight deposits remunerated at the deposit facility rate. On a daily average, the deposit facility amounted to €1,203,610 million, compared with €533,846 million in 2022.

Sub-item 2.5 “Deposits related to margin calls” contains cash collateral deposited by credit institutions in order to increase underlying assets. As at 31 December 2023, this item contained holdings of €24 million (2022: €1,184 million).

3 Other liabilities to euro area credit institutions denominated in euro

This item contains, in particular, liabilities to euro area credit institutions arising from bilateral repo transactions cleared centrally via Eurex. In these transactions, securities in the PSPP portfolio as well as PEPP public sector holdings are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. As at the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €8,957 million (2022: €13,942 million), and securities lending against Federal securities resulted in liabilities of €4,424 million (2022: €6,296 million); the corresponding claims are reported in asset item 6 “Other claims on euro area credit institutions denominated in euro”. This item also includes account balances of credit institutions in the amount of €182 million (2022: €241 million), which are exempt from minimum reserve requirements due to the imposition of freezing orders. In addition, this item contains liabilities in the amount of €955 million (2022: €810 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, the European Stability Mechanism (ESM), the European Financial Stability Facility (EFSF) and other public depositors (social security funds and local governments). On 31 December 2023, general government deposits amounted to €25,955 million in all (2022: €132,215 million). On a daily average, the volume amounted to €48,959 million (2022: €170,603 million).

Sub-item 4.2 “Other liabilities” amounted to €18,454 million, compared with €45,418 million a year earlier. It mainly comprises deposits of other financial service providers. In addition, liabilities to euro area counterparties other than credit institutions arising from bilateral repo transactions were included in this sub-item as at 31 December 2023. In these repo transactions, securities in the PSPP portfolio as well as PEPP public sector holdings are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. As at the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €4 million (2022: €1,269 million), and securities lending against Federal securities resulted in liabilities of €2,844 million (2022: €983 million); the corresponding claims are reported in asset sub-item 11.3 "Other financial assets". On a daily average, the sub-item amounted to €21,394 million (2022: €54,410 million).

5 Liabilities to non-euro area residents denominated in euro

This balance sheet item, amounting to €161,000 million (2022: €333,608 million), contains the balances of non-euro area central banks, monetary authorities, international organisations and commercial banks held, inter alia, to settle payments. On a daily average, the volume amounted to €114,208 million (2022: €216,055 million). As at 31 December 2023, deposits of €134,348 million were attributable to non-euro area central banks and monetary authorities, of which €77,202 million was attributable to central banks within the European Union. This item also includes fixed-term deposits of central banks accepted as part of the Bundesbank's central bank services amounting to €1,400 million (2022: €1,999 million), which are then invested in the money market (see asset item 6 "Other claims on euro area credit institutions denominated in euro"). Liabilities to non-euro area counterparties arising from bilateral repo transactions are also recorded in this item. In these repo transactions, securities in the PSPP portfolio as well as PEPP public sector holdings are lent against cash as collateral, or in the case of simultaneous reverse repos, against Federal securities on a cash-neutral basis; the transactions have a maximum term of seven days. As at the end of the year, securities lending against cash as collateral gave rise to liabilities in the amount of €4,985 million (2022: €7,939 million), and securities lending against Federal securities resulted in liabilities of €2,214 million (2022: €461 million); the corresponding claims are reported in asset item 4 "Claims on non-euro area residents denominated in euro".

6 Liabilities to euro area residents denominated in foreign currency

This item contains, in particular, deposits on foreign currency accounts of the Federal Government.

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

Foreign currency-denominated liabilities to banks outside the euro area are recorded in this item. These are liabilities in US dollars, amounting to €31 million, which have arisen from repos (previous year: no liabilities).

8 Counterpart of special drawing rights allocated by the IMF

The counterpart of the special drawing rights (SDRs) allocated by the IMF free of charge corresponds to the allocations of SDRs to the Federal Republic of Germany from 1970 to 1972, from 1979 to 1981, in 2009 and in 2021, which together totalled SDR 37,587 million (see asset sub-item 2.1 “Receivables from the IMF”).

9 Intra-Eurosystem liabilities

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

Sub-item 9.1 contains “Liabilities related to the issuance of ECB debt certificates”. The ECB issued no debt certificates in 2023.

Sub-item 9.2 “Net liabilities related to the allocation of euro banknotes within the Eurosystem” contains the liabilities arising from the application of the euro banknote allocation key (see liability item 1 “Banknotes in circulation”). As at the end of the year, these liabilities amounted to €543,670 million in total (2022: €518,852 million). The 8% share of the total value of euro banknotes in circulation attributable to the ECB (€1,567.2 billion) resulted in a liability of €32,786 million for the Bundesbank (according to its capital share of 26.1%). In addition, the difference between the Bundesbank’s actual banknote issuance of €920,705 million and its arithmetical 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 €510,884 million. The reason for the size of this liability was the Bundesbank’s still disproportionately high share of banknote issuance (58.7%), which is largely due to net outflows of banknotes to other countries.

The net liabilities arising from other assets and liabilities within the Eurosystem would be shown in sub-item 9.3 “Other liabilities within the Eurosystem (net)”. As at the end of 2023, the Bundesbank had a net claim, which is shown on the assets side under sub-item 9.4 “Other claims within the Eurosystem (net)” and outlined there.

10 Items in course of settlement

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

11 Other liabilities

Sub-item 11.2 “Accruals and income collected in advance” contains the accrued and collected income as at 31 December 2023. This consists mainly of (accrued) interest expenses which are due in a future financial year but were incurred in a previous financial year in connection with the allocation of banknotes within the Eurosystem.

