

1 Further declines in underlying inflationary pressures underpinned by the ECB's restrictive monetary policy

Global economic activity remained resilient in 2024, continuing to expand at a moderate pace. Uncertainty increased during the year to elevated levels, amid heightened geopolitical tensions and questions surrounding economic policies, particularly following the US presidential elections. Global trade recovered from its slowdown in 2023 as imports were frontloaded in the face of geopolitical and trade policy uncertainty. Global inflation moderated further, although persistent services inflation across advanced economies slowed the disinflation process. The euro depreciated against the US dollar and to a lesser extent also in nominal effective terms. The euro area economy strengthened in 2024, largely on the back of positive global growth momentum and a resilient services sector, in the context of falling overall inflation. At the same time, industry remained weak, affected by restrictive financing conditions, high energy and other input costs, structural shortcomings and elevated uncertainty. While the ECB's monetary policy tightening of the previous years continued to be transmitted forcefully to economic activity, underpinning the sustained decline in inflation over 2024, the labour market remained fairly resilient. Euro area governments continued to wind down support measures adopted in response to the COVID-19 pandemic, energy price and inflation shocks, reversing part of the previous fiscal loosening. Headline inflation in the euro area fell further in 2024, but more slowly than in the previous year as the impetus from unwinding energy inflation had dissipated. Underlying inflationary pressures moderated as a result of the fading impact of past supply shocks and the weaker demand associated with tight monetary and financing conditions and fiscal policies, but also remained under the influence of strong wage growth.

1.1 Global economic activity was resilient while headline inflation declined further

Global economic growth remained resilient in 2024 despite headwinds

The global economy remained resilient in 2024 but risks to growth remained tilted to the downside amid widening divergences across sectors and countries. Economic activity expanded at a steady yet moderate pace of 3.4%, almost unchanged from the previous year but below its historical average (Chart 1.1, panel a). Activity was uneven across country groups, with emerging markets economies expanding by 4.1% while advanced economies grew at the slower pace of 1.9% (Chart 1.1, panel a). The disparities in growth rates were consistent with historical patterns, the long-run average growth in emerging markets over the period 1999-2023 exceeding that of advanced economies by 3.1 percentage points. Developments in global economic activity were also uneven across sectors, with global growth supported in particular by a robust services sector, contrasting with weaker activity in manufacturing. Global

uncertainty remained elevated and near-term headwinds to growth increased during the year, reflecting heightened geopolitical tensions and economic policy uncertainty, especially on the trade and fiscal fronts following in particular the US presidential elections.

Economic growth remained robust in the United States but slowed in China

In the United States, economic activity remained robust throughout 2024, mostly reflecting solid domestic demand, in particular household spending. The tight US labour market eased over 2024, with the unemployment rate rising to 4.1% at the end of the year from 3.7% at the start. In China, economic growth slowed in 2024, albeit marginally. Muted domestic demand amid subdued consumer confidence and the protracted weakness in the real estate sector continued to weigh on growth, but improving net exports and fiscal and monetary stimulus supported growth momentum towards year-end.

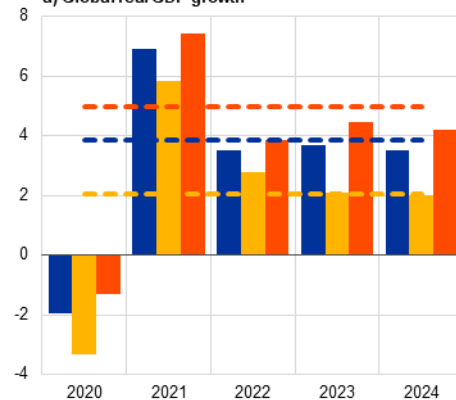
Chart 1.1

Global activity and trade developments (excluding the euro area)

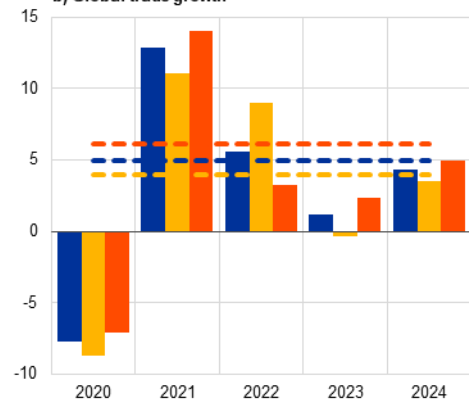
(annual percentage changes)

■ Global excluding the euro area
■ Advanced economies
■ Emerging market economies

a) Global real GDP growth



b) Global trade growth



Sources: Haver Analytics, national sources and ECB calculations.

Notes: Panel a): "global GDP" excludes the euro area. The aggregates are computed using GDP adjusted with purchasing power parity weights. Panel b): global trade growth is defined as growth in global imports including imports to the euro area. In both panels the dashed lines indicate the long-term averages between 1999 and 2023, and the latest observations are for 2024 as updated on 28 March 2025.

Global trade picked up in 2024 as imports were frontloaded amid higher uncertainty

Global trade recovered significantly in 2024, with import growth increasing to 4.4% from 1.2% in the previous year, although remaining slightly below its long-term average (Chart 1.1, panel b). Global trade growth was supported by strong demand for imported goods being brought forward amid concerns about disruptions to shipping routes in the Red Sea and possible delays ahead of the end-of-year holiday season. In the United States imports were also frontloaded given uncertainties associated with port strikes on the East Coast and with trade policies. A normalisation of goods imports, compounded by a still weak manufacturing cycle and a less favourable composition of global demand, were expected to have led to slowing trade momentum towards year-end.

Global inflation moderated further in 2024, but services price pressures remained persistent

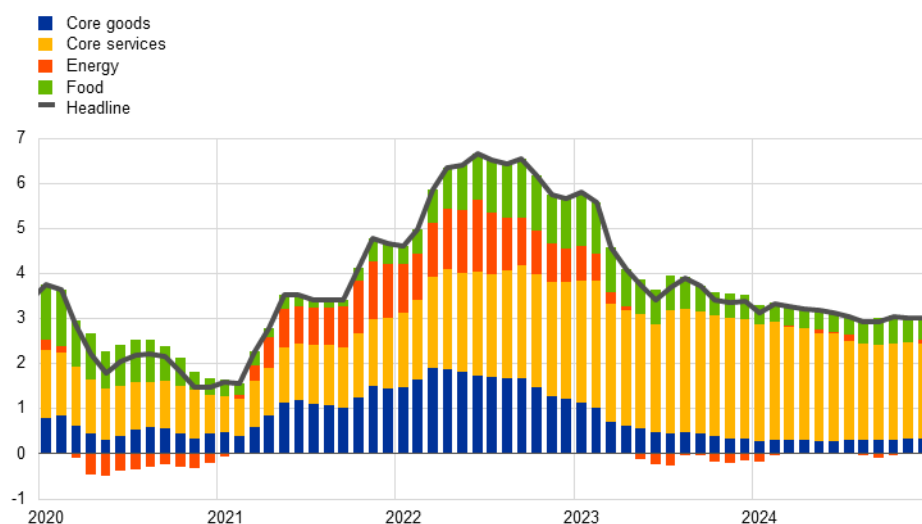
Global annual headline consumer price index (CPI) inflation continued to ease in 2024 (Chart 1.2). It stood at 3.0% in October 2024, compared with 3.4% at end-

2023. The decline in headline inflation was led by food and energy inflation, as well as core goods inflation (i.e. excluding food and energy). Services price pressures remained persistent across advanced economies.

Chart 1.2

Global headline inflation and its main components

(annual percentage changes; monthly data)



Sources: National sources and OECD via Haver Analytics, and ECB staff calculations.

Notes: Global inflation (excluding the euro area) is computed on the basis of national CPIs and annual GDP weights expressed in purchasing power parity (PPP) terms. The aggregate is calculated on the basis of 22 countries covering 74% of global GDP (excluding the euro area) in PPP. The contributions of components to headline inflation are computed using average weights for OECD countries. Core goods inflation and core services inflation exclude energy and food. The latest observations are for December 2024.

The major risks to the outlook for global economic growth at the end of 2024 included increased global economic fragmentation and trade protectionism, notably in the United States, an escalation of geopolitical tensions in the Middle East or in Russia's war against Ukraine, more frequent and severe weather events, and a further slowdown in China.

Energy commodity price fluctuations were driven by geopolitical developments

In terms of year-end values, energy prices rose overall in 2024 compared with 2023, as an increase in European gas prices offset a decline in oil prices. Brent oil prices dropped by 5%, primarily driven by demand-side factors, including subdued manufacturing output in Europe and a slowdown in Chinese economic activity. On the supply side, conflict in the Middle East and prolonged production cuts by OPEC+ countries kept oil prices from falling further but proved insufficient to drive them higher. European gas prices increased by 52% in terms of year-end values, although remaining well below their 2022 peak. Gas prices initially fell as a result of persistently low European consumption, particularly in the industrial sector. From the second quarter onward, however, prices rose steadily on supply-side pressures, including unplanned outages in Norwegian gas supplies, episodes of escalation in Russia's war against Ukraine, and concerns surrounding the expiry of the gas transit agreement between Russia and Ukraine. By year-end, European gas storage levels had fallen below those of 2022 and 2023 and were also below their pre-energy crisis year-end average, highlighting Europe's challenges in maintaining a sufficient precautionary buffer over the long term.

The euro depreciated against the US dollar in 2024, and to a lesser extent in nominal effective terms

Following intra-year fluctuations, the euro ended 2024 somewhat lower in nominal effective terms (-1.1%) than at the end of 2023, as a result of partly offsetting bilateral exchange rate developments. On the one hand, the euro depreciated against the US dollar (-6.0%), a movement which was supported by positive US economic data surprises, flight-to-safety flows amid global geopolitical tensions and, later in the year, expected policy shifts under the new US Administration. Then as also euro area economic data weakened in the fourth quarter of 2024, interest rate markets anticipated a steeper path of future policy rate cuts in the euro area and a shallower path in the United States, which further weighed on the euro against the US dollar. Similarly, expectations of persistently restrictive monetary policy in the United Kingdom strengthened the pound sterling, both broadly and relative to the euro. The euro also weakened against the Chinese renminbi in 2024, albeit to a lesser extent (-3.4%) as the renminbi's strength was lessened by mounting economic headwinds in China. On the other hand, the euro strengthened against the currencies of most of its other major trading partners. Among them, the Japanese yen was under downward pressure through most of 2024, as persistently low interest rates in Japan reportedly fuelled “carry trade” flows from the yen into higher-yielding currencies.

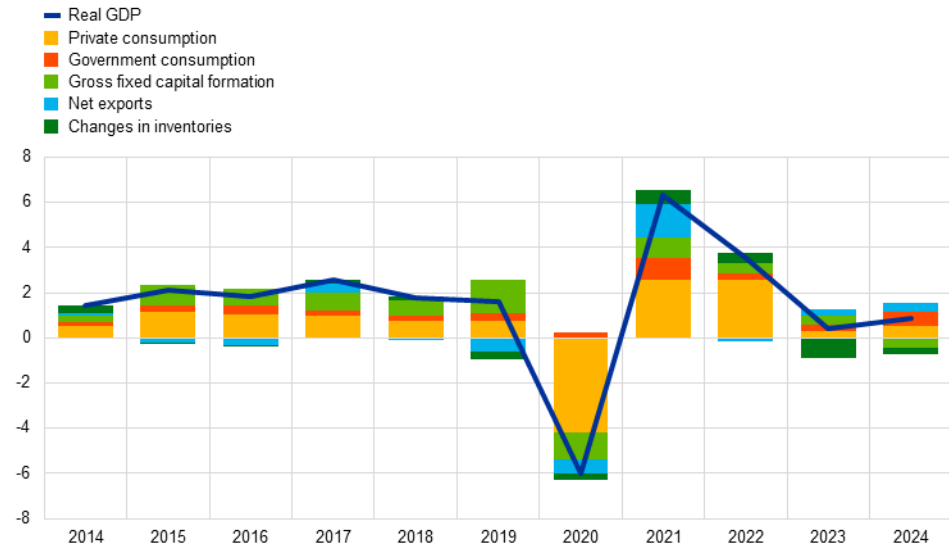
1.2 Economic activity began to recover gradually in the euro area

Euro area economic activity started to recover amid ongoing headwinds

Euro area real GDP grew by 0.9% in 2024, compared with 0.4% in 2023 (Chart 1.3). Quarterly growth rates turned positive at the start of 2024, after five consecutive quarters of stagnation, before slowing down again at the end of the year. The strengthening in growth was attributable mainly to the services sector, which continued to benefit from post-pandemic structural changes including a faster shift towards a more knowledge-based economy, the green transition and changing consumer spending patterns. Recovering real incomes, global trade and the Next Generation EU (NGEU) programme also supported economic growth. At the same time, the industrial sector remained weak owing to a combination of both structural and cyclical factors. The industrial sector was more affected than services by the still restrictive conditions from the past monetary policy tightening cycle and high input costs. While most models show that the peak impact of the tightening on economic activity was reached in the period at the end of 2023 and the beginning of 2024, the monetary policy loosening cycle which started in mid-2024 had not yet fed through the economy. The industrial sector was also affected by the euro area losing export market share, as well as by regulatory challenges and by elevated uncertainty relating to both political and geopolitical events. Overall, growth in 2024 reflected positive contributions from private and public consumption as well as net trade, while investment and changes in inventories dampened economic activity.

Chart 1.3
Euro area real GDP

(annual percentage changes; percentage point contributions)



Source: Eurostat.

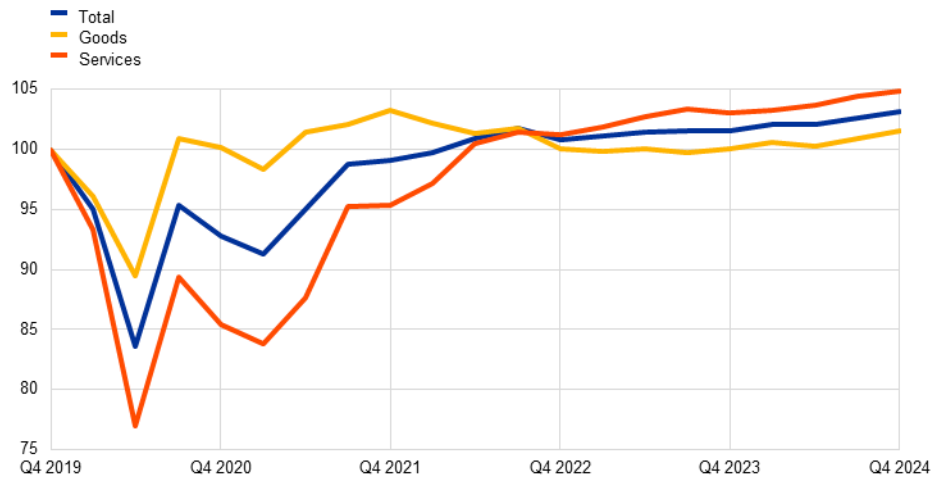
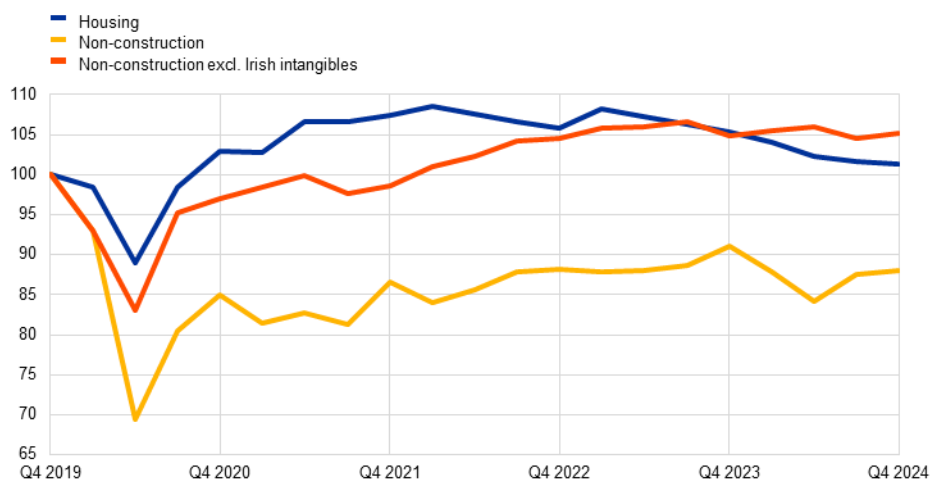
Note: The latest observations are for 2024.

Private consumption accelerated marginally, driven by services

Private consumption accelerated in 2024, increasing by 1% compared with the previous year. Despite robust services consumption, total private consumption increased only modestly in the first half of the year, as demand for goods remained weak (Chart 1.4). It accelerated strongly in the third quarter of the year, boosted by temporary factors such as the Paris 2024 Olympic and Paralympic Games, and moderated in the fourth. The growth of real disposable income supported household spending in 2024, as nominal wage growth increased, inflation slowed and employment growth remained resilient. Nevertheless, still tight financing conditions continued to weigh on household spending, with savings remaining elevated overall.

Chart 1.4**Euro area consumption, non-construction investment and housing investment**

(indices: Q4 2019 = 100)

a) Private consumption**b) Investment**

Sources: Eurostat and ECB calculations.

Notes: In panel a), private consumption refers to the national concept of consumption, and its components refer to the domestic concept of consumption. The latest observations are for the fourth quarter of 2024.

Investment was held back by tight financing conditions and high uncertainty

Housing investment fell strongly in 2024, amid still restrictive financing conditions and weak demand. It contracted by 4.0% compared with 2023, recording the largest annual decline since 2009, during the global financial crisis. This contraction was mainly due to the lagged impact of the monetary policy tightening, resulting from higher mortgage rates and tighter bank lending standards. Although real incomes were recovering and house price growth remained modest, tight financing conditions limited housing affordability and depressed demand for residential real estate property. However, given the strong post-pandemic recovery in housing investment, in part supported by (now expired) generous fiscal incentives in Italy, housing investment remained 1.3% above its pre-pandemic level at the end of 2024, although it fared worse than private consumption (3.1%) and non-construction investment (5.2% excluding Irish intangibles).

Non-construction investment (the closest national accounts proxy for business investment) contracted again in 2024, against a background of weak domestic and foreign demand, tight financing conditions and high uncertainty on various fronts. Overall, non-construction investment contracted by 2.3% compared with 2023, albeit with considerable quarterly volatility throughout the year (see Chart 1.4). Excluding volatile multinational-driven intangibles in Ireland, it declined by 0.5% in 2024.¹ The outcome reflects both a continuation of weakness in investment in machinery and equipment and a deceleration in the rates of intangible investment growth over recent years. Amid muted domestic demand and a weaker export sector, longer-term production expectations – typically a key driver of investment – remained subdued throughout the year, reducing firms’ incentives to invest. Concerns over competitiveness losses, moderating profitability, and high and wide-ranging uncertainty – stemming from geopolitical developments, increasing fears of growing trade fragmentation and heightened policy uncertainty – also weighed further on business investment in 2024.

Euro area exports remained subdued despite improving foreign demand

Euro area exports improved slightly in 2024, but remained on a relatively weak trajectory. Several elements contributed to subdued export growth, despite a backdrop of improving foreign demand. Lagged effects from the past appreciation of the euro had a negative impact. Energy costs remained a significant concern, with relatively high gas prices increasing production expenses for euro area exporters, thereby squeezing profit margins and reducing competitiveness. Weak demand from China, especially for capital goods, and increased competition from Chinese manufacturers also posed challenges for the euro area. Imports grew at a subdued rate, affected by weak domestic demand and investment. Overall, net trade had a slightly positive impact on growth. The euro area trade balance further improved in 2024 compared with 2023.

Labour market

The euro area labour market remained resilient, while labour productivity growth was flat

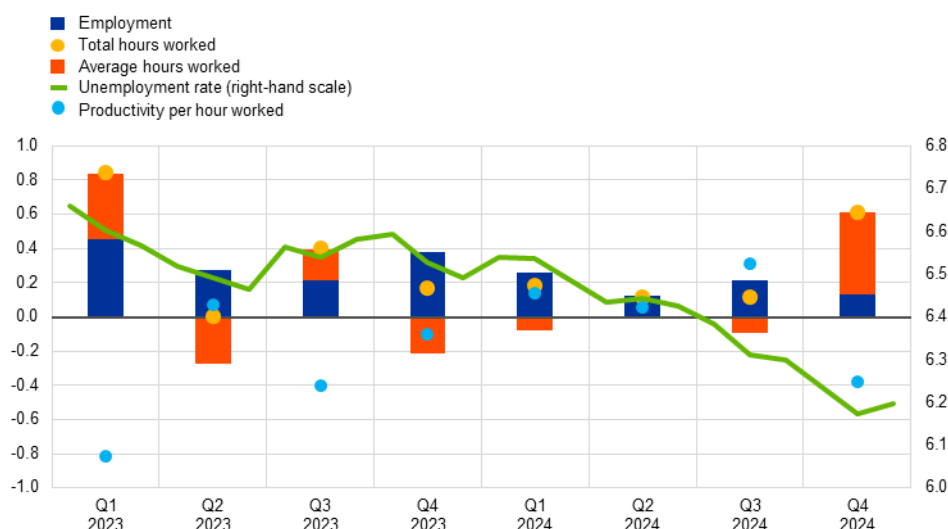
The euro area labour market remained resilient overall in 2024, although employment growth slowed relative to recent years and survey indicators suggested that labour markets were cooling over the course of the year. The unemployment rate declined from 6.5% in January to 6.2% in December – one of the lowest points recorded since the introduction of the euro and 1.3 percentage points below the pre-pandemic level observed in January 2020. The unemployment rate was also 6.2% on average in the last quarter of the year (Chart 1.5). Total employment and total hours worked kept broadly in line with the growth of the economy, both rising in 2024 by 1%. These developments led to a largely flat productivity path. The weak growth of labour productivity was mostly cyclical, driven by weak demand, while companies hoarded labour, i.e. held on to more workers than necessary in a period of low economic growth. However, structural factors may also have played a role. Average hours worked declined by 0.1% in 2024 and, as of the last quarter of the year, remained 0.9% below the pre-pandemic level. The path of average hours worked

¹ See also Andersson, M. et al., “Intangible assets of multinational enterprises in Ireland and their impact on euro area activity”, *Occasional Paper Series*, No 350, ECB, 2024.

continued to reflect factors such as the hoarding of labour from the second half of 2023 and still elevated levels of sick leave. The labour force participation rate in the age group 15-74 years increased to a level of 66% in the fourth quarter of 2024, which is 1.2 percentage points above its pre-pandemic level. Women, older workers, persons with higher education and foreign workers have contributed the most to this increase in the labour force. Labour demand weakened in 2024 compared with previous years, with the job vacancy rate receding further from its peak in the second quarter of 2022 to a level of 2.5% in the fourth quarter of last year, still above its pre-pandemic level of 2.3% in the last quarter of 2019.² The catch-up of nominal wages with inflation favoured a realignment of employment and output dynamics, while bringing real wages more into line with the recovery in productivity. Therefore, by means of its medium-term orientation, and without prejudice to maintaining price stability, the monetary policy of the ECB contributed to supporting employment and productivity, which are among the European Union's objectives to which the ECB can contribute.

Chart 1.5
Labour market

(left-hand scale: quarter-on-quarter percentage changes; right-hand scale: percentages)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for December 2024 for the unemployment rate, and for the fourth quarter of 2024 for employment, total and average hours worked and productivity per hour worked.

1.3 Euro area fiscal stance tightened

The euro area fiscal stance likely tightened, reflecting the phasing-out of public support measures that had been introduced in response to the energy crisis and high inflation

The euro area general government deficit is expected to have narrowed further in 2024 to slightly above the 3% of GDP threshold (Chart 1.6), from 3.6% in 2023. This mainly reflects a tightening of the fiscal stance in 2024 due to the phasing-out of government measures adopted in the years 2022-23 to compensate households and

² For more information on labour market developments in the euro area since the pandemic, see "Explaining the resilience of the euro area labour market between 2022 and 2024", *Economic Bulletin*, Issue 8, ECB, 2024.

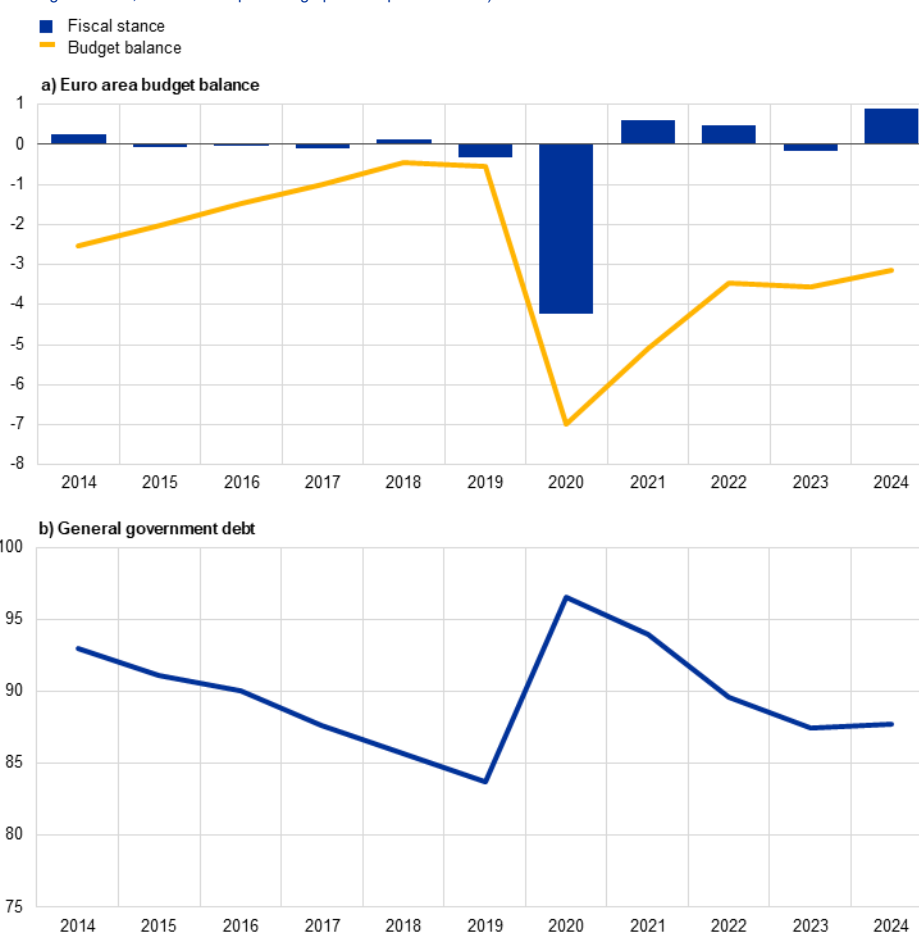
firms for high energy prices and inflation.³ At the same time, higher interest spending on government debt, notably in high-debt countries, likely contributed negatively to the fiscal balance.⁴

The euro area debt-to-GDP ratio is expected to have increased slightly to close to 88% in 2024, from its already elevated level of 87.4% in 2023, and thus remain well above its pre-crisis level of 83.6% in 2019 (Chart 1.6). This increase was likely driven by the primary deficit and positive deficit-debt adjustments.

Chart 1.6

Euro area budget balance and general government debt

(percentages of GDP; fiscal stance: percentage points of potential GDP)



Sources: Eurostat, Eurosystem staff macroeconomic projections for the euro area, December 2024 and ECB calculations.
Note: In panel a) the measure of the fiscal stance is adjusted on the revenue side from 2021 by netting out grants from the NGEU Recovery and Resilience Facility as these revenues do not have macroeconomic tightening effects.

Strategic public goods help to strengthen the resilience of Europe's economy

At the end of 2024 the fiscal stance was projected to tighten further in 2025, although at a slower pace than in previous years. However, this fiscal outlook was seen as surrounded by high uncertainty. Political risks stemmed from the fiscal plans of large

³ The fiscal stance is defined as the change in the cyclically adjusted primary balance net of measures to support the banking sector and net of NGEU grants on the revenue side.

⁴ There is a lag in the transmission of higher interest rates to government interest payments, which can be explained by the increase in the maturities of outstanding public debt during the low interest rate period.

euro area countries as well as from the future decisions of the new US Administration and the European responses. These risks came on top of long-term fiscal pressures arising from population ageing. Moreover, fiscal policy is increasingly expected to provide strategic public goods to strengthen the resilience of Europe's economy by making progress on the green and digital transitions and increasing economic security and defence. For the green and digital transitions, an important contribution will be made by the NGEU programme until its expiry at the end of 2026 (see Box 1).

The reformed EU economic governance framework entered into force on 30 April 2024. The framework is focused on debt sustainability and aims to ensure sound and sustainable public finances, while incentivising structural reforms and investment.⁵ A central element of the new framework is the release of countries' medium-term fiscal-structural plans. These plans outline a path of net expenditure growth as well as the underlying macroeconomic assumptions and, for countries that aim to extend the adjustment period from four to seven years, the planned fiscal-structural measures that would allow them to put their debt ratios on a plausibly declining trajectory over the medium term.

With the release of its autumn package on 26 November and 18 December, the European Commission launched the first implementation cycle of the new economic governance framework. The package includes the assessments of the countries' medium-term fiscal-structural plans and draft budgetary plans for 2025. The European Commission found that 15 of the 16 medium-term fiscal-structural plans submitted by euro area countries met the requirements under the new framework. The recommended fiscal adjustment period was extended from four to seven years for four euro area countries (Spain, France, Italy and Finland), on the request of the countries. The extension must be underpinned by a set of investment and reform commitments which are designed to, among other things, contribute to sustainable and inclusive growth and resilience, to support fiscal sustainability.⁶

A multi-annual net expenditure path is the main surveillance indicator under the new economic governance framework

Following a recommendation by the European Commission, the ECOFIN Council decided in July 2024 to open an excessive deficit procedure for five euro area countries, namely Belgium, France, Italy, Malta and Slovakia. To correct the excessive deficits, the Commission recommended multi-annual net expenditure paths in line with the available medium-term fiscal-structural plans. The multi-annual net expenditure path has become the main surveillance indicator under the new economic governance framework.

Implementing the revised economic governance framework fully, transparently and without delay will help governments bring down budget deficits and debt ratios on a sustained basis.

⁵ See Haroutunian, S. et al., "The path to the reformed EU fiscal framework: a monetary policy perspective", *Occasional Paper Series*, No 349, ECB, 2024.

⁶ See European Commission, "2025 European Semester: bringing the new economic governance framework to life", Communication from the Commission to the European Parliament, the Council and the European Central Bank, COM(2024) 705 final, 26 November 2024.

1.4

Headline inflation fell further towards the target

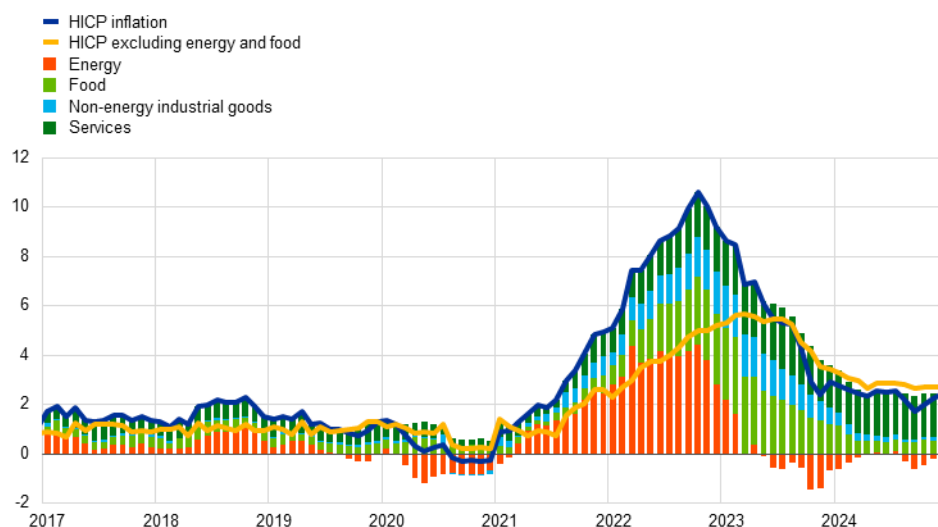
Headline inflation declined from 2.9% in December 2023 to 2.4% in December 2024, moving closer to the target

Headline inflation in the euro area as measured by the Harmonised Index of Consumer Prices (HICP) remained on a disinflationary path in 2024. It stood at 2.4% in December, 0.5 percentage points lower than a year earlier (Chart 1.7). While the disinflation process in 2023 had been driven mainly by the unwinding of earlier supply shocks, in 2024 it increasingly reflected the transmission of restrictive monetary policy. The phasing-out of public support measures that had been adopted in response to the pandemic and energy price shocks supported disinflation by dampening aggregate demand. However, it also acted as a drag on the disinflationary process, as the measures had been designed to contain inflation. In this context, most of the fluctuations in HICP inflation over the course of the year were due to energy inflation, including the uptick at the end of the year. Developments in non-energy goods prices were the main contributor to further disinflation, with both the food and the non-energy industrial goods (NEIG) components of the HICP recording lower inflation rates in December 2024 than in December 2023, by 3.5 percentage points and 2.0 percentage points respectively. In the case of NEIG, rates reached a level close to the longer-term pre-pandemic average rate of 0.6% (measured over 1999 to 2019). The declines in these two components reflected the fading-out of pipeline pressures stemming from previous cost shocks and a generally more benign international pricing environment. Conversely, the HICP services component was relatively sticky, hovering around 4.0% throughout the year. This persistence reflected the relatively strong impact of wage pressures on many services items and the influence of “late mover” items (such as insurance, housing rentals, etc.), whose prices have reacted with a delay to past exceptional inflationary shocks.

Chart 1.7

Headline inflation and its main components

(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for December 2024.

Energy inflation hovered in negative territory for most of the year, while food inflation declined significantly

Energy inflation was on average somewhat lower in 2024 than in 2023 and remained in negative territory for most of the year. The negative annual rates of energy inflation at the beginning of the year were mainly due to gas and electricity price developments, while in the period from August onwards they were driven by transport fuel prices. The volatility in wholesale energy markets related to events such as Russia's war against Ukraine and base effects stemming from developments in the previous year added to the uneven profile of energy inflation in 2024. Food inflation strongly supported disinflation, particularly as a result of the sharp decline in the early months of the year, when the annual rates of both processed and in particular unprocessed food prices fell. This was related to the fading of pipeline pressures from the earlier energy and food commodity price surges.⁷ Subsequently, food inflation saw some volatility, to a large extent reflecting the fluctuation in unprocessed food prices, particularly for vegetables, which was likely related to adverse weather conditions.

Underlying inflation indicators declined significantly in the first half of the year and moved broadly sideways in the second half

Underlying inflation indicators are aimed at capturing the persistent or common component of inflation, indicating where headline inflation is expected to settle over the medium term once temporary factors have dissipated. However, as these indicators had themselves been pushed upwards by past large supply shocks, they were expected to moderate in the overall disinflation process.⁸ Core inflation – as measured by HICP inflation excluding the volatile components energy and food – declined from 3.4% in December 2023 to 2.7% in April 2024 and moved broadly sideways thereafter. It also stood at 2.7% in December 2024. The decline in core inflation in the early part of 2024 reflects the fall in NEIG inflation, while services inflation remained broadly unchanged throughout the year, hovering around a rate of 4.0%. Services inflation usually takes longer to fall than other inflation components, as many services items respond with a delay to general inflationary shocks (e.g. housing rentals, insurance, and health and education services). The persistence of services inflation in 2024 is also linked to high growth in wages, which constitute a larger share of costs in the services sector than in manufacturing. Other underlying inflation indicators also decreased during the year, albeit with some volatility, and more so during the first half of the year. Overall, these declines reflect the fading effects of the previous supply shocks as well as weaker demand amid still tight monetary policy. The latter also helps to explain clearer disinflation for goods than services, as the weight of items estimated to be sensitive to monetary policy is greater in the goods category than in the services category.⁹

Domestic cost pressures declined as a result of moderating wage growth and buffering by profits

Domestic cost pressures, as measured by growth in the GDP deflator, decreased in 2024 to 2.9% from 5.9% in 2023. This reflected lower contributions from both unit labour costs and unit profits (Chart 1.8). The contribution from unit profits decreased as profits increasingly buffered still elevated upward pressures from unit labour

⁷ For more information on drivers of euro area food price inflation, see the box entitled "[What were the drivers of euro area food price inflation over the last two years?](#)", *Economic Bulletin*, Issue 2, ECB, 2024.

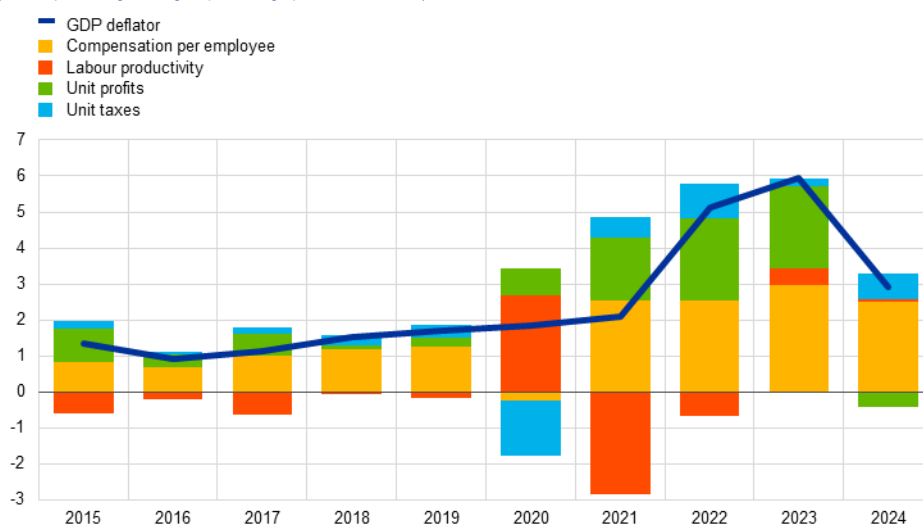
⁸ For more information on developments in underlying inflation, see Lane, P.R., "[Underlying inflation: an update](#)", speech at the Inflation: Drivers and Dynamics Conference 2024 organised by the Federal Reserve Bank of Cleveland and the ECB, Cleveland, 24 October 2024.

⁹ For more information see the box entitled "[Monetary policy pass-through to goods and services inflation: a granular perspective](#)", *Economic Bulletin*, Issue 8, ECB, 2024.

costs.¹⁰ At the same time, these pressures receded as a result of a decline in wage growth, measured in terms of compensation per employee, and some strengthening in labour productivity growth. Annual growth in compensation per employee decreased to 4.5% in 2024 from 5.3% in 2023, but remained significantly above its pre-pandemic average rate (2.2%), reflecting continued tightness in labour markets and remaining pressure for inflation compensation. The moderation in compensation per employee growth reflected a swifter response of the wage drift than the growth of negotiated wages.¹¹ This reflected, among other things, the likelihood that adjustments to compensate for inflation have shifted from being part of the wage drift to being incorporated in negotiated wages. At the end of 2024 euro area real wages had broadly returned to their levels before the inflation surge.

Chart 1.8
GDP deflator and components

(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.

Notes: The latest observations are for the fourth quarter of 2024.

Developments in labour productivity are shown inverted in the chart, as a rise (fall) in labour productivity growth lowers (increases) domestic cost pressures.

Longer-term inflation expectations remained anchored at around the ECB's 2% target

Longer-term inflation expectations as expressed in the ECB Survey of Professional Forecasters declined from 2.1% in late 2023 to 2.0% in the survey published in the first quarter of 2024 and remained at their well-anchored level in the subsequent rounds of the year (Chart 1.9). Additional survey data, such as from the ECB Survey of Monetary Analysts and Consensus Economics, also suggested that longer-term inflation expectations were in line with the ECB's 2% target. The restrictive monetary policy supported disinflation not only by dampening demand but also through the sustained anchoring of longer-term inflation expectations, thereby limiting the risk of second-round effects. Longer-term market-based measures of inflation compensation (such as the five-year forward inflation-linked swap (ILS) rate five

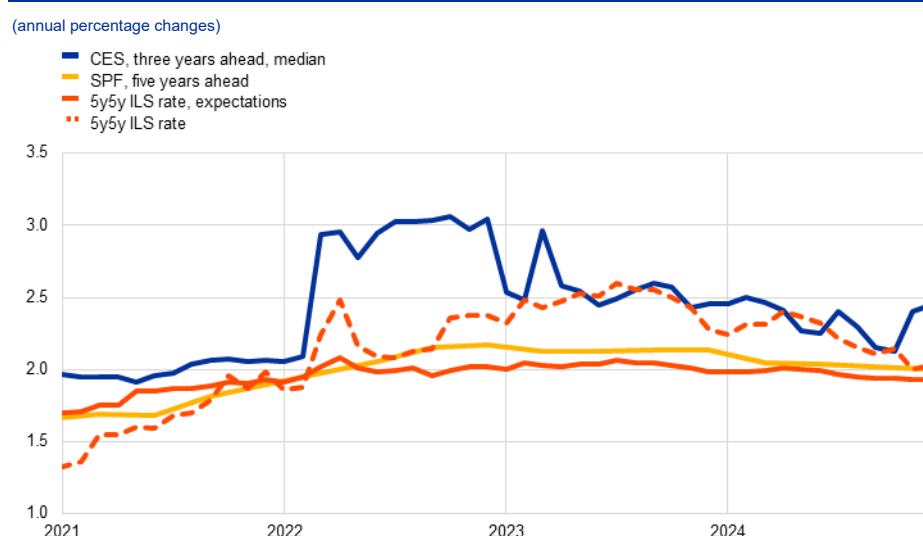
¹⁰ For more information on the buffer role of profits see the box entitled "[Profit indicators for inflation analysis considering the role of total costs](#)", *Economic Bulletin*, Issue 4, ECB, 2024.

¹¹ Wage drift measures deviations of developments in actual wages from developments in negotiated wages, reflecting factors such as changes in overtime, bonuses and tightness in tight labour markets. For more information on recent developments, see the box entitled "[Recent developments in wages and the role of wage drift](#)", *Economic Bulletin*, Issue 6, ECB, 2024.

years ahead) saw somewhat more volatility over the year, but converged to levels close to 2% towards year-end. Volatility observed over the year most likely owed to changes in inflation risk premia, with estimated genuine inflation expectations relatively stable at around 2%. On the consumer side, median inflation expectations for three years ahead declined from the second quarter of the year till October, when they reached 2.1%, the lowest level since February 2022 when Russia invaded Ukraine. However, expectations subsequently rose above that rate for the remainder of the year owing to higher inflation and heightened uncertainty, though they remained lower than at the beginning of the year.¹²

Chart 1.9

Survey and market-based indicators of inflation expectations



Sources: LSEG, ECB (Consumer Expectations Survey (CES), Survey of Professional Forecasters (SPF)) and ECB calculations.
Notes: The five-year forward inflation-linked swap rate five years ahead (5y5y ILS rate) is reported at a monthly frequency. The SPF for the fourth quarter of 2024 was conducted between 1 and 3 October 2024. In the SPF rounds for the third and fourth quarters of 2024, longer-term expectations referred to 2029; in the rounds for the first and second quarters of 2024, they referred to 2028. The latest observation for the CES is for December 2024.

1.5

Financing conditions eased gradually, while remaining tight

Sovereign bond yields increased, reflecting domestic and global factors

With inflationary pressures gradually abating throughout 2024 (see Section 1.4), the ECB moderated the degree of monetary policy restriction by reducing its key interest rates as from June (see Section 2.1). In the first half of 2024 the – risk-free – ten-year overnight index swap (OIS) rate gradually increased by around 50 basis points

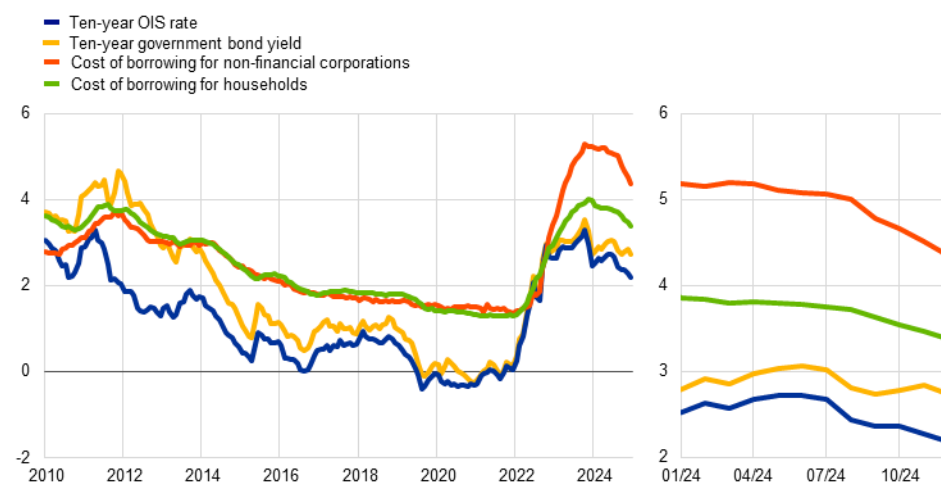
¹² For an introductory and technical overview of the main features of the Consumer Expectations Survey, see Bańkowska, K. et al., “[ECB Consumer Expectations Survey: an overview and first evaluation](#)”, *Occasional Paper Series*, No 287, ECB, December 2021. For more information about the lessons learnt regarding households’ expectations on the basis of the Consumer Expectations Survey see D’Acunto, F. et al., “[Household inflation expectations: an overview of recent insights for monetary policy](#)”, *Discussion Paper Series*, No 24, ECB, 2024. For recent results of the Consumer Expectations Survey as regards trust in the ECB among euro area residents and consumer perceptions of the drivers of inflation, see the article entitled “[Trust in the ECB – insights from the Consumer Expectations Survey](#)”, *Economic Bulletin*, Issue 3, ECB 2024, and the box entitled “[What consumers think is the main driver of recent inflation: changes in perceptions over time](#)”, *Economic Bulletin*, Issue 7, ECB, 2024, respectively.

and reached a peak for the year in the summer. Thereafter, owing to the drop in financial market interest rate expectations and lower term premia, the ten-year OIS rate declined gradually – to reach an average of 2.2 % in December 2024 (Chart 1.10), which is around 20 basis points less than the average in December 2023. Long-term government bond yields generally ended 2024 at higher levels than at the start of the year. In France sovereign yields were significantly higher than a year earlier, owing to the heightened uncertainty about the country’s fiscal outlook and political developments. Spreads between long-term sovereign yields and the corresponding risk-free rates generally widened in the last quarter of the year, a development associated with the easing of collateral scarcity amid higher (expected) sovereign debt issuance and the reduction of the Eurosystem balance sheet. In Italy a compression of spreads, which benefited from a more favourable rating outlook, contributed to a decline in long-term bond yields in 2024. The euro area GDP-weighted average of ten-year nominal government bond yields remained on average in December 2024 at the same level (2.7%) as a year earlier.

Chart 1.10

Long-term interest rates and the cost of borrowing for firms and for households for house purchase

(percentages per annum)



Sources: Bloomberg, LSEG and ECB calculations.

Notes: Monthly observations. The euro area ten-year government bond yield is a GDP-weighted average. The indicators for the cost of borrowing are calculated by aggregating short-term and long-term bank lending rates using a 24-month moving average of new business volumes. The latest observations are for December 2024.

Equity markets were supported by declining risk premia and interest rates

In 2024 stock prices increased in both the non-financial sector and, to a greater extent, the financial sector. In the latter, they were led by the banking sector, which benefited from high levels of profitability. The broad indices of euro area non-financial corporation and bank equity prices ended 2024 around 3% and 21% above their respective end-2023 levels. A decline in equity risk premia, better short-term earnings expectations, higher distributed dividends and lower long-term risk-free rates supported equity prices. Corporate bond yields declined in both the investment grade and high-yield segments and stood at lower levels at the end of December 2024 than a year earlier, owing to lower risk-free rates and a compression of spreads.

Broad money and bank intermediation reflected the moderation in the degree of monetary policy restriction

Bank deposits stopped contracting and started to recover towards the end of 2024 and broad money (M3) recovered as the degree of monetary policy restriction moderated. The annual rate of change of M3 was 3.4% in December, compared with zero in December 2023 (Chart 1.11). The recovery was driven by net foreign inflows, which reflected the sizeable current account surplus that stemmed from weak imports and foreign interest in euro area bonds amid attractive yields. Those inflows broadly offset the liquidity drain resulting from the reduction in the Eurosystem balance sheet. With funds borrowed under the third series of targeted longer-term refinancing operations being repaid (in full by the end of the year) and the Eurosystem asset portfolios contracting, banks continued to turn to more expensive market funding sources. Their funding costs nonetheless gradually declined from the peak levels of 2023, although by less than policy rates. Bank balance sheets remained robust overall.

Bank lending rates declined for firms and households, yet financing conditions remained tight

Financing conditions in the euro area remained restrictive in 2024, although the cuts in the key ECB interest rates reduced the degree of monetary policy tightness somewhat. The nominal cost of borrowing for firms and for households declined to some extent, after reaching the highest levels in almost 15 years in 2023. The composite bank lending rate for loans to non-financial corporations stood at 4.4% in December, down by about 90 basis points compared with the end of 2023, and the equivalent rate for households for house purchase declined by about 60 basis points to 3.4% (Chart 1.10). The sizeable spread between the rates for firms and households that had emerged during the monetary policy tightening phase was thus only marginally reduced. The disparity in lending rates across countries remained contained, a sign that the ECB's monetary policy was generally being transmitted smoothly across the euro area.

Bank lending to firms and to households remained weak but showed signs of a recovery

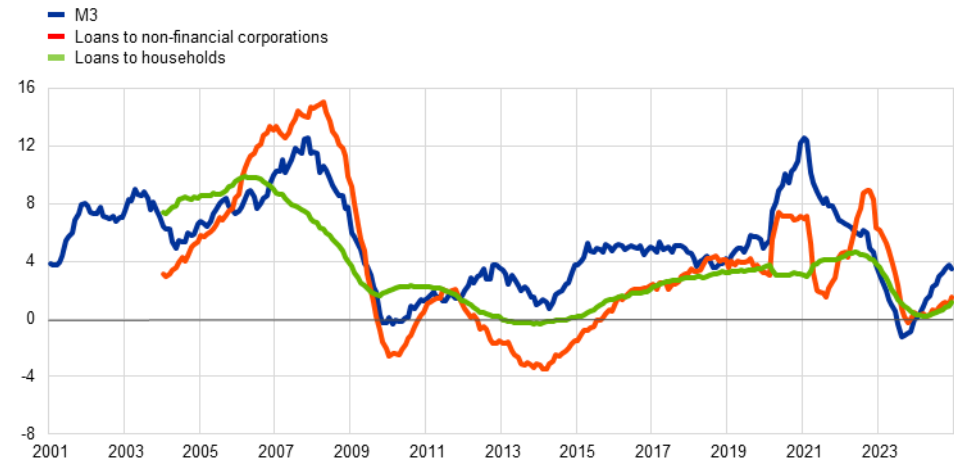
Bank lending to firms and to households remained weak on the back of still tight credit conditions and weak aggregate demand (Chart 1.11), while showing signs of a recovery in the second half of 2024. As indicated by the [euro area bank lending survey](#), banks' credit standards (i.e. internal guidelines or loan approval criteria) for firms tightened in the fourth quarter of 2024, after they had broadly stabilised over the previous quarters. The availability of bank loans improved only temporarily before deteriorating in the fourth quarter, according to the [survey on the access to finance of enterprises](#). The annual growth rate of bank loans to firms was 1.7% in December. Overall, corporate debt financing remained weak and the net flows of external financing to firms were considerably below their longer-term dynamics, despite a pick-up in issuance and valuations of listed shares (Chart 1.12). Turning to lending to households, the gradual recovery in the annual growth rate of bank loans, to 1.1% in December, was mostly driven by mortgages. This was in line with the overall easing in credit standards during the year and a strong rebound in loan demand reported in the bank lending surveys in the second half of 2024, as well as with the sustained house purchase intentions reported in the [Consumer Expectations Survey](#) throughout the year. At the same time, by the end of the year the percentage of households reporting a deterioration in access to credit in that survey still outweighed the percentage of households reporting an improvement, with sustained recourse to consumer credit concentrated among lower income households.

Moreover, banks continued to report a tightening in credit standards on consumer credit throughout 2024.

Chart 11.11

M3 growth and the growth of credit to firms and households

(annual percentage changes)



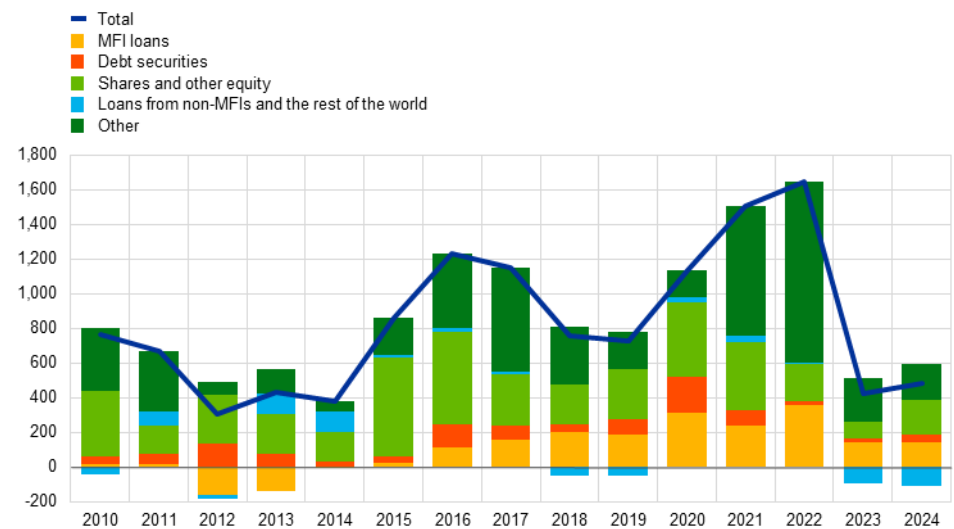
Source: ECB.

Notes: Firms are non-financial corporations. The latest observations are for December 2024.

Chart 1.12

Net flows of external financing to firms

(annual flows in EUR billions)



Sources: ECB and Eurostat.

Notes: Firms are non-financial corporations. MFI: monetary financial institution. In "loans from non-MFIs and the rest of the world", non-monetary financial institutions consist of other financial intermediaries, pension funds and insurance corporations. "MFI loans" and "loans from non-MFIs and the rest of the world" are corrected for loan sales and securitisation. "Other" is the difference between the total and the instruments included in the chart and consists mostly of inter-company loans and trade credit. The latest observations are for the third quarter of 2024. The annual flow for 2024 is computed as a four-quarter sum of flows from the fourth quarter of 2023 to the third quarter of 2024. The quarterly euro area sector accounts are subject to major revisions every five years; the most recent one took place in 2024, which explains why the data in some years differ significantly from those used in the previous Annual Report.

Box 1

The lasting impact of the COVID-19 pandemic and structural trends on productivity growth

The euro area is undergoing a transformative period characterised by economic shocks and profound structural changes, with an impact on productivity growth over the medium and long term. In recent years it has encountered a unique blend of disruptions and ongoing structural shifts that are influencing productivity growth in complex and uncertain ways. The COVID-19 pandemic, the rapid digital transition, and the green and demographic transitions stand out as pivotal factors affecting the medium and long-term productivity outlook. Each of these elements introduces distinct mechanisms through which they affect productivity, and their interactions further complicate the economic landscape. This box examines these dynamics and their implications for productivity growth. It is based on recent work on productivity by a group of experts from the European System of Central Banks (ESCB).¹³

The lasting impact of the pandemic on productivity growth

The pandemic caused widespread disruptions across countries, sectors and firms, affecting productivity growth in distinct ways. The broad scope of the crisis, coupled with measures such as lockdowns and altered work and consumption patterns, as well as the broad policy support provided to firms and households, marked a departure from previous economic downturns.

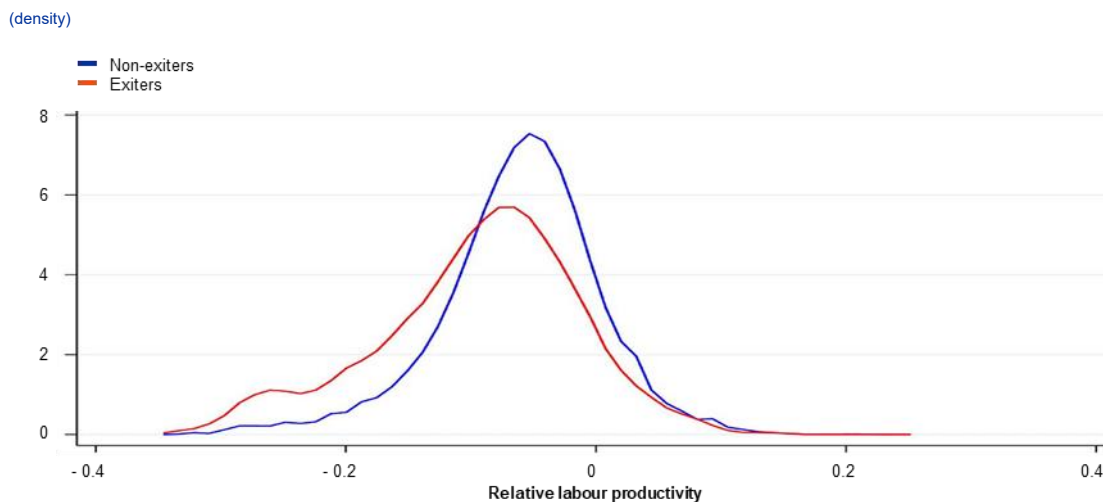
The policy responses prevented widespread bankruptcies but weakened the productivity-enhancing reallocation of resources. Available data show that the crisis resulted in low-productivity firms contracting significantly more than those whose productivity was higher, or being more likely to exit a market than their high-productivity counterparts, which helped resource reallocation in the short term (Chart A). However, this effect was less pronounced than in previous crises, as a result of comprehensive policy support that forestalled firm exits and contraction. Analysis by the ESCB Expert Group shows that the allocation of subsidies to firms became more distortionary over time, despite unchanged eligibility criteria.

The pandemic accelerated the digitalisation process, shifted consumer behaviour and had an impact on sick leave patterns and educational attainment, with possible long-term effects. The deepening of the digital economy, including increased use of remote working, supported by initiatives like the NGEU programme, offers a promising outlook. At the same time, the pandemic had long-lasting effects on the labour force, and its long-term consequences for productivity growth are not yet possible to fully quantify.

¹³ The analysis has been published as Anghel, B., Bunel, S. et al., “Digitalisation and productivity: A report by the ESCB Expert Group on productivity, innovation and technological change”, *Occasional Paper Series*, No 339, ECB, February 2024; Bijmens, G. et al., “The impact of climate change and policies on productivity: A report of the ESCB Expert Group on productivity, innovation and technological change”, *Occasional Paper Series*, No 340, ECB, February 2024; and Lalinsky, T. et al., “The impact of the COVID-19 pandemic and policy support on productivity: A report of the ESCB Expert Group on productivity, innovation and technological change”, *Occasional Paper Series*, No 341, ECB, February 2024. A summary of the analysis was published in the article entitled “[The impact of recent shocks and ongoing structural changes on euro area productivity growth](#)”, *Economic Bulletin*, Issue 2, ECB, 2024.

Chart A

Distribution of the productivity of firms that exited a sector compared with firms that survived in the same sector in 2020



Source: Authors' calculations based on Orbis-iBACH firm-level data.

Notes: The dataset covers Belgium, Germany, Spain, France, Italy and Portugal. Labour productivity is defined as real value added per employee.

Digital transition and productivity growth

Digital technologies can boost worker efficiency by complementing tasks and enabling the outsourcing of non-core activities. Moreover, digitalisation increases market competitiveness, allows scale without mass, and broadens market access through e-commerce. Firm-level data from countries such as France and Austria demonstrate that investments in digital technologies can lead to sustained productivity growth, albeit after an initial adjustment period and of relatively small magnitude on average.

Productivity gains from digitalisation are highly heterogeneous across sectors and firms.

While the average impact of digital investment is small, sectors that can benefit from digitalisation see impacts 17 times larger than the average. Moreover, only about 30% of firms, typically the most productive, manage to use new digital technologies in innovative and disruptive ways to increase their productivity, because they have in place the required skills and complementary intangibles (Chart B). As regards aggregate effects, digitalisation-related efficiency increases have significantly boosted labour productivity growth, as evidenced by simulations showing that, without these increases, productivity growth in countries such as Germany and France would have been substantially lower.

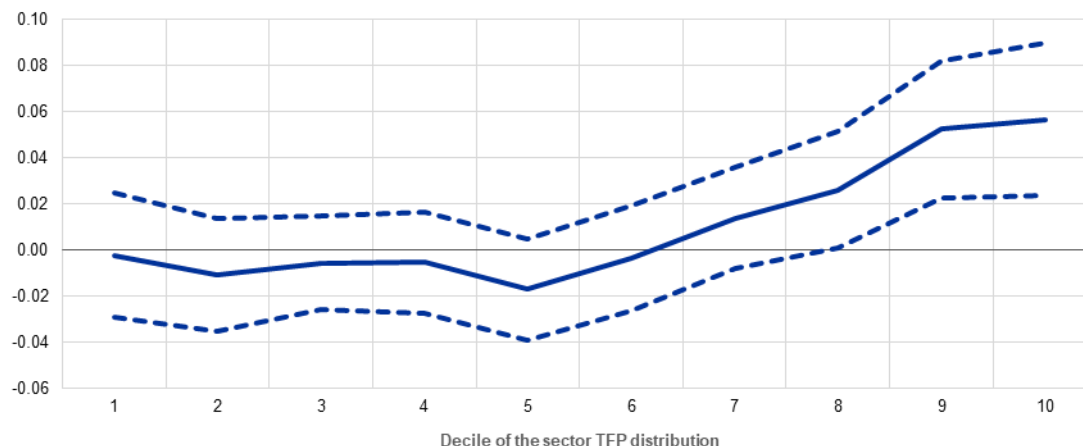
The impact of the green transition on productivity growth

The urgent need to reduce greenhouse gas (GHG) emissions has led to the implementation of policies to promote the adoption of low-carbon solutions, with a possible impact on aggregate productivity growth. Two main channels through which the green transition affects productivity are the investment in green innovation and the reallocation of resources. The need to reduce GHG emissions encourages firms to innovate and integrate more efficient, sustainable practices into their operations. Meanwhile, the economy is shifting towards greener sectors, redirecting labour and capital from polluting industries and firms. This reallocation can enhance overall productivity if resources are moved to more efficient uses.

Chart B

Estimated impact of digitalisation on TFP growth in firms with different initial TFP levels

(percentage points)



Source: Anderton, R., Botelho, V. and Reimers, P., "Digitalisation and productivity: gamechanger or sideshow?", *Working Paper Series*, No 2794, ECB, March 2023.

Notes: The chart shows the sector-specific impact of digitalisation on firm TFP growth, depending on the position of the firm in the TFP distribution (1 is the lowest decile of the TFP distribution and 10 is the highest).

Empirical evidence suggests that stringent environmental policies can boost green innovation over the long run but may be detrimental to total factor productivity (TFP) growth over the short run. The analysis of the Expert Group shows that a policy mix, combining carbon taxes, regulations and support for green technologies, is needed to transition to a low-carbon economy. However, the transition will be costly in the short run as firms adjust, with a negative impact on TFP growth, in particular in small polluting firms as a result of their limited access to finance. Environmental policies are nonetheless incentivising green innovation, as shown by the significant increase in the number of green technology patents filed by polluting firms. This increase in green innovation will likely result in higher productivity growth over the long run.

The productivity impact of the reallocation of resources triggered by transition policies varies across sectors. At given sectoral productivity levels, reallocation between sectors would mechanically lower productivity given that high carbon-intensive sectors are, on average, more productive. However, within narrowly defined sectors, firm-level carbon intensity and labour productivity are not necessarily correlated. Therefore, reallocating resources from high to low carbon-intensive firms does not necessarily lead to increased productivity. Firm-level information from the EU Emissions Trading System shows that in the majority of sectors the most carbon-efficient firms are also the most productive ones. This implies that at current firm-level productivity levels, reallocation of resources towards greener firms will result in increases in labour productivity growth in those sectors, all other things being equal. However, for other sectors, such as pulp, paper and ferrous metals, the contrary is the case, and the reallocation will be productivity-decreasing.

Concluding remarks

The interplay between recent shocks and ongoing structural trends creates a complex environment for medium and long-term productivity growth. The pandemic, digital transition and green transition have each presented unique challenges and opportunities. As suggested by the recent report by Mario Draghi, policymakers must navigate these dynamics carefully to foster an

environment conducive to sustained productivity growth, leveraging digital and green technologies while mitigating the possible distortive effects of policy interventions.¹⁴ As the global economy evolves, it is imperative that policymakers in the euro area take these interactions into account to effectively shape and support future productivity growth trajectories.

¹⁴ See Draghi, M., "[The future of European competitiveness](#)", September 2024, which was compiled at the request of the European Commission.

2 Monetary policy started to ease while remaining in restrictive territory

In 2024 the Governing Council moderated the degree of monetary policy restriction as inflation showed signs of converging sustainably to the 2% target while the euro area economy faced sluggish growth (see Section 2.1). Interest rates remained unchanged for almost all of the first half of the year. The Governing Council then lowered the deposit facility rate by 25 basis points in both June and September, marking a shift towards a less restrictive monetary policy. It remained committed to a data-dependent, meeting-by-meeting approach to determining the appropriate level and duration of restriction. In the third quarter economic activity showed continued subdued growth with some signs of stabilisation, supported by higher consumption and global demand. The Governing Council was increasingly confident in a gradual inflation decline and further lowered the deposit facility rate by 25 basis points in October and December.

The Eurosystem balance sheet contracted by €0.5 trillion in 2024, to €6.4 trillion by year-end, as part of the normalisation that had begun in 2022 (see Section 2.2). The reduction stemmed from early repayments and the maturing of operations in the third series of targeted longer-term refinancing operations (TLTRO III), and from the decline in the asset purchase programme (APP) portfolio and to some extent also in the pandemic emergency purchase programme (PEPP) portfolio, the latter portfolio moving to partial reinvestments as of July. The Governing Council approved changes to the operational framework for implementing monetary policy in March 2024 (see Box 2) and discontinued reinvestments under the PEPP at the end of 2024.

In 2024 the Eurosystem enhanced its risk management framework to ensure risk-efficient policy implementation. As a result of high policy rates, the ECB incurred losses from negative net interest income, which will be written off against future profits (see Section 2.3 and the ECB Annual Accounts for 2024). The net interest income of the Eurosystem is expected to increase again in the years to come, supporting its financial resilience.

2.1 Moderating the degree of monetary policy restriction

The Governing Council kept rates unchanged in January to ensure a sufficiently restrictive monetary policy

In January 2024 the Governing Council assessed that the economy remained weak, following stagnation throughout 2023. The near-term outlook for economic growth in the euro area was marked by a moderation of global economic activity and trade and tight financing conditions, with risks stemming from heightened geopolitical tensions due to the conflict in the Middle East and Russia's war against Ukraine. However, some forward-looking survey indicators pointed to a pick-up in growth further ahead. In spite of sluggish growth the labour market remained robust, following a largely steady decline in the unemployment rate that had started in September 2020.

Inflation had increased in December 2023 as a result of a base effect in energy prices, and remained high at 2.9%. At the same time, most measures of underlying inflation had continued their downward trajectory as the effects of past supply shocks diminished and the impact of tight monetary policy reduced demand. The Governing Council confirmed its assessment that the key ECB interest rates were at levels that, maintained for a sufficiently long duration, would make a substantial contribution to inflation returning to its 2% medium-term target in a timely manner. It therefore decided to keep the policy rates unchanged at its January meeting, at the levels decided in September 2023, and reiterated that it would keep policy rates at sufficiently restrictive levels for as long as necessary.

The Governing Council decided to keep rates unchanged in March...

The March ECB staff macroeconomic projections entailed a downward revision of inflation, in particular for 2024, reflecting a lower contribution from energy prices. They pointed to a gradual decrease in inflation over time towards the ECB's target. Headline inflation had declined in February, but domestic price pressures remained high, driven in part by strong wage growth and declining labour productivity. The euro area economy remained weak. Consumer spending was assessed to have been restrained, investment to have slowed and exports to have decreased, owing to slower external demand and some loss of competitiveness for euro area firms. ECB staff had revised down their near-term growth projections. The economy was still expected to recover and grow over time, supported initially by consumption and later also by investment. In particular, real incomes were expected to rebound, as a result of declining inflation and rising wages. Even though financing conditions continued to be restrictive, the dampening impact of past interest rate increases on demand was also expected to gradually fade and exports were expected to pick up. Based on its continued data-dependent approach, and its assessment of the inflation outlook, the dynamics of underlying inflation and the strength of monetary policy transmission, the Governing Council decided in March to keep the three key ECB interest rates unchanged.

The Governing Council also emphasised the importance of advancing the capital markets union to stabilise growth when countries face local shocks that monetary policy cannot address. A more integrated and diversified financial system would enhance private risk sharing across countries, help mitigate financial fragmentation and ensure the effective transmission of monetary policy to all parts of the euro area, among other benefits.

...and announced changes to the operational framework for implementing monetary policy

The Governing Council also approved changes to the operational framework for implementing monetary policy in March. The review of the operational framework, which had been announced in December 2022, established key principles and parameters for implementing monetary policy and providing central bank liquidity, against the background of a gradually declining amount of excess liquidity in the banking system (see Box 2). Specifically, the Governing Council decided to continue steering the monetary policy stance by adjusting the deposit facility rate and to provide liquidity flexibly, on the basis of banks' needs, through a broad mix of instruments, including – at a later stage – structural longer-term credit operations and a structural portfolio of securities. It also approved a reduction in the spread

between the rate on main refinancing operations and the deposit facility rate from 50 to 15 basis points, effective from 18 September 2024.

Inflation continued its downward path...

Inflation fell further to 2.4% in March, with most measures of underlying inflation easing, confirming the picture of gradually diminishing price pressures. However, services price inflation remained high at 4.0%, driven by domestic price increases. Wages were still growing – looking at the last quarter of 2023 – although at a slower pace than anticipated. The higher labour costs were in part being absorbed by firms' profits, which limited their impact on consumer prices. At the same time, unit labour cost growth remained elevated as a result of weak productivity growth, but was decreasing from its previously high level.

...and the impact of restrictive monetary policy on financing conditions and the economy became more evident

As the year progressed, it became increasingly clear that the Governing Council's restrictive monetary policy was having a significant impact on the economy and thereby on inflation. In the first quarter of 2024 high borrowing costs for businesses and households as well as tighter credit standards led to reductions in investment plans and house purchases, as well as a further decline in credit demand. While spending on services remained robust, manufacturing firms faced weak demand. Production levels continued to be subdued, especially in energy-intensive sectors. However, euro area export growth was expected to accelerate, supported by a stronger global economy and increased demand for tradable goods.

In April the Governing Council announced that it would keep the three key ECB interest rates unchanged, in restrictive territory. It emphasised its commitment to a data-dependent, meeting-by-meeting approach, with no pre-commitment to a particular rate path. The Governing Council communicated for the first time that it would be appropriate to reduce the level of monetary policy restriction if its assessment of the inflation outlook, underlying inflation dynamics and the strength of monetary policy transmission were to further increase confidence that inflation was converging to the target in a sustained manner.

The Governing Council lowered rates in June, bringing the deposit facility rate to 3.75%, after nine months of holding rates steady...

This moment arrived in June, and the Governing Council decided to lower the three key ECB interest rates by 25 basis points, after nine months of holding rates steady. Since the September 2023 meeting, when the Governing Council had last raised rates, inflation had fallen by 2.6 percentage points and the inflation outlook had improved markedly. Measures of underlying inflation had also eased, reinforcing the signs that price pressures had weakened, and inflation expectations had declined at all horizons. Monetary policy had kept financing conditions restrictive. By dampening demand and keeping inflation expectations well anchored, this had made a major contribution to bringing inflation back down.

Despite these positive developments, domestic price pressures remained strong and wage growth remained elevated, compensating for the previous surge in inflation. Inflation was seen as likely to stay above target well into the following year. Eurosystem staff had slightly revised up their inflation projections for 2024 and 2025 compared with March, anticipating fluctuations in inflation for the rest of 2024, including due to energy-related base effects. Inflation was, however, then expected to decline towards the target over the second half of 2025, owing to weaker growth in

labour costs, the unfolding effects of restrictive monetary policy, and the fading impact of the energy crisis and the pandemic.

Inflation rose to 2.6% in May, although both food and goods price inflation declined. Energy price inflation experienced a modest uptick after a year of negative annual rates, and services price inflation increased to 4.1% from 3.7% in April.

Following five quarters of stagnation, the euro area economy had grown by 0.3% in the first quarter of 2024. The services sector was expanding, while manufacturing showed signs of stabilisation at low levels. Employment had increased by 0.3% in the first quarter, with around 500,000 new jobs created since December 2023. The economy was expected to remain subdued in the near term, and then recover, supported by higher wages, better terms of trade and higher real incomes. Financing costs had plateaued at restrictive levels and credit remained weak as a result of past policy rate increases. In addition, banks repaid a large amount of funds borrowed under TLTRO III in June 2024, following the large repayment in March, which led to a substantial reduction in excess liquidity.

...and confirmed the gradual reduction of PEPP holdings in the second half of 2024

The Governing Council also confirmed in June that it would reduce the Eurosystem's holdings of securities under the PEPP by €7.5 billion per month on average over the second half of the year. This would largely mirror the approach employed for the APP.

The Governing Council decided to keep rates unchanged in July

At the time of the July Governing Council meeting, in line with expectations, most inflation measures for June were either stable or declining, although domestic price pressures and services inflation remained elevated. Wages continued to grow at an elevated rate, while their impact on inflation was still to some extent mitigated by profit margins. The incoming information broadly supported the previous assessment of the medium-term inflation outlook, and the Governing Council decided to keep policy rates unchanged at its July meeting. It reaffirmed its intention to keep monetary policy restrictive for as long as necessary.

Inflation dropped to 2.2% in August, while the economy remained subdued

Inflation dropped to 2.2% in August, from 2.6% in July. Domestic price pressures and services inflation nonetheless remained high, mainly owing to rising wages. Labour cost pressures continued to ease, but also remained elevated. The September ECB staff projections confirmed the previous inflation outlook, reinforcing the view of a gradual and sustainable return of inflation to 2%. Inflation was expected to rise over the year-end and decline towards the target over the second half of 2025. As services inflation had been higher than expected, the projections for core inflation (inflation excluding energy and food) in 2024 and 2025 were revised up slightly but continued to suggest a rapidly declining path.

Financing conditions remained restrictive and credit growth sluggish amid weak demand at the time of the Governing Council's September meeting, while economic activity was subdued. In the second quarter of 2024 the economy had grown by 0.2%, at a slower pace than in the first quarter and below expectations. Growth had been driven mainly by net exports and government spending. Private consumption and investment, which had been expected to lead the recovery, remained weak, likely because of high geopolitical risks. As a result, ECB staff had revised down their

growth projections compared with June, reflecting a weaker contribution from domestic demand over the coming quarters. The economy was expected to strengthen over time and grow by 0.8% in 2024, rising to 1.3% in 2025 and 1.5% in 2026. This recovery would be supported by higher consumption, the gradually fading effects of restrictive monetary policy and rising global demand and exports.

The Governing Council took another step in moderating the degree of monetary policy restriction in September...

In light of the new information at hand, which strengthened confidence in a gradual decline in inflation towards the ECB's target, the Governing Council decided in September to lower the deposit facility rate – the rate through which it steers the monetary policy stance – by 25 basis points, marking a further step in moderating the degree of monetary policy restriction. As already announced on 13 March 2024, some changes to the operational framework for implementing monetary policy took effect from 18 September (see Box 2). Notably, the spread between the interest rate on the main refinancing operations and the deposit facility rate was adjusted to 15 basis points, while the spread between the rate on the marginal lending facility and the rate on the main refinancing operations remained unchanged at 25 basis points. In September excess liquidity in the euro area fell below €3 trillion, primarily owing to banks repaying loans under the TLTRO III operations. The gradual phasing-out of reinvestments of maturing bonds in the Eurosystem's monetary policy portfolios increasingly contributed to this decline.

...and again in October

In September inflation declined to 1.7%, its lowest level since April 2021, reinforcing confidence that the disinflationary process was well on track. Most measures of underlying inflation either declined or were unchanged in September. Energy prices saw a significant decline, with an annual rate of -6.1%, and most measures of longer-term inflation expectations hovered at around 2%. The inflation outlook was influenced by weaker than expected economic activity. According to short-term indicators, manufacturing output was continuing to fall. Although services activity seemed to have benefited from a robust summer season, short-term indicators pointed to a decline in the third quarter of 2024. Firms were increasing investments at a slow pace, while exports weakened. Despite an increase in incomes, households had opted to consume less in favour of savings in the second quarter of 2024, the last quarter for which data were available. In response to these dynamics and their implications for inflation, the Governing Council decided to moderate the degree of monetary policy restriction further and lower the key ECB interest rates by 25 basis points in October, bringing the deposit facility rate to 3.25%.

Towards the end of the year inflation was developing in line with a sustained return to target

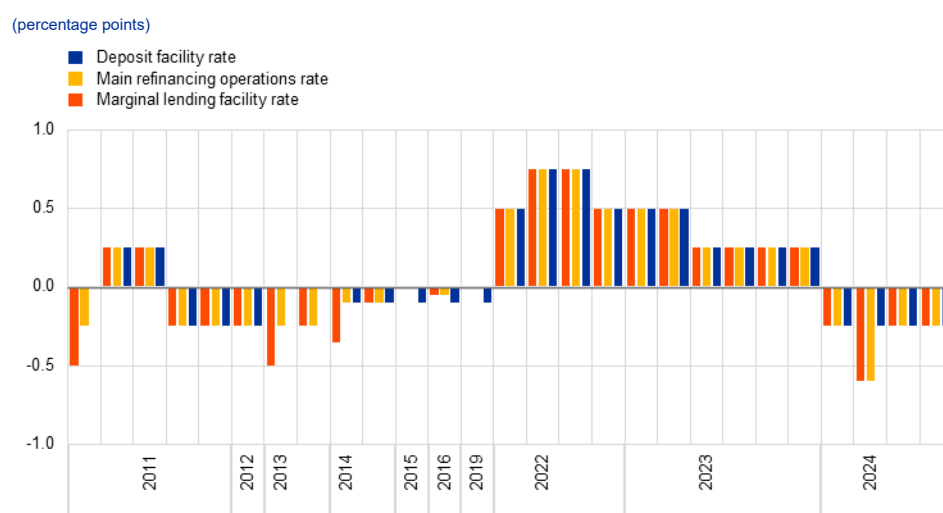
As the year came to a close, the flash estimate showed inflation to have increased slightly to 2.3% in November, from 2.0% in October. This increase was anticipated and was driven by an earlier fall in energy prices that dropped out of the annual rates. While food and services prices decreased, domestic inflation remained high, owing to wage pressures and the fact that some services sectors were still adjusting with a delay to the past inflation surge. Meanwhile, underlying inflation was developing overall in line with a sustained return of inflation to target. In the December projections, Eurosystem staff saw headline inflation averaging 2.4% in 2024, 2.1% in 2025, 1.9% in 2026 and 2.1% in 2027 when the expanded EU Emissions Trading System would become operational.

The euro area economy had grown by 0.4% in the third quarter of 2024, exceeding expectations, mainly driven by an increase in consumption and by firms building up inventories. At the same time, investment remained low, amid high uncertainty. Short-term indicators available for the fourth quarter of 2024 suggested that growth was losing momentum. Surveys indicated that manufacturing was still contracting and growth in services slowing. The labour market continued to show resilience. The euro area unemployment rate had been 6.3% in October 2024, unchanged from September. It had fallen almost uninterruptedly since September 2020 (8.6%), and in November it would reach its lowest level (6.2%) since the introduction of the euro. Although financing conditions remained restrictive, the recent interest rate cuts were gradually making it less expensive for firms and households to borrow. The December staff projections saw the economy strengthening over time, although at a slower pace than previously anticipated. Higher real wages were expected to strengthen household spending, while cheaper credit should stimulate consumption and investment. Provided trade tensions did not escalate, exports were seen as likely to support the recovery as global demand rose.

The Governing Council decided to further moderate the degree of monetary policy restriction in December

Against this background, the Governing Council decided at its December meeting to lower the key ECB interest rates by 25 basis points, and reaffirmed its commitment to ensuring that inflation would stabilise sustainably at the 2% medium-term target. The statement that policy rates would be kept sufficiently restrictive for as long as necessary was no longer included in communication. The reduction in the key ECB rates brought the deposit facility rate to 3.00% and its cumulative decrease over 2024 to 100 basis points (Chart 2.1).

Chart 2.1
Changes in the key ECB interest rates



Source: ECB.

December marked the end of PEPP reinvestments and TLTRO III repayments

December also marked the end of two measures that played a key role in the low inflation era and during the pandemic: the PEPP and TLTRO III. The Governing Council ended reinvestments under the PEPP at the end of 2024. As of January 2025 the Eurosystem no longer reinvests the principal payments from maturing securities held in the PEPP portfolio. In addition, banks repaid the remaining

amounts borrowed under the TLTROs on 18 December, concluding this part of the balance sheet normalisation process. Policy interest rates remain the main tool for ensuring a sustained return of inflation to target.

2.2 Normalising the Eurosystem balance sheet

The Eurosystem balance sheet was gradually reduced as TLTRO III operations matured and holdings in the monetary policy portfolios declined

In 2024 the Eurosystem balance sheet continued the gradual normalisation that had started in 2022. By the end of the year it had decreased to €6.4 trillion (from €6.9 trillion at the end of 2023). The reduction stemmed from early repayments and the maturing of TLTRO III operations, and from the decline in the APP portfolio and to some extent also in the PEPP portfolio, the latter portfolio moving to partial reinvestments as of July.

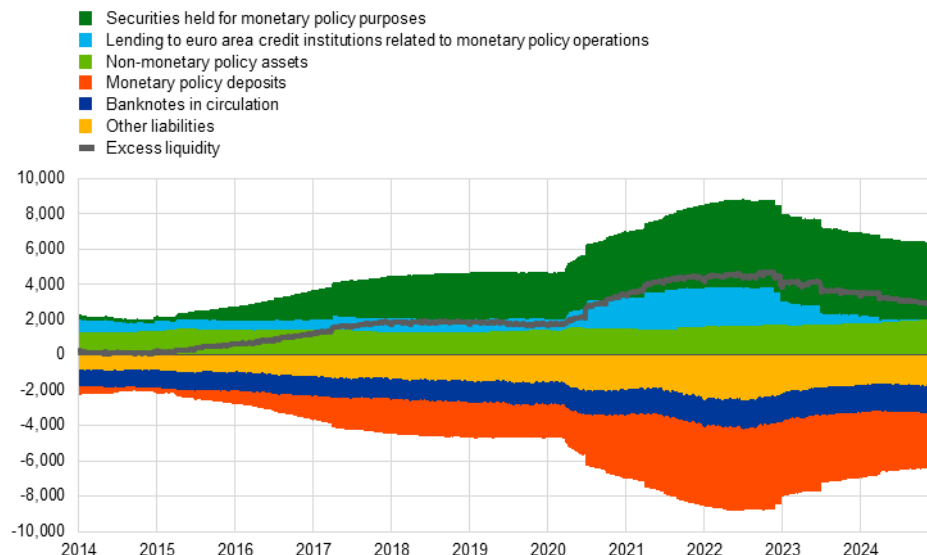
At the end of 2024 monetary policy-related assets on the Eurosystem balance sheet amounted to €4.3 trillion, a decline of €0.8 trillion compared with the end of 2023. Loans to euro area credit institutions accounted for 1% of total assets (down from 6% at the end of 2023) and holdings of assets purchased for monetary policy purposes represented 67% of total assets (compared with 68% at the end of 2023). The other financial assets on the balance sheet, mainly foreign currency-denominated assets, gold and euro-denominated non-monetary policy portfolios, increased by €0.3 trillion.