Sub-item 11.3 “Sundry” comprises the liabilities arising from Deutsche Mark banknotes still in circulation. Deutsche Mark banknotes are no longer legal tender. However, the Bundesbank has publicly undertaken to redeem Deutsche Mark banknotes that are still in circulation for an indefinite period. The Deutsche Mark banknotes still in circulation belong to the series BBk I/Ia and BBk III/IIIa and as at the end of 2023 totalled €2,902 million. The banknote series BBk I/Ia accounted for €1,175 million of this total and the banknote series BBk III/IIIa €1,727 million. Taking into account the partial derecognitions in 2004 and 2021 and the deposits that have been made in the meantime, the liability arising from the Deutsche Mark banknotes still in circulation amounted to €431 million (2022: €446 million) as at the reporting date. Deposits of Deutsche Mark banknotes in 2023 totalled €20 million, of which €15 million consisted of the BBk III/IIIa series banknotes and €4 million of the BBk I/Ia series banknotes (see profit and loss item 11 “Other expenses”).

12 Provisions

This item includes the provisions for general risks laid down in Section 26(2) of the Bundesbank Act, the provision for monetary policy operations pursuant to the Eurosystem’s accounting principles and provisions pursuant to regulations set forth in the Commercial Code.

Table 9: Provisions

Provisions for	31.12.2023 € million	31.12.2022 € million	Year-on-year change € million	 %
General risks	–	19,199	– 19,199	– 100.0
Monetary policy operations	11	–	11	.
Direct pension commitments	8,192	7,253	940	13.0
Indirect pension commitments (supplementary pension funds for public sector employees)	731	715	16	2.2
Healthcare subsidy commitments to civil servants	2,190	1,950	240	12.3
Partial retirement scheme	15	17	– 2	– 11.1
Staff restructuring schemes	15	21	– 6	– 27.4

Other	78	94	– 15	– 16.3
Total	**11,233**	**29,248**	**– 18,015**	**– 61.6**

The provisions for general risks are created pursuant to the regulations governing the Bundesbank’s annual accounts laid down in Section 26(2) of the Bundesbank Act. They are established to hedge against general risks associated with domestic and foreign business. The level of funds to be allocated to the provisions for general risks is reviewed annually using value-at-risk and expected shortfall calculations, amongst others. These calculations consider the holdings of risk-bearing assets, their risk content, foreseeable changes to the risk situation, expected financial conditions in the coming year and the statutory reserves. The Bundesbank’s risks, which are determined using a model-based approach, relate, in particular, to exchange rate risk, default risk from the asset purchase programmes and credit risk arising from refinancing loans as well as interest rate risk.

Since the beginning of 2020, the risk level has increased strongly due to the pandemic. The main reason for the increase was higher interest rate risk and credit risk stemming from the APP and from the PEPP, which was launched in March 2020. The Bundesbank did not distribute any profits in 2020 and 2021 as the strong increase in risk made it necessary to build up risk provisioning as much as possible. As a first step, €2,424 million was therefore added to the provisions for general risks in 2020, and a further €1,346 million was added in 2021 as a second step. A further increase was announced for 2022, but there was a reduction of €972 million owing to the materialisation of interest rate risk in foreign currency and euro. In the reporting year, losses arising from the materialisation of interest rate risk in euro increased massively owing to the further rise in key interest rates; the provisions for general risks in the amount of €19,199 million were therefore released in full to offset the losses.

In accordance with the Eurosystem’s accounting principles, the Governing Council of the ECB decided to set aside a provision of €43 million for the required impairment of one PEPP corporate sector security. Consistent with Article 32.4 of the Statute of the ESCB, provisions for monetary policy operations are funded by each national central bank in the Eurosystem according to its capital share. The Bundesbank’s €11 million share in this provision was offset against profit and loss item 5 “Net result of pooling of monetary income”.

Provisions for post-employment benefit obligations (direct pension commitments and indirect pension commitments as a result of the Bundesbank’s obligation to act as guarantor for pension payments out of the supplementary pension funds for public sector employees) as well as for healthcare subsidy commitments to civil servants are valued on the basis of actuarial expert opinions prepared using current mortality tables (Heubeck 2018 G mortality tables) according to the entry age normal method

(*Teilwertverfahren*) (for current staff) and the present value method (*Barwertverfahren*) (for pensioners and ex-civil servants with portable pension entitlements), taking into account discount rates and trends. The discount rate used for post-employment benefit obligations is, in each case, a matched-maturity average market interest rate for the past ten years or, for healthcare subsidy commitments to civil servants, for the past seven years pursuant to the Regulation on the Discounting of Provisions (*Rückstellungs-abzinsungsverordnung*).

Table 10: Discount rates and trends

Parameter	31.12.2023 %	31.12.2022 %
Discount rate for		
post-employment benefit obligations	1.78	1.82
comparable long-term staff obligations (healthcare subsidy commitments to civil servants)	1.62	1.43
short-term staff obligations (partial retirement scheme and staff restructuring schemes)	1.00	0.41
Wage trend	2.50	2.25
Career trend	0.50	0.50
Cost trend for healthcare subsidy commitments to civil servants	3.50	3.25
Pension trend for direct pension commitments	2.50	2.25
Pension trend for supplementary pension funds for public sector employees	1.00	1.00

Pursuant to Section 253(6) of the Commercial Code, the amount saved by applying the ten-year rather than the seven-year period for calculating the average market interest rate for post-employment benefit obligations is subject to a restriction on distribution. In 2022, the ten-year rate (1.82%) and the seven-year rate (1.43%) resulted in an interest margin of 39 basis points, representing a difference of €541 million. In 2023, the interest margin came to a smaller 16 basis points (1.78% versus 1.62%), which resulted in a lower saving of €246 million. The difference of €295 million has to be withdrawn from reserves pursuant to Section 253(6) of the Commercial Code (see “General information on the annual accounts” and liability item 14 “Capital and reserves” and profit and loss item 12 "Allocation to/withdrawal from reserves").

Provisions for the partial retirement scheme and for payment commitments arising from staff restructuring schemes that had already been carried out as at the reporting date are valued based on actuarial expert opinions prepared using current mortality tables according to the present value method, or according to the entry age normal method in the case of the outstanding settlement amount for the partial retirement scheme, taking into account discount rates and trends. The discount rate is based on a matched-maturity average market interest 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 €160 million from marking up the provisions (including the effects of the change in the discount rates) are contained in profit and loss sub-item 1.2 “Interest expense”. Profit and loss item 7 “Staff costs” shows a net allocation of €1,047 million, with a total allocated amount of €1,362 million standing against a total utilisation of €315 million. Other changes in provisioning gave rise, on balance, to relief of €10 million in profit and loss item 11 “Other expenses” and to an allocation of €11 million in profit and loss item 8 “Administrative expenses”. The reversal of provisions resulted in income of €36 million in profit and loss item 6 “Other income”.

13 Revaluation accounts

This item contains the disclosed hidden reserves from the initial valuation at the time of the changeover to market valuation as at 1 January 1999 (revaluation items “old”) and the unrealised gains arising from market valuation as at 31 December 2023 (revaluation items “new”).

Table 11: Revaluation accounts

Item	Revaluation items “old” € million	Revaluation items “new” € million	Total as at 31.12.2023 € million	Total as at 31.12.2022 € million	Year-on-year change € million	%
Gold	18,631	174,779	193,409	176,105	17,304	9.8
Foreign currency						
US dollar		3,300	3,300	4,957	– 1,657	– 33.4
SDR		94	94	437	– 343	– 78.6
Yen		–	–	35	– 35	– 100.0
Australian dollar		–	–	35	– 35	– 100.0
Canadian dollar		88	88	113	– 24	– 21.7
Chinese yuan (renminbi)		4	4	22	– 18	– 81.5
Subtotal		3,486	3,486	5,598	– 2,112	– 37.7
Securities in foreign currency		249	249	9	240	.
Total	**18,631**	**178,514**	**197,145**	**181,712**	**15,433**	**8.5**

Revaluation items “old”

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

The reduction of 2,496 kg or 0.1 million ozf in the gold holdings resulted in the release of €14 million in the year under review, which was taken to profit and loss sub-item 2.1 “Realised gains/losses arising from financial operations”.

Revaluation items “new”

The revaluation items “new” show, for the gold holdings, the net positions in each foreign currency and the securities portfolios in each category of security (securities identification number), the positive difference in each case between the market value on 31 December 2023 and their value at average amortised cost since 1 January 1999.

As regards gold, this acquisition cost is 1 ozf = €246.369. As at the end of 2023, the market value of the gold position exceeded its acquisition value, leading to a revaluation item of €174,779 million (2022: €157,460 million). In the case of the net foreign exchange positions in US dollars, SDRs, Canadian dollars and Chinese yuan (renminbi), the market values at year-end were also above their acquisition values (€1 = US$1.2472, €1 = SDR 1.2061, €1 = C$1.5480 and €1 = 7.9699 yuan), resulting in revaluation items. As at the end of the year, the market values of the net foreign exchange positions in Japanese yen and in Australian dollars were below the respective acquisition values (€1 = ¥144.31 and €1 = A$1.6193), meaning that a valuation loss was incurred (see profit and loss sub-item 2.2 “Write-downs on financial assets and positions”).

The valuation gains on foreign currency-denominated securities shown on the balance sheet result predominantly from US Treasury notes (€209 million). However, for a portion of the US Treasury notes, the relevant acquisition values were higher than their corresponding market values on the reporting date, resulting in valuation losses of €35 million (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. Marking to market would result in valuation losses of €97,765 million (2022: €139,411 million), mostly from government bonds held for monetary policy purposes (PEPP public sector securities and PSPP) and valuation gains of €1,151 million (2022: €6 million).

14 Capital and reserves

In accordance with Section 2 of the Bundesbank Act, the Bank’s capital, amounting to €2.5 billion, is owned by the Federal Republic of Germany. As at 31 December 2023, the statutory reserves pursuant to the Bundesbank Act were no longer, as they had been in the previous year, at the fixed upper limit of €2.5 billion laid down in Section 27 No 1 of the Bundesbank Act, but have been reduced by €2,086 million to €414 million after being used to offset the loss for 2023. The difference arising from the discounting of post-employment benefit obligations, which is subject to a restriction on distribution pursuant to Section 253(6) of the Commercial Code (see “General information on the annual accounts”, liability item 12 “Provisions” and profit and loss item 12 “Allocation to/withdrawal from reserves”), fell by €295 million. Pursuant to Section 253(6) of the Commercial Code, this amount was withdrawn from reserves, which thus amounted to €246 million compared with €541 million in the previous year.

Table 12: Net equity

Item		31.12.2023 € million	31.12.2022 € million	Year-on-year change € million
Liabilities 14.1	Capital	2,500	2,500	–
Liabilities 14.2	Reserves			
	Statutory reserves pursuant to Section 27 No 1 of the Bundesbank Act	414	2,500	– 2,086
	Reserves pursuant to Section 253(6) of the Commercial Code	246	541	– 295
Liabilities 12	Provisions for general risks	–	19,199	– 19,199
Liabilities 13	Revaluation accounts	197,145	181,712	15,433
Total		**200,306**	**206,453**	**– 6,147**

The Bundesbank's net equity according to the ECB’s definition amounted to €200.3 billion and – following the full release of the provisions for general risks contained in liability item 12 “Provisions” – comprised capital and reserves in the combined total of €3.2 billion and liability item 13 “Revaluation accounts” in the amount of €197.1 billion as at the end of 2023.