On the liabilities side, the overall amount of credit institutions' reserve holdings and recourse to the deposit facility decreased to €3.0 trillion at the end of 2024 (from €3.5 trillion at the end of 2023) and represented 47% of total liabilities (compared with 51% at the end of 2023). Banknotes in circulation were virtually unchanged at €1.6 trillion and accounted for 25% of total liabilities (up from 23%).

Chart 2.2

Evolution of the Eurosystem's consolidated balance sheet

(EUR billions)



Source: ECB.

Notes: Positive figures refer to assets and negative figures to liabilities. The line for excess liquidity is presented as a positive figure, although it refers to the sum of the following liability items: current account holdings in excess of reserve requirements and recourse to the deposit facility.

APP and PEPP portfolio developments

The steps towards the discontinuation of asset purchases were smooth and well absorbed by the market

The Eurosystem ended net asset purchases under the **PEPP** as of 1 April 2022 and under the **APP** as of 1 July 2022. It subsequently continued to fully reinvest the principal payments from maturing securities purchased under the programmes to maintain ample liquidity conditions and an appropriate monetary policy stance. For the APP, the Eurosystem discontinued reinvestments as of July 2023. For the PEPP, principal payments from maturing securities were still reinvested in full in the first half of 2024, and in the second half of the year the portfolio was reduced by €7.5 billion per month on average. Reinvestments under the PEPP were discontinued altogether at the end of December 2024. The APP and PEPP portfolios are expected to decline at a measured and predictable pace, as the Eurosystem no longer reinvests any principal payments from maturing securities.

APP holdings declined from €3.0 trillion (at amortised cost) at the end of 2023 to €2.7 trillion at the end of 2024. The public sector purchase programme (PSPP) accounted for the bulk of these holdings, with €2.1 trillion or 79% of total APP holdings at the end of the year. The weighted average maturity of the PSPP holdings stood at 6.86 years at the end of 2024, with some variation across jurisdictions. The asset-backed securities purchase programme (ABSPP) accounted for less than 1% (€7 billion) of total APP holdings at year-end, the third covered bond purchase programme (CBPP3) for 9% (€253 billion) and the corporate sector purchase programme (CSPP) for 11% (€288 billion).

At the end of 2024 PEPP holdings amounted to €1.6 trillion (at amortised cost). Covered bond holdings accounted for less than 1% (€6 billion) of the total, corporate sector holdings for 3% (€45 billion) and public sector holdings for 97% (€1.6 trillion).¹⁵ The weighted average maturity of the PEPP public sector securities holdings stood at 7.14 years at the end of 2024.

The Eurosystem continued to tilt its remaining corporate securities purchases towards issuers with a better climate performance. In 2024 the ECB published its second climate-related financial disclosures, expanding the scope to include also the Eurosystem's public sector and covered bond portfolios held for monetary policy purposes (under both the APP and the PEPP), with a section on the ECB's foreign reserves – see Section 11.5. The ECB also published its second account of climate-related information about non-monetary policy portfolios, namely the ECB's staff pension fund and own funds portfolios.

The gradual discontinuation of reinvestments was implemented smoothly and was well absorbed by financial markets.¹⁶

Redemptions of private sector securities under the APP and PEPP amounted to €74 billion in 2024, while redemptions of public sector securities under the PSPP and PEPP totalled €466 billion. Reinvestments under the PEPP amounted to €2.6 billion for private sector securities and €157 billion for public sector securities. Corporate and covered bond reinvestment purchases under the PEPP were guided by benchmarks reflecting the market capitalisation of all eligible outstanding corporate and covered bonds respectively. Given the large and unevenly distributed redemptions, the public sector reinvestments were smoothed across jurisdictions and across time to ensure a regular and balanced market presence, giving due regard to market price formation and market functioning considerations. This smoothing mechanism led to temporary deviations of the PEPP holdings from the allocation in accordance with the Eurosystem capital key, but these were largely reversed by the end of the smoothing period, which is the calendar year in which the redemptions take place.¹⁷

The assets purchased under the PSPP, CSPP, CBPP3 and PEPP continued to be made available for securities lending to support bond and repo market liquidity. In 2024 collateral availability improved significantly compared with previous years, which was reflected in lower lending volumes.

Developments in Eurosystem refinancing operations

At the end of 2024 the outstanding amount of Eurosystem refinancing operations was €34 billion, a decline of €376 billion compared with the end of 2023. This change

¹⁵ The total exceeds 100% as a result of rounding, e.g. public sector holdings amounted to €1.558 trillion.

¹⁶ For more details, see Ferrara, F.M., Hudepohl, T., Karl, P., Linzert, T., Nguyen, B. and Vaz Cruz, L., “Who buys bonds now? How markets deal with a smaller Eurosystem balance sheet”, *The ECB Blog*, ECB, 22 March 2024.

¹⁷ For more details, see Rahmouni-Rousseau, I. and Schnabel, I., “The dynamics of PEPP reinvestments”, *The ECB Blog*, ECB, 13 February 2024.

mainly reflects the termination of the TLTRO III series, with voluntary repayments and maturing operations amounting to €392 billion. Thus the weighted average maturity of outstanding Eurosystem refinancing operations decreased from 5.2 months at the end of 2023 to 1.3 months at the end of 2024.

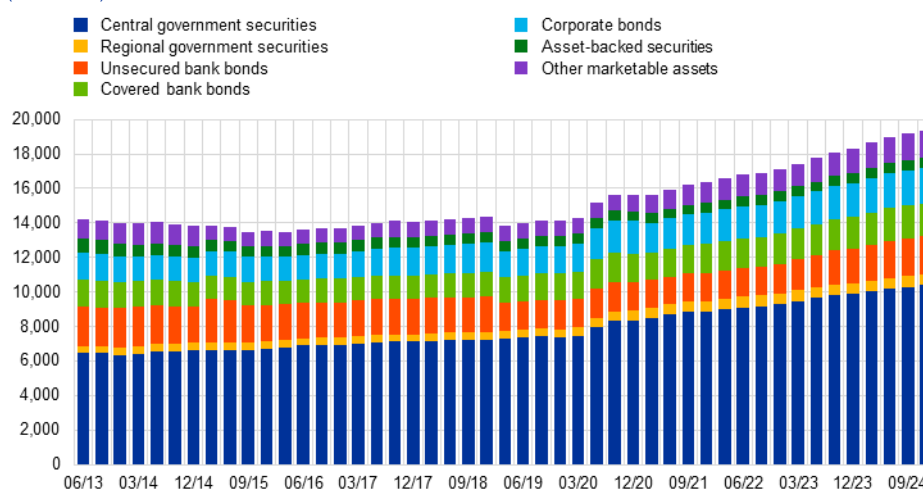
Developments in eligible marketable assets and mobilised collateral

The nominal amount of marketable assets eligible as collateral for Eurosystem refinancing operations increased by €526 billion in 2024, reaching a level of €19.3 trillion at the end of the year (Chart 2.3). Central government securities continued to be the largest asset class (€10.4 trillion). Other major asset classes included unsecured bank bonds (€2.2 trillion), corporate bonds (€2.0 trillion) and covered bank bonds (€1.9 trillion). Regional government securities (€644 billion), asset-backed securities (€617 billion) and other marketable assets (€1.6 trillion) each accounted for a smaller fraction of the eligible asset universe.

Chart 2.3

Developments in eligible marketable assets

(EUR billions)



Source: ECB.

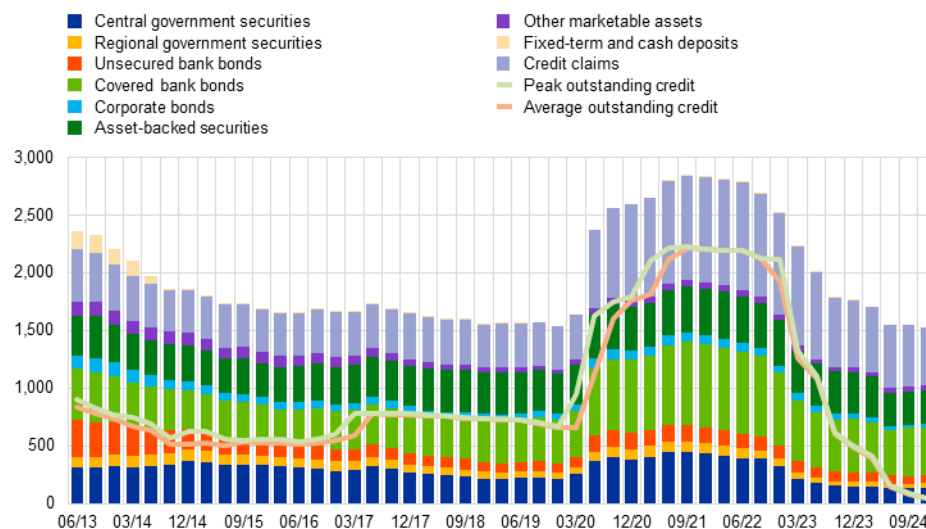
Notes: Asset values are nominal amounts. The chart shows averages of end-of-month data for each period.

In 2024 mobilised collateral declined by €231 billion to €1.5 trillion (Chart 2.4). This corresponds to 60% of the net reduction in the outstanding amount of Eurosystem refinancing operations over the course of the year. More than half of the decline in mobilised collateral occurred following the maturing of the TLTRO III operation in March 2024, which accounted for more than €135 billion in demobilised collateral. For the remainder of the year, the overall value of mobilised collateral remained relatively stable. Looking at developments by asset class, the largest decline was observed for credit claims, followed by asset-backed securities, covered bank bonds and corporate bonds.

Chart 2.4

Developments in mobilised collateral

(EUR billions)



Source: ECB.

Notes: For collateral, the averages of end-of-month data for each period are shown, and values are after valuation and haircuts. For outstanding credit, daily data are used.

Review of additional credit claim frameworks and related collateral types

In November 2024 the ECB announced changes to the Eurosystem collateral framework which affected “additional credit claims” and related collateral types.¹⁸ These changes aim to foster greater harmonisation, flexibility and risk efficiency of the collateral framework, while also preserving its broadness. In line with these aims, the Governing Council decided to integrate certain temporary measures into the general collateral framework and in parallel, also in view of the maturing of the final TLTROs and the resulting decline in aggregate collateral needs, to discontinue temporary collateral measures that were no longer needed.¹⁹

The temporary measures that will be integrated into the general framework include the acceptance as collateral of the following asset categories: i) asset-backed securities with a second-best rating of credit quality step 3 on the Eurosystem’s harmonised rating scale and which fulfil the eligibility criteria stipulated in the [Guideline on temporary collateral measures](#) (the “temporary framework”)²⁰; and ii) marketable assets denominated in US dollars, pounds sterling and Japanese yen.

¹⁸ For further information on additional credit claims, see the explainer entitled “[What are additional credit claim \(ACC\) frameworks?](#)”, ECB, updated on 14 January 2021.

¹⁹ For more details, see the box entitled “[Changes to the Eurosystem collateral framework to foster greater harmonisation](#)”, *Economic Bulletin*, Issue 1, ECB, 2025.

²⁰ Guideline of the European Central Bank of 9 July 2014 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral and amending Guideline ECB/2007/9 (ECB/2014/31) (OJ L 240, 13.8.2014, p. 28).

Besides this, national central banks' statistical in-house credit assessment systems will be accepted as an additional credit assessment source (see Section 2.3).

The ECB will continue phasing out temporary crisis-related collateral easing measures that are no longer needed, building on its previous decisions of 24 March 2022 and 30 November 2023. The discontinuation encompasses the following items relating to asset types which have been eligible under the temporary framework: i) private individuals as eligible debtors, and pools of credit claims backed by real estate assets as eligible asset types, for additional credit claims; ii) individual credit claims with a credit quality below credit quality step 3; and iii) foreign currency-denominated loans in US dollars, pounds sterling and Japanese yen. Furthermore, the ECB will phase out the temporary easing of certain technical requirements for the eligibility of additional credit claims, such as for those credit claims benefiting from a COVID-19-related partial public sector guarantee. Moreover, it will also discontinue the eligibility of retail mortgage-backed debt instruments and non-marketable debt instruments backed by eligible credit claims, which have been eligible under the [General Documentation Guideline on the implementation of the Eurosystem monetary policy framework](#)^{21,22}.

In addition to these decisions, the Governing Council mandated the relevant Eurosystem committees to carry out preparatory work on the future integration of pools of non-financial corporate credit claims into the general framework, including an adequate risk control framework and all necessary technical requirements.

These changes will ensure the maintenance of a broad collateral framework for refinancing operations, which will continue to be conducted through fixed rate tender procedures with full allotment, and will help ensure that the ECB's policy implementation remains effective, robust, flexible and efficient in the future, in line with the revised operational framework for implementing monetary policy.

2.3 Managing financial risks of monetary policy instruments

The Eurosystem continuously manages the financial risks inherent in the implementation of its monetary policy operations. Its risk management function endeavours to attain risk efficiency, i.e. to achieve monetary policy objectives with the lowest amount of risk.²³

The ECB kept its key interest rates unchanged in the first part of 2024 to ensure a timely return of inflation to the 2% medium-term target (see Section 2.1). This kept the cost of liabilities on the balance sheets of Eurosystem central banks high, while the income generated on their APP and PEPP securities portfolios and TLTRO III remained low. The mismatch produced negative net interest income for most central

Unchanged key ECB interest rates in the first half of 2024 kept the Eurosystem's interest costs high, while interest income remained low, resulting in losses for most Eurosystem central banks

²¹ Guideline (EU) 2015/510 of the European Central Bank of 19 December 2014 on the implementation of the Eurosystem monetary policy framework (recast) (ECB/2014/60) (OJ L 91, 2.4.2015, p. 3).

²² All of these changes will enter into force with the next regular update of the applicable legal framework, but no earlier than the fourth quarter of 2025, except for the changes relating to credit claims benefiting from a COVID-19-related public sector guarantee (no earlier than end-2026).

²³ See "[The financial risk management of the Eurosystem's monetary policy operations](#)", ECB, July 2015.

banks in the Eurosystem. For some of these central banks, the negative net interest income can be offset against financial buffers built up in previous years. Any losses that cannot be offset can be recorded on the balance sheet of the respective central bank. Such losses will then be offset with future profits. They will not affect the ability of Eurosystem to pursue the price stability mandate and operate effectively. Over time, the Eurosystem's profitability is expected to improve, as the interest rate mismatch between assets and liabilities will narrow.²⁴ In accordance with the principles laid out in the context of the [changes to the operational framework for implementing monetary policy](#) announced by the Governing Council in March 2024 (see Box 2), the framework will over the long run preserve the financial soundness of the Eurosystem balance sheet, supporting central bank independence.

The main change to the Eurosystem's risk management framework in 2024 was a further diversification of its credit assessment systems for collateral. The risks of the APP and PEPP continued to be managed according to established risk control frameworks, while reinvestments were gradually phased out.

Diversification of credit assessment systems used to assess collateral

The Eurosystem uses different systems to assess the credit quality of the assets it accepts as collateral for monetary policy operations

2024 was marked by the integration of an additional credit assessment system into the Eurosystem credit assessment framework (ECAF). The ECAF is one of the tools used to mitigate the credit risk of assets used in monetary policy operations. It defines the procedures, rules and techniques which ensure that the Eurosystem requirement of high credit standards for all eligible assets is met. The ECAF draws on credit assessment systems belonging to one of three sources: external credit rating agencies (referred to as external credit assessment institutions or ECAIs), the in-house credit assessment systems of national central banks (NCBs), and counterparties' internal ratings-based systems.

The ratings provided by Scope Ratings GmbH are now used for monetary policy purposes

Following the [acceptance of Scope Ratings GmbH in 2023 as the fifth ECAI](#), the process of integrating its ratings into the Eurosystem IT infrastructure was concluded in 2024. From 16 December 2024 the Eurosystem began using the ratings provided by Scope Ratings GmbH for the assessment of the credit quality of marketable assets to be pledged as collateral for monetary policy operations. These ratings are now used alongside the ratings of the already accepted ECAIs (Morningstar DBRS, Fitch Ratings, Moody's and S&P Global Ratings) and include asset-backed security ratings, for which Scope Ratings GmbH successfully established compliance with the Eurosystem eligibility requirements in the course of 2024.

The Eurosystem also agreed to introduce NCBs' statistical in-house credit assessment systems into the general collateral framework for monetary policy

The Governing Council also decided to introduce statistical in-house credit assessment systems (S-ICASs) of Eurosystem NCBs into the general collateral framework for monetary policy. In response to the COVID-19 pandemic, the Governing Council had decided in April 2020 to widen the scope of credit assessment systems that could be used in the NCBs' additional credit claims

²⁴ See the explainer entitled "[Profits and losses of the ECB and the euro area national central banks: where do they come from?](#)", ECB, updated on 19 May 2023.

frameworks, including NCBs' own conservative credit assessment approaches. Some NCBs subsequently began to use S-ICASs, which assess the creditworthiness of non-financial corporate debtors/guarantors of additional credit claims under the temporary collateral framework (see Section 2.2.4) using mostly quantitative methodologies, in addition to their regular in-house credit assessment systems, which also require expert judgement. On 19 December 2024, the Governing Council approved a harmonised framework for S-ICASs, so that these systems will be accepted as an additional credit assessment source in the general collateral framework.²⁵ All currently existing S-ICASs need to ensure that they become compliant with this harmonised framework. S-ICASs help to ensure a broad collateral universe, including collateral based on bank lending to the corporate sector, in particular small and medium-sized entities.

Managing risks of the asset purchases in the APP and PEPP

Despite their declining volume, the asset purchase programmes still carry risks, which are managed under specific risk control frameworks

In 2024 the principal payments from maturing securities under the PEPP continued to be reinvested, first in full and then partially, while maturing securities under the APP have not been reinvested since mid-2023 (see Section 2.2.1). Both programmes, conducted for monetary policy purposes, are composed of different types of asset class, namely public sector and corporate sector debt securities as well as asset-backed securities and covered bonds. The financial risks of these programmes are managed on the basis of specific financial risk control frameworks that take into account each programme's policy objectives and the risk profiles of the different asset classes. The frameworks consist of eligibility criteria, credit risk assessments and due diligence procedures, pricing frameworks, benchmarks and limits. As during the net purchase phase, they will continue to apply to the holdings for as long as they remain on the Eurosystem's balance sheet. The key elements of these frameworks, as summarised in [Section 2.3 of the ECB's Annual Report 2022, Table 2.1](#), are still valid.

Box 2

The 2024 operational framework review

The ECB's operational framework is the set of instruments and procedures, including market operations and standing facilities, through which the Governing Council's monetary policy stance is implemented. The purpose of the operational framework is to steer short-term money market rates closely in line with the policy rates set by the Governing Council so as to deliver the intended monetary policy stance.

In December 2022 the ECB announced a review of the operational framework to ensure that it remained appropriate in an environment with gradually declining liquidity as the Eurosystem

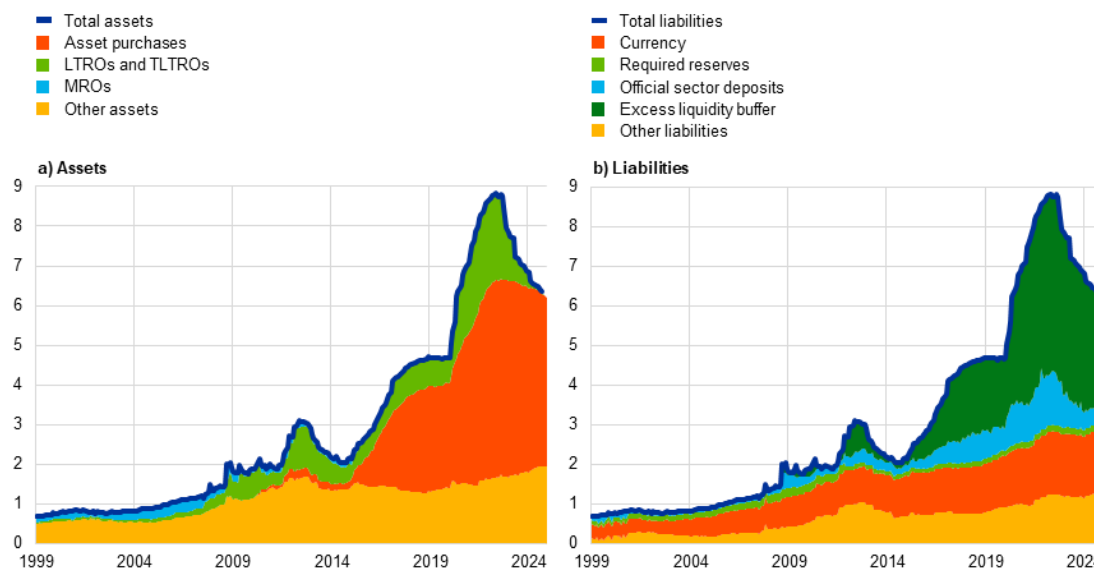
²⁵ This change was based on two separate decisions: (i) the acceptance of S-ICASs as an additional credit assessment source, subject to the development of a harmonised framework (as part of the agreed changes to the collateral framework, see Section 2.2 and ["ECB announces changes to the Eurosystem collateral framework to foster greater harmonisation"](#), *press release*, ECB, 29 November 2024); (ii) the approval of the harmonised framework (see ["Decisions taken by the Governing Council of the ECB \(in addition to decisions setting interest rates\) – January 2025"](#), ECB, 31 January 2025).

balance sheet normalised. The current stock of monetary policy assets provides the banking system with ample levels of excess liquidity (Chart A).

Chart A

Eurosystem balance sheet developments

(EUR trillions)



Source: ECB.

Notes: LTROs: longer-term refinancing operations; TLTROs: targeted longer-term refinancing operations; MROs: main refinancing operations.

On 13 March 2024 the Governing Council agreed on a set of principles that will guide monetary policy implementation in the future. These principles refer to the *effectiveness* and *efficiency* of the operational framework in implementing the desired monetary policy stance, its *robustness* to different monetary policy configurations as well as different financial and liquidity environments, its *flexibility* to cater to the needs of the large and diverse euro area banking sector, and its consistency with the smooth and orderly functioning of markets (*open market economy principle*). Also, to the extent that different configurations of the operational framework are equally conducive to ensuring the effective implementation of the monetary policy stance, the operational framework shall facilitate the ECB's pursuit of its *secondary objective* of supporting the general economic policies in the EU – in particular the transition to a green economy – without prejudice to the ECB's primary objective of price stability.

In line with these principles, the Governing Council agreed on the following set of key parameters and features for its operational framework.

- The Governing Council will continue to steer the monetary policy stance through the deposit facility rate.
- The Eurosystem will provide liquidity through a broad mix of instruments.
- Main refinancing operations will continue to be conducted through fixed rate tender procedures with full allotment. They are intended to play a central role in meeting banks' liquidity needs and their use by counterparties is an integral part of a smooth implementation of monetary policy.

- Three-month longer-term refinancing operations will also continue to be conducted through fixed rate tender procedures with full allotment.
- With effect from 18 September 2024, the rate on the main refinancing operations would be adjusted such that the spread between that rate and the deposit facility rate would be set at 15 basis points. The rate on the marginal lending facility would be adjusted such that the spread between this rate and the rate on the main refinancing operations would remain unchanged at 25 basis points.
- New structural longer-term refinancing operations and a structural portfolio of securities will be introduced at a later stage, once the Eurosystem balance sheet begins to grow durably again, taking into account legacy bond holdings.
- The reserve ratio for determining banks' minimum reserve requirements remains unchanged at 1%. The remuneration of minimum reserves remains unchanged at 0%.
- A broad collateral framework will be maintained for refinancing operations.

On the basis of the experience gained, the Governing Council will review the key parameters of the operational framework in 2026 and stands ready to adjust the design and parameters of the framework earlier, if necessary, to ensure that the implementation of monetary policy remains in line with the established principles.

3 European financial sector: elevated financial stability vulnerabilities in a volatile environment

In 2024 financial stability risks and vulnerabilities in the euro area remained elevated, with concerns shifting from inflation remaining high to an increase in downside risks to growth. Moreover, geopolitical risks and economic policy uncertainty were on the rise, increasing the likelihood of tail events occurring. In this context, national authorities sought to ensure sufficient macroprudential policy space to counteract any risks that might materialise. The associated build-up of releasable buffers was facilitated by elevated bank profitability, helping banks remain resilient after the progress they had made in previous years and their continuous supervisory engagement. Significant headway was made on completing a robust regulatory framework for the financial sector – notably the transposition of the final Basel III reforms into EU law for banks, as well as preparatory work on non-bank financial intermediation (NBFIs) and the capital markets union.

3.1 The financial stability environment in 2024

Financial stability vulnerabilities in the euro area remained elevated in 2024

Financial stability vulnerabilities in the euro area remained elevated in 2024, with the key risks shifting from concerns about inflation remaining high to fears over growth. As consumer price inflation eased, the interest rate cycle in the euro area and several other major advanced economies turned. Lower benchmark interest rates helped to bring down financing costs overall, although there were still some pockets of vulnerability associated with constrained debt servicing capacity among some borrowers. Sovereign vulnerabilities rose in some euro area countries amid fiscal challenges and concerns about low productivity contributing to weak economic growth. At the same time, geopolitical risks and economic policy uncertainty were also on the rise. This and some short-lived bouts of volatility notwithstanding, financial markets and the banking system remained robust. Nevertheless, those episodes of volatility highlighted underlying financial system vulnerabilities in the face of adverse dynamics. Accordingly, the financial stability outlook for the euro area remains fragile.

Sovereign vulnerabilities rose, amid heightened geopolitical uncertainty, weak fiscal fundamentals and sluggish potential growth

Sovereign vulnerabilities, while still contained for the euro area as a whole, increased for some countries in 2024. Concerns emerged over sovereign debt sustainability owing to geopolitical and policy uncertainty, as well as high sovereign debt and deficit levels in some countries against the background of sluggish trend growth. This led to widening sovereign spreads for some countries – most notably France following its summer elections and a period of political uncertainty – culminating in credit rating downgrades towards the end of the year. Given the concerns about euro area growth and productivity over the medium term, high borrowing costs and weak fiscal fundamentals could reduce countries' fiscal space to

support their economies against future adverse shocks. Furthermore, increases in benchmark sovereign yields could have repercussions for the broader economy.

Debt service costs remained high for vulnerable corporates and households

Overall, the euro area corporate sector remained resilient in 2024. High interest rates continued to weigh on profitability, which led to the number of defaults increasing significantly in some sectors and countries, although default rates remained low. The debt servicing capacity of small and medium-sized enterprises (SMEs) appeared to be particularly vulnerable to slowing economic activity and high borrowing costs. At the same time the commercial real estate sector suffered further losses over the year as a result of both cyclical and structural challenges. However, the relatively modest size of that sector mitigated any systemic impact on the banking sector.

Vulnerabilities in the euro area household sector eased owing to lower debt levels, resilient labour markets, strong income growth and high saving rates. However, the debt servicing capacity of households with low incomes and those with floating rate mortgages was challenged and could be further undermined if growth slows and labour markets weaken. Residential real estate markets remained stable, but risks lingered in those with elevated mortgage debt levels and overvalued property markets.

Financial markets were susceptible to sudden, sharp adjustments, notably in equity markets

Euro area and global financial markets experienced several episodes of volatility in 2024, driven by heightened macro-financial and geopolitical uncertainty. Although spillovers to the euro area were contained, those episodes highlighted underlying financial market vulnerabilities. Record low equity risk premia and compressed corporate bond spreads indicate that investors might have been underpricing the likelihood of adverse scenarios. Furthermore, the high concentration of stock market capitalisation among a handful of US technology companies raised concerns about an AI-related asset price bubble and made portfolios more vulnerable to sudden price corrections and amplification dynamics (see Box 3). With the deepening integration of global equity markets, market risk sentiment was highly sensitive to negative surprises, increasing the potential for sharp market corrections and adverse global spillovers.

Solid capital and liquidity buffers helped banks to absorb loan losses

From early 2023 the Common Equity Tier 1 (CET1) ratios of euro area banks had stood around 15%, putting them on a sound footing to preserve their resilience through multiple periods of uncertainty in 2023 and 2024. Although SME and commercial real estate portfolios recorded losses in some euro area countries in 2024, non-performing loan (NPL) ratios remained close to historical lows, and banks' solid capital and liquidity buffers enabled them to comfortably absorb any losses. Banks also continued to exhibit strong profitability growth, driven by, among other things, high net interest margins and lower operating expenses.

Vulnerabilities in the NBFIs sector had the potential to amplify adverse market dynamics

The NBFIs sector remained resilient to bouts of market volatility in 2024 and continued to support market-based finance in the euro area across all credit risk categories. However, vulnerabilities related to concentrated exposures, liquidity mismatches and high leverage in parts of the investment fund sector were still a concern. There was the possibility of valuation shocks leading to sudden fund outflows and margin calls, amplifying adverse market dynamics and creating spillovers to other parts of the financial system. This risk remained particularly

pertinent as non-bank portfolios were subject to increased credit risk in an environment of geopolitical uncertainty and weakening economic growth.

Several structural issues, including climate-related risks and cybersecurity weaknesses, continued to weigh on financial stability, potentially amplifying existing vulnerabilities. Furthermore, the rising level of geopolitical fragmentation raised concerns about a reversal of the global economic, trade and financial integration achieved so far. Such structural vulnerabilities call for prudence as they increase the potential for further volatility, particularly if they were to materialise during a period of cyclical weakness and create adverse feedback loops.

3.2 Macprudential policy: ensuring resilience in times of headwinds and uncertainty

In 2024 the ECB did not identify a need to apply more stringent capital measures

The ECB has the task of assessing macroprudential capital measures proposed by national authorities for banks in countries participating in the Single Supervisory Mechanism (SSM). Importantly, it also has the power to apply more stringent capital measures if necessary. The ECB's close monitoring of national macroprudential policy stances in 2024 did not identify a need for this, as several countries had already implemented new macroprudential measures to strengthen the resilience of their banking systems to accumulated vulnerabilities and downside risks.

Preserving the resilience of the financial system remains essential

The Governing Council called on national authorities to preserve bank resilience and announced an enhanced framework for O-SIIs

In June 2024 the Governing Council issued a [statement calling on national macroprudential authorities to maintain current capital buffer requirements](#) in order to preserve the resilience of the banking sector and ensure that buffers are available in case the banking sector or macro-financial conditions deteriorate. The statement also noted that a further build-up of releasable capital buffer requirements to address vulnerabilities and enhance macroprudential space remained desirable in some countries while prevailing banking sector conditions were limiting the risks of procyclicality. The Governing Council also called on national authorities to maintain existing borrower-based measures to preserve sound and sustainable lending standards. In December 2024 the [ECB enhanced its framework for assessing capital buffers of other systemically important institutions \(O-SIIs\)](#) to take into account the systemic importance of O-SIIs for the banking union as a whole. The enhanced floor methodology is due to have been implemented in full by 1 January 2028.²⁶

By the end of 2024 all banking union countries had implemented some form of releasable capital buffer

Against this background, national authorities continued to tighten macroprudential policy in 2024 to boost the resilience of banks, with all banking union countries having implemented some form of releasable buffer requirement by the end of the year. This was facilitated by banks' profitability and capital headroom, which remained high on average. In 2024 three euro area countries announced the

²⁶ The ECB floor methodology, which was introduced in 2016, was first revised in 2022. That revised methodology started to be used in the ECB's assessments of O-SII buffers from 1 January 2024.

introduction of the countercyclical capital buffer, while one country announced the introduction of the systemic risk buffer.²⁷ This reflects the ongoing efforts of many national authorities to enhance macroprudential space in the form of releasable capital buffers, even when cyclical risk conditions in their countries do not point to an elevated risk environment.²⁸ Moreover, some countries adjusted the O-SII buffer levels for individual institutions following the full implementation of the O-SII floor methodology on 1 January 2024. Finally, in addition to capital-based measures, two countries announced the implementation of borrower-based measures, bringing the number of countries with such measures in place to 17.²⁹

The ECB communicated its analysis and views on macroprudential policy topics in 2024. In the macroprudential policy chapters of the May and November issues of its Financial Stability Review, it underlined its strong support for regulatory initiatives aimed at creating macroprudential space and at improving the efficiency and effectiveness of the EU macroprudential framework for banks.³⁰ It also continued to analyse the financial stability implications of legal initiatives to impose extraordinary taxes on credit institutions and highlighted its concerns in three opinions.³¹ Finally, the ECB reiterated the importance of enhancing the macroprudential framework for non-banks, with a view to helping ensure that they provide a stable source of financing through the financial cycle (see Section 3.4).

Cooperation with the European Systemic Risk Board

The ESRB is responsible for macroprudential oversight of the EU financial system

The ECB hosts the secretariat of the European Systemic Risk Board (ESRB) and provides it with analytical, statistical, logistical and administrative support.³² In addition to this regular support, the ECB continued in 2024 to make major contributions to the work of the ESRB. This included co-chairing the ESRB's Instruments Working Group (IWG), Analysis Working Group (AWG) and Task Force on Stress Testing. The ECB's analytical and modelling competence was of particular benefit to the work of the Task Force on Stress Testing in developing the adverse scenario for the 2025 EU-wide stress tests of the European Banking Authority (EBA)

²⁷ Spain, Greece and Portugal announced the introduction of a positive neutral rate for the countercyclical buffer, while Italy announced the introduction of a systemic risk buffer applicable to domestic credit and counterparty credit risk exposures.

²⁸ In addition to some countries having implemented new macroprudential measures, Croatia and Latvia announced changes to the treatment of real estate exposures under Article 124 of the Capital Requirements Regulation (CRR) in light of the changes introduced by CRR III.

²⁹ Bulgaria and Greece announced the implementation of borrower-based measures in 2024, while several countries also made some adjustments to their existing borrower-based measures.

³⁰ See "[Financial Stability Review](#)", ECB, May 2024 and "[Financial Stability Review](#)", ECB, November 2024.

³¹ See (i) Slovakia: [Opinion of the European Central Bank of 14 February 2024 on a special levy for credit institutions \(CON/2024/4\)](#); (ii) Latvia: [Opinion of the European Central Bank of 4 November 2024 on the imposition of a temporary solidarity contribution on credit institutions for national security purposes \(CON/2024/35\)](#); (iii) Spain: [Opinion of the European Central Bank of 17 December 2024 on a tax on the net interest and commission income of certain financial institutions \(CON/2024/41\)](#).

³² The ESRB brings together central bank governors from all countries of the European Economic Area, as well as the heads of national and European supervisory authorities, to conduct quarterly assessments of systemic risk and, when necessary, to issue warnings and recommendations. For further information, see [Council Regulation \(EU\) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board](#) (OJ L 331, 15.12.2010, p. 162).

and in conducting the first liquidity stress test covering the entire EU financial system. Related to this, the ECB also co-chaired a team that drew up a framework for monitoring systemic liquidity risk.

A joint ECB-ESRB report shows how the countercyclical capital buffer is being used more actively

In addition, the ECB co-authored with the ESRB a report on Member States' increased use of the countercyclical capital buffer to build up resilience early in the financial cycle and thereby mitigate the impact of credit crunches.³³ It also continued to support the ESRB's work on a wide range of topics, notably: (i) macroprudential tools for cyber resilience;³⁴ (ii) monitoring vulnerabilities related to NBFIs;³⁵ (iii) vulnerabilities in the real estate sector and follow-up work related to the ESRB recommendation of 2023 on commercial real estate;^{36,37} (iv) macroprudential implications of interest rate changes; and (v) the implications for macroprudential policy of heightened uncertainty and emerging risks (particularly in relation to geopolitical, climate and technological developments). Finally, the High-Level Group on the ESRB Review conducted a second review of the [ESRB Regulation](#)³⁸, examining the ESRB's work and experiences over the past decade. The Group made proposals for enhancing the ESRB's macroprudential oversight capacity, notably through a more holistic assessment of systemic risk that takes into account interconnections, interdependencies and spillovers.³⁹ More detailed information can be found on the [ESRB's website](#) and in its [Annual Reports](#).

3.3 Microprudential activities to ensure the safety and soundness of individual banks

Banks remained resilient owing to the progress made in past years and continuous supervisory engagement

European banks remained resilient throughout 2024. Banks directly supervised by the ECB maintained solid capital and liquidity positions. In the third quarter of 2024 the [aggregate CET1 ratio stood at 15.72%](#) and overall liquidity conditions remained favourable. The [NPL ratio stood at around 2.3%](#) in the third quarter of 2024, close to its historical low. Bank profitability remained strong, driven primarily by higher interest rates.

Prudential risks were driven largely by an increasingly volatile and complex external risk landscape

Nevertheless, banks were faced with a prolonged period of sustained geopolitical tensions, marked by high uncertainty and increased volatility, as well as a challenging risk landscape, including climate-related and environmental risks. Consequently, the ECB's supervisory work remained focused on the effectiveness of

³³ See ["Using the countercyclical capital buffer to build resilience early in the cycle"](#), ECB/ESRB, January 2025.

³⁴ See ["Advancing macroprudential tools for cyber resilience – Operational policy tools"](#), ESRB, April 2024.

³⁵ See ["NBFI monitor"](#), No 9, ESRB, June 2024.

³⁶ See ["Follow-up report on vulnerabilities in the residential real estate sectors of the EEA countries"](#), ESRB, February 2024.

³⁷ See ["ESRB issues a recommendation on vulnerabilities in the commercial real estate sector in the European Economic Area"](#), *press release*, ESRB, 25 January 2023.

³⁸ Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board (OJ L 331, 15.12.2010, p. 1).

³⁹ See ["High-Level Group on the ESRB Review publishes report entitled 'Building on a Decade of Success'"](#), *press release*, ESRB, 18 December 2024.

internal control functions and governance arrangements, and on ensuring supervised banks had sufficient capital to withstand credible adverse scenarios.

Cyber resilience was part of the 2024-26 supervisory priorities

Against this backdrop, the 2024 Supervisory Review and Evaluation Process (SREP) did not result in major changes to banks' scores or overall Pillar 2 requirements. The overall capital requirements and guidance increased slightly to 15.6% of risk-weighted assets, up from 15.5% in 2023.⁴⁰

In 2024 ECB Banking Supervision continued to focus strongly on credit risk management, addressing shortcomings in IFRS 9 frameworks and conducting targeted reviews of real estate and SME portfolios to mitigate asset quality deterioration. Deficiencies in risk data aggregation and reporting, which hinder effective decision-making, prompted greater supervisory efforts to improve banks' information systems and to address IT security vulnerabilities. Operational and ICT risk remained a concern, underscoring the need to speed up the digitalisation process and strengthen cyber resilience. The ECB conducted a [cyber resilience stress test](#), which showed that banks had response and recovery frameworks in place, but that there were still areas for improvement. With regard to climate-related and environmental risks, the ECB continued to monitor [banks' compliance with the deadlines they were given in 2022 to meet all supervisory expectations by the end of 2024](#). As in 2023, the supervisory exercises were followed up with ongoing dialogue, feedback letters and, where necessary, binding supervisory decisions envisaging the accrual of periodic penalty payments.⁴¹ The ECB also made use of [forward-looking tools to assess the alignment of banks' financing with EU climate objectives](#).

In 2024 the focus was on a flexible, agile and risk-based approach

Over the course of 2024 ECB Banking Supervision continued to pursue a risk-based and agile approach. In May the Supervisory Board decided to launch a reform of the SREP with a view to (i) focusing risk assessments by strengthening the multi-year approach, (ii) better integrating supervisory activities, (iii) using the full supervisory toolkit, (iv) enhancing communication, (v) making methodologies stable, and (vi) making better use of IT systems and analytics. In addition, the [ECB and EBA established a Joint Bank Reporting Committee](#) to harmonise and integrate data reporting by the banking industry with the goal of improving efficiency and reducing the associated costs.

Ten years of European banking supervision: a year of integration fostering cohesive supervisory culture

On 6 November 2024 the SSM celebrated its tenth anniversary. To mark the occasion, the entire year had been made "a year of integration", with a number of dedicated events, including the launch of the first SSM Foundation Programme. The Programme is part of the training offered by the SSM and aims to foster, among other things, a cohesive supervisory culture across the European banking supervision.

The ECB's [supervisory priorities for 2025-27](#) aim to (i) enhance banks' ability to assess and manage macro-financial threats, in particular geopolitical shocks; (ii) ensure they effectively and promptly address persistent shortcomings identified by

⁴⁰ See Section 1.3.1.5 of the "[2024 ECB Annual Report on supervisory activities](#)".

⁴¹ For further details, see Section 1.2.4.1 of the "[2023 ECB Annual Report on supervisory activities](#)"; and Elderson, F., "[Sustainable finance: from "eureka!" to action](#)", keynote speech at the Sustainable Finance Lab Symposium on Finance in Transition, Amsterdam, 4 October 2024.

supervisory scrutiny; (iii) provide them with the wherewithal to tackle fresh challenges arising from digitalisation and the use of new technologies.

As part of its continued efforts to increase transparency, in 2024 the ECB duly considered the comments received during the [public consultation on its revised Guide to internal models](#). The final revised [Guide to internal models](#) was then published in February 2024. Over the year the ECB also launched public consultations on its [Draft guide on governance and risk culture](#), on its [Guide on outsourcing cloud services to cloud service providers](#) and on the [revised policies on the options and discretions \(O&Ds\) available to supervisory authorities under Union law](#). It also published a comprehensive [methodology for assessing interest rate and credit spread risks](#), and updated the SREP methodology for operational and ICT risk. Lastly, the ECB published best practices on [IFRS 9 provisioning overlays](#) and on [intraday liquidity risk management](#).

Three banks were sanctioned by the ECB in 2024.⁴²

On 5 June 2024 the [Governing Council appointed three new ECB representatives to the Supervisory Board](#): Sharon Donnery, Pedro Machado and Patrick Montagner.

More detailed information can be found on the [ECB's banking supervision website](#) and in the [2024 ECB Annual Report on supervisory activities](#).

3.4 The ECB's contribution to European and global policy initiatives

Considerable advances were made on various European and global policy initiatives in 2024

Significant progress was made in 2024 on improving the regulatory framework for the financial sector. The ECB contributed to the implementation of the final Basel III reforms in the EU and to the proposal for strengthening the EU's crisis management and deposit insurance framework. Important headway was also made on regulating crypto-assets, with the focus shifting to implementation, and on the digital euro project. At the same time, the ECB participated in the ongoing policy debates and preparations for further legislative work on NBFIs and the capital markets union.