15 Distributable profit

The profit and loss account for 2023 closed with a loss for the year of €2,381 million (2022: loss of €172 million). A withdrawal of €295 million was made from reserves on account of the restriction on distribution pursuant to Section 253(6) of the Commercial Code (2022: €172 million; see “General information on the annual accounts” and liability item 12 “Provisions”) and €2,086 million was withdrawn from the reserves pursuant to Section 27 No 1 of the Bundesbank Act, resulting in a balanced financial result overall (see profit and loss item 12 “Allocation to/withdrawal from reserves”).

Notes on the profit and loss account

1 Net interest income

Table 13: Net interest income

Item	2023 € million	2022 € million	Year-on-year change € million	 %
Interest income in foreign currency				
IMF	2,195	694	1,501	216.4
Reverse repo transactions	209	64	144	223.7
Securities	1,118	540	578	107.0
Other	137	67	70	104.8
Subtotal	3,659	1,366	2,294	168.0
Interest income in euro				
Refinancing operations	5,018	–	5,018	.
Reverse repo transactions	92	–	92	.
Monetary policy portfolios	3,909	2,788	1,121	40.2
of which: inflation-linked Federal bonds	406	3,074	– 2,668	– 86.8
Claims arising from central bank services	264	–	264	.
Claims equivalent to the transfer of foreign reserves to the ECB	349	53	296	557.9
TARGET claim on the ECB	41,653	7,298	34,355	470.7
Own funds portfolio (financial assets)	48	59	– 11	– 18.2
Euro balances of domestic and foreign depositors (negative interest)	–	362	– 362	– 100.0
Repo transactions (negative interest)	–	95	– 95	– 100.0
Other	60	55	5	8.4
Subtotal	51,394	10,712	40,683	379.8
Total interest income	**55,053**	**12,077**	**42,976**	**355.8**
Interest expense in foreign currency				
IMF	1,770	578	1,192	206.2

Repo transactions	3	2	1	27.5
Other	0	1	– 0	– 62.2
Subtotal	1,773	581	1,192	205.2
Interest expense in euro				
Refinancing operations (negative interest)	–	2,045	– 2,045	– 100.0
Deposits of credit institutions	41,066	2,042	39,024	.
Euro balances of domestic and foreign depositors	5,158	26	5,132	.
Liabilities arising from the allocation of euro banknotes	20,454	3,035	17,420	574.0
Marking up of staff provisions	160	388	– 228	– 58.7
Repo transactions	342	–	342	.
Other	8	7	1	9.5
Subtotal	67,187	7,543	59,644	790.7
Total interest expense	**68,960**	**8,124**	**60,836**	**748.9**
Net interest income	**– 13,907**	**3,954**	**– 17,860**	**.**

This item shows interest income, net of interest expense. Net interest income fell by €17,860 million on the year and, at -€13,907 million, turned negative for the first time. Net interest income in foreign currency was up by €1,102 million owing to higher yields, but net interest income in euro fell by €18,962 million. In the past years, the monetary policy asset purchases have given rise to longer-term fixed interest positions (generating a low level of remuneration). The counterparts of these on the liabilities side of the balance sheet – besides banknotes in circulation – are short-term interest-bearing deposits of banks. The mismatch in maturities has left an open euro interest rate position on the balance sheet. In the reporting year, securities held for monetary policy purposes stood at an annual average of €1,048.8 billion, banknotes in circulation came to €375.8 billion and the open euro interest rate position resulting from the holdings of monetary policy securities (the net residual from these two figures) amounted to €673.0 billion. The significant increase in the deposit facility rate caused the euro interest rate risk from this open interest rate position to materialise. While the remuneration of monetary policy securities increased by only a marginal 11 basis points (from an average of 0.26% in the previous year to 0.37%), the annual average interest expense for credit institutions' monetary policy deposits increased significantly, rising by 3.12 percentage points from the previous year's 0.15% to 3.27%. On balance, there was a negative interest margin in 2023 for the open euro interest rate position resulting from the monetary policy securities holdings of -290 basis points, which corresponds to a net interest expense of €19.5 billion (2022: +11 basis points, or net interest income of €0.7 billion). All the euro holdings not included in this open interest rate position generated net interest income of €3.7 billion overall, compared with €2.4 billion in the previous year.

1.1 Interest income

Interest income in foreign currency rose from €1,366 million in the previous year to €3,659 million in 2023 owing to higher yields. Interest income in euro increased by €40,683 million year on year to €51,394 million. Monetary policy refinancing operations yielded interest income of €5,018 million owing to the increases in key interest rates, compared with an interest expense of €2,045 million in the previous year on account of the negative remuneration of the TLTRO III operations. The increase in the main refinancing rate raised interest income from the remuneration of the TARGET claim on the ECB by €34,355 million to €41,653 million (average remuneration of 3.84%, compared with 0.61% in the previous year).

Table 14: Interest income from monetary policy portfolios

	2023	2022	Year-on-year change	
Portfolio	€ million	€ million	€ million	%
SMP	1	3	– 2	– 74.1
CBPP and CBPP2	–	6	– 6	– 100.0
APP				
CBPP3	501	230	271	117.6
PSPP	2,011	2,295	– 284	– 12.4
CSPP	788	573	215	37.5
Subtotal	3,300	3,098	202	6.5
PEPP				
PEPP covered bonds	1	– 1	2	.
PEPP public sector	509	– 374	882	.
PEPP corporate sector	99	56	43	76.5
Subtotal	608	– 319	927	.
Total	**3,909**	**2,788**	**1,121**	**40.2**

The monetary policy portfolios generated interest income of €3,909 million, compared with €2,788 million in the previous year. Income from the APP portfolios (CBPP3, PSPP and CSPP portfolios) climbed by €202 million to €3,300 million, with the average rate of remuneration rising from 0.44% to 0.48% in the reporting year. The PEPP portfolios yielded positive interest income for the first time, generating €608 million compared with -€319 million in the previous year as the average remuneration rose from -0.09% to 0.17%.

Income from the Bundesbank's own funds portfolio contracted by €11 million owing to reduced holdings and remuneration averaging 0.60% (2022: 0.62%). The reverse repos transacted simultaneously with the bilateral repo transactions (see asset item 4 "Claims on non-euro area residents denominated in euro", asset item 6 "Other claims on euro area credit institutions denominated in euro" and asset sub-item 11.3 "Other financial assets") resulted in interest income of €92 million (2022: interest expense of €1 million).

1.2 Interest expense

There was a year-on-year increase of €60,836 million to €68,960 million in interest expense. As regards monetary policy refinancing operations, the negative remuneration of TLTRO III operations in the previous year resulted in an interest expense of €2,045 million. Owing to the increases in key interest rates, the remuneration of credit institutions' deposits generated an interest expense of 3.27% (on average for the year), or €41,066 million (compared with a net 0.15% or €2,042 million in the previous year). Remuneration of intra-Eurosystem balances arising from the allocation of euro banknotes is at the main refinancing rate, and this rose from 0.58% (on average for the year), or €3,035 million in the previous year to 3.87%, or €20,454 million (see "General information on the annual accounts"). As regards the euro balances of domestic and foreign depositors, the average remuneration of 2.84% resulted in an expense of €5,158 million (compared with net interest income of €337 million, or -0.08%, in the previous year, resulting from negative remuneration). Expenses arising from the marking up of staff provisions (see liability item 12 "Provisions") decreased by €228 million owing in particular to the smaller reduction in the discount rate for post-employment benefit obligations (4 basis points compared with 16 basis points in the previous year). Repo transactions (see liability item 3 "Other liabilities to euro area credit institutions denominated in euro", liability sub-item 4.2 "Other liabilities" and liability item 5 "Liabilities to non-euro area residents denominated in euro") resulted in an interest expense of €342 million (2022: interest income of €95 million).

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

This item contains realised gains and losses on sales of gold, foreign currency and securities, write-downs on marked-to-market holdings of gold, foreign currency and foreign currency-denominated securities, and the release of provisions for general risks.

Table 15: Net result of financial operations, write-downs and risk provisions

Item	2023 € million	2022 € million	Year-on-year change € million	%
Realised gains/losses				
Gold	135	193	– 58	– 30.3
Foreign currency	603	634	– 31	– 4.9
Securities	– 191	– 825	633	76.8
Subtotal	546	2	544	.
Write-downs				
Foreign currency	– 113	– 0	– 113	.
Securities	– 40	– 922	881	95.6
Subtotal	– 153	– 922	769	83.4
Transfer to/from provisions for general risks	19,199	972	18,227	.
Total	**19,592**	**53**	**19,540**	**.**

Realised net income from foreign currency transactions reported in sub-item 2.1 resulted mainly from US dollar transactions (€590 million). Realised losses from sales of securities, particularly US Treasury notes (-€139 million) were mainly explained by the increase in US capital market yields.

The write-downs reported under sub-item 2.2 resulted mainly, in the case of foreign currency, from valuation losses on foreign currency holdings of Japanese yen and Australian dollars and, in the case of securities holdings, primarily from valuation losses on US Treasury notes.

Sub-item 2.3 “Transfer to/from provisions for general risks” contains the complete release of the provisions for general risks in the amount of €19,199 million to offset the loss resulting from the materialisation of interest rate risk (see liability item 12 “Provisions”).

3 Net income from fees and commissions

Table 16: Net income from fees and commissions

Item	2023 € million	2022 € million	Year-on-year change € million	%
Income				
Cashless payments	23	28	– 5	– 18.4
Cash payments	5	6	– 0	– 4.7
Securities business and security deposit business	41	50	– 9	– 17.1
Other	35	30	5	16.7
Subtotal	104	113	– 9	– 8.0
Expense				
Securities business and security deposit business	54	50	5	9.2
Other	9	9	0	1.7
Subtotal	63	59	5	8.0
Total	**41**	**55**	**– 14**	**– 25.1**

Net income from fees and commissions came to €41 million, compared with €55 million in the previous year.

4 Income from participating interests

This item contains the Bundesbank’s income of €17 million (2022: €28 million) from its participating interests in the ECB, the BIS and S.W.I.F.T. However, for financial year 2023 (as in the previous year), the ECB is not reporting a profit (2022: distribution of the remainder of the profit for 2021 of €11 million), with the result that the income from participating interests in the reporting year came entirely from BIS dividends (2022: €17 million).

5 Net result of pooling of monetary income

This item comprises an expense of €5,193 million overall in 2023. Risk provisioning for Eurosystem monetary policy operations resulted in an expense of €11 million. The expense from the pooling of monetary income amounted on balance to €5,182 million (2022: €2,204 million).

Monetary income of the Eurosystem national central banks is pooled in accordance with a decision taken by the Governing Council of the ECB.[17] Since 2003, the amount of monetary income allocated to each national central bank has been measured on the basis of the actual income that derives from the earmarked assets that each holds as a counterpart to its liability base.