⁴² Using its power to impose sanctions on supervised credit institutions, the ECB imposed (i) two administrative penalties on [Confédération Nationale du Crédit Mutuel](#) for breaching two supervisory decisions related to internal models, (ii) two administrative penalties on [Banque et Caisse d'Épargne de l'État](#) in respect of two breaches committed by reporting inaccurate information on own funds and own funds requirements on a quarterly basis, and (iii) an administrative penalty on [BNP Paribas Fortis SA/NV](#) for a breach committed by reporting quarterly, on the basis of its consolidated situation, inaccurate information on its own funds requirements and risk-weighted assets for credit and dilution risk for factoring exposures.

Important developments in the regulatory framework for banks

The final Basel III reforms were transposed into EU law, except for the market risk rules, which were postponed until January 2026

The revised [Capital Requirements Regulation](#)⁴³ and revised [Capital Requirements Directive](#)⁴⁴ – often referred to as the EU banking package – were formally adopted and published in the Official Journal of the European Union on 19 June 2024. In particular, these two legislative acts transposed the final Basel III reforms into EU law, further increasing the resilience of the EU banking system to various risks. They also broadened the supervisory toolkit to include addressing climate-related and other sustainability risks. The ECB contributed to the banking package by providing its technical expertise to the trilogue between the European Commission, the EU Council and the European Parliament. It also supported, and continues to support regulators, in particular the EBA, in starting to implement the elements of the banking package, e.g. through consultation processes on related implementing technical standards and regulatory technical standards. Owing to level playing field considerations, the implementation of the Basel market risk rules in the EU, namely making Fundamental Review of the Trading Book reporting a regulatory requirement, was postponed until January 2026.

Reforms of the bank crisis management and deposit insurance framework advanced

In the course of 2024 the European Parliament and the Council of the European Union adopted their positions on the reform of the bank crisis management and deposit insurance framework, following the legislative proposal by the European Commission in April 2023. The goals of the proposal included expanding the scope of resolution to include smaller and medium-sized banks, and providing tools to facilitate the use of deposit guarantee schemes in crisis management. The outcome of the trilogue negotiations should ensure that these objectives are met and strengthen the EU bank crisis management and deposit insurance framework further.

Implementing a regulatory framework for crypto-assets

Important progress was made on implementing the regulation for crypto-assets

In 2024 the ECB supported the finalisation and implementation of a regulatory framework for crypto-assets at both the EU and the international level. At the EU level, the ECB provided input on technical standards and guidelines that were coordinated by the EBA and [European Securities and Markets Authority](#) for the [Markets in Crypto-Assets Regulation](#).⁴⁵ The ECB also issued an opinion on the proposed regulation and directive on payment and electronic money services, in which it aimed to ensure appropriate safeguards and prudential requirements for e-money tokens, and called for an impact assessment of crypto-lending services.⁴⁶ In

⁴³ Regulation (EU) 2024/1623 of the European Parliament and of the Council of 31 May 2024 amending Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor (OJ L, 2024/1623, 19.6.2024).

⁴⁴ Directive (EU) 2024/1619 of the European Parliament and of the Council of 31 May 2024 amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks (OJ L, 2024/1619, 19.6.2024).

⁴⁵ Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 (OJ L 150, 9.6.2023, p. 40).

⁴⁶ See [Opinion of the European Central Bank of 30 April 2024 on a proposed regulation and directive on payment and electronic money services \(CON/2024/13\)](#).

international fora, such as the Financial Stability Board (FSB), the focus shifted towards promoting and monitoring the implementation of the regulatory response to crypto-assets. In this regard, the ECB contributed to the [FSB-IMF status report on the G20 Crypto-asset Policy Implementation Roadmap](#). It was also involved in the FSB's [analysis of tokenisation and its implications for financial stability](#).

Supporting the progress towards the capital markets union and strengthening the NBFi regulatory framework

Efforts to advance the capital markets union and regulation of the NBFi sector continued in 2024

Throughout the year a number of high-level reports gave fresh impetus to the capital markets union and emphasised the importance of mobilising capital markets to deepen the Single Market and provide adequate financing to innovative and productive firms in Europe.⁴⁷ The ECB participated in the policy debate by setting out priorities in a [Governing Council statement on advancing the capital markets union](#). It also presented three key future objectives for the capital markets union in various publications and speeches, namely (i) ensuring European savings products that are accessible, transparent and affordable so that a larger share of European savings enters into capital markets; (ii) fostering the consolidation of the trading and post-trading landscape; and (iii) developing the financing ecosystem for innovative firms, especially venture capital, which is lagging in Europe.⁴⁸ The ECB also contributed to financial market infrastructure aspects of the capital markets union (see Chapter 4). In addition, it participated in [Eurogroup discussions on the future of European capital and financial markets](#), and contributed to the European Commission's [targeted consultation on the functioning of the EU securitisation framework](#), which is expected to result in legislative action.

Furthermore, the ECB continued to highlight the importance of addressing structural vulnerabilities in NBFi and improving the relevant policy framework from a macroprudential perspective. It also emphasised the need to move forward with the full and swift implementation of international recommendations aimed at addressing liquidity risk in open-ended and money market funds. The ECB contributed to the Eurosystem's response to the European Commission's consultation on macroprudential policies for NBFi.⁴⁹ It was also involved in the FSB's policy work on liquidity preparedness for margin and collateral calls of non-bank market participants,

⁴⁷ See, for example, Draghi, M., "[The future of European competitiveness](#)", September 2024, which was compiled at the request of the European Commission; and Letta, E., "[Much more than a market](#)", April 2024, which was compiled at the request of the European Council.

⁴⁸ See, for example, "[Financial Integration and Structure in the Euro Area](#)", ECB Committee on Financial Integration, ECB, June 2024; "[Financial Stability Review](#)", ECB, November 2024; Lagarde, C., "[Follow the money: channelling savings into investment and innovation in Europe](#)", speech at the 34th European Banking Congress: "Out of the Comfort Zone: Europe and the New World Order", Frankfurt am Main, 22 November 2024; De Guindos, L., "[Bridging the gap: reviving the euro area's productivity growth through innovation, investment and integration](#)", speech at the Latvijas Banka and SUERF Economic Conference 2024, Riga, 2 October 2024; and Cipollone, P., "[Towards a digital capital markets union](#)", keynote speech at the Bundesbank Symposium on the Future of Payments, Frankfurt am Main, 7 October 2024.

⁴⁹ See [Eurosystem response to EU Commission's consultation on macroprudential policies for non-bank financial intermediation \(NBFi\)](#), FSC high-level task force on NBFi, November 2024. The ECB was also involved in the [ESRB's response to the same consultation](#).

and actively contributed to the ongoing policy work to address risks stemming from NBFIs leverage.⁵⁰

Box 3

The evolution of concentration risk in euro area equity funds

2024 saw a significant increase in concentration risk in euro area equity funds

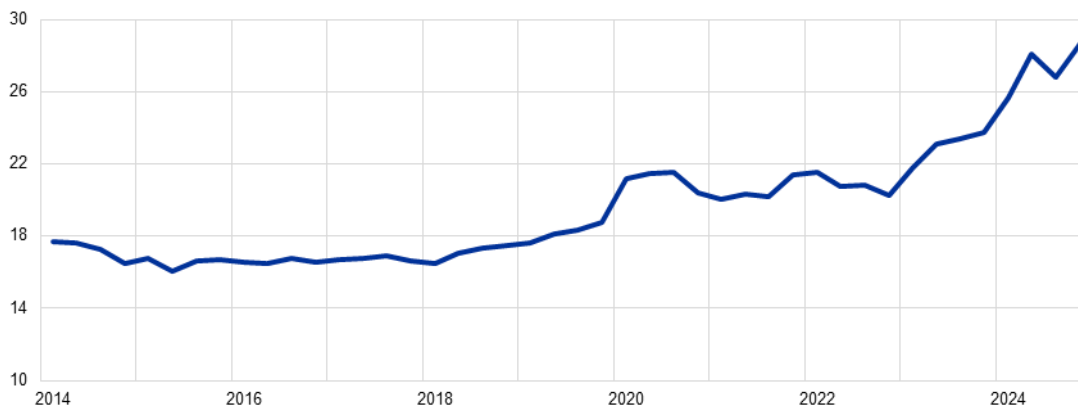
Concentration risk arises when funds hold a large share of their investments in just a few large entities, geographic regions or economic sectors. An analysis of investment funds' equity holdings reveals that almost 30% of their total non-financial corporation (NFC) equity portfolio was concentrated in just 25 companies at the end of 2024 (Chart A, panel a). This reflects significantly higher portfolio shares allocated to the largest fund positions, with more than 3% of all NFC equity holdings invested in only one stock (Chart A, panel b).

Chart A

Concentration of equity holdings in euro area investment funds over time

a) Share of investment funds' NFC equity holdings allocated to the top 25 issuers

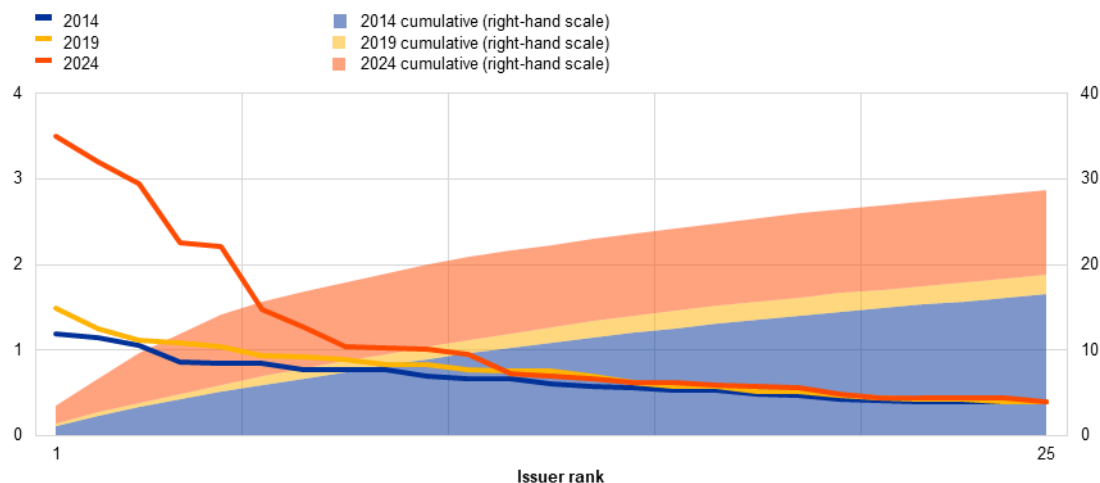
(percentages of NFC equity holdings)



⁵⁰ See “[Liquidity Preparedness for Margin and Collateral Calls: Final report](#)”, Financial Stability Board, 10 December 2024; and “[Leverage in Non-bank Financial Intermediation: Consultation report](#)”, Financial Stability Board, 18 December 2024.

b) Change in the concentration of the top 25 issuers in investment funds' NFC equity holdings

(percentages of NFC equity holdings)



Sources: ECB (Centralised Securities Database, Securities Holdings Statistics) and ECB calculations.

Notes: Panel a): the top 25 issuers are the 25 largest NFCs held according to portfolio value in each quarter, aggregating equity exposures for companies that issue more than one type of share. Panel b): the x-axis ranks issuers from the largest (1) to the 25th largest (25) issuer held at the end of each year.

Rising portfolio concentration reflected both shifts in investment strategies and valuation changes

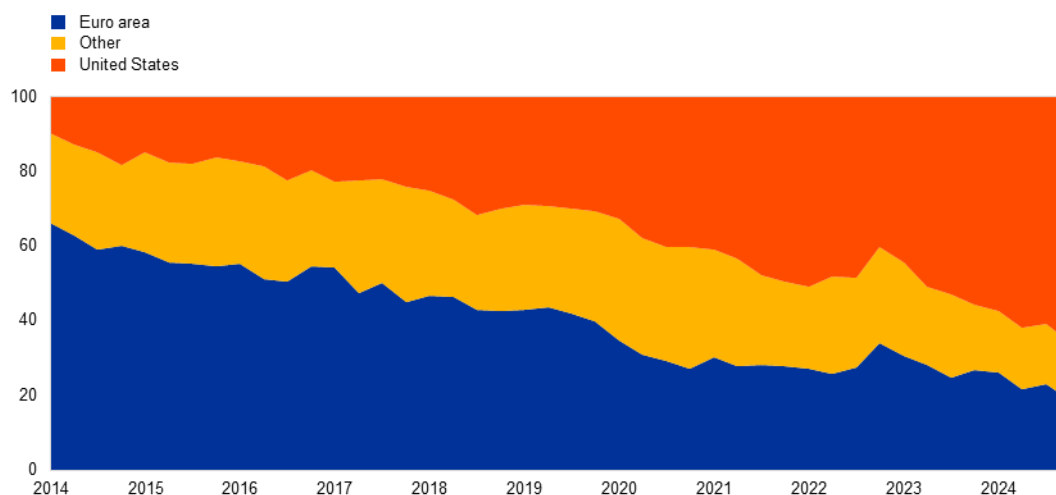
The increasing popularity of passive investment strategies and high stock price growth in technology-focused US companies have been key drivers of rising concentration risk in recent years. Passive investing aims to mirror the performance of the overall market. This means that passively managed investment funds typically replicate stock indices, which has tilted their portfolios towards larger issuers included in major benchmarks. As a result, the composition of the largest euro area equity fund positions in 2024 increasingly reflected the dominance of a few large US technology companies in global stock markets (Chart B, panel a). Significant price increases in such stocks over the year boosted their relative value in portfolios, while also attracting comparatively higher flows into technology funds than into other equity funds (Chart B, panel b).

Chart B

Shift towards US stocks and technology-focused equity funds

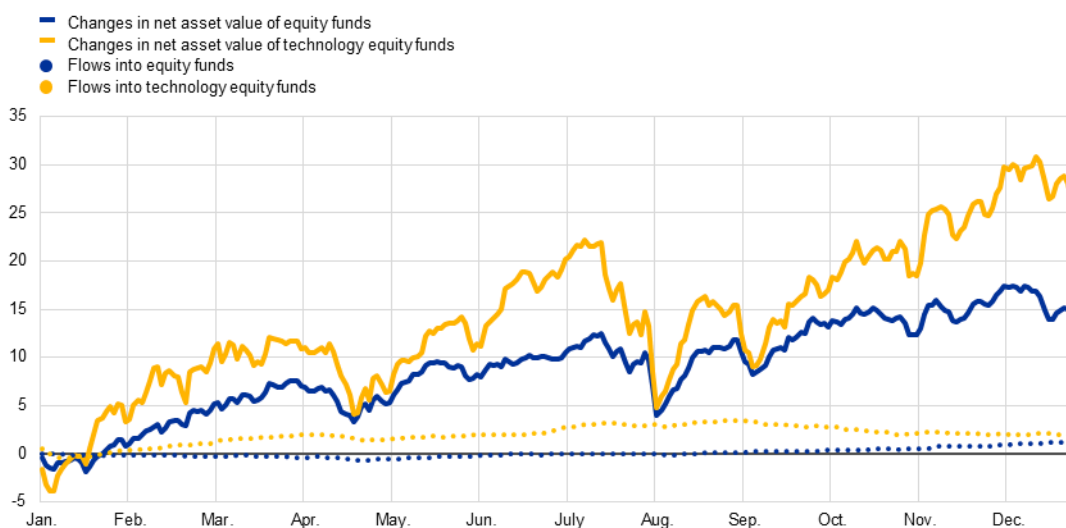
a) Composition of euro area investment funds' top 25 NFC issuers, by issuer domicile

(percentages)



b) Cumulative changes in euro area equity fund flows and net asset value in 2024, by fund type

(percentages of total net assets)



Sources: ECB (Centralised Securities Database, Securities Holdings Statistics), EPFR and ECB calculations.

Note: Panel a): the top 25 issuers are the 25 largest NFCs held according to portfolio value in each quarter, aggregating equity exposures for companies that issue more than one type of share.

Concentrated portfolios are vulnerable to sudden price corrections and amplification dynamics

Shocks to a firm or sector in which investment funds' portfolios are heavily concentrated can lead to sizeable valuation losses for an entire fund and prompt investors to sell off their fund shares. In turn, investment funds may have to quickly liquidate assets to meet the outflows. This can drive the prices of affected stocks even lower and amplify downward spirals. It also increases the risk for financial contagion by putting pressure on asset prices not originally affected by the shock, potentially leading to broader market disruptions. In 2024 the risk of sudden stock price corrections increased owing to higher geopolitical risk, macroeconomic uncertainty and overvaluation concerns

in some equity markets. In this context, strengthening the resilience of the investment fund sector to such shocks is of growing importance to preserve wider financial stability.

4 Smooth functioning of market infrastructure and payments

The Eurosystem plays a central role in developing, operating and overseeing market infrastructures and payments. In 2024 traffic increased across all Eurosystem-operated TARGET Services, whose functionalities, including multi-currency settlement services, further evolved. With a view to enhancing the digitalisation of retail and wholesale payments and securities markets, the Eurosystem laid the groundwork for the potential issuance of a digital euro and successfully completed its exploratory work on the use of distributed ledger technology (DLT) for wholesale transactions settled in central bank money. Evolving cyber threats were addressed from both the operational and the oversight angle. Work on improving global cross-border/cross-currency payments was launched to support the creation of a faster, cheaper, more transparent and more accessible global payments ecosystem.

4.1 TARGET Services

TARGET Services consist of three settlement services: T2, a real-time gross settlement system for euro payment transactions supporting the Eurosystem's monetary policy operations, bank-to-bank transfers and commercial payments; TARGET2-Securities (T2S), a single platform for securities settlement in Europe; and TARGET Instant Payment Settlement (TIPS), which settles instant payments in central bank money.

The evolution of TARGET Services brought significant efficiency gains

The ECB made substantial advancements in the evolution of all TARGET Services in 2024, with concerted efforts directed towards strengthening the ability of T2 and T2S to recover in the event of a major incident (including a cyberattack) and further refining TARGET Services' functionalities to meet evolving market needs. In order to maintain straight-through processing in a cross-border payments context, T2 messages were upgraded in line with the most recent developments in market standards for high-value payment systems (i.e. HVPS Plus). Notable achievements for T2S include the full deployment of new reporting services, the expansion of functionalities for settlement of transactions with central securities depositories external to the T2S platform, further development of the cash management services for participating banks, and a continuation of work to prepare for the prospective integration of new end-investor markets. Furthermore, the T2S governance bodies played a key role in critical policy and regulatory initiatives, such as the future shortening of the securities settlement cycle in the EU (to T+1) and the review of the settlement discipline regime, with an emphasis on refining the penalty mechanism for improved efficiency. The advancements in the evolution of all TARGET Services have brought significant efficiency gains to the market.

The multi-currency feature of TARGET Services was further deployed

The multi-currency feature of the TARGET Services allows settlement services to be provided in currencies other than the euro, should the respective central banks

decide to do so. Until 2024 this feature was used only in T2S for settlement of securities in Danish kroner. Since February 2024 the multi-currency feature has also been used in TIPS for [settlement of instant payments in Swedish kronor](#). It will also be used when [settlement of payments in Danish kroner goes live in T2 and TIPS in April 2025](#).

The launch of the ECMS was rescheduled for June 2025

In addition to the three settlement services (T2, T2S and TIPS), the Eurosystem is developing a new TARGET Service, the Eurosystem Collateral Management System (ECMS), for the management of assets used as collateral in Eurosystem credit operations for all euro area jurisdictions. The [launch of the ECMS has been moved from November 2024 to June 2025](#) to give users more time to complete testing of the ECMS functionalities in a stable environment.

Traffic increased across all TARGET Services

In 2024 payment traffic increased across all TARGET Services. T2 settled on average 421,875 payments per day, representing a 3.2% increase compared with the previous year, which was driven mainly by commercial payments. T2S settled a daily average volume of 791,416 transactions, a 13.1% increase, which was broadly spread across market segments and participants. The further growth in the number of TIPS participants and the start of settlement operations for the first currency other than the euro in February (see above), led to a substantial rise in the number of TIPS payments in 2024. Looking at the euro-denominated volumes, the daily average grew from 963,894 payments in December 2023 to 1,657,421 in December 2024 (+72.0%). Payments denominated in Swedish kronor averaged 2,686,745 per day from February 2024 to the end of the year.

4.2 Innovation and integration in market infrastructure and payments

A policy was approved for non-bank payment service providers' access to Eurosystem-operated payment systems and central bank accounts

On 18 July 2024 the Governing Council approved the Eurosystem's [policy on access by non-bank payment service providers \(non-bank PSPs\) to all euro area central bank-operated payment systems and to central bank accounts](#).⁵¹ The policy sets out, as a general principle, that access to euro area central bank-operated payment systems is to be granted to non-bank PSPs that meet all risk-mitigation requirements. The Eurosystem will not offer non-bank PSPs access to accounts for the purposes of safeguarding client funds; the holding of a central bank account implies placing funds necessary to meet settlement obligations. To mitigate central bank-specific concerns from the perspectives of financial stability and monetary policy, the Eurosystem will impose a maximum holding limit on accounts held by non-bank PSPs. The policy follows the enactment of the [Instant Payments Regulation](#)⁵², which amended, among other things, the [Settlement Finality](#)

⁵¹ Non-bank payment service providers include payment institutions, as defined in Article 4(4) of the EU Payment Services Directive, and electronic money institutions, as defined in Article 2(1) of the E-Money Directive.

⁵² Regulation (EU) 2024/886 of the European Parliament and of the Council of 13 March 2024 amending Regulations (EU) No 260/2012 and (EU) 2021/1230 and Directives 98/26/EC and (EU) 2015/2366 as regards instant credit transfers in euro (OJ L 2024/886, 19.3.2024).

[Directive](#)⁵³, to allow non-bank PSPs to participate in designated payment systems. The Eurosystem implemented the policy by way of a [Decision adopted by the Governing Council on 27 January 2025](#)⁵⁴, with related updates to the [TARGET Guideline](#)⁵⁵ to follow in June 2025.

Harmonised rules were defined for Eurosystem collateral management

In August 2024 the ECB published [harmonised rules and arrangements for the mobilisation and management of collateral in Eurosystem credit operations](#), marking a step towards further financial integration in the euro area and the capital markets union.

AMI-SeCo reported slow progress by national markets on complying with standards

As part of its ongoing support for the creation of a capital markets union, the Eurosystem's Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo) continued monitoring [compliance of national markets with the T2S harmonisation standards](#), as well as with the Single Collateral Management Rulebook for Europe (SCoRE) standards and European corporate event standards. The [2024 Corporate Events Compliance Report](#) and the [SCoREBOARD report for the second half of 2024](#) both highlight limited progress and delays on compliance with AMI-SeCo standards, although many outstanding gaps are expected to be closed by June 2025. One driver for compliance is the use of a common messaging standard, as required by the SCoRE standards, which is key for improving the automation of corporate action and triparty collateral management processing. AMI-SeCo's ISO 20022 Migration Strategy Task Force is developing a strategy for a market-wide transition to ISO 20022, the latest messaging standard available.

The Eurosystem continued analysing the use of DLT for wholesale transactions settled in central bank money

During 2024 the Eurosystem successfully completed its [exploratory work on testing the use of DLT for wholesale transactions settled in central bank money](#).⁵⁶ Over the course of six months, 58 distinct use cases were tested. In total, the Eurosystem processed over 200 transactions with a total value of €1.59 billion. 64 entities from nine countries participated in the exploratory work, encompassing central banks, financial market participants and DLT operators.

The findings are currently being analysed to inform the next steps in terms of a European vision for the future of a digital capital markets union.⁵⁷ Throughout 2024 the Eurosystem continued to exchange views with the market in the dedicated New Technologies for Wholesale settlement Contact Group.

Lastly, the [EU Issuance Service \(EIS\)](#) was launched in January 2024. This service, which is used by the European Commission to issue and settle EU debt securities in a safe, efficient and neutral way in T2S, has been used intensively and successfully

⁵³ Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems (OJ L 166, 11.6.1998, p. 45).

⁵⁴ Decision (EU) 2025/222 of the European Central Bank of 27 January 2025 on access by non-bank payment service providers to Eurosystem central bank operated payment systems and central bank accounts (ECB/2025/2) (OJ L 2025/222, 6.2.2025).

⁵⁵ Guideline (EU) 2022/912 of the European Central Bank of 24 February 2022 on a new-generation Trans-European Automated Real-time Gross Settlement Express Transfer system (TARGET) and repealing Guideline ECB/2012/27 (ECB/2022/8).

⁵⁶ See also the [ECB's web page on exploratory work on new technologies for wholesale central bank money settlement](#).

⁵⁷ See Cipollone, P., "Towards a digital capital markets union", keynote speech at the Bundesbank Symposium on the Future of Payments, Frankfurt am Main, 7 October 2024.

since its launch. Over €100 billion worth of debt securities have been issued via the central securities depository of the Nationale Bank van België/Banque Nationale de Belgique under the neutrality approach of the EIS.

4.3 Digital euro project

The digital euro project aims to lay the foundations for the potential issuance of a digital euro

In November 2023 the [ECB launched a two-year digital euro project preparation phase](#) to lay the groundwork for the potential issuance of a digital euro. In 2024, the Eurosystem made progress on key milestones and provided regular updates on the progress made. The [first digital euro progress report](#) was published in June, and the [second digital euro progress report](#) in December. As part of the preparation phase, the ECB is working on a digital euro scheme rulebook, which will be essential to standardise the way the digital euro is used and managed in the euro area. In 2024 the [Rulebook Development Group](#) focused on two main tasks: reviewing the first draft of the rulebook and continuing to develop additional sections with the support of [seven new Rulebook Development Group workstreams](#).

The design of a digital euro would rely on state-of-the art technologies to make it cyber-resilient and able to meet user needs. In January the ECB issued [calls for applications for potential providers of digital euro components](#) and related services, and was able to make progress on the selection.

Further experimentation and user research activities started in September 2024 to gather insights on user preferences. This included online surveys and interviews with target groups such as small merchants and vulnerable consumer groups. [Innovation partnerships](#) with private and public stakeholders were launched to test “conditional payments” and explore other innovative use cases.

The ECB made progress in developing digital euro offline functionality, which would allow payments to be made without an internet connection, with cash-like privacy levels. It explored how to deploy the offline functionality in end-user devices, involving technological, security and operational aspects.

Engagement with stakeholders remained a priority in 2024, with the ECB actively communicating with the public, market participants and policymakers. This included technical sessions with the Euro Retail Payments Board (ERPB), bilateral meetings with market participants and efforts to raise public awareness on the project and foster transparency through [seminars on the digital euro with civil society organisations](#).

As part of the preparation phase, the ECB provided technical input on the proposal for a Digital Euro Regulation

Throughout 2024 the ECB provided technical input to support discussions in the European Parliament and the Council of the European Union on the European Commission’s [proposal for a Digital Euro Regulation](#), published in June 2023.

The ECB also regularly engaged with the co-legislators and market stakeholders to provide updates on the progress of the project and gather feedback on the various

elements of the holding limit calibration methodology.⁵⁸ Although the holding limit for the digital euro would be set closer to its launch date – to ensure it reflects the economic conditions at that time – in 2024 the ECB started to develop a methodology, covering monetary and economic aspects, aimed at balancing the objectives set out in the draft legislation: to make the digital euro a widely used means of payment and to protect financial stability and the transmission of monetary policy. A dedicated workstream involving ECB experts, with support from the national central banks and national competent authorities, started to identify the key factors influencing the calibration of the holding limit to help establish a coherent methodology that takes these factors into account.

The Governing Council will decide whether to move on to the next phase of the digital euro project by the end of 2025. The decision on whether to issue a digital euro will only be taken once the European Union's legislative framework has been adopted.

4.4 Oversight and the role of central bank of issue

The safe and efficient functioning of financial market infrastructures and payments in the euro area remains a priority for the Eurosystem in its oversight capacity. In addition, as central bank of issue for the euro, the Eurosystem participates in cooperative arrangements with other overseers or competent authorities for financial market infrastructures with significant euro-denominated activities.

The continuous oversight of systemically important infrastructures remained a priority in 2024

In relation to the oversight of TARGET Services, a key priority was to carry out the first comprehensive assessment following the consolidation of T2 and T2S in 2023. The assessment, which will be finalised in 2025, focused in particular on monitoring the implementation of the risk management framework and the cyber resilience and information security framework of the TARGET Services risk management function. Assessment exercises were also conducted for systemically important payment systems (SIPS) beyond T2, namely EURO1, STEP2-T and the Mastercard Clearing Management System, also to be finalised in 2025, alongside continuous oversight across TARGET Services and all SIPS.

A review of the SIPS Regulation was carried out, introducing new requirements and changes to the definition of a SIPS operator

Furthermore, the Eurosystem carried out a review of the ECB [Regulation on oversight requirements for systemically important payment systems \(SIPS Regulation\)](#)⁵⁹ and identified a number of areas for update. The update takes the form of a recast of the Regulation, encompassing new requirements on governance, cyber risk and outsourcing as well as changes in the definition of a SIPS operator to exceptionally include a euro area branch of a legal entity located outside the euro

⁵⁸ For more details, see “[Preliminary methodology for calibrating holding limits](#)”, slides for the 14th ERPB technical session on digital euro, ECB, Frankfurt am Main, 10 December 2024; “[Update on workstream on the methodology for the calibration of holding limits](#)”, slides for the 11th ERPB technical session on digital euro, ECB, Frankfurt am Main, 11 April 2024; “[Summary of inputs on the methodology for calibrating holding limits](#)”, slides for the 12th ERPB technical session on digital euro, ECB, Frankfurt am Main, 16 July 2024; and “[ERPB – Annex to preliminary methodology for holding limit calibration](#)”, ECB, Frankfurt am Main, 10 December 2024.

⁵⁹ Regulation of the European Central Bank (EU) No 795/2014 of 3 July 2014 on oversight requirements for systemically important payment systems (ECB/2014/28) (OJ L 217, 23.7.2014, p. 16).

area. A [public consultation on the planned recast of the SIPS Regulation](#) was launched in October 2024 and the final recast Regulation will be published in the course of 2025.

The Eurosystem continued its oversight activities covering electronic payment instruments, schemes and arrangements (PISA) under the [PISA framework](#), finalising the onboarding of newly overseen entities and conducting comprehensive assessments of overseen pan-European schemes and arrangements. In the latter half of 2024 the oversight function continued to prepare for the operationalisation of its new responsibilities under the [Markets in Crypto-Assets Regulation](#)⁶⁰.

In the area of cyber resilience, the Eurosystem revised its [cyber resilience strategy](#), expanding its reach to include entities overseen under the PISA framework. Furthermore, the European System of Central Banks worked on revising the [TIBER-EU framework](#), also to align with the regulatory technical standards under the [Digital Operational Resilience Act \(DORA\)](#)⁶¹ for threat-led penetration testing.⁶² The updated TIBER-EU framework was published in February 2025.

As central bank of issue for the euro, the Eurosystem contributed to the work of supervisory and resolution colleges for EU central counterparties (CCPs) and was involved in the ongoing supervision of systemically important third-country CCPs. Regarding securities settlement, the Eurosystem continued the regular review and evaluation of central securities depositories (CSDs) under the [CSD Regulation \(CSDR\)](#)⁶³. It also started performing its role in the authorisation process for entities operating DLT-based market infrastructures under the [DLT Pilot Regime Regulation](#)⁶⁴.

As overseer, the ECB/Eurosystem contributed to a variety of international and European work streams

The ECB contributed to multiple international work streams from an oversight perspective, including on CCP margins, climate risk and general business risk, as well as on the governance and oversight of interlinking fast payment systems. In the EU regulatory space, the Eurosystem contributed to the development of regulatory technical standards, including under the [revised European Market Infrastructure Regulation \(EMIR 3\)](#)⁶⁵, DORA and the CSDR REFIT (further fine-tuning and clarification of the CSDR framework), in cooperation with the relevant European

⁶⁰ Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 (OJ L 150, 9.6.2023, p. 40).

⁶¹ Regulation (EU) 2022/2554 of the European Parliament and of the Council of 14 December 2022 on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014, (EU) No 909/2014 and (EU) 2016/1011 (OJ L 333, 27.12.2022, p. 1).

⁶² For more information see "[Adopting TIBER-EU will help fulfil DORA requirements](#)", ECB, September 2024.

⁶³ Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012 (OJ L 257, 28.8.2014, p. 1).

⁶⁴ Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology, and amending Regulations (EU) No 600/2014 and (EU) No 909/2014 and Directive 2014/65/EU (OJ L 151, 2.6.2022, p. 1).

⁶⁵ Regulation (EU) 2024/2987 of the European Parliament and of the Council of 27 November 2024 amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets (OJ L, 2024/2987, 4.12.2024).

Supervisory Authorities. Within the context of the EMIR 3 discussions, the ECB continuously monitored developments in the EU clearing landscape and conducted quantitative analyses on regulatory measures such as the EMIR 3 active account requirement. Finally, the [ECB and the European Banking Authority published a first joint report on payment fraud](#), emphasising the effectiveness of strong customer authentication requirements.

Box 4

Improving cross-border payments by interlinking fast payment systems

The Eurosystem aims to improve cross-border payments to better support European businesses and individuals making and receiving payments abroad. Payments that cross EU borders are often relatively slow, expensive and complex, making it hard for end users to send and receive money and hampering cross-border trade, investment and remittances. The ECB and the national central banks of the euro area support the G20 roadmap for creating a faster, cheaper, more transparent and more accessible global payments ecosystem.

In October 2024 the [Governing Council launched initiatives to improve cross-border and cross-currency payments](#) within the EU and beyond. These initiatives can be classified into two work streams:

Cross-currency settlement service in TIPS

The Eurosystem will implement a [cross-currency settlement service within TIPS](#). This will allow instant payments originating in one currency to be settled in another currency and in central bank money. Initially, three currencies – the euro, Swedish krona and Danish krone – will be included in the initiative. This could be expanded to include other currencies onboarded to TIPS in the future. The service will be based on the European Payments Council's One-Leg Out (OLO) Instant Credit Transfer (OCT Inst) scheme.

Exploratory work on linking TIPS with other fast payment systems

The [Eurosystem will continue to explore linking TIPS with other fast payment systems](#). This exploratory work involves three initiatives:

implementing the cross-currency settlement service in TIPS;

joining the multilateral network of instant payment systems, Project Nexus, led by the Bank for International Settlements;

establishing a bilateral link with India's Unified Payments Interface, the system with the largest instant payment transaction volumes in the world (India is also among the top ten recipients of euro area remittances).

Linking fast payment systems across borders could reduce costs and increase the speed and transparency of cross-border payments, including remittances. In addition, it could mitigate the risks of fragmentation of the global payments ecosystem. Linking fast payment systems is efficient as it utilises existing domestic payment infrastructures. It also allows for a simpler and more competitive cross-border payments architecture. Moreover, monetary sovereignty is preserved, as interlinking prevents currency substitution and the domination of the market by a few global payment firms.

At the same time, interlinking fast payments systems is demanding and requires the involvement of different stakeholders at various levels in multiple jurisdictions. One technical challenge lies in the use of different standards in different jurisdictions. Other challenges relate to the establishment of proper governance and oversight structures, including ensuring compliance with anti-money laundering and countering the financing of terrorism (AML/CFT) requirements. There are also legal aspects to be considered, such as addressing regulatory discrepancies and settlement finality. Analysis and evaluation of the benefits and challenges are a key part of the exploratory work being conducted by the Eurosystem.

5 Market operations activities and financial services provided to other institutions

The Eurosystem's swap and repo lines are monetary policy instruments that are used as stabilising tools in times of stress in global financial markets. Euro liquidity lines with non-euro area central banks again provided a backstop to market-based funding. The ECB also continued to offer US dollar operations to eligible euro area counterparties on a regular basis, backed by the standing swap line network of major central banks, comprising the ECB together with the Federal Reserve System, the Bank of Canada, the Bank of England, the Bank of Japan and the Swiss National Bank. No ECB interventions took place in the foreign exchange market during 2024. The ECB remained responsible for the administration of various financial operations on behalf of the European Union and continued to play a coordinating role in relation to the Eurosystem reserve management services framework.

5.1 Developments in market operations

Euro and foreign currency liquidity lines

The Eurosystem's swap and repo lines are monetary policy instruments that help prevent tensions in international funding markets from hampering the effectiveness of euro area monetary policy transmission. Table 5.1 shows the liquidity lines in operation as of 31 December 2024.

With regard to foreign currency liquidity lines, in 2024 the ECB continued to provide US dollar liquidity on a weekly basis with a seven-day tenor in coordination with the Federal Reserve System, the Bank of Canada, the Bank of England, the Bank of Japan and the Swiss National Bank (the swap line network). Borrowing by euro area counterparties remained very limited throughout the year.

Table 5.1**Overview of operational liquidity lines**

Non-euro area counterpart	Type of arrangement	Reciprocal	Maximum borrowable amount (EUR millions)
Danmarks Nationalbank	Swap line	No	24,000
Sveriges Riksbank	Swap line	No	10,000
Bank of Canada	Swap line	Yes	Unlimited
People's Bank of China	Swap line	Yes	45,000
Bank of Japan	Swap line	Yes	Unlimited
Swiss National Bank	Swap line	Yes	Unlimited
Bank of England	Swap line	Yes	Unlimited
Federal Reserve System	Swap line	Yes	Unlimited
Banca Națională a României	Repo line	No	4,500
Magyar Nemzeti Bank	Repo line	No	4,000
Bank of Albania	Repo line	No	400
Andorran Financial Authority	Repo line	No	35
National Bank of the Republic of North Macedonia	Repo line	No	400
Central Bank of the Republic of San Marino	Repo line	No	100
Central Bank of Montenegro	Repo line	No	250
Central Bank of the Republic of Kosovo	Repo line	No	100

Source: ECB.

Note: List of central bank liquidity lines that the Eurosystem maintains as of 31 December 2024.

After the ECB's new framework for the provision of euro liquidity to non-euro area central banks came into effect on 16 January 2024, all of the euro liquidity lines for which extension requests were received were prolonged, initially until 31 January 2025 and then until 31 January 2027.⁶⁶ Drawings on the euro liquidity lines in 2024 were limited.

Reporting on foreign exchange interventions

The ECB did not intervene in the foreign exchange market in 2024. Since the inception of the euro, the ECB has intervened in the foreign exchange market twice – in 2000 and 2011. Data on foreign exchange interventions are published on a quarterly basis with a delay of one quarter on the ECB's website and in the ECB Data Portal, and are also recapped in Table 5.2. If there were no foreign exchange interventions in the relevant quarter, this is explicitly stated.

⁶⁶ For more details on the framework, see Cipollone, P., Lane, P. and Schnabel, I., "[Learning from crises: our new framework for euro liquidity lines](#)", *The ECB Blog*, ECB, 29 January 2024.

Table 5.2**ECB foreign exchange interventions**

Period	Date	Intervention type	Currency pair	Currency bought	Gross amount (EUR millions)	Net amount (EUR millions)
Q3 2000	22/09/2000	Coordinated	EUR/USD	EUR	1,640	1,640
	22/09/2000	Coordinated	EUR/JPY	EUR	1,500	1,500
Q4 2000	03/11/2000	Unilateral	EUR/USD	EUR	2,890	2,890
	03/11/2000	Unilateral	EUR/JPY	EUR	680	680
	06/11/2000	Unilateral	EUR/USD	EUR	1,000	1,000
	09/11/2000	Unilateral	EUR/USD	EUR	1,700	1,700
	09/11/2000	Unilateral	EUR/JPY	EUR	800	800
Q1 2011	18/03/2011	Coordinated	EUR/JPY	EUR	700	700
2012-23	-	-	-	-	-	-
Q1-Q4 2024	-	-	-	-	-	-

Source: ECB.

The reporting framework covers foreign exchange interventions carried out by the ECB unilaterally and in coordination with other international authorities, as well as interventions “at the margins” within the exchange rate mechanism (ERM II).

5.2

Administration of EU borrowing and lending operations

The ECB processed payments for various EU loan programmes

The ECB is responsible for the administration of accounts and processing of payments relating to the borrowing and lending operations of the EU under the [medium-term financial assistance \(MTFA\) facility](#)⁶⁷ for Member States' balances of payments, the [European Financial Stabilisation Mechanism \(EFSM\)](#)⁶⁸, the [European instrument for temporary Support to mitigate Unemployment Risks in an Emergency \(SURE\)](#)⁶⁹, the [Next Generation EU \(NGEU\)](#) programme⁷⁰, the [Ukraine Facility](#), including exceptional bridge financing⁷¹, and short-term [macro-financial assistance to the Arab Republic of Egypt](#)⁷². The ECB is also responsible for the administration of certain payments arising in connection with operations under the [European Financial](#)

⁶⁷ In accordance with Article 141(2) of the [Treaty on the Functioning of the European Union](#) (OJ C 326, 26.10.2012), p. 47, Articles 17, 21.2, 43.1 and 46.1 of the [Statute of the ESCB](#), and Article 9 of [Council Regulation \(EC\) No 332/2002 of 18 February 2002 establishing a facility providing medium-term financial assistance for Member States' balances of payments](#) (OJ L 53, 23.2.2002, p. 1).

⁶⁸ In accordance with Articles 122(2) and 132(1) of the [Treaty on the Functioning of the European Union](#), Articles 17 and 21 of the [Statute of the ESCB](#), and Article 8 of [Council Regulation \(EU\) No 407/2010 of 11 May 2010 establishing a European financial stabilisation mechanism](#) (OJ L 118, 12.5.2010, p. 1).

⁶⁹ In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with Article 10 of [Council Regulation \(EU\) No 2020/672 of 19 May 2020 on the establishment of a European instrument for temporary support to mitigate unemployment risks in an emergency \(SURE\) following the COVID-19 outbreak](#) (OJ L 159, 20.5.2020, p. 1).

⁷⁰ In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with [Regulation \(EU\) No 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility](#) (OJ L 57, 18.2.2021, p. 17).