The liability base contains, in particular, the following items: liability item 1 “Banknotes in circulation”, liability item 2 “Liabilities to euro area credit institutions related to monetary policy operations denominated in euro”, liability sub-item 9.2 “Net liabilities related to the allocation of euro banknotes within the Eurosystem” and the TARGET liability contained in liability sub-item 9.3 “Other liabilities within the Eurosystem (net)”. All interest paid on these items decreases the amount of monetary income to be transferred by the national central bank concerned. In 2023, the Bundesbank’s deduction amount was €61.5 billion.

A national central bank’s earmarked assets consist mainly of the following items: asset item 5 “Lending to euro area credit institutions related to monetary policy operations denominated in euro”, asset sub-item 7.1 “Securities held for monetary policy purposes”, asset sub-item 9.2 “Claims equivalent to the transfer of foreign reserves to the ECB”, asset sub-item 9.3 “Net claims related to the allocation of euro banknotes within the Eurosystem”, the TARGET 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 government bonds purchased under the PSPP and PEPP (including regional government bonds and bonds issued by eligible agencies located in the euro area) generate income commensurate with the applicable main refinancing rate, as the ECB Governing Council has ruled out the possibility of pooling the risk and returns arising from these instruments among the national central banks. The Bundesbank’s arithmetical interest income was €82.4 billion in total for 2023.

If the value of a national central bank’s earmarked assets exceeds or falls short of the value of its liability base, the difference is offset by applying the main refinancing rate to the value of the difference. For the Bundesbank, the value of its earmarked assets in 2023 exceeded the value of its liability base; applying the main refinancing rate on a daily basis, this gave rise to a deduction item of €5.1 billion. At the end of each financial

17 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), as last amended by the Decision of the European Central Bank of 12 November 2020 (ECB/2020/55).

year, the total monetary income transferred by all national central banks is allocated to the national central banks in proportion to their respective shares in the fully paid-up capital of the ECB.

The monetary income of the national central banks is initially reflected in profit and loss item 1 “Net interest income”, while any unequal allocation among national central banks is balanced out via profit and loss item 5 “Net result of pooling of monetary income”. The transfer and allocation of monetary income can cause redistribution effects among national central banks under two conditions in practice. First, earmarked assets or liabilities as part of the liability base must have an interest rate that is different from the main refinancing rate (such as, for instance, the deposit facility remunerated at the deposit facility rate or the remuneration of monetary policy portfolios, provided the Governing Council of the ECB has not ruled out the possibility of pooling the risk and returns arising from these securities among the national central banks). Second, the pro rata 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 PSPP/PEPP holdings of bonds from supranational issuers purchased by other national central banks (annual average of €418.4 billion), of which the Bundesbank has not purchased any holdings itself, gave rise to low interest only (average for the year of around 0.44%). The lower income for the purchasing national central banks as a result of the difference from the main refinancing rate (the negative interest margin comes to around -340 basis points on average for the year due to the rise in key interest rates) is balanced out among the national central banks via the common pool of monetary income. Based on its capital share of 26.1%, the charge for the Bundesbank came to around €3.7 billion (2022: €0.4 billion). In addition, in the reporting year, the Bundesbank’s share of the Eurosystem’s total holdings of credit institutions’ deposits (€4,006.4 billion on average for the year) stood at 31.3%, or €1,254.2 billion, which was around €206.5 billion higher than the arithmetical share of €1,047.7 billion based on the Bundesbank’s capital share. The resulting disproportionately high additional income generated by the Bundesbank from the positive interest margin between the main refinancing rate and the remuneration of deposits (around 60 basis points on average for the year) is likewise balanced out via the common pool of monetary income, and resulted in a charge of €1.1 billion for the Bundesbank (2022: €0.6 billion based on a Bundesbank share of 29%).

On aggregate, the pooling of monetary income resulted in a net expense of €5,182 million for the Bundesbank (2022: €2,204 million). This balance represents the difference between the €15,838 million (2022: €4,096 million) in monetary income paid by the Bundesbank into the common pool and the Bundesbank’s claim of €10,656 million (2022: €1,893 million) – corresponding to the Bundesbank’s share of the ECB’s paid-up capital – on the common pool.

Consistent with Article 32.4 of the Statute of the ESCB, the Governing Council of the ECB identified a need to recognise an impairment on one PEPP corporate sector security. The Bundesbank has set aside a provision of €11 million commensurate with its capital share of 26.1% (see liability item 12 “Provisions”).

6 Other income

Other income amounted to €190 million, compared with €126 million in 2022. An amount of €85 million (2022: €53 million) was attributable to the contributions of the Eurosystem national central banks to the costs of developing and running Eurosystem services, €36 million (2022: €32 million) to the reversal of provisions (see liability item 12 “Provisions”), €22 million (2022: €21 million) to rental income, and €19 million (2022: €3 million) to proceeds from the sale of land and buildings.

7 Staff costs

This item contains the salaries and wages paid out under the pay regulations for salaried staff and civil servants, social security contributions, and expenditure on post-employment benefits including transfers to staff provisions (with the exception of the interest share; see profit and loss sub-item 1.2 “Interest expense”).

Table 17: Staff costs

Item	2023 € million	2022 € million	Year-on-year change € million	 %
Salaries and wages	682	671	10	1.5
Social security contributions	94	94	- 0	- 0.4
Expenditure on post-employment benefits	1,324	474	851	179.6
Total	**2,100**	**1,239**	**861**	**69.4**

Staff costs rose from €1,239 million to €2,100 million year on year. Expenditure on post-employment benefits was €851 million higher on balance owing in particular to general pay rises for salaried staff and civil servants and the associated transfers to staff provisions. This increase came about for the following reasons in particular. First, the wage trend used to calculate pension provisions was raised from 2.25% to 2.50% (€323 million); second, pension provisions were increased because the pay rise in 2024 exceeded the wage trend (€337 million); and third, provisions for healthcare subsidy commitments were raised because expenses for healthcare subsidy commitments were higher than the cost trend in 2023 (€146 million). Excluding transfers to staff provisions, staff costs rose by 5.4%, mainly on account of the inflation compensation payments made as of June 2023 as part of the general pay increase for salaried staff and civil servants.

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 2023, the President of the Bundesbank received a pensionable salary of €411,429.00, special non-pensionable remuneration of €76,693.78, inflation compensation payments of €2,560.00 and a standard expenses allowance of €5,112.96, amounting to a total of €495,795.74. The Vice-President of the Bundesbank received a pensionable salary of €329,143.20, special non-pensionable remuneration of €61,355.03, inflation compensation payments of €2,560.00 and a standard expenses allowance of €3,067.80, amounting to a total of €396,126.03 for 2023. The other members of the Executive Board each received a pensionable salary of €246,857.52, special non-pensionable remuneration of €46,016.27, inflation compensation payments of €2,560.00 and a standard expenses allowance of €2,556.48, amounting to a total of €297,990.27 each for the year 2023.

Total remuneration payments to serving and former members of the Executive Board, former members of the Bundesbank’s Directorate and of the Executive Boards of the Land Central Banks, including their surviving dependants, amounted to €11,123,014.61 in 2023.

8 Administrative expenses

Administrative expenses increased from €662 million in 2022 to €796 million. This item shows not only general operating expenditure but also, in particular, expenditure of €300 million on computer hardware and software (2022: €266 million) and of €211 million on office buildings (2022: €158 million) as well as expenditure of €67 million on Eurosystem services (2022: €49 million).

9 Depreciation of tangible and intangible fixed assets

Depreciation of land and buildings, of furniture and equipment including computer equipment and of software amounted to €119 million, compared with €143 million in 2022 (see asset sub-item 11.2 “Tangible and intangible fixed assets”).

10 Banknote production services

Expenditure on banknote production services declined by €37 million year on year to €76 million in the reporting year.

11 Other expenses

Other expenses amounted to €30 million (2022: €26 million) and contained, in particular, expenditure on residential buildings amounting to €23 million and 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 €4 million (see liability sub-item 11.3 “Sundry”).

In 2023, the Bundesbank’s donations totalled €810,946.22, including €461,784.80 for research projects, €207,161.42 for other specific projects, €94,500.00 for scholarships and prize money, and €47,500.00 for institutional financial assistance.

12 Allocation to/withdrawal from reserves

Pursuant to Section 253(6) of the Commercial Code, the relief of €246 million resulting from application of the ten-year rather than the seven-year period for calculating the average market interest rate at which to discount post-employment benefit obligations is subject to a restriction on distribution (see “General information on the annual accounts”, liability item 12 “Provisions” and liability item 14 “Capital and reserves”). Since this non-distributable amount was €295 million lower than the level of the relevant reserves at the close of 2022, a withdrawal from reserves in this amount was made as at the end of financial year 2023 (2022: €172 million). Furthermore, €2,085 million was withdrawn from the statutory reserves pursuant to Section 27 No 1 of the Bundesbank Act to offset the remaining loss for the year (see liability item 14 “Capital and reserves”).

The Deutsche Bundesbank in figures

The Deutsche Bundesbank: key figures

	2022	2023
Staff [18]		
Core staff (full-time equivalents)	10,294	10,255
Contraction since 31 December 2001 [19]	4,523 (= 30.5%)	4,562 (= 30.8%)
Locations / core staff (full-time equivalents) [20]		
Central Office	1 / 5,405	1 / 5,530
Regional offices	9 / 2,667	9 / 2,623
Branches	31 / 2,223	31 / 2,102
Annual accounts [21]		
Distributable profit	–	–
Net interest income	€3,954 million	- €13,907 million
Total assets	€2,903,591 million	€2,516,001 million
Foreign reserve assets (total)	€276.5 billion	€292.3 billion
Foreign currency	€34.4 billion	€33.4 billion
Receivables from the IMF	€58.0 billion	€57.5 billion
Gold	(3,355t) €184.0 billion	(3,353 t) €201.3 billion
Allocation across the various storage locations		
Frankfurt	(1,710 t) €93.8 billion	(1,710 t) €102.7 billion
New York	(1,236 t) €67.8 billion	(1,236 t) €74.2 billion
London	(409 t) €22.4 billion	(406 t) €24.4 billion
ECB capital key [22]		
Share of subscribed capital	21.4394%	21.4394%
Share of paid-up capital	26.3615%	26.1494%

18 As at 31 December 2023.
19 Core staff (full-time equivalents) on 31 December 2001 (year before the structural reform began): 14,800.
20 As at 31 December 2023.
21 As at 31 December 2023.
22 As at 31 December 2023.