⁷¹ In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with [Regulation \(EU\) 2024/792 of the European Parliament and of the Council of 29 February 2024 establishing the Ukraine Facility](#) (OJ L 2024/792, 29.2.2024).

⁷² In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with [Council Decision \(EU\) 2024/1144 of 12 April 2024 providing short-term macro-financial assistance to the Arab Republic of Egypt](#) (OJ L 2024/1144, 15.4.2024).

[Stability Facility \(EFSF\)](#)⁷³ and the [European Stability Mechanism \(ESM\)](#)⁷⁴, and for processing all payments in relation to the loan facility agreement for Greece⁷⁵. In 2024 the ECB performed [paying agent services for the European Commission](#)⁷⁶.

As at 31 December 2024 the total outstanding nominal amount was €0.2 billion under the MTFA facility, €42 billion under the EFSM, €98.35 billion under SURE and €31.605 billion under the loan facility agreement for Greece. Finally, in 2024 the ECB processed disbursements and interest payments of NGEU loans and grants to and from various Member States, also including loans to Ukraine.

5.3 Eurosystem reserve management services

A number of Eurosystem national central banks provided services under the ERMS framework

In 2024 a comprehensive set of financial services continued to be offered within the [Eurosystem reserve management services \(ERMS\)](#) framework established in 2005 for the management of customers' euro-denominated reserve assets. A number of Eurosystem national central banks provide financial services within this framework – under harmonised terms and conditions and in line with market standards – to central banks, monetary authorities and government agencies located outside the euro area, as well as to international organisations. The ECB performs an overall coordinating role, monitors the smooth functioning of the services, promotes changes to improve the framework and prepares related reports for the ECB's decision-making bodies.

The number of customer accounts reported in the ERMS stood at 287 at the end of 2024, compared with 273 at the end of 2023. As at the fourth quarter of 2024 the total aggregated holdings (including cash assets and securities holdings) managed within the ERMS framework had increased by approximately 8% compared with the fourth quarter of 2023.

⁷³ In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with Article 3(5) of the [EFSF Framework Agreement](#).

⁷⁴ In accordance with Articles 17 and 21 of the [Statute of the ESCB](#) in conjunction with Article 5.12.1 of the [General Terms for ESM Financial Assistance Facility Agreements](#).

⁷⁵ In the context of the loan facility agreement between the Member States whose currency is the euro (other than Germany and Greece) and *Kreditanstalt für Wiederaufbau* (acting in the public interest, subject to the instructions of and with the benefit of the guarantee of the Federal Republic of Germany) as lenders and the Hellenic Republic as borrower and the Bank of Greece as agent to the borrower, and pursuant to Articles 17 and 21.2 of the [Statute of the ESCB](#) and Article 2 of [Decision of the European Central Bank of 10 May 2010 concerning the management of pooled bilateral loans for the benefit of the Hellenic Republic and amending Decision ECB/2007/7 \(ECB/2010/4\)](#) (OJ L 119, 13.5.2010, p. 24).

⁷⁶ In accordance with the [Memorandum of Understanding for the European Union Issuance Service](#).

6 Cash is still the most common payment method among European citizens

In 2024 the level of banknotes in circulation increased moderately, with cash continuing to be the most widely used means of payment at the point of sale.

The Eurosystem is committed to ensuring that cash remains available, accessible and accepted as means of payment, while also being as sustainable and environmentally friendly as possible. The preparations for the development of a new series of euro banknotes are an opportunity to make euro banknotes more relatable to all Europeans.

6.1 Cash circulation and handling

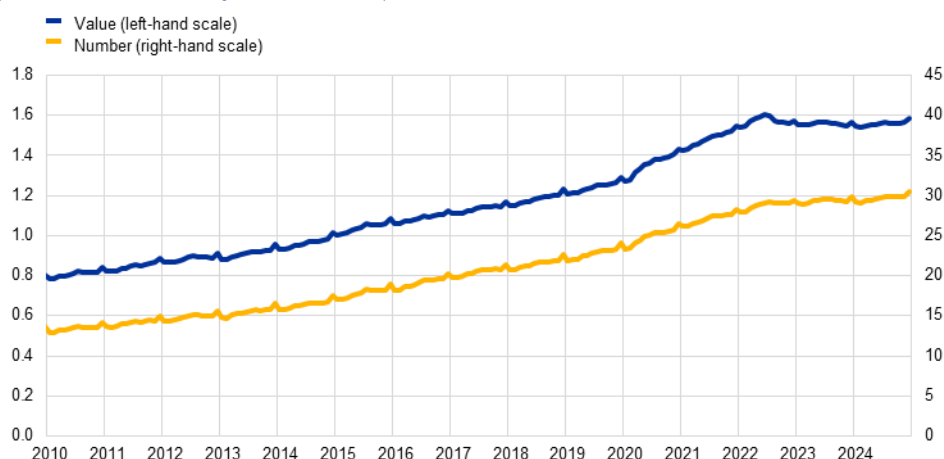
Euro banknote circulation went up slightly, and coin circulation also continued to rise

At the end of 2024 euro banknote circulation amounted to 30.5 billion pieces, with a total value of around €1.6 trillion (Chart 6.1). In terms of number and value, banknotes in circulation grew by 2.4% and 1.3% respectively over the year.

Chart 6.1

Number and value of euro banknotes in circulation

(left-hand scale: EUR trillions; right-hand scale: billions)



Source: ECB.

Credit institutions recirculated higher volumes of banknotes among customers, thereby boosting efficiency

Credit institutions returned 25.4 billion banknotes to the euro area national central banks (NCBs) in 2024, which is a slight decrease of 0.9 billion compared with 2023. In terms of value, the banknotes deposited at the NCBs totalled €856 billion in 2024, down from €890 billion in 2023. This decline was due to credit institutions recirculating higher volumes of banknotes among customers instead of returning them to the NCBs. The change in credit institutions' handling of banknotes reflects

their efforts to improve efficiency, which they have achieved, for example, by installing more ATMs with banknote deposit and recirculation functionality.

In 2024 the increase in euro coin circulation (net issue) in the euro area was similar to that in the previous two years and amounted to 3.0 billion coins with a face value of €953 million.

The ECB aims to ensure effective access to and acceptance of cash in the euro area, and welcomes rules on its legal tender status

The ECB strongly welcomes the intention to establish legally binding rules on the legal tender status of euro banknotes and coins in EU law. The adoption of an EU regulation would give citizens greater legal certainty that they can conduct in-person transactions smoothly using cash. Credit institutions have a social responsibility to provide citizens and companies with comprehensive and efficient cash services. In 2024 the ECB and NCBs deepened their analyses of citizens' access to the cash services offered by credit institutions, identifying a further deterioration in these services in certain areas. The incorporation of protective rules on citizens' access to cash in EU law is therefore also expressly welcomed.

6.2

Cash usage by consumers and companies

Cash remains the most frequently used payment method at the point of sale

Between September 2023 and June 2024 the ECB conducted a [study on payment attitudes of consumers in the euro area](#) to assess their payment behaviour and preferences, as well as their access to various payment instruments. The study showed that cash was the most frequently used payment method at the point of sale and was used in 52% of all transactions. However, the share of cash payments declined, down from 59% in 2022. In terms of value, cards accounted for a higher share of transactions (45%) than cash (39%). The share of online payments in consumers' day-to-day payments rose from 17% to 21%, while the share of point-of-sale payments fell from 80% to 75%. The study also revealed that a majority of consumers (62% in 2024, up from 60% in 2022) considered it important to have cash as a payment option. At the same time, most euro area consumers (87% in 2024, down from 89% in 2022) reported finding it fairly easy or very easy to get to an ATM or a bank.

In 2024 the ECB published the results of the [survey on the use of cash by euro area companies](#), which shed light on companies' acceptance of various payment instruments and their strategic views on the use and acceptance of cash. The survey showed that the share of companies that accept cash had fallen from 96% in 2021, down to 88% in 2024. The drop in cash acceptance was particularly sharp among hotels, restaurants and cafés. Of the companies that currently accept cash, 94% said that they intended to continue doing so in the future.

6.3

Counterfeiting and euro banknote development

In 2024 the level of counterfeits in proportion to total banknotes in circulation was low by historical standards

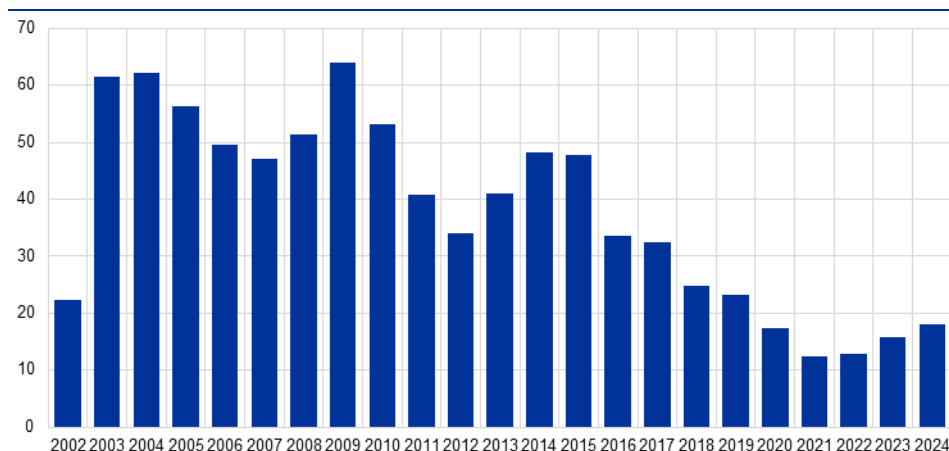
Some 554,000 counterfeit euro banknotes were withdrawn from circulation in 2024, representing, by historical standards, a small proportion of total banknotes in circulation (Chart 6.2). Although this is a very small proportion, it is higher than in

previous years when the number of counterfeits was exceptionally low owing to the COVID-19 pandemic. Overall, around 18 counterfeits were detected per million genuine banknotes in circulation. Thus, there is little likelihood of receiving a counterfeit.

Most counterfeits are of low quality with no or only very poor imitations of security features. Notes can be checked using the simple “feel, look and tilt” method described on the [banknote security features](#) web page and on the websites of the euro area NCBs.

Chart 6.2

Number of counterfeits detected annually per 1 million genuine notes in circulation



Source: ECB.

Preparations for future euro banknotes

The ECB is preparing to develop a new series of euro banknotes with a view to maintaining their high resilience to counterfeiting and making them as environmentally friendly as possible. This process reflects the Eurosystem’s commitment to cash and is an opportunity to make euro banknotes more relatable to all Europeans.

During 2024 a multidisciplinary advisory group – involving experts in various relevant fields – put together possible motifs to represent the two chosen themes: “European culture” and “Rivers and birds”. On 29 January 2025 the Governing Council selected motifs for both themes and established a design contest jury – involving members from all euro area countries – to support a design contest that is planned for launch later in the year. The ECB is expected to decide in 2026 on the future designs and on when to produce and issue the new banknotes. It will then take several years for the first banknotes to be produced and issued.

The public is being consulted throughout the redesign process and a decision on the final designs is expected in 2026

7 Statistics

The ECB – assisted by the national central banks – develops, collects, compiles and disseminates a wide range of statistics and data needed to support the ECB's monetary policy, as well as financial stability-related and other tasks of the European System of Central Banks and the European Systemic Risk Board. These statistics are also used by public authorities, international organisations, financial market participants, the media and the general public, and help the ECB to increase the transparency of its work.

In 2024 the ECB expanded the reporting population for money market statistics, making the related dataset more representative. The ECB also published new statistics on financial accounts, namely more detailed data on household holdings of investment fund shares/units, and it started publishing new details on quarterly external statistics for special-purpose entities. Climate-related statistical indicators were also further developed as part of the ECB's climate and nature plan. The ECB continued to implement its strategy of reducing the reporting burden for banks based on the Integrated Reporting Framework and the Banks' Integrated Reporting Dictionary.

7.1 Advancing euro area statistics to meet evolving policy needs

Expanded reporting population for euro money market statistics

The increase in the reporting population for [money market statistical reporting](#) (MMSR) supports the quality of euro money markets statistics. On 1 July 2024 the [MMSR reporting population was expanded](#) with the addition of 24 new banks to the existing 45 reporting banks. The expansion increased the sample size for several euro area countries and extended coverage to Luxembourg and Portugal for the first time.

The data from the new reporting agents will be included in the calculation of the euro short-term rate (€STR) once it has been established that the data are of sufficiently high quality. The expansion of the reporting population supports the representativeness, robustness and reliability of the statistics on euro money markets.

Detailed data on households' holdings of investment fund shares/units show exposure to asset classes

Publication of new statistics on financial accounts

In April 2024 the ECB started publishing data on [household holdings of investment fund shares/units](#) broken down by underlying asset and counterparty sector. These data offer deeper insights into households' indirect exposures via investment funds, enabling more accurate analysis of their financial balance sheet and exposure to various asset classes and counterparties.

In October 2024, following an amendment of the [Guideline on the statistical reporting requirements of the ECB in the field of quarterly financial accounts](#)⁷⁷, the ECB started publishing additional data on [financial accounts for other financial institutions \(OFIs\) by subsector](#). OFIs, which constitute the second-largest financial sector in the euro area after monetary financial institutions (MFIs), primarily provide financing to non-financial corporations (NFCs) and, to a lesser extent, to households and other sectors. They also play a role in channelling funds to and from the rest of the world.

Finally, newly released data on [NFC debt securities issuance via financing conduits](#) provide additional information on market-based financing of NFCs in the euro area and euro area countries.

New data on special-purpose entities in external statistics

In April 2024 the ECB started publishing new details on external statistics for special purpose entities (SPEs), as indicated in the amended [Guideline on the statistical reporting requirements of the ECB in the field of external statistics](#)⁷⁸. The new information on quarterly cross-border transactions and positions of SPEs in the euro area and euro area countries, beginning with data for the first quarter of 2020, is aimed at improving the understanding of the role of SPEs in the different components of external statistics.⁷⁹

7.2 Further development of climate-related statistical indicators as part of the ECB's climate and nature plan

The ECB publishes three broad sets of climate change-related statistical indicators.

- The sustainable finance indicators give an overview of debt securities with sustainability characteristics that are issued and held by residents in the euro area. They provide information on the proceeds raised to finance sustainable projects and the transition to a net-zero economy.

⁷⁷ Guideline (EU) 2021/827 of the European Central Bank of 29 April 2021 amending Guideline ECB/2013/24 on the statistical reporting requirements of the European Central Bank in the field of quarterly financial accounts (ECB/2021/20) (OJ L 184, 25.5.2021, p. 4).

⁷⁸ Guideline (EU) 2022/747 of the European Central Bank of 5 May 2022 amending Guideline ECB/2011/23 on the statistical reporting requirements of the European Central Bank in the field of external statistics (ECB/2022/23) (OJ L 137, 16.5.2022, p. 177).

⁷⁹ SPEs are of significant relevance in a specific group of countries.

- Analytical carbon emission indicators for financial institutions supply information on the carbon-intensity of the securities and loan portfolios of financial institutions and thus help to assess the sector's role in financing the transition to a net-zero economy and the associated risks.
- Analytical indicators on the physical risks of financial institutions' portfolios assess risks stemming from the impact of climate change-induced natural hazards, such as floods and wildfires, on the performance of loans, bonds and equities.

These indicators are collated in close cooperation within the European System of Central Banks (ESCB) and are part of the ECB's broader [climate and nature plan](#). They are compiled using several ECB/ESCB and external data collections such as AnaCredit, Securities Holdings Statistics, the Register of Institutions and Affiliates Data (RIAD) and data on greenhouse gas emissions along with physical hazards data from the Risk Data Hub (RDH) of the Disaster Risk Management Knowledge Centre (DRMKC), Copernicus, the Intergovernmental Panel on Climate Change (IPCC) and others.

Climate change-related statistical indicators, on sustainable finance, carbon emissions and physical risks, were significantly enriched and updated

The indicators were updated in April 2024. The sustainable finance indicators were enriched with new details on the assurance levels of sustainable debt securities. The update of carbon emissions and physical risk indicators included significant conceptual, coverage, consistency and granularity improvements.⁸⁰ Additional breakdowns of the sustainable finance indicators were released in September 2024, and the status of the dataset was upgraded from experimental data to official ESCB statistics.

Work is continuing on all three datasets with the aim of further enhancing the quality of the data and breakdowns available. Other research areas are also being investigated under the auspices of the G20 Data Gaps Initiative, namely the measurement of adaptation expenditure, aspects related to insurance coverage and foreign direct investment (FDI), and the conceptual framework for developing forward-looking physical and transition risk indicators. Together with improvements in international statistical standards, such as the System of National Accounts and the Balance of Payments Manual, which will allow further climate-related breakdowns in a wide set of economic data, this is expected to increase the availability of data on these topics in the years ahead.

7.3 Making banks' data reporting more efficient

The ECB's strategy to reduce the reporting burden for banks is based on three pillars: (i) cooperating with other European and national authorities to integrate statistical, prudential and resolution reporting; (ii) incorporating existing statistical reporting into the Integrated Reporting Framework (IReF) as a first step towards broader integration; and (iii) collaboration with the banking industry to bridge the

⁸⁰ For more detailed information on the data, methodological choices and remaining limitations, see "[Climate change-related statistical indicators](#)", *Statistics Paper Series*, No 48, ECB, April 2024.

The Joint Bank Reporting Committee is establishing common concepts and definitions to be used in reporting

authorities' data requirements and the language and definitions used by banks via the Banks' Integrated Reporting Dictionary (BIRD).

The cooperation with other authorities picked up steam in 2024 with the establishment of the Joint Bank Reporting Committee (JBRC), in which the ECB, the European Banking Authority, the European Commission, the Single Resolution Board and relevant national authorities participate. In 2024 the JBRC set up a substructure called the Reporting Contact Group (RCG), which brings together experts on banks' regulatory reporting from the banking industry. The RCG serves as a regular channel for cooperation and exchanges of views with authorities. The first priority of the JBRC is establishing common concepts and definitions to be used in new and existing reporting.

The aim of the IReF is to harmonise statistical reporting across euro area banks. In 2024 the ECB announced that reporting under the IReF was planned to start in late 2029. The new timeline reflects the feedback received from the banking industry on the need to ensure that the IReF is implemented smoothly.

In 2024 the BIRD collaboration, which includes authorities and the industry, integrated the first supervisory and statistical frameworks. The integrated data model, which specifies how data can be extracted from banks' internal systems, and the rules on how to transform the data into the reports required by authorities were published on the BIRD website.

Box 5

Enhancing macroeconomic statistics to better understand euro area cross-border financial linkages

The ECB has released several new breakdowns of euro area balance of payments and international investment position (b.o.p./i.i.p.) statistics and quarterly sector accounts (QSA). The new data address measurement challenges related to globalisation, as highlighted in the [ECB's 2021 monetary policy strategy review](#), which are related in particular to the presence of multinational enterprises and the expansion of international financial intermediation chains.

More granular sectoral, geographical and financial instrument details, as well as separate data for SPEs, are now available in the b.o.p./i.i.p. dataset and are particularly useful for analysing developments in portfolio investment and FDI. These two b.o.p./i.i.p. categories have been the main components behind the swings in euro area international financial flows in recent years.⁸¹ The analysis of financing flows is also enhanced by new data on OFI subsectors, now available in the QSA, and on NFC debt security issuance via financing conduits. Finally, new QSA details on household holdings via investment funds, broken down by underlying investment type and counterparty sector, facilitate the analysis of the exposure of households to different asset classes.

The enhanced sectoral breakdown of the b.o.p./i.i.p. statistics and the new QSA data on households' indirect exposures reveal the predominance of the investment fund sector as a holder

⁸¹ See the box entitled "[The great retrenchment in euro area external financial flows in 2022 – insights from more granular balance of payments statistics](#)", *Economic Bulletin*, Issue 4, ECB, 2023.

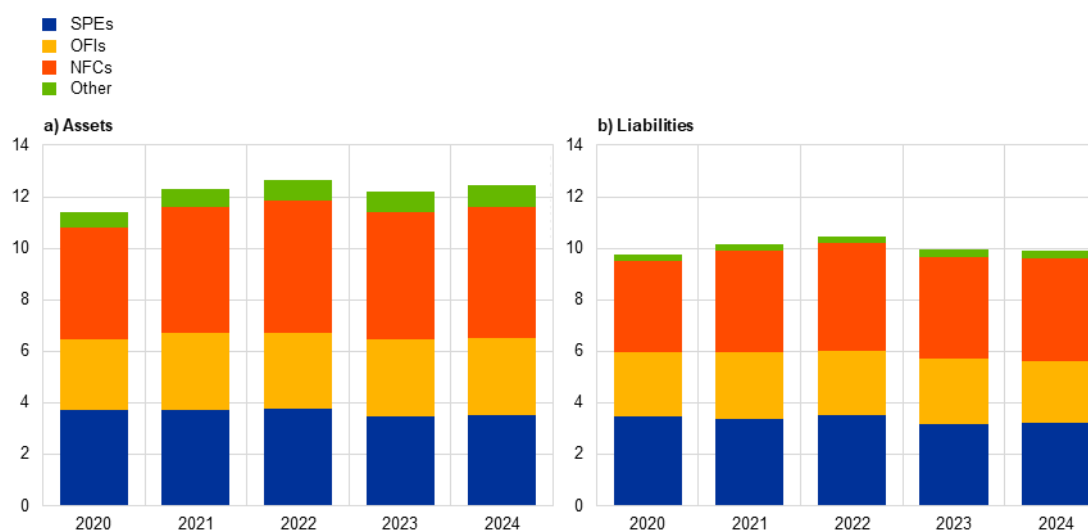
of portfolio investment securities issued by non-euro area residents.⁸² The more detailed counterparty country breakdowns allow a better coverage of the geography of euro area cross-border financial flows vis-à-vis both advanced economies and emerging market economies.⁸³

The newly released data on SPEs and OFIs highlight their role in euro area financial linkages. SPEs, which are of significant relevance in a specific group of countries, while having very limited impact on real economic activity in the country in which they reside, show significant financial flows and account for around 30% of euro area cross-border FDI linkages (Chart A).⁸⁴ OFIs provide 23% of the loans granted to euro area NFCs and 8% of the loans granted to euro area households. Around 15% of total debt securities financing of NFCs was provided via financing conduits in other euro area countries.

Chart A

Analytical decomposition of euro area FDI positions

(EUR trillions; end-period stocks)



Sources: ECB and ECB calculations.

Notes: Data for 2024 refer to end-June 2024. OFIs are financial institutions that are not banks, money market funds, investment funds, insurance corporations or pension funds and are not classified as SPEs. NFCs are non-financial corporations, excluding those that are classified as SPEs. "Other" comprises all remaining resident sectors.

⁸² See Anacki, M., Aragonés, A., Calussi, G. and Olsson, H., "Exploring the investment funds households own", *The ECB Data Blog*, ECB, 17 September 2024.

⁸³ The list of counterparty countries now includes, for instance, all G20 and EU countries outside the euro area. In particular, information became available for a number of additional advanced economies (Australia, Norway and South Korea) and emerging market economies (Argentina, Indonesia, Mexico, Saudi Arabia, South Africa and Türkiye).

⁸⁴ See the box entitled "The impact of special-purpose entities on euro area cross-border financial linkages", *Economic Bulletin*, Issue 7, ECB, 2024.

8 ECB research activities

This section reports on policy-relevant research at the ECB and summarises the work conducted in 2024. It starts by reporting on the quality of ECB research, going on to describe the five main areas of research and policy advice, and the progress made during the year, including with research on the implications of artificial intelligence. The work of the Research Task Force on Heterogeneity in Macroeconomics and Finance is highlighted in Box 6.

ECB staff carried out extensive economic, monetary and financial research in 2024, providing important insights for policymaking, including for the ongoing monetary policy strategy review. Research drawing on the Consumer Expectations Survey and the Household Finance and Consumption Survey, for example, continued to provide highly relevant input into monetary policy.

Policy-relevant research at the ECB is globally recognised

The ECB strives to produce leading research in fields that are important for the work of central banks. Since December 2024 RePEc – a central index of economics research – has ranked the ECB first among institutions in the field of monetary economics, with the International Monetary Fund (IMF) in second place and the Board of Governors of the Federal Reserve System in third place. In the broader field of macroeconomics, the ECB has moved up one place compared with 2023, and is now ranked second behind the Harvard University Department of Economics and ahead of the IMF. In the field of banking, the ECB is now ranked first, moving up one place relative to 2023 ahead of the University of Chicago Booth School of Business and the Bank for International Settlements (BIS). Among central banks and similar institutions worldwide, the ECB is ranked second, behind the IMF and ahead of the Federal Reserve Board, the Federal Reserve Bank of New York and the BIS. In Europe, the ECB is ranked third across all fields and institutions, including universities (behind the London School of Economics and Political Science and Paris School of Economics).

Five areas of research in 2024

Research projects undertaken during 2024 can be grouped into five broad thematic areas, all of which benefited from input from national central banks and collaboration within European System of Central Banks research clusters. First, in the area of design and implementation of monetary policy, research was conducted on the optimal design of monetary policy and the new operational framework, as well as other important topics such as market functioning, collateral and the impact of monetary policy on inflation dynamics. Substantial research efforts were devoted to deepening understanding of the evolving monetary policy transmission mechanisms, under the auspices of the Challenges for Monetary Policy Transmission in a Changing World (ChaMP) Research Network. Second, in the field of economic developments in the euro area, research projects provided analysis on firms, productivity and investment, household consumption and labour markets, prices and economic activity, while also developing new methods and techniques to improve forecasting. Third, in the area of analysis of the global economy, projects examined the international monetary system, global financial markets and trade, global

spillovers, the international drivers of inflation and the outlook for global growth. Fourth, on the topic of Economic and Monetary Union (EMU) integration and governance, much of the research focused on the effects of fiscal policy on the macroeconomy, including the adoption of the Next Generation EU (NGEU) programme, the reform of the EU fiscal framework, and the interrelations between fiscal policy and inflation, as well as on monetary-fiscal interactions. Fifth, in the area of financial stability, (macro)prudential policies and banking supervision, research efforts covered the resilience of banks and non-banks, the implications of monetary policy for financial markets and financial stability, and the design and assessment of prudential policies. Research in the area of banking supervision focused in particular on supervisory effectiveness and the impact of climate regulation on banks' behaviour. Research on central bank digital currencies continued over 2024, focusing on the implications of a wide range of design features (e.g. remuneration, holding limits and privacy).

Research on the implications of artificial intelligence

The rapid evolution of AI triggered significant research efforts at the ECB to improve understanding of the implications of AI for the economy and policymaking. An area that received particular attention in 2024 was the use of AI techniques for economic analysis, such as economic forecasting and the analysis of central bank communication. For the former, research explored the use of machine-learning techniques in inflation forecasting. Such techniques have the potential to consider specific economic dynamics and thereby improve forecasts in turbulent times. Other research used sentiment indicators derived from the textual analysis of news generated by large language models (LLMs) for the short-term forecasting of economic activity.⁸⁵ As regards central bank communication, textual analysis generated by LLMs was used to explore how the ECB's statements influence financial markets, particularly in times of economic uncertainty. This type of research provides insights into how sentiment extracted from central bank communication can contribute to a better understanding of market expectations for inflation and interest rates.⁸⁶

An update on ECB publications

Research output at the ECB remained at a high level in 2024. In total, ECB staff published 124 papers in the [ECB's Working Paper Series](#) and 12 articles in the Research Bulletin. Many of the working papers were also published externally in academic journals.

Box 6

The Research Task Force on Heterogeneity in Macroeconomics and Finance

Monetary policy instruments, for example the key ECB interest rates, affect financial markets and cannot be tailored to specific segments of the population. Therefore, monetary policy analysis has traditionally adopted an economy-wide perspective, studying how central bank decisions produce effects on inflation and other aggregate variables, such as euro area-wide income and unemployment, and not on the inflation rates, disposable incomes and unemployment rates of

⁸⁵ See, for example, Ashwin, J. et al., "[Nowcasting euro area GDP with news sentiment: a tale of two crises](#)", *Journal of Applied Econometrics*, Vol. 39, No 5, August 2024, pp. 887-905.

⁸⁶ See Leek, L., Bischl, S. and Freier, M., "[Introducing Textual Measures of Central Policy-Linkages Using ChatGPT](#)", *SocArXiv Papers*, 78wnp, Center for Open Science, 2024.

selected groups in the population. This traditional perspective has changed in the past decade. The 2008-09 financial crisis and the COVID-19 pandemic stimulated new interest in the distributional effects of cyclical fluctuations in economic variables and in how these are shaped by stabilisation policies, including monetary policy. Parallel improvements in computational methods and in computing power have made these analyses feasible.

A new research task force was set up in 2022 to study the macroeconomic implications of heterogeneity across economic agents in the euro area. A first objective of the task force was to analyse the distributional effects across households of central bank policies. A second objective was to improve our understanding of how the behaviours of different households and firms interact to shape the aggregate monetary policy transmission mechanism, possibly producing different outcomes from those assumed in the traditional, aggregate perspective.

Regarding the distributional effects of monetary policy, the analysis started from the premise that different monetary policy instruments, from the key ECB rates to large-scale asset purchases, can operate through different transmission channels. They may therefore produce different effects across euro area households, depending on the latter's income sources and on their asset holdings. Results suggest that differences exist, but they are contained. Some research sheds light on the heterogeneous costs of the inflation surge in 2021-23. Poorer households suffered most from the reduction in the purchasing power of their income. Looking at a breakdown by asset holdings, however, welfare losses were especially large for pensioners, because of the fall in the real value of their relatively large holdings of nominal assets. All these analyses were possible thanks to the availability of household survey data from the Eurosystem's Household Finance and Consumption Survey.

In normal circumstances, accounting for heterogeneity provides a richer perspective on the monetary policy transmission mechanism but does not affect estimates of its aggregate impact compared with the traditional economy-wide perspective. There are, however, specific situations, such as when large shocks cause significant changes in the distribution of wealth, in which heterogeneity becomes essential for a realistic understanding of the impact of policy decisions. Recent evidence suggests that heterogeneity across firms may be particularly important in this regard. Empirically realistic models capable of replicating key features of household and firm heterogeneity are therefore a useful addition to the available suite of monetary policy models.

Some of the work in the task force has also been devoted to studying the effects of macroprudential policies. In the case of measures such as the loan-to-income ratio for household mortgages, accounting for household heterogeneity is even more important for an understanding of the implications of policies, since by their nature these measures only affect specific categories of household.

9 Legal activities and duties

This chapter deals with the jurisdiction of the Court of Justice of the European Union (CJEU) concerning the ECB, provides information on ECB opinions and cases of non-compliance with the obligation to consult the ECB on draft legislation falling within its fields of competence. It also reports on the ECB's monitoring of compliance with the prohibition of monetary financing and privileged access.

9.1 Jurisdiction of the Court of Justice of the European Union concerning the ECB

The General Court confirmed that the ECB exercises supervisory powers in the public interest, namely to ensure the proper functioning and the stability of markets

In June 2024 the General Court dismissed an action for damages brought by shareholders of Banca Carige (T-134/21, *Malacalza Investimenti and Malacalza v ECB*), requesting compensation for an alleged harm which they consider they had suffered as a result of actions undertaken by the ECB in the context of the exercise of its supervisory functions over the bank between 2014 and 2019. In this judgment, the General Court notably found that the exercise of supervisory powers by the ECB pursues a public interest in the proper functioning and stability of the markets. The extra-contractual liability of the ECB for acts and omissions related to the exercise of supervisory powers is therefore limited, since it would require a breach of a rule of law intended to confer rights on individuals. At the same time, the General Court recognised, in line with existing case law, that a breach of general principles of law – like the principle of good administration – can potentially give rise to extra-contractual liability. In this case, however, the General Court found that no breach occurred. This case represented the first opportunity for the CJEU to assess the merit of an action for damages for ECB supervisory action. An appeal is currently pending (C-557/24 P, *Malacalza Investimenti and Malacalza v ECB*).

The General Court confirmed the proper application of the Pillar 2 framework by the ECB

In June 2024 the General Court dismissed seven actions brought by supervised banks⁸⁷ seeking annulment of the deduction requirement and related reporting requirement imposed in relation to the irrevocable payment commitments given to the national deposit guarantee schemes and the Single Resolution Fund as part of their ex ante contributions. The ECB had imposed those measures within the Pillar 2 framework to cover the risk of overstatement of the bank's capital position, which was triggered by the absence of consideration of the economic loss resulting from the transfer of the collateral securing the irrevocable payment commitments, which could no longer be used to cover losses on an ongoing basis. The ECB imposed those measures in accordance with a new methodology designed to take into account the judgments of the General Court from 2020 annulling decisions imposing the same measures owing to lack of an individual assessment of how the risk identified was managed and covered by the arrangements implemented by the banks and the capital and liquidity held by them. Those new ECB decisions were

⁸⁷ See the judgments of the General Court in cases T-182/22, T-186/22, T-187/22, T-188/22, T-189/22, T-190/22 and T-191/22.

therefore adopted with an improved motivation aiming to better reflect the individual assessment performed. They were upheld by the General Court by the aforementioned seven judgments, confirming that the ECB correctly applied Article 16 of the SSM Regulation⁸⁸ when assessing whether the banks were exposed to an insufficiently covered risk and imposing a measure to cover it. Four of the seven banks have appealed their individual judgments, and the appeals are currently pending at the CJEU.

For the first time, the Court of Justice interpreted the provisions of an ECB Regulation imposing statistical reporting requirements on financial corporations

In November 2024 the CJEU (Fifth Chamber) delivered its judgment in a preliminary ruling procedure submitted by the Federal Administrative Court of Germany (Joined Cases C-758/22 and C-759/22). In this case, the referring court sought to clarify whether several occupational mutual insurance institutions in Germany were pension funds within the meaning of Regulation (EU) No 2018/231 of the European Central Bank of 26 January 2018 on statistical reporting requirements for pension funds and therefore subject to the ECB's statistical reporting requirements. The applicants argued that they were social security funds and, therefore, not subject to the ECB's reporting requirements. The Court determined that the applicants could be classified as pension funds, as their activities fulfilled four criteria necessary to be classified in this sector. In summary, (i) their function was to offer benefits covering the risks of retirement, death and invalidity; (ii) they had management autonomy and kept a complete set of accounts; (iii) the vast majority of their members were required to join the mutual insurance institutions, which were, in principle, not entitled to provide their services to other persons; and (iv) the services were not guaranteed by the state and depended on the amount of the contributions paid and the success of the mutual insurance institutions in managing their assets. The case is important as it confirms that the ECB has the right to collect statistical information on the financial activities of the applicants as pension funds. As pension funds play an important role in the economy of the euro area, this information is needed to perform the tasks of the European System of Central Banks (ESCB), in particular concerning monetary policy.

9.2 ECB opinions and cases of non-compliance

Articles 127(4) and 282(5) of the Treaty on the Functioning of the European Union require that the ECB be consulted on any proposed EU or draft national legislation falling within its fields of competence. All ECB opinions are published on EUR-Lex.

There were nine cases of non-compliance with the obligation to consult the ECB on draft legislation

In 2024 nine clear and important cases of non-compliance with the obligation to consult the ECB on draft legislation were recorded. Five non-compliance cases were in respect of Union legal acts and four in respect of national laws. The ECB adopted own initiative opinions in seven instances. In two instances, a non-compliance letter was issued.

⁸⁸ Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (OJ L 287, 29.10.2013, p. 63).

The first EU case concerned an EU proposal for a Directive on alternative investment funds (AIFs). This case is considered clear and important because it concerns the ESCB's access to detailed data on the AIF sector as well as the ECB's statistical requirements regarding this sector. The second EU case concerned the Regulation establishing the Authority for Anti-Money Laundering and Countering the Financing of Terrorism (AMLA). This case is considered clear and important because it contains provisions regarding cooperation between the AMLA and the ECB. The third EU case concerned the Energy Performance of Buildings Directive. This case is considered clear and important because of the ECB's need to access energy performance certificates. The fourth EU case concerned the Corporate Sustainability Due Diligence Directive. This case is considered clear and important because of its relevance for banks' environmental, social and governance (ESG) risk management and the need to ensure coordination and information exchange between all authorities concerned.⁸⁹ The fifth EU case concerned the Regulation on the transparency and integrity of ESG ratings. This case was considered clear and important because it concerns the Eurosystem's independent assessment of its collateral requirements.

The first national non-compliance case concerns Bulgarian laws affecting Българска народна банка (Bulgarian National Bank). This case is considered clear and important because the temporary appointment of the Governor or Deputy Governors of the Bulgarian National Bank as caretaker prime minister raises important issues concerning the Bulgarian National Bank's independence. The second case concerns a Greek law transferring the State's remaining shareholdings in Greek banks to a different public body. This case is considered clear and important because the law has implications for Greek credit institutions subject to the direct supervision of the ECB. The third case concerns a Hungarian law bringing the Magyar Nemzeti Bank within the scope of the law on cybersecurity. This case is considered clear and important in view of its impact on the independence of the Magyar Nemzeti Bank. The fourth case concerns Maltese law affecting the remuneration of the Governor and Deputy Governors of the Central Bank of Malta. This case is considered clear and important in view of its impact on the independence of the Central Bank of Malta.

The ECB adopted four opinions on proposed Union legal acts

The ECB adopted four opinions on EU legislative proposals covering (i) payment and electronic money services, (ii) monetary agreements with third countries using the euro, (iii) reporting requirements in the fields of financial services and investment support, and (iv) the framework for financial data access.

The ECB adopted 38 opinions on draft national legislation

The ECB adopted 38 opinions on draft national legislation. Opinions on national legislation often cover more than one subject. The ECB adopted:

- ten opinions concerning access to cash;
- six opinions concerning national central banks (NCBs);
- five opinions concerning matters related to the International Monetary Fund;
- four opinions concerning special-purpose bank taxes or financial transaction taxes;

⁸⁹ These are the authorities responsible for supervising credit institutions' compliance with their obligations under the proposed Directive on the one hand, and the authorities responsible for the prudential supervision of credit institutions, including the ECB, on the other.

- two opinions concerning cybersecurity;
- two opinions on international sanctions;
- one opinion concerning the introduction of the euro;
- one opinion concerning payment system oversight;
- one opinion concerning minimum reserve requirements;
- one opinion concerning crypto-assets;
- one opinion concerning assistance to borrowers;
- one opinion concerning central counterparty resolution;
- one opinion concerning the application of lobbying registration requirements to an NCB's officials;
- one opinion concerning an NCB's provision of emergency liquidity assistance;
- one opinion concerning the reporting of payment statistics;
- one opinion concerning a national financial stability council.

9.3 Compliance with the prohibition of monetary financing and privileged access

The prohibitions laid down in Articles 123 and 124 of the Treaty were in general respected

Pursuant to Article 271(d) of the Treaty on the Functioning of the European Union, the ECB is entrusted with the task of monitoring the compliance of the EU national central banks (NCBs) with the prohibitions laid down in Articles 123 and 124 of the Treaty and Council Regulations (EC) Nos 3603/93 and 3604/93. Article 123 prohibits the ECB and the NCBs from providing overdraft facilities or any other type of credit facility to governments and EU institutions or bodies, as well as from purchasing in the primary market debt instruments issued by these institutions. Article 124 prohibits any measure, not based on prudential considerations, which establishes privileged access by governments and EU institutions or bodies to financial institutions. In parallel with the Governing Council of the ECB, the European Commission monitors Member States' compliance with the above provisions.

The ECB also monitors the EU NCBs' secondary market purchases of debt instruments issued by the domestic public sector, the public sector of other Member States and EU institutions and bodies. According to the recitals of Council Regulation (EC) No 3603/93, the acquisition of public sector debt instruments in the secondary market must not be used to circumvent the objective of Article 123 of the Treaty.

The ECB's monitoring exercise conducted for 2024 confirmed that Articles 123 and 124 of the Treaty were in general respected.

The ECB will continue monitoring the involvement of the Magyar Nemzeti Bank in the Budapest Stock Exchange as the purchase of the majority ownership of the Budapest Stock Exchange by the Magyar Nemzeti Bank in 2015 may still be seen as giving rise to monetary financing concerns.

The financing by NCBs of obligations falling upon the public sector vis-à-vis the International Monetary Fund (IMF) is not considered as monetary financing provided it results in foreign claims that have all characteristics of reserve assets. However,

financial donations as provided in previous years by the Nationale Bank van België/Banque Nationale de Belgique and Banque de France via the IMF for debt relief for heavily indebted poor countries did not result in any foreign claims and therefore continue to require corrective measures.

The financing of the Spanish Financial Intelligence Unit (*Servicio Ejecutivo de la Comisión de Prevención del Blanqueo de Capitales e Infracciones Monetarias* – Sepblac) by the Banco de España is not compatible with the prohibition on monetary financing laid down in Article 123, as Sepblac is a public sector body. Consequently, the arrangements concerning Sepblac should be reconsidered with a view to ensuring compliance with the prohibition.

10 The ECB in an EU and international context

The ECB continued the open dialogue with its European and international counterparts in 2024. The interaction between the ECB and the European Parliament is at the heart of the ECB's accountability framework. The ECB had regular hearings and correspondence with the Committee on Economic and Monetary Affairs of the European Parliament (ECON). Additionally, the ECB interacted with ECON as part of its ongoing work on a digital euro. In the international sphere, the ECB engaged with G20 partners, stressing the need to strengthen the resilience of both the banking sector and the non-bank financial sector and to advance the implementation of agreed G20 roadmaps and Basel III. The ECB also contributed to central bank-relevant policy discussions at the International Monetary Fund (IMF), including with regard to the IMF's lending policies and facilities for emerging market economies and low-income countries.

10.1 The ECB's accountability

Accountability is an essential counterpart to independence

The Treaty on the Functioning of the European Union (TFEU) grants the ECB independence to ensure that it can pursue its mandate of price stability free from political interference. This independence is matched by an obligation to remain accountable for its actions to the European Parliament, the body that represents the citizens of the European Union. The ECB's accountability practices, based on Article 284(3) of the TFEU, allow for a two-way dialogue between the ECB and the European Parliament. This enables the ECB to explain its policies and decisions and to hear the concerns of citizens' elected representatives. Moreover, judicial review by the Court of Justice of the European Union complements the ECB's accountability framework.

The ECB continued its interactions with the European Parliament and built relations with newly elected representatives

In June 2024 EU citizens elected a new European Parliament, and the Parliament was in recess between the end of April and early July. As a result, the President of the ECB participated in three regular hearings before the ECON Committee – one in February with the outgoing Committee and two in the second half the year with the newly elected Members. The President also participated in the [plenary debate on the ECB's 2022 Annual Report](#). These activities facilitated the exchange of views on key monetary policy decisions and other central banking matters. The Vice-President also presented the ECB's 2023 Annual Report to the ECON Committee in April. Moreover, the ECB published its [feedback on the European Parliament's resolution regarding the 2022 Annual Report](#) in April.

Throughout the year the ECB responded to 12 [written questions from Members of the European Parliament](#). These questions addressed topics including monetary policy, the economic outlook, the digital euro, and ECB institutional matters. After the election of the new Parliament, an introductory session on the ECB was held in

September to familiarise parliamentary staff with the ECB's activities and its accountability obligations. In November 2024 a delegation from the ECON Committee, which included several new Members of the European Parliament, took part in the annual visit to the ECB in Frankfurt am Main.

The dialogue on the digital euro continued

Over the course of 2024 the ECB continued its close collaboration with the European Parliament on the preparation phase of the digital euro. Executive Board member Piero Cipollone participated in two hearings before the ECON Committee to give updates on the progress of the digital euro project⁹⁰. Additionally, the ECON Chair and the Committee Members were kept [informed via notifications of all major developments regarding the digital euro](#). The ECB also participated in events hosted by Members of the European Parliament to address various dimensions of the digital euro project.

Support for the euro reached a record high in 2024

The [autumn 2024 Standard Eurobarometer](#) survey revealed that 81% of respondents in the euro area support the single currency, marking a new all-time high. Additionally, 51% of euro area respondents expressed trust in the ECB, the highest level since autumn 2009 and an 8 percentage point increase compared with the same period in 2023. The ECB remains dedicated to engaging constructively with the European Parliament and citizens in the euro area. By explaining its decisions, addressing public concerns, and maintaining an open dialogue, the ECB aims to strengthen trust and ensure the effective discharge of its accountability obligations.

10.2 International relations

G20

The G20 Presidency promoted multilateral cooperation despite significant geopolitical tensions

During Brazil's G20 Presidency in 2024, notwithstanding easing inflation pressures and global economic resilience, the global economy continued to face significant challenges owing to Russia's war against Ukraine and escalating conflicts in the Middle East. Despite geopolitical tensions, the Brazilian Presidency successfully advanced multilateral cooperation, achieving agreement on communiqués at the July and October G20 meetings of finance ministers and central bank governors and on the Rio de Janeiro Leaders' Declaration in November. The priorities focused on inequality, climate change, sustainable development, enhancing the role of multilateral development banks, financial stability and international tax cooperation. A G20 roadmap for better, bigger and more effective multilateral development banks was adopted. The ECB welcomed the Brazilian Presidency's acknowledgement of the role of the Financial Stability Board (FSB) in banking sector and non-bank financial sector regulation, emphasising the need to implement (i) the G20 roadmap

⁹⁰ See [“Preserving people's freedom to use a public means of payment: insights into the digital euro preparation phase”](#), introductory statement by Piero Cipollone, member of the Executive Board of the ECB, at the meeting of the Committee on Economic and Monetary Affairs of the European Parliament in Brussels on 14 February 2024; and [“From dependency to autonomy: the role of a digital euro in the European payment landscape”](#), introductory statement by Piero Cipollone, member of the Executive Board of the ECB, at the meeting of the Committee on Economic and Monetary Affairs of the European Parliament in Brussels on 23 September 2024.

and FSB recommendations for crypto-assets; (ii) the G20 roadmap for cross-border payments; (iii) Basel III; and (iv) the FSB recommendations on non-bank financial intermediaries. The ECB also stressed the importance of regulating innovative technologies, such as artificial intelligence and tokenisation, to ensure their benefits are underpinned by robust regulatory frameworks.

Policy issues related to the IMF and the international financial architecture

The ECB contributed to IMF discussions on further assisting emerging market economies and low-income countries

The ECB continued to play an active role in discussions about the international monetary and financial system at the IMF⁹¹ and in other fora. In 2024 the IMF took significant steps to further assist emerging market economies and low-income countries.

In October the IMF welcomed a new 25th chair on its Executive Board. The new chair, together with two other chairs, represents Sub-Saharan Africa and strengthens the region's voice and representation. The IMF also reformed its [Charges and the Surcharge Policy](#) to substantially reduce borrowing costs for member countries in need, while safeguarding its financial capacity. For low-income countries, the IMF set the course to put the Poverty Reduction and Growth Trust (PRGT) on a sustainable footing, in part by agreeing a package of multi-year policy reforms and funding to secure resources so as to permit continued IMF lending at concessional rates. Moreover, it undertook its first [Interim Review of the Resilience and Sustainability Trust](#) (RST). This trust helps low-income countries and vulnerable middle-income countries strengthen their macroeconomic resilience to climate change and future pandemics, thereby contributing to prospective balance of payments stability. EU Member States and their central banks are important contributors to both the PRGT and RST. Contributions from EU central banks can only be deployed if the resulting claim against the trust has reserve asset status, which precludes subsidy contributions in the form of grants or donations. The ECB also continued to support international initiatives to help vulnerable countries tackle rising debt vulnerabilities, in particular the improvement of the G20 Common Framework for Debt Treatments and the IMF-World Bank initiative to support countries faced with liquidity challenges but whose debt is sustainable.

Three years after the last general Special Drawing Rights (SDR) allocation by the IMF in 2021, the ECB and the Eurosystem national central banks reviewed their SDR Voluntary Trading Arrangements (VTAs) with the IMF.⁹² In November the ECB's Governing Council concluded that the current Eurosystem VTAs remain adequate, including their trading ranges.

⁹¹ [The ECB has observer status at the IMF](#), with a permanent ECB representative at the IMF headquarters in Washington, D. C. The ECB observer participates in selected IMF Executive Board meetings.

⁹² When Luxembourg established a VTA in 2022 the total number of Eurosystem VTAs went up to 19 (18 established by EU Member States and one by the ECB).

Box 7

The House of the Euro: a vibrant first year of collaboration

What is the House of the Euro?

Located in the heart of the European Quarter in Brussels, the House of the Euro is a shared space that brings together the ECB and seven euro area national central banks (NCBs) – the Deutsche Bundesbank, the Central Bank of Ireland, the Banco de España, the Banque de France, the Banca d'Italia, the Central Bank of Malta and Banka Slovenije. In addition, Hrvatska narodna banka has seconded a member of staff to the ECB's team in Brussels to expand the new office's reach. Moreover, the Nationale Bank van België/Banque Nationale de Belgique, being based in Brussels, works closely with the House of the Euro. The office was officially opened on 9 November 2023 with the aim of promoting cooperation among Eurosystem central banks and enhancing their visibility in Brussels.

One year on from its inauguration the House of the Euro has emerged as a vibrant hub for collaboration, dialogue and debate between central bankers and key stakeholders in Brussels. The ECB and NCB staff at the House of the Euro work together to share knowledge and convey the Eurosystem's views to policymakers, think tanks, private sector representatives and the media. They also support members of the ECB's Governing Council and Eurosystem staff in their engagements in Brussels.

The House of the Euro has delivered on its ambition to engage with stakeholders on topics related to EU policies of relevance to the Eurosystem. The events hosted at the House of the Euro are a way for the ECB and participating NCBs to reach a wider audience and to exchange views with stakeholders. The topics covered by these events include the ECB's monetary policy as well as the digital euro, the capital markets union, climate change and the impact of digitalisation.

2024 highlights

One major happening worthy of note was a high-level roundtable discussion on the digital euro, a key project aimed at safeguarding Europe's monetary sovereignty as our economy becomes more and more digital. In September ECB Executive Board member Piero Cipollone and the then EU Commissioner Mairead McGuinness came together with representatives from consumer, trade and banking associations to discuss the benefits of a digital euro. This event emphasised the ECB's commitment to engaging with all stakeholders in the context of the digital euro project.

The House of the Euro has also hosted speeches and discussions focusing on the economic outlook, monetary policy and structural challenges in the euro area. In March [Mr Cipollone gave his inaugural monetary policy speech](#) in the House of the Euro. Throughout the year staff from the ECB gave presentations on a regular basis to inform the Brussels community about the ECB's monetary policy stance and the euro area economic outlook. Moreover, the ECB and the IMF held joint events in May and November that gave participants the opportunity to discuss the economic challenges facing Europe and efforts to support innovation, investment and productivity.

The ECB and the NCBs also collaborated on several special events at the House of the Euro during the year. One of these focused on the capital markets union – a topic of great relevance for the Eurosystem. In June 2024 high-level speakers from the ECB and NCBs gathered to discuss the need to make swift progress and take concrete steps to complete the capital markets union. They

highlighted priority areas such as delivering improved practices for retail investors and developing the EU securitisation market. Two other events, jointly organised by the ECB and the participating NCBs, focused on the growth of big tech firms in the financial sector and on non-bank financial intermediaries.

2025 and beyond

The House of the Euro remains committed to engaging with key stakeholders in Brussels to convey the Eurosystem's views and gather relevant information for Eurosystem decision-makers. This first year has showcased the value of collaboration between the ECB and NCBs on the ground in Brussels and augurs well for the future.

11 Promoting good governance, social and environmental sustainability

The ECB carries out important activities to address environmental, social, and governance (ESG) issues. As a public institution, the ECB is accountable to European Union (EU) citizens and their elected officials. This responsibility involves effective communication and engagement with diverse audiences, maintaining the highest ethical standards and transparency, empowering its employees while promoting their well-being, and assessing the impacts and risks associated with the climate and the environment. In 2024 several milestones set in the ECB's climate and nature plan were achieved.

11.1 Updates on environmental, social and governance matters

The ECB continued its work on environmental, social and governance-related topics in 2024

This overview of key ESG developments in 2024 is complemented by other sections of this annual report and additional information available on the ECB's website (Table 11.1).

Sections 11.2 and 11.3 detail how the ECB conducted major initiatives in 2024 to continuously enhance its governance frameworks as a European institution, while promoting transparency and engagement with citizens. Section 11.2 highlights how the ECB closely cooperates with peer institutions at the European and international levels to strengthen ethics, integrity and good conduct, thereby also responding to increased public interest in these matters. Section 11.3 outlines the initiatives implemented by the ECB to strengthen its outreach and to increase its transparency and accessibility to the public. Section 11.4 provides an overview on policies for staff and data on how the ECB fosters an open working culture and promotes career development, as well as updates on diversity and inclusion efforts, outlining key developments in 2024. Lastly, Section 11.5 covers the ECB's work on climate-related and environmental topics and provides details on more specialised publications in this area.

Table 11.1
ECB websites and publications detailing ESG matters

Governance	Social	Environment
Governance and corporate governance	Transparency and accountability	Climate change and the ECB
Organisation	Communication	Climate change and banking supervision
Ethics	Diversity and inclusion	Environmental protection at the ECB
Legal framework	Arts and culture	Banknotes: environment, health and safety

Climate-related risks are increasingly being incorporated into the overall risk management framework

ESG risks are assessed as part of the ECB's risk management framework for financial and non-financial risks. This is described in the [chapter on risk management in the ECB's Annual Accounts 2024](#). One component of this framework is the climate stress test of the Eurosystem balance sheet⁹³, whereby the ECB assesses the sensitivity of the Eurosystem's financial risk profile to climate change. The first climate stress test was performed in 2022 and it has since become a regular exercise, with a new test being conducted in 2024.

11.2 Strengthening ethics and integrity

The ECB's Compliance and Governance Office (CGO) is responsible for establishing ethical and governance rules in accordance with the highest standards of conduct, and for monitoring adherence to these rules.

The Ethics and Compliance Committee held thematic sessions on good conduct attended by numerous peer institutions

In 2024, to support the national central banks and national competent authorities in the implementation of the [Ethics Guidelines](#), the Ethics and Compliance Committee provided guidance on matters related to restrictions on private financial transactions and conflicts of interest regarding external activities and unpaid leave. In addition, to maximise the advantages and insights gained from having a diversity of perspectives, the Committee organised thematic sessions with external speakers, which were attended by participants from some 50 different public institutions and organisations. To mark Global Ethics Day, the Committee launched a banner with the text "Ethics: our common compass" in all official EU languages, highlighting the shared commitment.

The ECB signed the agreement establishing the EU Ethics Body and was actively involved in the work of ENMO

At the European level, the ECB, together with other European institutions, worked towards the adoption of an [interinstitutional agreement setting up the EU Ethics Body](#). The signing of the agreement is a major achievement and instrumental in fostering a common culture of good conduct among the European institutions. At the international level, the ECB was actively involved in sharing knowledge and best practices within the global [Ethics Network of Multilateral Organizations](#) (ENMO), both via its role as Vice-Chair of the network and via its contributions to meetings, working groups and the [annual conference hosted by the World Health Organization](#), thereby strengthening global collaboration.

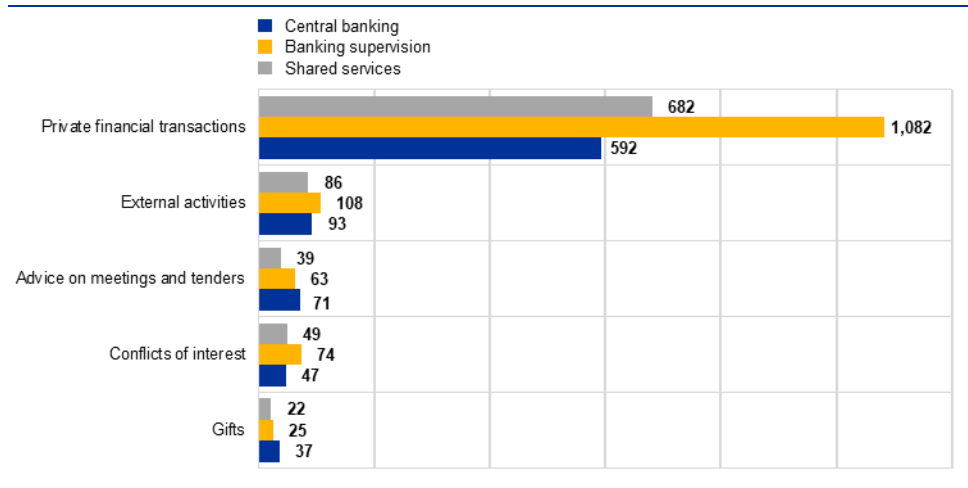
Maintaining awareness of ethics and integrity continued to be a top priority in 2024. In addition to programmes for newcomers, the CGO emphasised the organisation of training courses designed for and tailored to specific business functions, as well as refresher sessions on the rules applicable to private financial transactions. Several outreach initiatives were also organised to mark Global Ethics Day, including stands and a quiz for all ECB staff. The CGO continued its digitalisation efforts in order to simplify staff access to ethics advice, such as via ECB mobile devices. Moreover, the process for the submission of [Declarations of Interests by high-level ECB officials](#) was digitalised, allowing for faster and smoother submission.

⁹³ The publication of the results of the 2024 climate stress test in qualitative form will be part of the Eurosystem climate-related financial disclosure in 2025.

The initiatives to raise awareness and constant efforts to develop intuitive digital tools led to a noticeable rise in the number of requests for ethics advice, from 2,767 in 2023 to 3,070 in 2024 (Chart 11.1). The annual compliance monitoring checks organised by the CGO in 2024 confirmed once again the overall adherence of ECB staff and high-level officials to the rules on private financial transactions.

Chart 11.2

Overview of requests for advice received from ECB staff in 2024



Source: ECB.

The Ethics Committee supports and advises high-level ECB officials on questions of ethics

The ECB's independent Ethics Committee – together with the ECB's Audit Committee – complements the ECB's governance structure. It provides advice to high-level ECB officials on questions of ethics, mostly concerning private activities as well as employment upon leaving the ECB, and assesses their Declarations of Interests. In addition, the Committee monitors European and international developments in the field of ethics and good conduct. In 2024 it reviewed compliance with the rules on private financial transactions by high-level ECB officials via the Declarations of Interests and issued 34 opinions on a variety of subjects, such as ten opinions on post-employment restrictions (several of these opinions included recommendations on the observance of cooling-off periods). [Ethics Committee opinions are published on the ECB's website](#) six months after the date on which they are issued.

11.3

Communication and transparency of ECB policy

Clear communication is essential to successfully steer expectations of experts and the public

As inflation came down further in 2024, and as it approaches the 2% target in 2025, the ECB's policies have been helped by the stability of inflation expectations. Research increasingly shows that expectations of consumers and businesses matter at least as much as those of financial markets for the transmission of monetary policy. To successfully steer expectations, the ECB must communicate in a clear, consistent and understandable manner.

Concerted efforts were made to explain the first interest rate cut in June 2024

2024 was marked by a turn in the policy interest rate cycle. The first interest rate cut in June 2024 was accompanied by a coordinated communication effort to explain the

decision and the outlook for the economy. This included opinion pieces by the President that appeared in several media outlets across Europe (and were also published as an [ECB Blog post on the reasons for the rate cut](#)), as well as TV and radio interviews by members of the Executive Board. An [Explainer that focused on what the rate cuts mean for people in their everyday lives](#) was made available in all EU languages and publicised via the ECB's social media channels.

Enhancing outreach

ECB policy was discussed on channels with the broadest reach

Rising prices had become a very prominent issue for the people of Europe during the past inflation surge, raising many questions and concerns. The ECB continued to explain its actions to the public. Research shows that most Europeans still hear about the ECB on TV and radio – with an increasing share of people also reached via online news. ECB policymakers therefore focused on TV, social media and general interest media as channels for explaining ECB policy and how it delivers price stability to the benefit of all.

New formats to “get through” to the public were explored

New formats were explored, such as a [“behind the scenes” TV documentary](#) on how decisions are made, giving personal insights into how the ECB operates. To establish a direct connection with people across the countries of the euro area, ECB policymakers often combined official visits with [opportunities to interact with citizens in places such as a local farmers market](#), or in schools and universities. An extraordinary effort was made to reach people who may not usually hear about central bank policy, through an appearance by [President Lagarde on a well-known TV comedy show](#) to explain in a simple and accessible manner what the ECB does to keep prices under control, how artificial intelligence affects the economy and how to cope with greater economic uncertainty.

ECB policymakers visited businesses

To make the link between monetary policy and real economic activity tangible, ECB policymakers visited companies in different countries of the euro area – for instance, the [quantum computing laboratory, Pasqal](#), in France, the [technology and services supplier, Bosch](#), in Germany, and the [Port of Rotterdam](#) in the Netherlands. These visits are not only occasions on which to discuss how ECB policy is affecting the economy and businesses. They also help policymakers to better understand the economic challenges facing companies – for example, the impact of regulation and technology on productivity, the difficulty of finding well-trained workers, or the demands of the green transition.

The ECB continued to engage with the local community in Frankfurt and the Rhein-Main region

The ECB continued its efforts to be a good institutional citizen of the City of Frankfurt am Main and engage directly with local people. In 2024 the ECB once again opened its doors to visitors during the annual [“Night of the Museums”](#) festival. It also participated in the local [Europafest celebrations](#) on Europe Day (9 May), with a much-visited stand, and together with the Frankfurt Radio Symphony it organised a highly successful [Europa OpenAir concert](#) near the ECB's premises that was attended by around 17,000 guests.



Chairperson of the European Insurance and Occupational Pensions Authority Petra Hielkema, ECB Executive Board member Philip R. Lane and President of the Deutsche Bundesbank Joachim Nagel engaging with local citizens at the ECB stand during the Europafest on 9 May 2024.

Making the ECB more accessible

The public is still very interested in getting to know the ECB from the inside

Throughout the year the ECB's Visitor Centre hosted a total of 21,325 visitors, with 12,798 participating in guided tours and 8,527 attending lectures. In view of the public's keen interest in the architecture of the ECB's Main Building, guided architectural tours were relaunched in July 2024 which were attended by 1,040 visitors. This is only a fraction of those who are interested, but the number of places on tours is limited owing to capacity constraints.

New digital channels were made available to the public

To facilitate access to the ECB and its policies – including online access – the ECB revamped the structure of its websites, adopting a user-centric approach, to make it easier for users to search for information. In addition, a new WhatsApp channel was set up to reach new audiences. It offers news, quizzes and other interactive content and had reached over 90,000 subscribers by the end of 2024. The ECB also continued its efforts to use technology to ensure that the information it publishes is easy to understand. To this end, an artificial intelligence-based tool is being developed that enhances writing style, and more multilingual content is being provided with the help of eTranslation, the European Commission's machine translation service.

Anniversaries are an opportunity to draw public attention to the ECB's work

Special days and anniversaries offer opportunities to draw public attention to the ECB and its work, to explain what it does and how its work affects people. 2024 was the tenth [anniversary of the establishment of European banking supervision](#). To mark the occasion, [exhibits on banking supervision in the ECB Visitor Centre](#) were

Public access requests slightly increased compared with 2023 and there was sustained interest in documents on institutional topics

updated and enhanced. In the past year the [ECB Podcast](#) also celebrated its fifth anniversary, which was marked with a special [#AskECB podcast episode](#) in which questions from citizens were answered. And the [ECB's LinkedIn channel reached 500,000 followers](#).

The ECB's public access regime plays a crucial role in its transparency policy. The regime fosters openness and strengthens the ECB's democratic legitimacy by granting the widest possible access to ECB documents, while ensuring the protection of the ECB's independence and effective functioning.

The number of requests for public access to ECB documents slightly increased in 2024 (74 requests) compared with 2023 (73 requests). [Requests continued to cover a broad spectrum of topics](#) related to institutional and governance aspects, and central banking and supervisory matters. As in 2023, the highest number of requests were for documents related to institutional matters such as procurement. Underlining the ECB's commitment to transparency, documents released in response to requests for public access are typically made available via the [ECB's Public Register of Documents](#). Moreover, [the overview of the topics covered in requests for access to documents received by the ECB](#) was updated for 2024.

To increase awareness of the legal framework governing access to documents and to foster a culture of transparency within the institution, the ECB organised outreach initiatives aimed at all ECB staff on [the International Day for Universal Access to Information proclaimed by UNESCO](#).

No findings of maladministration were raised by the European Ombudsman regarding the ECB's handling of public access requests.

11.4 Empowering our people to excel for Europe

Our workplace is shaped by and for people

In 2024 the ECB continued to prioritise efforts to foster an open working culture and a dynamic, inclusive and supportive workplace where every employee is empowered to excel. It introduced several initiatives to enhance well-being, career development, and diversity and inclusion (D&I). The ECB also started the transition to dynamic workspaces, a new design of our office spaces that reflects the evolving landscape of hybrid remote and office work. New policies, such as fully paid special parental leave and increased leave for carers, underscore the ECB's dedication to fostering an equitable environment. A Career Portal was launched to support staff development, offering opportunities for mobility (whereby staff can change jobs internally) and mentoring. The focus on D&I is evident through ambitious gender targets and initiatives that address its different facets. Through these efforts, the ECB aims to cultivate a workplace where all employees feel valued and empowered to contribute their best to Europe's future.

Working culture and conditions

The ECB is transitioning to dynamic workspaces

The ECB is transforming its workspaces to adapt to a hybrid model of remote and office work. In 2024 it took the first steps towards introducing dynamic workspaces, including desk-sharing, in order to foster flexibility, inclusion and collaboration, while optimising the use of office space. Employee involvement is vital to create a working environment that supports the diversity of individuals and ways of working. Some teams have already designed their new spaces and will move into them in 2025.

There is new special leave for parents, on top of the existing parental leave, and extended special leave for carers

The ECB is introducing a special leave policy from 1 January 2025 for parents of children born or adopted from this date. They will be able to take 40 days of additional paid leave during the first three years following birth or adoption. A transitional measure grants 20 days for children born or adopted from August 2022. Special leave granted to carers has been increased to ten days per year. These additions to existing benefits underscore the ECB's commitment to work-life balance and gender equality and foster an inclusive workplace.

The follow-up to the staff survey prioritised well-being and the speaking up culture

The ECB continued to prioritise listening to staff to better understand their needs. Guided by survey feedback, the ECB introduced initiatives to enhance well-being and strengthen the culture of speaking up about issues. For example, focus groups helped to understand root causes and identify solutions for well-being challenges, communication campaigns raised awareness of flexible working options, and workshops equipped staff and managers to address disrespectful behaviours.

With a view to fostering a respectful workplace, the ECB conducted a review of reporting, investigation and disciplinary procedures

Furthermore, a cross-business area review of the framework for handling workplace misconduct was carried out, aiming to make procedures clearer and more efficient, and to ensure better protection and support.

The new GSA methodology was approved

The review of the General Salary Adjustment (GSA) methodology was concluded in 2024. This methodology defines how ECB salaries are adjusted on a yearly basis. The new approach is based on data published by Eurostat, guaranteeing transparency and objectivity.

Talent and career development

The Career Portal was launched

Career development is a priority at the ECB, and 2024 saw the launch of a key initiative, the new Career Portal. This functions as a central point for staff to explore opportunities such as mobility and mentoring. The Career Portal also offers a new option that enables staff to look for people within the organisation to swap jobs with, so they can make horizontal moves, expand their skills and enhance their professional networks. In 2025 new features, such as the chance to experience a colleague's working life through job shadowing, will be added to the Career Portal. In the first six weeks after the launch, 1,207 staff members used the Career Portal.

ECB staff took advantage of opportunities for mobility

Regarding mobility, under the sixth edition of the Schuman Programme, launched in 2024, 39 projects were offered as secondment opportunities, allowing staff exchanges between the ECB, national competent authorities (NCAs) and national central banks (NCBs). ECB staff also continued to take part in exchanges with

several NCAs and European institutions, as part of a dedicated swap programme for the Single Supervisory Mechanism (SSM). At the end of 2024 seven swap arrangements were in place with four NCAs (the Banca d'Italia, De Nederlandsche Bank, Banco de España and ACPR) and three agencies (the Single Resolution Board, the European Investment Bank and the European Securities and Markets Authority).

The learning programme focused on AI, climate risks and leadership

Our working environment is changing and presenting us with new challenges at an increasing speed. Developing skills and acquiring new ones is crucial for both personal growth and organisational success. The 2024 learning programme focused on artificial intelligence (AI), climate risks and leadership. In the area of AI, it focused on raising awareness and fostering interest: employees were encouraged to explore what AI is and to begin experimenting with technologies and tools. A climate risks learning programme enabled employees within the European System of Central Banks (ESCB) and the SSM to understand the impact on the financial system. Leadership development initiatives included a 360-degree feedback exercise for all leadership levels and, for the first time, a dedicated development programme for team leads.

Diversity and inclusion

The ECB continued to foster diversity and inclusion

At the ECB, nurturing a culture of diversity, inclusion and belonging involves collective efforts. Our Executive D&I Sponsors provide leadership support and lend weight to the topic, while D&I Ambassadors promote D&I within the business areas, alongside six D&I networks that amplify the voices of underrepresented groups. By embedding a D&I lens in policy design and enabling an open dialogue at the bank, the D&I Adviser and HR team unite these efforts. To harness our collective D&I experience and knowledge, an ESCB and SSM D&I network meets regularly, bringing our institutions a step closer to mirroring and delivering ever better results for the citizens the ECB serves.

Expanding on D&I facets and intersectionality was high on the agenda

In pursuit of gender equality, the ECB has introduced ambitious gender targets and accompanying actions. In 2024 women accounted for 33.3% of staff at management level (I-L salary bands) and 37.3% at senior management level (K-L salary bands), which fell 0.7 percentage points short of the management and senior management targets. Looking at the composition of management, significant progress has been achieved over the past ten years. Nevertheless, closing the gap at expert level (F/G-G salary bands) and at team lead level (H salary band) remains a challenge (Figure 11.1), underlining the need to keep gender balance high on our strategic agenda.

In 2024 efforts extended beyond supporting women to include engaging men through a dedicated series of talks on gender norms, masculinities and paternity leave. In the aim of cultivating and sustaining an environment in which all individual backgrounds, experiences and abilities are valued, several workshops were held focusing on inclusive behaviour and leadership, LGBT+ inclusion, race, ethnicity and allyship.

To mark the 2024 EU Diversity Month, the ECB launched a mentoring programme and focus groups for ethno-racial minority staff

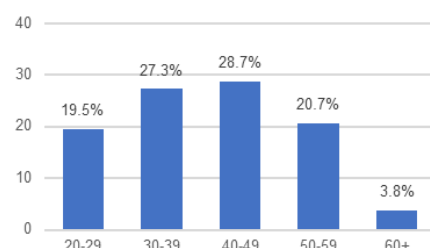
The ECB dedicated the 2024 EU Diversity Month to race and ethnicity, partnering with external experts and piloting a mentoring programme and focus groups for ethno-racial minority staff. Insights collected about strengths and areas for improvement formed the basis for a pilot racial inclusion workshop for managers.

Figure 11.1
Our people at a glance

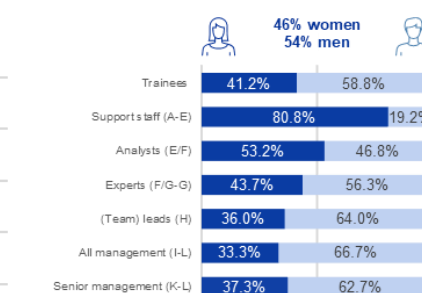


5,242 employees and trainees,
of which 8.3% work part-time¹

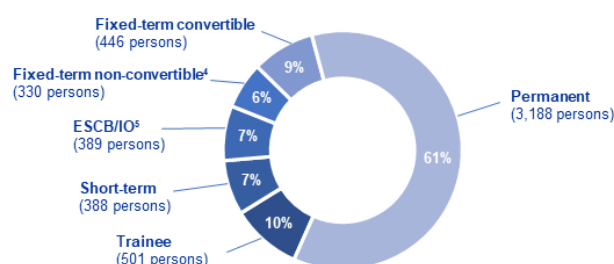
Our employees and trainees by age group¹
(percentages of entire workforce, age ranges)



Our employees² and trainees by gender¹
(percentages of workforce by salary band)³



Our employees and trainees by contract type¹



Our employees and trainees by other factors



Our employees and trainees by nationality⁹

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV
Employees and trainees (%)	2.2	2.0	0.8	0.6	23.1	0.5	3.2	4.8	8.4	7.6	1.2	18.4	0.5	0.6
All management (I-L, %)	2.6	1.1	0.3	0.7	29.6	0.7	3.9	3.8	11.7	9.9	0.3	14.9	0.5	0.5

	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK
Employees and trainees (%)	0.9	0.2	1.3	0.2	2.9	2.2	2.8	4.4	3.7	1.1	0.8	1.4	0.9	3.1
All management (I-L, %)	0.5	0.2	1.0	-	5.7	2.1	1.5	3.3	0.3	0.8	-	0.5	0.2	3.4

1) As at 31 December 2024.

2) Refers only to permanent staff members and staff with fixed-term contracts.

3) The methodology for reporting gender share has been refined following the last data extraction for the ECB Annual Report 2023. Comparisons with previous data should therefore take account of these methodological changes.

4) Includes 59 participants in the Graduate Programme.

5) Employees seconded from a national central bank of the European System of Central Banks, European public institutions and agencies, or international organisations.

6) Refers to any permanent or temporary horizontal move across divisions or business areas.

7) Refers to any permanent or temporary move to a higher salary band, with or without a recruitment.

8) Refers only to permanent staff members and staff with fixed-term convertible contracts.

9) The table shows shares of ECB employees and trainees by nationality, i.e. staff members holding multiple nationalities are counted for each nationality they declare. Shares are obtained by calculating the proportion between the number of people with each nationality and the total number of nationality counts (EU only). The countries are listed using the alphabetical order of the country names in the respective national languages.

11.5

Advancing work on environmental and climate-related challenges

The ECB needs to understand the impact of climate change and the green transition on the economy and the financial sector

Recent advances in climate economics and modelling show that the costs of unabated climate change are significantly higher than had been assumed. This is partly due to insufficient progress in mitigating climate change. A timely transition to a greener economy would be significantly less costly.⁹⁴ Annual global carbon emissions are now at an all-time high and scientists expect global warming to reach 2.6-2.8°C above pre-industrial levels this century, even if current policy commitments are met. This is much higher than the limit of 1.5°C set under the Paris Agreement.⁹⁵ The risks of a hotter planet and too late a transition are therefore increasing. In addition, nature degradation affects the economy and leads to financial risks. Climate and nature are interlinked, and the ECB needs to understand their combined impact on the economy and on the financial sector to effectively deliver on its mandate.

In 2024 the ECB continued to work on its [climate and nature plan for 2024-25](#). This work is coordinated by the ECB's [climate change centre](#) and conducted in collaboration with internal stakeholders and the relevant Eurosystem committees and climate fora. The plan builds on past achievements and outlines the ECB's vision for how to address the impact of climate change and nature degradation within its mandate. Besides the continued implementation of the measures that had been agreed in the past⁹⁶, it identifies three focus areas for further work: (i) navigating the transition to a green economy, (ii) understanding the increased physical impact of climate change, and (iii) advancing work on nature-related risks. The climate change centre has also developed capacity-building initiatives and enhanced synergies within the Eurosystem, through common training programmes, joint seminars and projects. ECB staff have also contributed to training courses and workshops with central banking peers and other stakeholders outside the Eurosystem. The ECB has contributed to advancing the climate agenda in international fora, including the Central Banks and Supervisors Network for Greening the Financial System (NGFS), the Financial Stability Board, the Basel Committee on Banking Supervision, the European Supervisory Authorities and the European Systemic Risk Board, the Bank for International Settlements (BIS), the BIS Committee on Payments and Market Infrastructure, the G7, the G20, and the International Monetary Fund and World Bank.

The carbon footprint of corporate asset holdings continues to decrease

In monetary policy implementation, the [climate-related financial disclosures of the Eurosystem's monetary policy holdings and the ECB's foreign reserves](#), published in June 2024, expanded the scope of the report from corporate assets to include other asset classes. The report now covers 99.7% of the total assets held for monetary

⁹⁴ See "[NGFS publishes latest long-term climate macro-financial scenarios for climate risks assessment](#)", press release, Central Banks and Supervisors Network for Greening the Financial System, 5 November 2024.

⁹⁵ See the United Nations Environment Programme, "[Emissions Gap Report 2024](#)" for more details on the estimate that under existing policies global warming will reach 2.6-2.8°C above pre-industrial levels this century.

⁹⁶ See the ECB's 2021 [action plan to incorporate climate considerations into monetary policy](#), the 2022-24 [strategy for banking supervision](#) and the 2022 [climate agenda](#).

policy purposes. The carbon emissions associated with corporate assets – for which the Eurosystem targets a decarbonisation path that supports the goals of the Paris Agreement and the EU’s climate neutrality objectives – continued to decrease. Since corporate bond reinvestments were discontinued as of 31 December 2024, this reduction will be based on the maturity profile of these assets and on actions by the firms themselves. In May 2024 the Governing Council agreed that interim emission reduction targets will be set for the corporate asset holdings, at this stage to internally monitor the corporate portfolios’ emission reduction trajectory. If deviations from the desired trajectory are identified, the Governing Council will assess the need for remedial actions, within its mandate, on a case-by-case basis. In addition, the Eurosystem continued [to further incorporate climate change considerations into its monetary policy operations and enhance its risk assessment and management](#). For example, the Eurosystem NCBs now apply the common minimum standards for their in-house credit assessment systems (ICASs), in line with the commitment made in July 2022.⁹⁷

The ECB took significant steps in scenario analyses, banking supervision and climate-related data

Regarding financial stability and scenario analyses, the [one-off Fit-for-55 climate scenario analysis](#) by the ECB, the European Systemic Risk Board and the European Supervisory Authorities shows that transition risk losses alone are unlikely to threaten overall EU financial stability. However, when these risks are combined with macroeconomic shocks, they can increase losses for financial institutions. This calls for a coordinated policy approach. The [new long-term climate scenarios](#) produced by the ECB-led NGFS workstream include an updated damage function, leading to a more adverse assessment of physical risk, and highlight how insufficiently ambitious climate policies make the transition more difficult.

ECB Banking Supervision continued to assess banks’ alignment with ECB supervisory expectations on climate-related and environmental risks. Frameworks for climate and nature-related risks are now broadly in place for most banks. However, for a small number of banks, foundational elements for the adequate management of climate and nature-related risks are not yet in place. If banks do not meet the requirements by the set deadlines, they may face periodic penalty payments.

Concerning the contribution to climate-related data, all [three sets of ECB statistical indicators on climate](#) (namely for sustainable finance, physical risks and carbon emissions) were updated and improved in 2024 (see Section 7.2)

Information on corporate sustainability and financed emissions can be found in the relevant annual disclosures

The annual [climate-related financial disclosures of the ECB’s non-monetary policy portfolios](#) and its [environmental statement](#) give an overview of the carbon footprint of the ECB’s financed emissions and the reduction targets, as well as the environmental impacts and objectives of the ECB’s own operations. Data on the ECB’s environmental performance in 2024 will be published in 2025, together with a new Environmental Management Programme for 2025-27.

⁹⁷ For more information on the minimum standards, see the box entitled “[Common minimum standards for incorporating climate change risks into in-house credit assessment systems in the Eurosystem](#)”, *Economic Bulletin*, Issue 6, ECB, 2022.

Efforts to reduce the environmental impact of euro banknotes and electronic payments are ongoing, including work on the digital euro

Work on reducing the environmental footprint of euro banknotes continued in 2024. Actions taken included steps towards achieving the move to 100% organic cotton for paper substrate by 2027, and research on extending the lifespan of banknotes in circulation and on alternative sustainable waste disposal methods, such as recycling and reusing waste material. Finally, future euro banknotes are being developed in line with eco-design principles. This means that environmental aspects are considered at all stages of the banknote development process (see Section 6.3). Regarding electronic retail payments and in its role as a catalyst, the ECB, together with the ESCB, investigated ways to facilitate a reduction in the environmental footprint of the payment process. The Eurosystem has developed initial environmental best practices for electronic retail payments, focusing exclusively on digital payments. The same approach is being applied to the digital euro project, where the Eurosystem is focused on minimising the environmental footprint across the entire value chain. This involves using existing standards and optimising processes, applying protocols to minimise energy consumption and adhering to best practices for environmental performance and data transparency.

In addition to implementing the measures that had been agreed in the past, the ECB increased its work in three areas (Figure 11.2).

Figure 11.2
Focus areas of the ECB's climate-related work in 2024-25



Source: ECB.

The ECB aims to better understand the impact of the green transition on its mandated tasks

The ECB made progress in understanding and addressing the impact of the transition to a greener economy. The July 2024 round of the ECB's [bank lending survey](#) showed that climate risks are increasingly taken into consideration in lending conditions and in loan demand, particularly for financing investment for the green transition. An analysis showed that there is still a [need for considerable green investment in Europe](#), despite progress. An ESCB report analysed the [structural consequences of the transition for productivity](#), while analytical contributions such as a box in the Economic Bulletin on the [macroeconomic effects of climate change transition policies](#) enhanced the ECB's macro-modelling framework. An ECB Blog post showed that [energy-intensive firms suffer from low profit margins and discussed the implications for the green transition](#). Regarding monetary policy implementation, the Governing Council confirmed in March 2024 that, to the extent that different configurations of the operational framework are equally conducive to ensuring the effective implementation of the monetary policy stance, [the design of the Eurosystem's future operational framework](#) should facilitate the pursuit of the ECB's

secondary objective – in particular the transition to a green economy – without prejudice to its primary objective of price stability.

The ECB needs to take account of the increased physical impact of climate change

As regards the increased physical impact of climate change, the ECB explored how to integrate this impact into climate scenarios and macroeconomic projections. Contributions included exploring [the effects of temperature shocks on inflation in euro area countries](#) and the [amplification of physical risks through supply chain linkages](#). Regarding adaption to climate change, a paper on [policies to reduce the climate insurance protection gap](#), published by the ECB and the European Insurance and Occupational Pensions Authority, elaborated on the supply and demand-side causes of the gap in Europe and outlined possible steps towards a European system for natural catastrophe insurance protection.

Climate and nature-related risks are interlinked

Advancing work on nature-related risks, the ECB published a [box on “ecosystem services”](#) and an [article on the impact of nature degradation and biodiversity loss](#) in the Economic Bulletin, which concluded that nature degradation can pose significant challenges to the ESCB’s Treaty-based objective of maintaining price stability and its task of contributing to financial stability. Additionally, the ECB, together with the Potsdam Institute for Climate Impact Research, NatureFinance and the University of Minnesota, conducted [research that highlighted the importance of integrated nature-climate scenarios](#) for a more accurate view of the risks to financial and economic stability. The ECB also carried out [research that explored the legal implications of nature-related risks for central banks and supervisors](#), as outlined in a [speech by Frank Elderson on the risks posed by nature degradation](#).

Box 8

The ECB integrates AI technologies into its work

In 2024 the ECB continued to develop its strategic approach to integrating artificial intelligence (AI) into operations, policymaking processes and supervisory functions.

On the central banking side, the focus was on AI support for business innovation. The ECB conducted research into the use of AI algorithms to support monetary policy decision-making and into the impact of AI on the economy and central bank communication (see for example Chapter 8). In market operations, initiatives included market outreach activities to assess AI implementation in financial markets, the launch of a market AI network and the use of AI tools to gauge market sentiment. Work on AI will continue, with several experimental projects in areas such as automated communication, optimising reporting, and data visualisation. In addition, four large language models are now available to the entire ECB, supporting more than 4,500 users. As part of the 2024 learning programme, all members of staff were encouraged to explore AI and its use in their work (see Section 11.4).

On the banking supervision side, building on the progress made by the supervisory technology (“suptech”) programme, more than 3,500 supervisors benefited from AI and other advanced technologies in 2024. A key element underpinning the tech strategy of the Single Supervisory Mechanism for the period 2024-28 is the idea of “supervision at your fingertips”. This means using technology, data and innovation to provide quick access to key information on risks relating to supervised banks. A number of AI-driven platforms have been developed. Athena is an AI-powered

tool helping supervisors to extract and compare information from a corpus of millions of articles, supervisory assessments and bank documents. Heimdall is a tool that uses AI features to streamline assessments of the suitability of banks' board members for their roles. Additionally, the Virtual Lab provides supervisors and other ESCB staff with the infrastructure to collaborate and to develop their own AI solutions. ECB Banking Supervision is also testing nine high-priority generative AI use cases to be put into production over the next two years.