Amount of the participating interest in the ECB	€2.32 billion	€2.32 billion
Foreign reserve assets transferred to the ECB	€10.64 billion	€10.64 billion
Monetary policy operations		
Open market operations in the euro area		
Main refinancing operations	€2.4 billion	€14.1 billion
Longer-term refinancing operations [23)]	€1,321.4 billion	€396.2 billion
of which counterparties of the Bundesbank	€235.9 billion	€69.5 billion
Banks participating in refinancing operations (total)	769	458
of which via the Bundesbank	512	252
Standing facilities		
Marginal lending facility in the euro area	€0.5 billion	€0.01 billion
Deposit facility in the euro area	€3,778.8 billion	€3,334.8 billion
Asset purchase programmes (Bundesbank's share) [24)]		
CBPP3 portfolio	€77.8 billion	€74.5 billion
PSPP portfolio	€562.3 billion	€513.5 billion
CSPP portfolio	€79.1 billion	€71.8 billion
PEPP public sector portfolio	€343.7 billion	€339.6 billion
PEPP corporate sector portfolio	€8.7 billion	€8.3 billion
PEPP covered bonds portfolio	€1.4 billion	€1.4 billion
Cash payments		
Volume of euro banknotes in circulation (Eurosystem) [25)]	€1,572.0 billion	€1,567.2 billion
Volume of coins in circulation (Eurosystem) [26)]	€32.5 billion	€33.5 billion
Returned DEM banknotes and coins	DEM 53.5 million	DEM 58.1 million
Unreturned DEM banknotes and coins	DEM 12.30 billion	DEM 12.24 billion
Incidence of counterfeit money in Germany		
Euro banknotes (number)	44,145	56,572
Euro coins (number)	73,400	115,832
Cashless payments		
Payments via the Bundesbank (number of transactions)	7,273.5 million	7,838.6 million
of which via RPS	7,128.5 million	7,681.6 million
of which via TARGET(2)-Bundesbank	142.4 million	154.5 million

23 Including targeted longer-term refinancing operations (TLTROs), excluding US dollar tenders.
24 As at 31 December 2023.
25 As at 31 December 2023.
26 As at 31 December 2023.

payment transactions in T(ARGET)2 [27]	53.1 million	53.0 million
payment transactions in TIPS	15.2 million	33.4 million
settlement of securities transactions in T2S	74.1 million	68.1 million
Payments via the Bundesbank (value)	€295.2 trillion	€307.8 trillion
of which via RPS	€4.3 trillion	€4.5 trillion
of which via TARGET(2)-Bundesbank	€288.6 trillion	€300.1 trillion
payment transactions in T(ARGET)2 [28]	€221.2 trillion	€230.3 trillion
payment transactions in TIPS	€12.6 billion	€27.7 billion
settlement of securities transactions in T2S	€67.4 trillion	€69.8 trillion
Share of TARGET(2)-Bundesbank transactions in EU-wide TARGET (2) system (number of payment transactions)	51.7%	50.8%
Banking supervision		
Number of institutions supervised	2,858	2,779
On-site inspections	154	163
Cooperation with foreign central banks		
Training and advisory events	186	249
Number of participants (total)	3,284	3,386
Number of participating countries (total)	94	104
Selected publications		
Annual Report	1	1
Financial Stability Review	1	1
Monthly Report	12	12
Statistical Series	104	104
Research Centre discussion papers	52	34
Technical papers	4	8
Publications in academic journals	89	78
External communication / public relations		
Visitors to the Money Museum	31,426	44,144
Economic education events / number of participants	1,781 / 47,839	1,932 / 54,003

27 On 20 March 2023, a new technical platform replaced the existing TARGET2 system. Since then, banks' liquidity management, transactions with the central bank and individual payments (including settlement with connected market infrastructures) have been processed in the new T2 service. The figures listed here comprise the transactions in TARGET2-Bundesbank up until the changeover date and subsequently the transactions in TARGET-Bundesbank (T2 service).

28 On 20 March 2023, a new technical platform replaced the existing TARGET2 system. Since then, banks' liquidity management, transactions with the central bank and individual payments (including settlement with connected market infrastructures) have been processed in the new T2 service. The figures listed here comprise the transactions in TARGET2-Bundesbank up until the changeover date and subsequently the transactions in TARGET-Bundesbank (T2 service).

Written answers to queries	16,029	17,749
Press releases	469	480
Training sessions on counterfeit prevention / number of participants	1,400 / 27,000	2,100 / 42,000

Branches of the Deutsche Bundesbank

on 31 December 2023

Locality number	Bank location
720	Augsburg
100	Berlin
480	Bielefeld
870	Chemnitz
370	Cologne
470	Dortmund
820	Erfurt
500	Frankfurt am Main
680	Freiburg
260	Göttingen
200	Hamburg
250	Hannover
660	Karlsruhe
570	Koblenz
860	Leipzig
545	Ludwigshafen
810	Magdeburg
550	Mainz
700	Munich
150	Neubrandenburg
760	Nuremberg
280	Oldenburg
265	Osnabrück
750	Regensburg
640	Reutlingen
130	Rostock
590	Saarbrücken

600	Stuttgart
630	Ulm
694	Villingen-Schwenningen
790	Würzburg

Staff of the Deutsche Bundesbank

on 31 December 2023[29) 30)]

	Staff numbers				Year-on-year changes			
	Total	Regional offices	Branches	Central Office	Total	Regional offices	Branches	Central Office
Civil servants	6,228	1,634	806	3,788	4	- 14	- 42	60
Salaried staff	5,524	1,308	1,496	2,720	- 134	- 48	- 81	- 5
Total	11,752	2,942	2,302	6,508	- 130	- 62	- 123	55
of which: trainees	669	82	23	564	- 81	- 10	5	- 76
Core staff	11,083	2,860	2,279	5,944	- 49	- 52	- 128	131
Core staff pro rata (full-time equivalents)	10,255.1	2,623.3	2,101.9	5,529.9	- 39.2	- 43.3	- 120.8	124.9

29 Of which: – part-time employees: 3,044 (end-2022: 3,017) – staff with temporary contracts: 141 (end-2022: 171)

30 Not included: – Members of staff on secondment: 96 (end-2022: 101) – Members of staff on unpaid leave: 243 (end-2022: 247) – Members of staff in the second phase of the partial retirement scheme: 140 (end-2022: 117)