These achievements are underpinned by the ECB's strong commitment to ethical principles, data security, sharing findings with other central banks, and regulatory compliance. By embracing AI responsibly, the ECB aims to contribute to a stable, efficient and forward-looking financial environment in the euro area.

12 Meet our people

Many of the achievements in 2024 were made possible through collaboration among colleagues across the ECB and the European System of Central Banks (ESCB). In particular, the Governing Council and the General Council were supported in their decision-making processes by a range of expert committees. These committees, which comprise experts from the ECB and the ESCB, give advice in their respective areas of competence. In this Chapter, some of our colleagues explain the role of the committee they participate in. They also give an impression of their personal experiences working on the committee and more generally at the ECB.

Oscar Arce



I have the privilege of chairing the Monetary Policy Committee, a key forum where experts from across the Eurosystem and the ESCB come together to support the Governing Council and the General Council. Our work focuses on analysing economic developments and preparing policy discussions that help guide decisions on interest rates and other monetary policy measures. Simply put, we help ensure that our policies keep inflation stable and support the euro area economy.

Before joining the ECB, I was Director General for Economics, Statistics and Research at the Banco de España, where I worked on economic analysis and forecasting. I also spent time at the Spanish Securities Market Commission and the Spanish Prime Minister's Economic Bureau. I hold a PhD in Economics from the London School of Economics and Political Science, with research focusing on monetary policy, financial stability and macroeconomic policy.

Leading the ECB's Directorate General Economics is both an honour and a great professional challenge. The ECB has been a pillar of stability and prosperity for the European Economic and Monetary Union since its inception. Our role, in close collaboration with the rest of the Eurosystem, will remain crucial in the years ahead. What I enjoy most about my work is the constant exchange of ideas with talented colleagues across Europe.

Outside of work, I enjoy spending time with my family in Madrid and exploring the open road on my motorbike.

Cornelia Holthausen



I serve as Chair of the Financial Stability Committee, which is a forum where we discuss matters related to identifying and assessing financial stability risks and the appropriate stance of macroprudential policies.

After my PhD I was very motivated to work for Europe and joined the ECB in 1999 as an economist in the Directorate General Research, with a focus on money markets and payment systems. I quickly became interested in hands-on policy work and was happy to join the Directorate General Market Operations a few years later as a liquidity manager. It was a fascinating place to be during the financial crisis. Analysis and fast decision-making went hand in hand, and I felt that the work of all team members really made an impact.

Later I took a managerial path in the areas of financial research, market operations, economics and, finally, financial stability. It was a great experience to move around the ECB and work on so many different topics with different teams over the years. I encountered a very strong commitment to delivering high-quality output across the institution.

In the Directorate General Macroprudential Policy and Financial Stability, we focus on providing comprehensive analysis and policy advice related to macroprudential policies, financial stability and financial regulation. Our team is dedicated to identifying and monitoring systemic risks in the financial sector across the euro area. In doing so, we work closely with the national central banks, the Single Supervisory Mechanism, the European Systemic Risk Board and other ECB business areas. Our work is challenging but it is also rewarding to all come together for a common purpose.

I am happy and proud that I have been able to work for so long at an institution that is integral to Europe and has been strong even through difficult periods. And I know that Europe will remain firmly united in the decades to come.

Vitaliana Rondonotti



Since 2017 I have been the rapporteur of the Statistics Committee. I coordinate cross-cutting ESCB statistical matters, monitor the implementation of the statistics work programme for the ESCB and the Single Supervisory Mechanism and support the Chair in the strategic steering of the committee. As rapporteur, I have experienced challenging but enriching times. I have served directly under four Directors General in the Directorate General Statistics and witnessed substantial transformations of the statistical function owing to ever-increasing data needs, new methodologies, the rapid evolution of technology and the need to collaborate efficiently with an increasing number of stakeholders in person and virtually.

Having lived and studied in different countries, I grew up appreciating multinational and multicultural environments and as a strong supporter of international cooperation. When I heard about the project of a single European currency, I was

thrilled by the opportunity to join an international institution like the ECB and work for Europe.

Following my studies in methodological statistics, I joined the ECB's Directorate General Statistics in 2000 as an expert in seasonal adjustment. At first I was involved in the production of monetary aggregate statistics, but quite soon I became very interested in contributing to new statistical initiatives, such as exploring the use of central credit registers and other new data sources for statistical purposes and the establishment of the securities holdings statistics database, one of the first ESCB projects on granular statistical information.

I take pride in serving the Statistics Committee, contributing to the production of the high-quality European statistics that are critical for ECB policymaking, and doing my part for a better and stronger Europe.

Sylvia Hildebrandt



I am a Senior Office Coordinator in the Directorate Banknotes. Since joining the ECB in 2017 I have been responsible for managing the administrative and logistical arrangements for the Banknote Committee. The task of this committee is to ensure that euro cash remains widely available, accessible and accepted as both a means of payment and a store of value, as well as remaining innovative, secure and environmentally friendly.

My role involves facilitating seamless exchanges between the Chair, Secretary and committee members, and I truly value the collaborative atmosphere and team spirit that crosses national borders.

Before my time at the ECB, I worked in the private sector in talent management and then as a Team Assistant. I have always been passionate about working with people and organising events, and I was thrilled to bring my expertise and skills to my role at the ECB. I thrive in the ECB's diverse and international environment and, having studied Anglistics, I love putting my language skills into practice every day. I am deeply committed to supporting a strong Europe and I take pride in contributing to this goal through my work with the Banknote Committee.

Outside of work, I enjoy spending time outdoors, whether with my dog or on my mountain bike. My partner and I love cycling through the beautiful landscapes of our home in the Odenwald.

I am excited to continue contributing to the ECB's mission and I look forward to the opportunities that the future holds.

Christian Barontini



I serve as Secretary of a group that brings together the Secretaries of all the ESCB committees. This involves providing technical, logistical and strategic support. We advise on the rules governing committees, ensure alignment in the content and timing of common deliverables and monitor how committees respond to requests from the decision-making bodies.

My first experience with the committees came early in my central banking career when the euro was introduced in 1999. I participated in a task force of the Monetary Policy Committee as a representative of the Banque de France. This helped deepen my understanding of the mechanics behind European projects and the importance of engaging with national perspectives to find common ground.

I joined the ECB in 2007 as an economist in the Directorate General International and European Relations, where I supported the preparation of ECB policy positions for EU institution meetings and fora in Brussels. I later moved to my current job in the Directorate General Secretariat, where I coordinate the meetings of the ECB's decision-making bodies. Throughout this period, I have also been an active member of the Communications Committee, which advises the decision-making bodies on the full range of internal and external communication issues, such as how to adapt to the evolving use of digital tools, or communication aspects of major projects such as the 2021 monetary policy strategy review.

The euro is a unique currency that was created to promote growth, stability and economic integration in Europe. Contributing even in a modest way to such an important mission is a source of great pride for me.

Annual Accounts

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Key figures

€640.6 billion



ECB's balance sheet

The ECB's balance sheet decreased by €32.6 billion in 2024, mainly due to the decline in monetary policy securities, as reinvestments of principal payments from maturing securities under the APP were discontinued as of July 2023 and redemptions under the PEPP were only partially reinvested over the second half of 2024.

€7,944 million



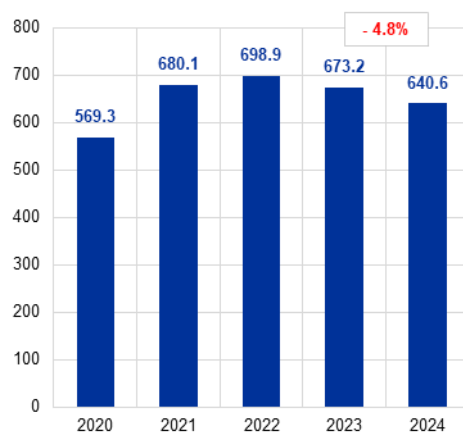
ECB's loss for the year

This loss was again driven by the significant interest expense resulting from the net TARGET liability and is comparable to the loss of €7,886 million before the transfer from risk provisions in 2023. Given that the provision for financial risks was released in full in 2023, reducing the loss for that year to €1,266 million, no losses could be covered by this provision in 2024.

The 2024 loss, like the loss from the previous year, will remain on the ECB's balance sheet to be offset against future profits.

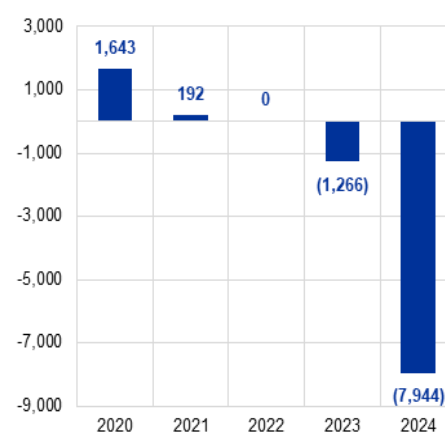
ECB's balance sheet

(EUR billions)



ECB's profit/(loss) for the year

(EUR millions)



1 Management report

1.1 Purpose of the ECB's management report

The management report is an integral part of the ECB's Annual Accounts and is designed to provide readers with contextual information related to the financial statements.^{1,2} Given that the ECB's activities and operations are undertaken in support of its policy objectives, the ECB's financial position and result should be viewed in conjunction with its policy actions.

To this end, the management report presents the ECB's main tasks and activities, as well as their impact on its financial statements. Furthermore, it analyses the main developments in the balance sheet and the profit and loss account during the year and includes information on the ECB's net equity. Finally, it describes the risk environment in which the ECB operates, providing information on the specific risks to which the ECB is exposed, and the risk management policies used to mitigate risks.

1.2 Main tasks and activities

The ECB is part of the Eurosystem, which comprises, besides the ECB, the national central banks (NCBs) of the Member States of the European Union (EU) whose currency is the euro.³ The Eurosystem has the primary objective of maintaining price stability. The ECB performs its tasks as described in the Treaty on the Functioning of the European Union⁴ and in the Statute of the European System of Central Banks and of the European Central Bank (Statute of the ESCB)⁵ (Figure 1). The ECB conducts its activities in pursuit of its mandate and not with the intention of generating a profit.

¹ Throughout this document, the numbers presented may not add up precisely to the totals and percentages may not precisely reflect the absolute figures owing to rounding.

² The "financial statements" comprise the balance sheet, the profit and loss account, a summary of significant accounting policies and other explanatory notes. The "Annual Accounts" comprise the financial statements, the management report, the independent auditor's report and the note on profit distribution/allocation of losses. Further details on the related [preparation and approval process](#) can be found on the ECB's website.

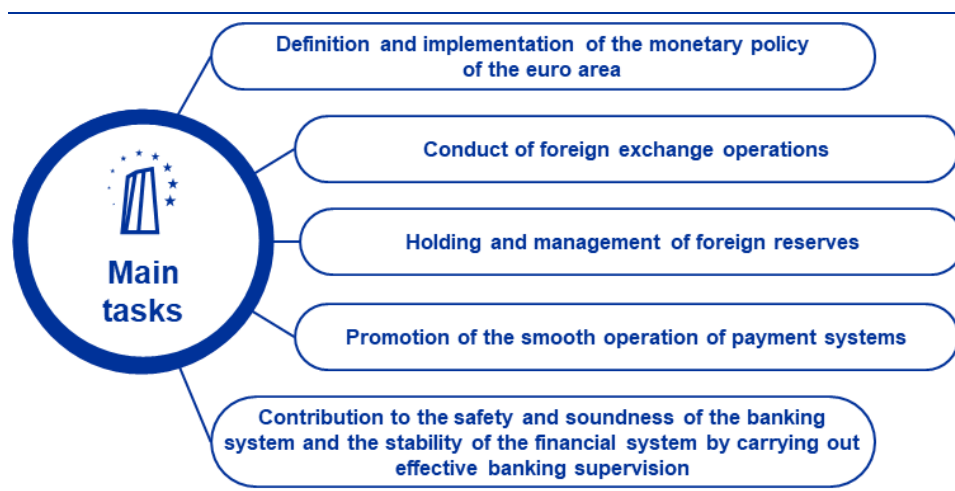
³ There were 20 NCBs in the Eurosystem in 2024.

⁴ [Consolidated version of the Treaty on the Functioning of the European Union](#) (OJ C 202, 7.6.2016, p. 1), as amended. The [unofficial consolidated text](#) with the list of amendments is also available.

⁵ [Protocol \(No 4\) on the Statute of the European System of Central Banks and of the European Central Bank](#) (OJ C 202, 7.6.2016, p. 230). The European System of Central Banks (ESCB) comprises the ECB and the NCBs of all 27 EU Member States.

Figure 1

The ECB's main tasks



The Eurosystem's monetary policy operations are recorded in the financial statements of the ECB and of the euro area NCBs, reflecting the principle of decentralised implementation of monetary policy in the Eurosystem. Table 1 below provides an overview of the main operations and functions of the ECB in pursuit of its mandate and their impact on the ECB's financial statements.

Table 1**The ECB's key activities and their impact on its financial statements****Implementation of monetary policy**

Lending and liabilities to euro area credit institutions related to monetary policy operations	<p>The monetary policy operational framework of the Eurosystem consists of a set of monetary policy instruments. The Eurosystem conducts standard regular, i.e. non-structural, liquidity-providing open market operations, offers standing facilities and requires credit institutions to hold minimum reserves.⁶</p> <p>These monetary policy instruments are used in a decentralised manner by the NCBs and are reflected in their financial statements under "Lending to euro area credit institutions related to monetary policy operations denominated in euro" and "Liabilities to euro area credit institutions related to monetary policy operations denominated in euro" in the balance sheet. Accordingly, they have no impact on the ECB's financial statements.</p>
Securities held for monetary policy purposes	<p>Purchases of these securities were conducted by the ECB and the NCBs of the Eurosystem and recorded in the balance sheet under "Securities held for monetary policy purposes". The debt securities currently held are accounted for at amortised cost subject to impairment.</p> <p>Coupon accruals and amortised premiums and discounts are included in the profit and loss account under either "Interest income" or "Interest expense", depending on whether the net amount is positive or negative.</p> <p>Realised gains and losses, if any, are included in the profit and loss account under "Realised gains/(losses) arising from financial operations".</p>
Securities lending	<p>Securities held for monetary policy purposes are available for lending by the Eurosystem.⁷ For the ECB, these operations are conducted via specialised institutions. These operations are recorded in the balance sheet under "Other liabilities to euro area credit institutions denominated in euro" and "Liabilities to non-euro area residents denominated in euro" if collateral is provided in the form of cash and this cash remains uninvested. Otherwise, the related securities lending operations are recorded in off-balance-sheet accounts.</p> <p>Interest accruals are included in the ECB's profit and loss account as "Interest income" or "Interest expense".</p>
Liquidity provision in foreign currency	<p>The ECB acts as an intermediary between non-euro area central banks and the euro area NCBs by means of swap transactions aimed at offering short-term foreign currency funding to Eurosystem counterparties.⁸</p> <p>These operations are recorded in the balance sheet under "Liabilities to non-euro area residents denominated in euro" and "Claims related to TARGET (net)" / "Liabilities related to TARGET (net)", as well as in off-balance-sheet accounts.</p> <p>Interest accruals are included in the ECB's profit and loss account as "Interest income" or "Interest expense".</p>
Liquidity provision to non-euro area central banks in euro	<p>The Eurosystem may provide euro liquidity to non-euro area central banks by means of swap and repo transactions in exchange for eligible collateral.⁹</p> <p>For the ECB, the swap operations are recorded in the balance sheet under "Claims on non-euro area residents denominated in foreign currency" and "Liabilities to non-euro area residents denominated in euro" or "Claims related to TARGET (net)" / "Liabilities related to TARGET (net)", as well as in off-balance-sheet accounts.</p> <p>Interest accruals are included in the ECB's profit and loss account as "Interest income" or "Interest expense".</p>

⁶ Further details on the [Eurosystem's monetary policy instruments](#) and, more specifically, on the [open market operations](#) can be found on the ECB's website.

⁷ Further details on [securities lending](#) can be found on the ECB's website.

⁸ Further details on the [currency swap lines](#) can be found on the ECB's website.

⁹ Further details on the Eurosystem's [euro liquidity-providing operations](#) against eligible collateral can be found on the ECB's website. The repo lines also described on the website are operated by the NCBs and, accordingly, have no impact on the ECB's financial statements.

Conduct of foreign exchange operations and management of foreign reserves

Foreign exchange operations and management of foreign reserves	<p>The ECB's foreign reserves are presented in the balance sheet, mainly under "Gold and gold receivables", "Claims on non-euro area residents denominated in foreign currency" and "Claims on euro area residents denominated in foreign currency", while any related liabilities would be presented under "Liabilities to euro area residents denominated in foreign currency" and "Liabilities to non-euro area residents denominated in foreign currency". Foreign exchange transactions are reflected in off-balance-sheet accounts until the settlement date.</p> <p>Coupon accruals and amortised premiums and discounts are included in the profit and loss account as "Interest income" or "Interest expense".</p> <p>Unrealised price and exchange rate losses exceeding previously recorded unrealised gains on the same items and realised gains and losses arising from the sale of foreign reserves are also included in the profit and loss account under "Write-downs on financial assets and positions" and "Realised gains/(losses) arising from financial operations" respectively. Unrealised gains are recorded in the balance sheet under "Revaluation accounts".</p>
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Promotion of the smooth operation of payment systems

Payment systems (TARGET)	<p>Intra-Eurosystem balances of euro area NCBs vis-à-vis the ECB arising from TARGET are presented together in the balance sheet of the ECB as a single net asset or liability position under "Claims related to TARGET (net)" or "Liabilities related to TARGET (net)".¹⁰ Intra-ESCB balances of non-euro area NCBs vis-à-vis the ECB arising from their participation in TARGET are recorded in the balance sheet under "Liabilities to non-euro area residents denominated in euro". Balances of ancillary systems connected to TARGET through the TARGET-ECB component are recorded in the balance sheet under "Liabilities to other euro area residents denominated in euro" or "Liabilities to non-euro area residents denominated in euro", depending on whether the managing entity is established in or outside the euro area.¹¹ Interest accruals are included in the profit and loss account under "Interest income" or "Interest expense".</p>
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Contribution to the safety and soundness of the banking system and the stability of the financial system

Banking supervision – the Single Supervisory Mechanism	<p>The annual expenses of the ECB in relation to its supervisory tasks are recovered via annual supervisory fees levied on the supervised entities. The supervisory fees are included in the profit and loss account under "Net income/(expense) from fees and commissions".</p> <p>Furthermore, the ECB is entitled to impose administrative penalties on supervised entities for failure to comply with applicable EU banking law on prudential requirements (including ECB supervisory decisions). The related income is recorded in the profit and loss account under "Net income/(expense) from fees and commissions".</p>
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¹⁰ Further details on [TARGET Services](#) can be found on the ECB's website.

¹¹ Ancillary systems are financial market infrastructures that have been granted access to the TARGET-ECB component by the Governing Council, provided they fulfil the requirements defined in [Decision \(EU\) 2022/911 of the European Central Bank of 19 April 2022 concerning the terms and conditions of TARGET-ECB and repealing Decision ECB/2007/7 \(ECB/2022/22\)](#) (OJ L 163, 17.6.2022, p. 1), as amended. The [unofficial consolidated text](#) with the list of amendments is also available. Further details on [ancillary systems](#) can be found on the ECB's website.

Other

Banknotes in circulation	<p>The ECB has been allocated an 8% share of the total value of euro banknotes in circulation. This share is backed by claims on the NCBs which are recorded in the balance sheet under "Claims related to the allocation of euro banknotes within the Eurosystem" and were remunerated at the rate used by the Eurosystem in its tenders for main refinancing operations. The interest is included in the profit and loss account under "Interest income".</p> <p>Expenses arising from the cross-border transportation of euro banknotes between banknote printing works and NCBs, for the delivery of new banknotes, and between NCBs, for the compensation of shortages with surplus stocks, are borne centrally by the ECB. These expenses are presented in the profit and loss account under "Banknote production services".</p>
Own funds portfolio	<p>The own funds portfolio of the ECB is presented in the balance sheet, mainly under "Other financial assets".</p> <p>Coupon accruals and amortised premiums and discounts are included in the profit and loss account under "Interest income" or "Interest expense".</p> <p>Unrealised price losses exceeding previously recorded unrealised price gains on the same items and realised gains and losses arising from the sale of securities are also included in the profit and loss account under "Write-downs on financial assets and positions" and "Realised gains/(losses) arising from financial operations" respectively. Unrealised price gains are recorded in the balance sheet under "Revaluation accounts".</p>

1.3 Financial developments

1.3.1 Balance sheet

The ECB's balance sheet expanded between 2020 and 2022, mainly owing to outright purchases of securities by the ECB in the context of the implementation of the monetary policy of the Eurosystem (Chart 1). The main drivers of the substantial expansion in 2020 and 2021 were net purchases of securities under the asset purchase programme (APP) and the launch of the pandemic emergency purchase programme (PEPP) in March 2020.¹² Net purchases of securities under the PEPP and the APP were discontinued as of the end of March 2022 and 1 July 2022 respectively, leading to a more moderate increase in the ECB's balance sheet in 2022. In 2023 the ECB's balance sheet started decreasing, mainly owing to the gradual decline in holdings under the APP as a result of the only partial reinvestment of principal payments from maturing securities between March and June 2023 and the complete discontinuation of such reinvestments as of July 2023.

In 2024 the **ECB's balance sheet** decreased further, by €32.6 billion to €640.6 billion, mainly owing to redemptions of securities held under the APP and the PEPP. The redemptions resulted in a decrease in securities held for monetary policy purposes, while the cash settlement of these transactions via TARGET accounts led to a corresponding decline in intra-Eurosystem liabilities. This decline was partially offset by the rise in the euro equivalent value of the ECB's foreign reserve assets.

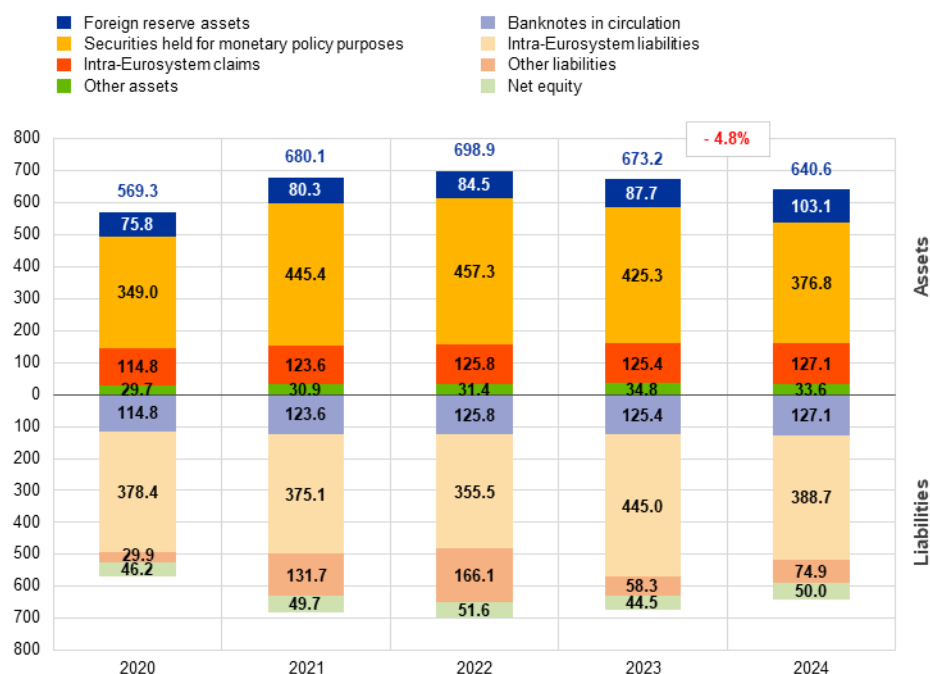
€32.6 billion
Decrease in the ECB's balance sheet

¹² The APP consists of the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP), the public sector purchase programme (PSPP) and the corporate sector purchase programme (CSPP). The ECB did not acquire securities under the CSPP. Further details on the [asset purchase programme](#) and the [pandemic emergency purchase programme](#) can be found on the ECB's website.

Chart 1

Main components of the ECB's balance sheet

(EUR billions)



Source: ECB.

Note: For the purpose of preparing the ECB's Annual Accounts, the ECB's net equity consists of its paid-up capital, any amounts held in the provision for financial risks and the general reserve fund, the revaluation accounts (excluding the revaluation account for post-employment benefits), any accumulated losses from previous years and any profit/loss for the year.

For information on the adjustments of the figures for 2023, see "Changes to presentation in the financial statements" in Section 2.3 "Accounting policies" of the financial statements of the ECB.

59%

Share of securities held for monetary policy purposes in total assets

Euro-denominated securities held for monetary policy purposes made up 59% of the ECB's total assets at the end of 2024. Under this balance sheet item, the ECB holds securities acquired in the context of the Securities Markets Programme (SMP), the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP), the public sector purchase programme (PSPP) and the pandemic emergency purchase programme (PEPP). The securities purchased under these programmes are valued at amortised cost subject to impairment.

€48.6 billion

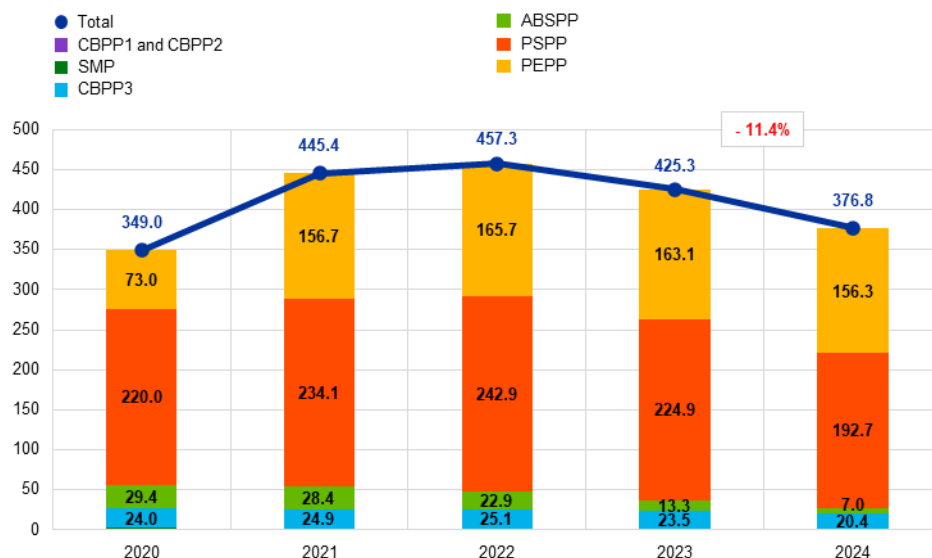
Decrease in securities held for monetary policy purposes

Based on the relevant Governing Council decisions, since July 2023 the Eurosystem no longer reinvests principal payments from maturing securities under the APP. The Eurosystem continued reinvesting principal payments from maturing securities under the PEPP in full during the first half of 2024 and partially over the second half of the year, reducing the PEPP portfolio at Eurosystem level by €7.5 billion per month on average in that period. At the end of 2024 reinvestments under the PEPP were discontinued. As a result of these decisions, the portfolio of securities held by the ECB for monetary policy purposes decreased by €48.6 billion to €376.8 billion (Chart 2). The APP decreased by €41.6 billion to €220.1 billion with the PSPP, ABSPP and CBPP3 holdings under the APP decreasing by €32.2 billion, €6.3 billion and €3.1 billion respectively. The PEPP portfolio decreased by €6.8 billion to €156.3 billion.

Chart 2

Securities held for monetary policy purposes

(EUR billions)

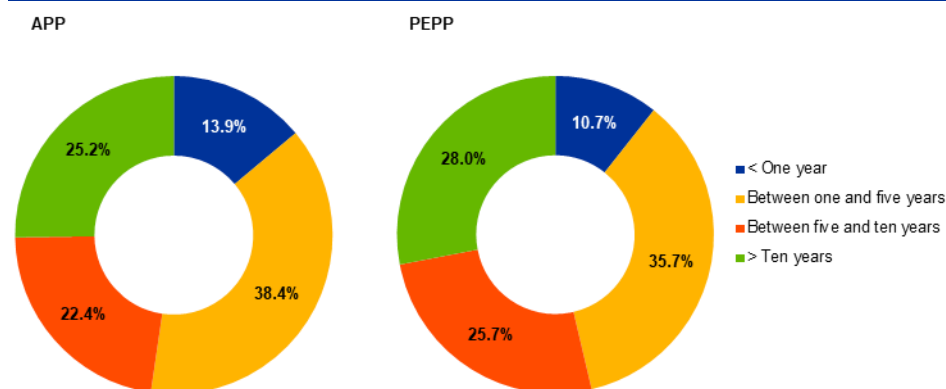


Source: ECB.

The securities held by the ECB under the APP and the PEPP at the end of 2024 had a diversified maturity profile (Chart 3).¹³

Chart 3

Maturity profile of the APP and the PEPP



Source: ECB.

Note: For asset-backed securities, the maturity profile is based on the weighted average life of the securities rather than the legal maturity date.

In 2024 the total euro equivalent value of the **ECB's foreign reserve assets**, which consist of gold, special drawing rights, US dollars, Japanese yen and Chinese renminbi, increased by €15.4 billion to €103.1 billion.

¹³ More information about the maturity profile of the [asset purchase programme](#) and the [pandemic emergency purchase programme](#) can be found on the ECB's website.

€10.5 billion

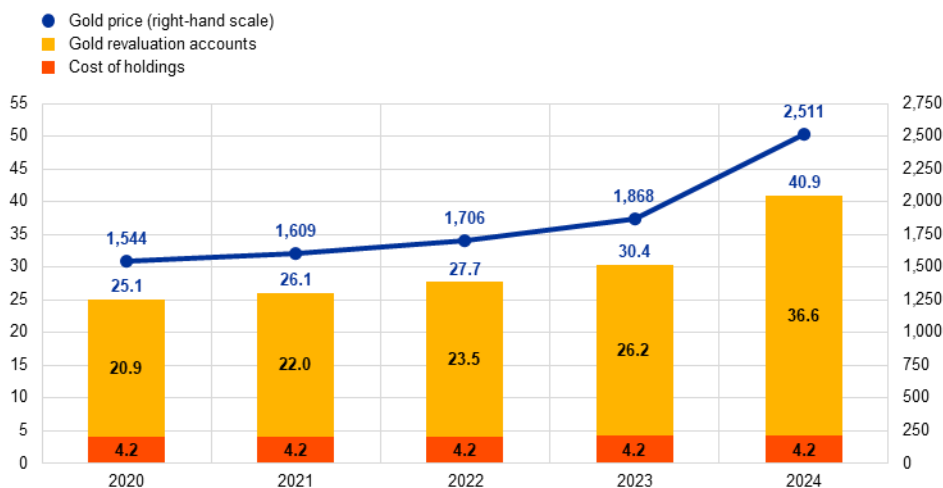
Increase in the value of the ECB's holdings of gold owing to the rise in the market price of gold in euro terms

The euro equivalent value of the ECB's holdings of gold increased by €10.5 billion to €40.9 billion in 2024 (Chart 4) owing to the rise in the market price of gold in euro terms. This increase also led to an equivalent rise in the ECB's gold revaluation accounts (see Section 1.3.2 "Net equity").

Chart 4

Gold holdings and gold prices

(left-hand scale: EUR billions; right-hand scale: euro per fine ounce of gold)



Source: ECB.

Note: "Gold revaluation accounts" does not include the contributions of the central banks of the Member States that joined the euro area after 1 January 1999 to the accumulated gold revaluation accounts of the ECB as at the day prior to their entry into the Eurosystem.

€4.7 billion

Increase in the ECB's foreign currency holdings

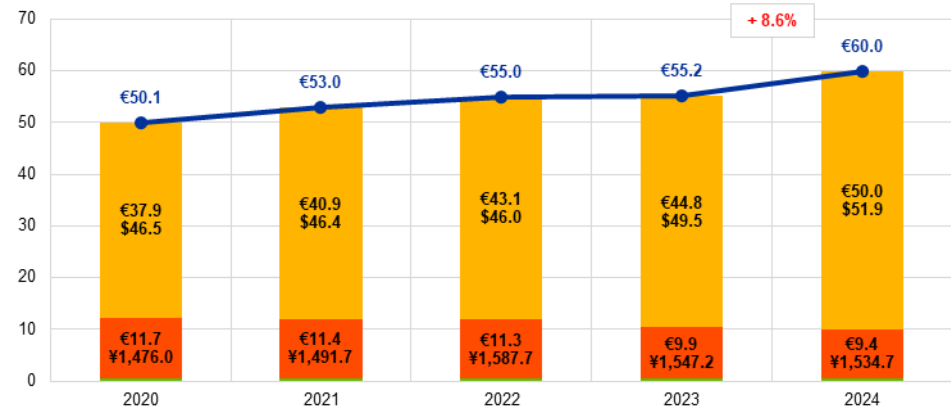
The ECB's foreign currency holdings of US dollars, Japanese yen and Chinese renminbi increased in euro terms by €4.7 billion to €60.0 billion (Chart 5), mainly owing to the appreciation of the US dollar against the euro and the reinvestment of income earned during the year, primarily on the US dollar portfolio.¹⁴ The appreciation of the US dollar against the euro was also reflected in higher balances in the ECB's currency revaluation accounts (see Section 1.3.2 "Net equity").

¹⁴ The ECB's foreign currency holdings comprise assets included in the balance sheet under "Claims on non-euro area residents denominated in foreign currency – Balances with banks and security investments, external loans and other external assets" and "Claims on euro area residents denominated in foreign currency".

Chart 5**Foreign currency holdings**

(EUR billions)

- Total
- US dollars
- Japanese yen
- Chinese renminbi



Source: ECB.

The US dollar is the main component of the ECB's foreign currency holdings, accounting for 83% of the total at the end of 2024.

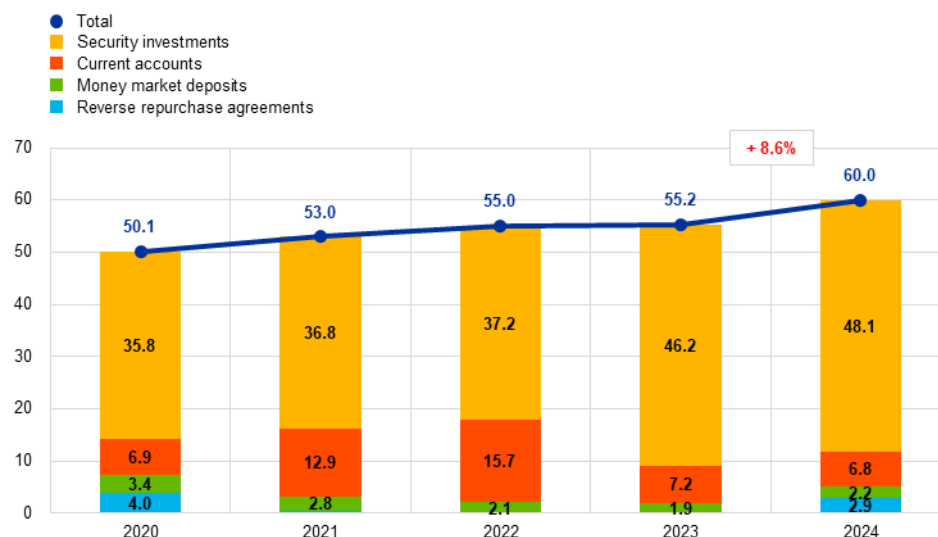
The ECB manages the investment of its foreign currency holdings using a three-step approach. First, a strategic benchmark portfolio is designed by the ECB's risk managers and approved by the Governing Council. Second, the ECB's portfolio managers design the tactical benchmark portfolio, which is approved by the Executive Board. Third, investment operations are conducted in a decentralised manner by the NCBs on a day-to-day basis.

The ECB's foreign currency holdings are mainly invested in securities and money market deposits or are held in current accounts (Chart 6). Securities in this portfolio are valued at year-end market prices.

Chart 6

Composition of foreign currency investments

(EUR billions)



Source: ECB.

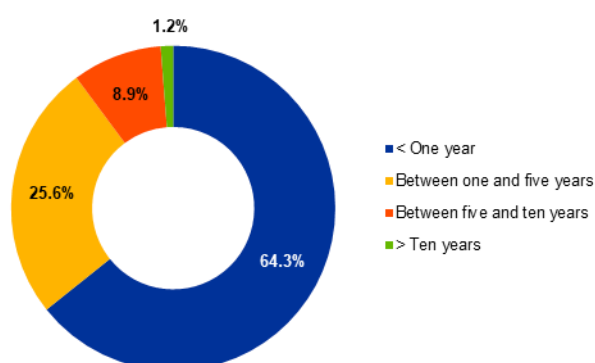
64%

Foreign currency-denominated securities with a maturity of less than one year

The purpose of the ECB's foreign currency holdings is to finance potential interventions in the foreign exchange market. For this reason, the ECB's foreign currency holdings are managed in accordance with three objectives (in order of priority): liquidity, safety and return. Therefore, this portfolio mainly comprises securities with short maturities (Chart 7).

Chart 7

Maturity profile of foreign currency-denominated securities



Source: ECB.

The value of the **own funds portfolio** increased by €0.6 billion to €22.7 billion (Chart 8), primarily owing to the reinvestment of interest income generated on this portfolio.

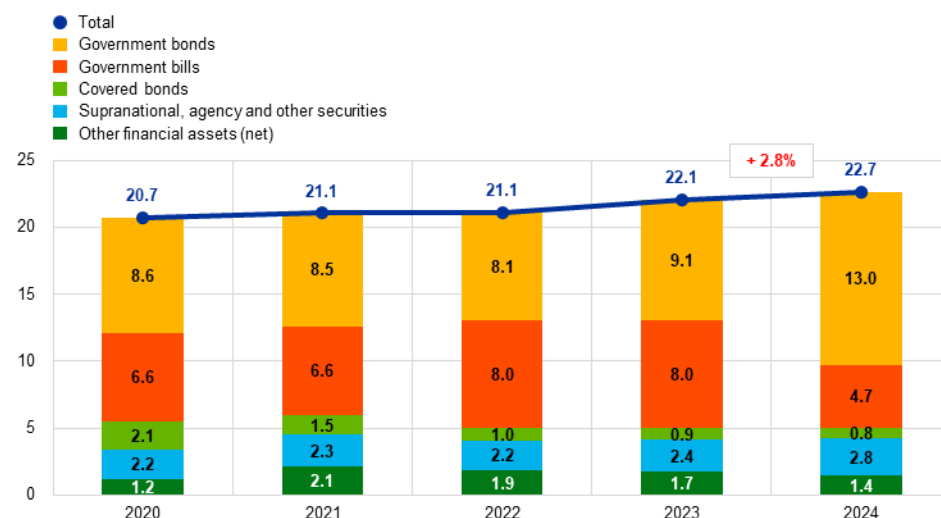
The portfolio mainly consists of euro-denominated securities valued at year-end market prices. In 2024 government debt securities accounted for 78% of the total portfolio.

28%
Share of sustainable and responsible investments in the ECB's own funds portfolio

The share of green investments in the own funds portfolio continued to increase, rising from 20% at the end of 2023 to 28% at the end of 2024. The ECB plans to further increase this share over the coming years.¹⁵ In 2021 and 2022 purchases of green bonds in secondary markets were complemented by investments in the euro-denominated green bond investment fund for central banks launched by the Bank for International Settlements in January 2021. In October 2024 the ECB started investing a small share of its own funds in equity exchange-traded funds (ETFs) tracking Paris-aligned benchmarks.¹⁶ This diversification enhances the return potential of the ECB's own funds portfolio and further aligns its investments with a decarbonisation path consistent with the goals of the Paris Agreement and the European Climate Law.¹⁷

Chart 8
The ECB's own funds portfolio

(EUR billions)



Source: ECB.

The ECB's own funds portfolio predominantly consists of investments of its paid-up capital and amounts set aside in the general reserve fund and in the provision for financial risks. The purpose of this portfolio is to provide income to help fund those ECB operating expenses that are not related to the delivery of its supervisory

¹⁵ In accordance with the recommendations of the Task Force on Climate-related Financial Disclosures, the ECB prepares annual climate-related financial disclosures with regard to its own funds and pension portfolios. The disclosures for 2023 were published on the ECB's website in June 2024, while the disclosures for 2024 are expected to be published in June 2025.

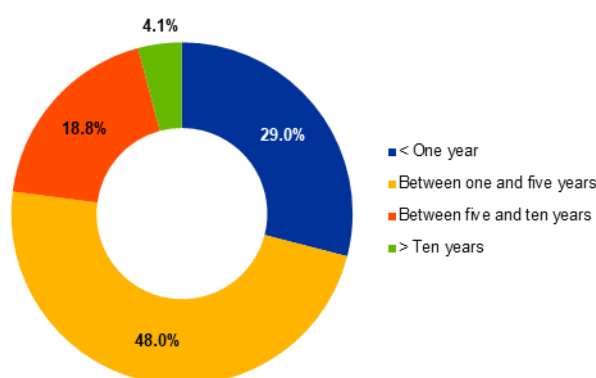
¹⁶ Paris-aligned benchmarks aim for alignment with the Paris Agreement goal of limiting the increase in global average temperatures to 1.5°C.

¹⁷ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

tasks.¹⁸ It is invested in euro-denominated assets, subject to the limits imposed by its risk control framework. This results in a more diversified maturity structure (Chart 9) compared to the foreign reserves portfolio.

Chart 9

Maturity profile of the ECB's own funds securities



Source: ECB.

At the end of 2024 the total value of euro **banknotes in circulation** issued by the Eurosystem was €1,588.3 billion, an increase of 1.3% compared to the end of 2023. The ECB has been allocated an 8% share of the total value of euro banknotes in circulation, which amounted to €127.1 billion at the end of the year. Legally, both the ECB and the NCBs of the euro area have the right to issue euro banknotes. In practice, however, only the NCBs physically issue euro banknotes or withdraw them from circulation. Therefore, the ECB holds **intra-Eurosystem claims** vis-à-vis the euro area NCBs equivalent to the value of the banknotes in circulation allocated to it.

The ECB's **intra-Eurosystem liabilities**, which mainly comprise the net TARGET balance of euro area NCBs vis-à-vis the ECB and the ECB's liabilities with regard to the foreign reserve assets transferred to it by the euro area NCBs when they joined the Eurosystem, decreased by €56.4 billion to €388.7 billion in 2024.

The development of the intra-Eurosystem liabilities is determined by the evolution of the net TARGET liability. The main factors contributing to the changes in the net TARGET liability over the period 2020-24 were purchases and redemptions of monetary policy securities, which are settled via TARGET accounts, and changes in liabilities to euro area and non-euro area residents denominated in euro (Chart 10). In 2024 the ECB's net TARGET liability decreased by €56.3 billion, mainly owing to cash inflows from redemptions of monetary policy securities and the increase in liabilities to non-euro area residents denominated in euro.

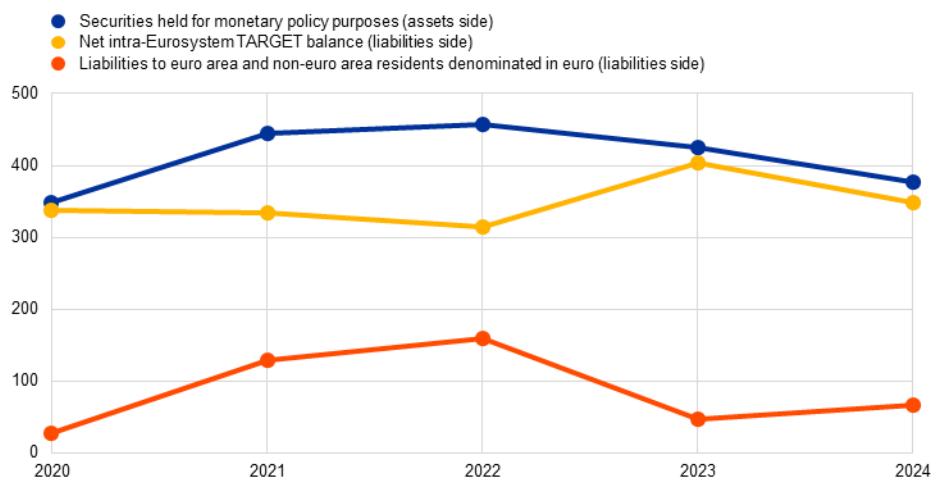
€56.3 billion
Decrease in the ECB's net TARGET liability

¹⁸ The expenses incurred by the ECB in the performance of its supervisory tasks are recovered via annual fees levied on supervised entities. Further details on **supervisory fees** can be found on the ECB's banking supervision website.

Chart 10

Net intra-Eurosystem TARGET balance, liabilities to euro area and non-euro area residents denominated in euro and securities held for monetary policy purposes

(EUR billions)



Source: ECB.

Note: For the purpose of this chart, "Liabilities to euro area and non-euro area residents denominated in euro" consists of "Other liabilities to euro area credit institutions denominated in euro", "Liabilities to other euro area residents denominated in euro" and "Liabilities to non-euro area residents denominated in euro".

In 2024 the ECB's **other liabilities** rose by €16.6 billion to €74.9 billion, mainly owing to an increase in liabilities to non-euro area residents denominated in euro as a result of higher deposits accepted by the ECB in its role as fiscal agent.¹⁹

1.3.2 Net equity

€50.0 billion
The ECB's net equity

The ECB's net equity consists of its paid-up capital, any amounts held in the provision for financial risks and the general reserve fund, the revaluation accounts, any accumulated losses from previous years and any profit/loss for the year.^{20,21}

At the end of 2024 the **ECB's net equity** totalled €50.0 billion (Chart 11 and Table 2). This was €5.4 billion higher than at the end of 2023 owing to the increase in the revaluation accounts, mainly as a result of the rise in the market price of gold in euro terms in 2024 and the appreciation of the US dollar against the euro. The resulting increase in the ECB's net equity was partially offset by (i) the loss incurred in 2024; and (ii) the decline in paid-up capital following the five-yearly adjustment of the ECB's capital key that entered into force on 1 January 2024 and resulted in a decrease in the weighting of the euro area NCBs (which have fully paid-up subscriptions).

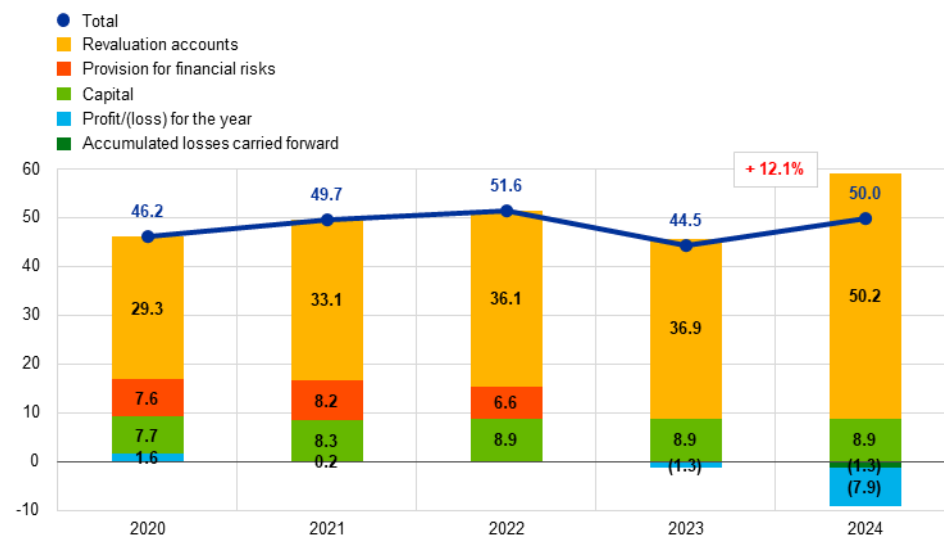
¹⁹ In accordance with Article 21 of the [Statute of the ESCB](#), the ECB may act as fiscal agent for Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States.

²⁰ In this section, "revaluation accounts" includes total revaluation gains on gold, foreign currency, and securities and other instruments but excludes the revaluation account for post-employment benefits.

²¹ This definition of net equity is solely used for the purpose of preparing the ECB's Annual Accounts.

Chart 11
The ECB's net equity

(EUR billions)



Source: ECB.

Note: "Revaluation accounts" includes total revaluation gains on gold, foreign currency, and securities and other instruments but excludes the revaluation account for post-employment benefits.

Table 2
Changes in the ECB's net equity

(EUR millions)

	Capital	Revaluation accounts	Accumulated losses carried forward	Loss for the year	Total net equity
Balance as at 31 December 2023	8,948	36,861	-	(1,266)	44,543
Loss carried forward			(1,266)	1,266	-
Five-yearly adjustment of the ECB's capital key	(23)				(23)
Revaluation accounts					13,375
- Gold		10,476			
- Foreign currency		2,976			
- Securities and other instruments		(77)			
Loss for the year				(7,944)	(7,944)
Balance as at 31 December 2024	8,925	50,236	(1,266)	(7,944)	49,951

34%

Rise in the market price of gold in euro terms

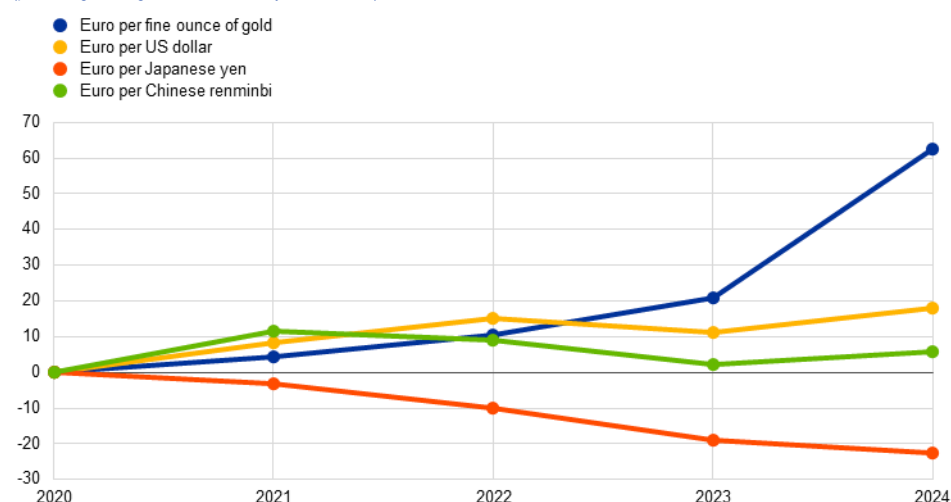
Unrealised gains on gold, foreign currency, and securities and other instruments that are subject to price revaluation are not recognised as income in the profit and loss account but are recorded directly in **revaluation accounts** shown on the liabilities side of the ECB's balance sheet. The balances in these accounts can be used to absorb the impact of any future unfavourable movement in the respective prices and/or exchange rates and thus strengthen the ECB's resilience against the underlying risks. In 2024 the revaluation accounts for gold, foreign currency, and

securities and other instruments increased by €13.4 billion to €50.2 billion, mainly owing to higher revaluation balances for gold as a result of the rise in the market price of gold in euro terms. In addition, the revaluation balances for foreign currencies increased, mainly owing to the appreciation of the US dollar against the euro, which more than offset the depletion of revaluation balances for Japanese yen resulting from its depreciation against the euro (Chart 12).

Chart 12

The main foreign exchange rates and gold price over the period 2020-24

(percentage changes vis-à-vis 2020; year-end data)



Source: ECB.

In view of its exposure to financial risks (see Section 1.4.1 “Financial risks”), the ECB may set aside a **provision for financial risks** to be used to the extent deemed necessary by the Governing Council to offset losses that arise as a result of this exposure. This provision was zero as at 31 December 2024 because it was fully used in 2023 to cover part of that year’s losses. In the context of the annual review of the size of this provision, the Governing Council may decide to replenish it once the ECB has returned to making a profit and offset the accumulated losses carried forward from past years.

The **ECB’s loss for the year** was €7.9 billion (see Section 1.3.3 “Profit and loss account”). Like the previous year, the Governing Council decided to carry the loss forward on the ECB’s balance sheet to be offset against future profits.

1.3.3 Profit and loss account

The ECB’s result has fallen year-on-year since 2020 (Chart 13). In 2021 the decrease was mainly driven by lower income generated on foreign reserves and on securities held for monetary policy purposes. In 2022 and 2023 the reduction in the ECB’s result was primarily due to the materialisation of interest rate risk, as the rise in interest rates in the euro area led to an immediate increase in the interest expense paid by the ECB on its net TARGET liability, which was remunerated at the rate on

the main refinancing operations (MRO rate).²² At the same time, the income earned on the ECB's assets did not increase to the same extent or at the same pace (see Section 1.4.1 "Financial risks"). This situation continued in 2024 as, despite policy rate cuts commencing in June of that year, the interest expense paid on the net TARGET liability was on average still higher than the interest income earned on assets.

Profits or losses are side effects of the ECB's primary goal of price stability

The ECB's losses in 2023 and 2024, which followed a long period of substantial profits, reflect the role and necessary policy actions of the Eurosystem in fulfilling its primary mandate of maintaining price stability and have no impact on its ability to conduct effective monetary policy. Until 2022 the ECB's balance sheet expanded significantly, mainly driven by purchases of securities under the outright purchase programmes. On the assets side, most monetary policy securities currently held have long maturities and fixed coupons and were purchased during a period when interest rates were very low or zero. These assets continue to generate relatively low interest income and are not immediately affected by changes in the key ECB interest rates. At the same time, the cash settlement of these purchases via TARGET led to a rise in the ECB's net TARGET liability, which is very sensitive to changes in key ECB interest rates.

Materialisation of interest rate risk may still lead to losses in the coming years

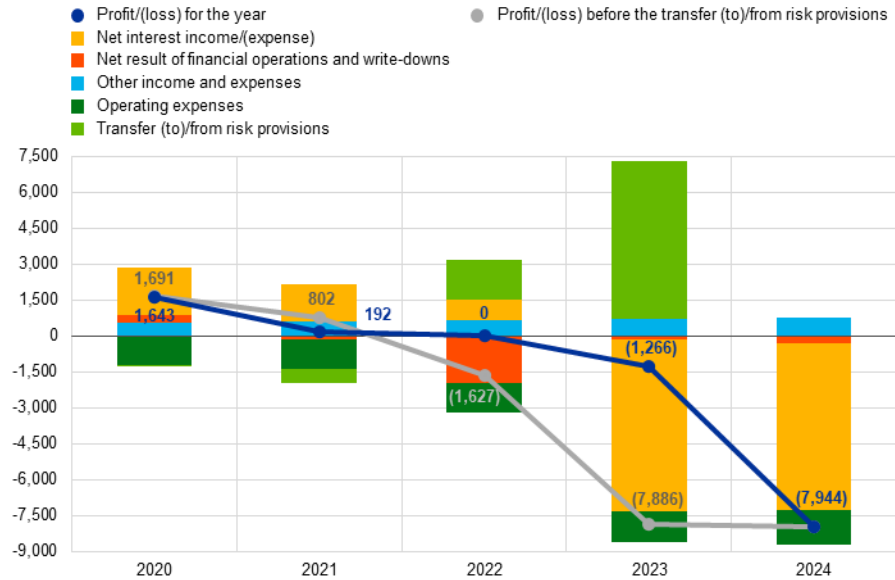
Before returning to making profits, the ECB may still incur losses in the coming years as a result of the materialisation of interest rate risk. Although the occurrence and magnitude of losses are uncertain and will largely depend on the future evolution of key ECB interest rates and the size and composition of the ECB's balance sheet, if they materialise, they are expected to be lower than those incurred in 2023 and 2024. Besides, the ECB's capital and its substantial revaluation accounts, which together amounted to €59.2 billion at the end of 2024 (see Section 1.3.2 "Net equity"), underline its financial strength, and, in any case, the ECB can operate effectively and fulfil its primary mandate of maintaining price stability regardless of any losses.

²² On 13 March 2024 the Governing Council decided on a [set of principles that would guide monetary policy implementation](#) in the future and that, among other key parameters, it would continue to steer the monetary policy stance through the deposit facility rate. In the same context the Governing Council decided that from 1 January 2025, the deposit facility rate would become the basis for the remuneration of (i) TARGET balances due from/to euro area NCBs, (ii) claims related to the allocation of euro banknotes within the Eurosystem, and (iii) liabilities equivalent to the transfer of foreign reserves.

Chart 13

Main components of the ECB's profit and loss account

(EUR millions)



Source: ECB.

Note: "Other income and expenses" consists of "Net income/(expense) from fees and commissions", "Income from equity instruments and participating interests", "Other income" and "Other expenses".

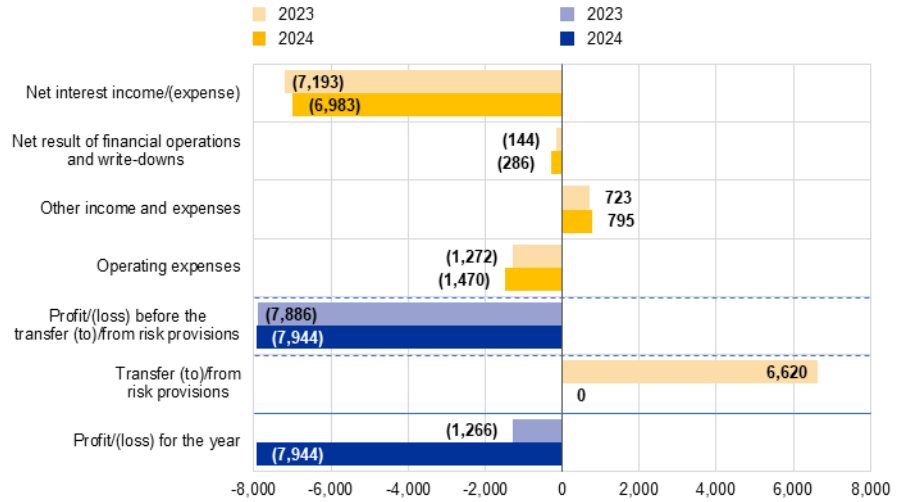
€7,944 million
ECB's loss for 2024

In 2024 the **ECB's loss for the year** amounted to €7,944 million, which is comparable to the loss of €7,886 million before the transfer from risk provisions in 2023. In that year the provision for financial risks was fully released to partially cover the losses incurred, bringing the loss for 2023 to €1,266 million, while in 2024 the provision stood at zero. The main driver of the loss continued to be the significant net interest expense (Chart 14).

Chart 14

Drivers of the ECB's profit/(loss) for 2023 and 2024

(EUR millions)



Source: ECB.

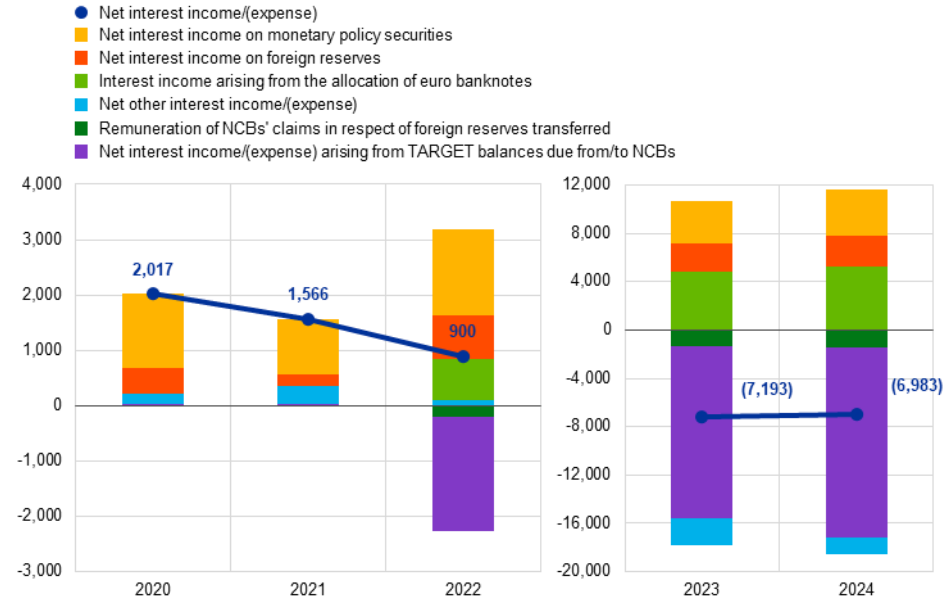
Net interest expense mainly resulted from the ECB's net TARGET liability

The ECB's **net interest expense** amounted to €6,983 million in 2024, compared to €7,193 million in 2023 (Chart 15). The main component was the significant interest expense arising from the ECB's net TARGET liability, which more than offset the interest income arising from (i) the ECB's claims related to the allocation of euro banknotes within the Eurosystem, (ii) monetary policy securities, and (iii) foreign reserves.

Chart 15

Net interest income/(expense)

(EUR millions)



Source: ECB.

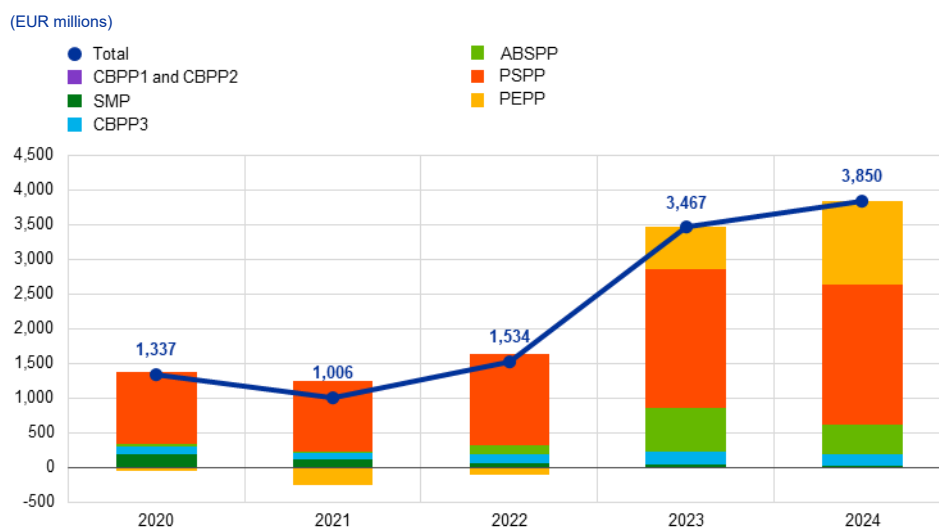
Higher interest income, mainly on public sector securities held under the PEPP

Net interest income generated on securities held for monetary policy purposes

increased by €383 million to €3,850 million in 2024 (Chart 16), mainly owing to higher interest income from holdings under the PEPP, which rose by €606 million to €1,206 million. This increase was mainly attributable to the lower premium amortisation of public sector securities. Net interest income from securities held under the APP (CBPP3, ABSPP and PSPP) decreased by €199 million to €2,619 million. This decline was mainly due to the decrease in interest income from holdings under the ABSPP, which fell by €223 million to €419 million as a result of the significantly lower holdings owing to repayments of securities. Interest income on securities held under the PSPP amounted to €2,022 million in 2024, which was almost the same as in 2023 as the securities held under this portfolio were mostly acquired at low yields and their maturing therefore had only a minor impact on the interest income. Net interest income from the SMP decreased from €49 million to €24 million owing to the decline in the size of the portfolio as a result of maturing securities.

Chart 16

Net interest income/(expense) on securities held for monetary policy purposes



Source: ECB.

Increase in interest income on the US dollar portfolio

Net interest income on foreign reserves increased by €155 million to €2,537 million, predominantly as a result of higher interest income from securities denominated in US dollars.

4.1%
Average MRO rate in 2024

Interest income arising from the allocation of euro banknotes to the ECB and interest expense stemming from the remuneration of NCBs' claims in respect of foreign reserves transferred increased by €415 million to €5,232 million and by €114 million to €1,448 million respectively in 2024. These increases were due to the higher average MRO rate of 4.1% in 2024 (2023: 3.8%), as the MRO rate was used for the remuneration of these balances. The Governing Council started lowering the key ECB interest rates in June 2024, reducing the MRO rate to 3.15% by the end of 2024, compared with 4.5% at the beginning of the year.

€15,674 million
Interest expense resulting from the ECB's net TARGET liability

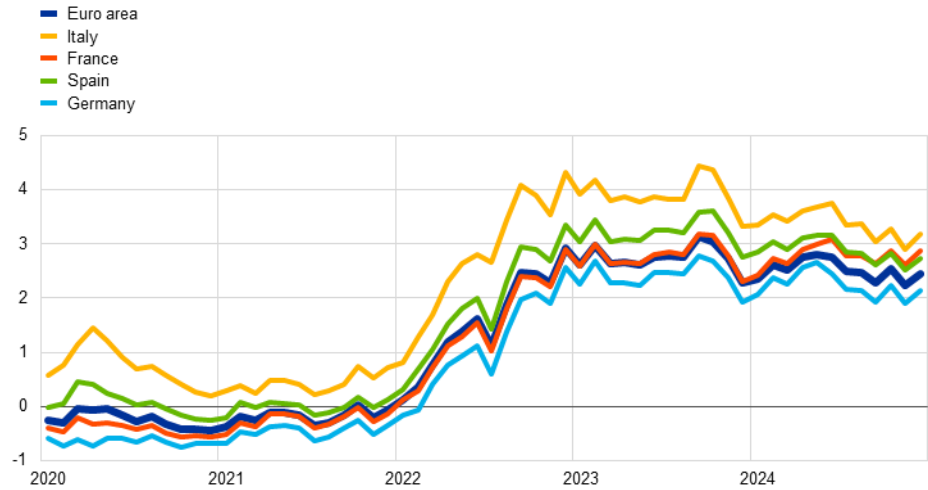
The **net interest expense arising from TARGET balances due from/to NCBs** increased by €1,439 million to €15,674 million in 2024. This increase was mainly driven by the higher average MRO rate in 2024, as this rate was also used for the remuneration of the ECB's intra-Eurosystem TARGET balances.

The **net other interest expense** decreased by €809 million to €1,479 million in 2024. This was mainly due to the lower interest expense on deposits accepted by the ECB in its role as fiscal agent and on cash received as collateral in securities lending transactions, owing to the lower average balance of these two items in 2024, and the higher interest income on the own funds portfolio as a result of rising yields in the euro area since 2022 (Chart 17). These changes were partially offset by the higher interest expense on balances of euro area ancillary systems as a result of a further rise in the average balance and a higher average remuneration rate in 2024.

Chart 17

Seven-year sovereign bond yields in the euro area

(percentages per annum; month-end data)



Source: ECB.

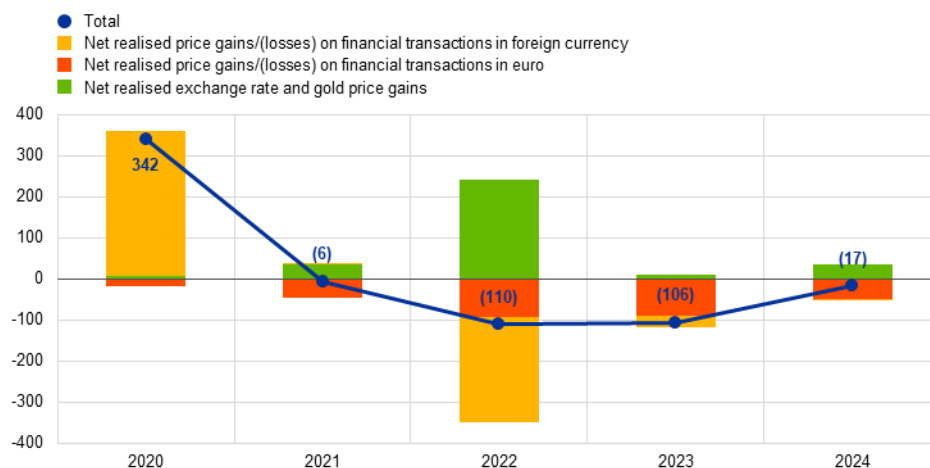
Net realised price losses were mainly driven by outstanding premiums on ABSPP securities repaid before maturity

Net realised losses arising from financial operations decreased by €89 million to €17 million in 2024 (Chart 18). These losses mainly resulted from outstanding premiums on securities held in the ABSPP that were repaid before maturity. The realised price losses in euro were partially offset by realised exchange rate gains, largely as a result of year-end price write-downs of a number of US dollar-denominated securities.

Realised price gains and losses on financial transactions in foreign currency, in particular on sales of US dollar-denominated securities and on interest rate futures, were driven by fluctuations in US dollar bond yields and largely offset each other over the course of 2024 (Charts 19 and 20).

Chart 18**Realised gains/(losses) arising from financial operations**

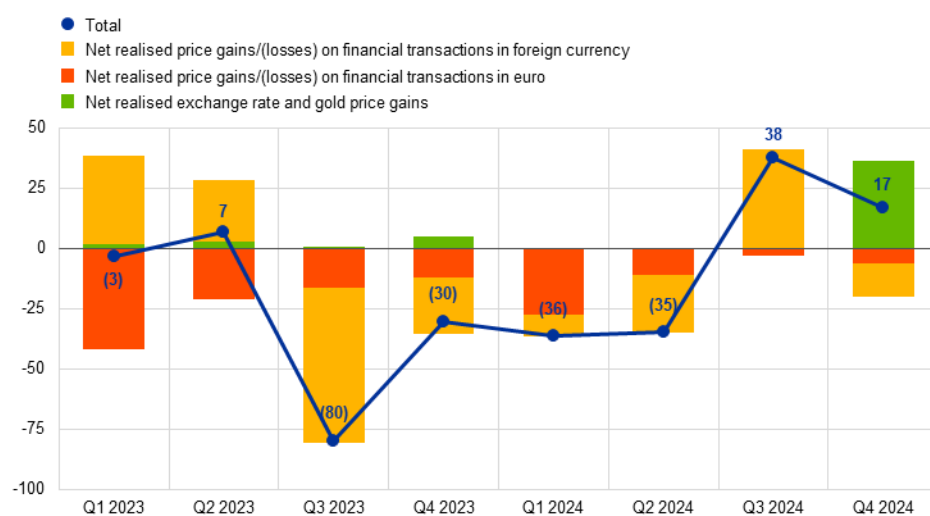
(EUR millions)



Source: ECB.

Chart 19**Quarterly realised gains/(losses) arising from financial operations in 2023 and 2024**

(EUR millions)

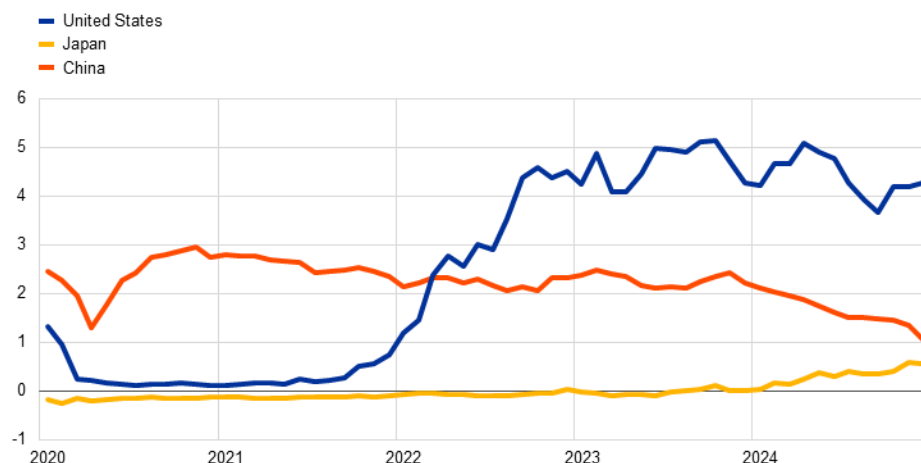


Source: ECB.

Chart 20

Two-year sovereign bond yields in the United States, Japan and China

(percentages per annum; month-end data)



Source: LSEG.

€187 million

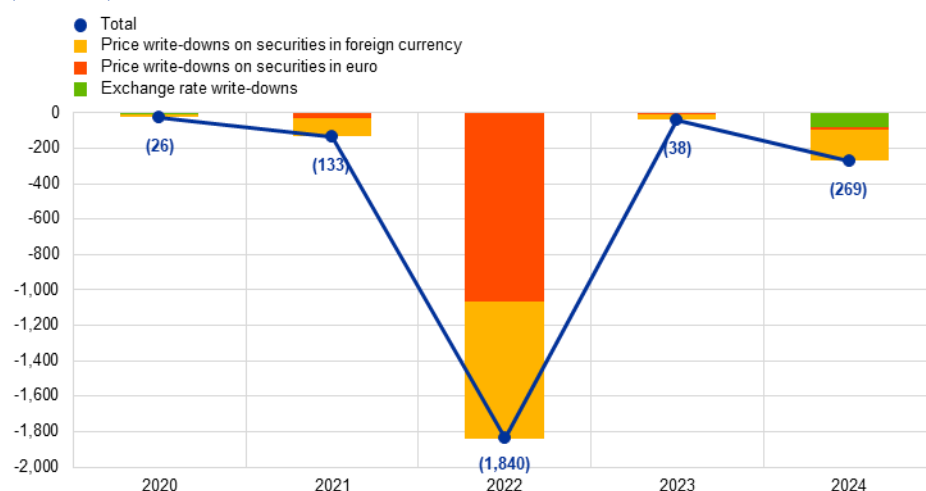
Price write-downs, mainly on US dollar-denominated securities

Unrealised revaluation losses are expensed in the form of **write-downs** at the year-end in the ECB's profit and loss account. In 2024 these write-downs amounted to €269 million (Chart 21). Unrealised price losses amounting to €187 million mainly stemmed from a decline in the market value of a number of securities held in the US dollar portfolio. There were also unrealised exchange rate losses of €81 million on the ECB's holding of Japanese yen in 2024 as a result of the depreciation of this currency against the euro to an exchange rate below the acquisition cost of the holding.

Chart 21

Write-downs on financial assets and positions

(EUR millions)



Source: ECB.

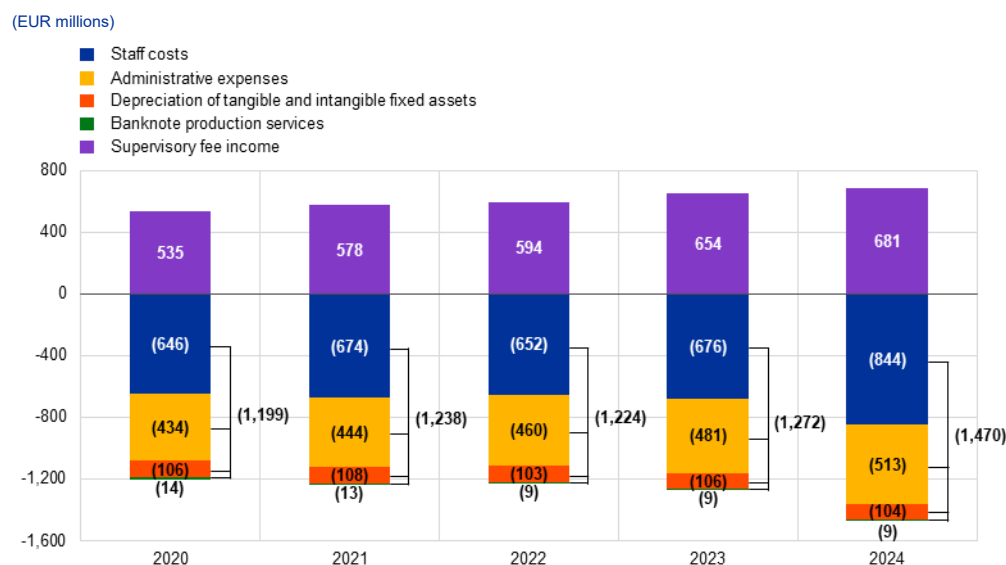
The ECB's **total operating expenses**, including depreciation and banknote production services, increased by €198 million to €1,470 million (Chart 22). This was largely due to higher staff costs, reflecting higher costs for post-employment benefits arising from an amendment to the rules governing the ECB's pension plans in 2024. Administrative expenses also increased, mainly owing to higher IT spending in relation to the digital transformation, while also reflecting the impact of inflation.

€681 million
Supervisory fee income

Banking supervision-related expenses are fully covered by fees levied on the supervised entities. Based on the actual expenses incurred by the ECB in the performance of its banking supervision tasks, supervisory fee income for 2024 stood at €681 million.²³

Chart 22

Operating expenses and supervisory fee income



Source: ECB.

1.4 Risk management

Risk management is a critical part of the ECB's activities and is conducted through a continuous process of (i) risk identification and assessment, (ii) review of the risk strategy and policies, (iii) implementation of risk-mitigating actions, and (iv) risk monitoring and reporting – all of which are supported by effective methodologies, processes and systems.

²³ Supervisory fee income is included under "Other income and expenses" (Chart 13).

Figure 2
Risk management cycle



The following sections focus on the risks, their sources and the applicable risk control frameworks.

1.4.1 Financial risks

The Executive Board proposes policies and procedures that ensure an appropriate level of protection against the financial risks to which the ECB is exposed. The Risk Management Committee (RMC), which comprises experts from Eurosystem central banks, contributes to the monitoring, measuring and reporting of financial risks related to the balance sheet of the Eurosystem and defines and reviews the associated methodologies and frameworks. In this way, the RMC helps the decision-making bodies to ensure an appropriate level of protection for the Eurosystem.

Financial risks arise from the ECB's operations and associated exposures. The risk control frameworks and limits that the ECB uses to manage its risk profile differ across types of operation, reflecting the policy or investment objectives of the different portfolios and the risk characteristics of the underlying assets.

To monitor and assess the risks, the ECB relies on a number of risk estimation techniques developed by its experts. These techniques are based on a joint market and credit risk simulation framework. The core modelling concepts, techniques and assumptions underlying the risk measures draw on industry standards and available market data. The risks are typically quantified as the expected shortfall (ES), estimated at the 99% confidence level over a one-year

horizon.²⁴ Two approaches are used to calculate risks: (i) the accounting approach, under which the ECB's revaluation accounts are considered as a buffer in the calculation of risk estimates in line with applicable accounting rules; and (ii) the financial approach, under which the revaluation accounts are not considered as a buffer in the risk calculation. The ECB also calculates other risk measures at different confidence levels, performs sensitivity and stress scenario analyses and assesses longer-term projections of exposures and income to maintain a comprehensive picture of the risks.²⁵

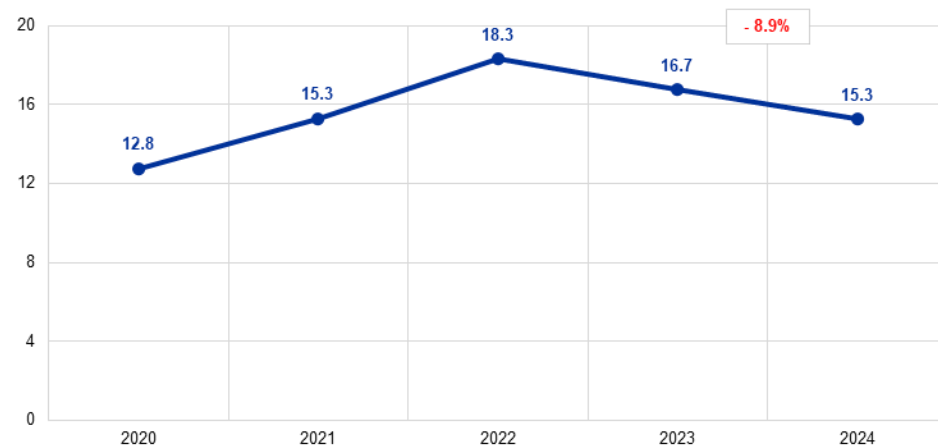
€15.3 billion
Total risk (ES 99%, accounting approach)

The total risks of the ECB decreased during the year. At the end of 2024 the total financial risks of the ECB's balance sheet, as measured by the ES at the 99% confidence level over a one-year horizon under the accounting approach, stood at €15.3 billion, which was €1.5 billion lower than the estimated risks at the end of 2023 (Chart 23). The decrease in risk is mainly attributed to the reduction of the ECB's holdings of public sector securities under the APP and the PEPP, as the ECB no longer reinvested principal payments from maturing securities purchased under the APP and, as of July 2024, only partially reinvested those from maturing securities purchased under the PEPP. The reduction of holdings of securities under the APP and the PEPP was accompanied by a corresponding reduction in the ECB's liabilities, which further contributed to the decrease in risks as the balance sheet interest rate sensitivity mismatch started to wind down.

Chart 23

Total financial risks (ES 99%, accounting approach)

(EUR billions)



Source: ECB.

²⁴ The ES is defined as a probability-weighted average loss that occurs in the worst $(1-p)\%$ of scenarios, where p denotes the confidence level.

²⁵ Further details on the risk modelling approach can be found in [The financial risk management of the Eurosystem's monetary policy operations](#), ECB, July 2015.

Credit risk

Credit risk arises from the ECB's monetary policy portfolios, its euro-denominated own funds portfolio and its foreign reserve holdings. While debt securities held for monetary policy purposes are valued at amortised cost subject to impairment and are therefore, in the absence of sales, not subject to price changes associated with credit migrations, they are still subject to credit default risk. Euro-denominated own funds and foreign reserves are valued at market prices and, as such, are subject to credit migration risk and credit default risk. Credit risk decreased compared to 2023 as a result of the decline in securities held for monetary policy purposes.

Credit risk is mitigated mainly through the application of eligibility criteria, due diligence procedures and limits that differ across portfolios.

Currency and commodity risks

Currency and commodity risks arise from the ECB's foreign currency and gold holdings. Currency and commodity risks increased compared with 2023.

In view of the policy role of these assets, the ECB does not hedge the related currency and commodity risks. Instead, these risks are mitigated through the existence of revaluation accounts and the diversification of the holdings across different currencies and gold.

Interest rate risk

The ECB's foreign reserves and euro-denominated own funds are mainly invested in fixed income securities and are subject to mark-to-market interest rate risk, given that they are valued at market prices. The ECB's foreign reserves are mainly invested in assets with relatively short maturities (see Chart 7 in Section 1.3.1 "Balance sheet"), while the assets in the own funds portfolio generally have longer maturities (see Chart 9 in Section 1.3.1 "Balance sheet"). The interest rate risk of these portfolios, as measured under the accounting approach, increased compared to 2023, reflecting developments in market conditions.

The mark-to-market interest rate risk of the ECB is mitigated through asset allocation policies and the revaluation accounts.

The ECB is also subject to interest rate risk arising from mismatches between the interest rate earned on its assets and the interest rate paid on its liabilities, which has an impact on its net interest income. This risk is not directly linked to any particular portfolio but rather to the structure of the ECB's balance sheet as a whole and, in particular, the existence of maturity and yield mismatches between assets and liabilities. Interest rate risk decreased in 2024, reflecting the decline in the ECB's liabilities following the reduction of holdings of securities under the APP and the PEPP. In addition to being measured within the ES at the 99% confidence level over a one-year horizon, this risk is monitored by means of projections of the ECB's profitability over a medium to long-term horizon.

This type of risk is managed through asset allocation policies and is further mitigated by the existence of unremunerated liabilities on the ECB's balance sheet.

This notwithstanding, the continued materialisation of interest rate risk led to further losses in 2024. These losses were mostly driven by the cost of the ECB's liabilities exceeding the interest earned on its assets. A large share of the ECB's medium to

long-term assets with fixed rate coupons were acquired when interest rates were very low or even zero. These continued to be funded mainly by short-term liabilities which, until the end of 2024, were remunerated at the MRO rate. While the ECB expects to return to making profits, the possibility of further losses in the coming years cannot be excluded. Should this be the case, any such losses are expected to be smaller than those in 2023 and 2024.

The risks associated with climate change are gradually being incorporated into the ECB's risk management framework. In 2022 the Eurosystem conducted the first climate stress test of the Eurosystem balance sheet, which allowed a preliminary estimate of the impact of this risk on the ECB's balance sheet.²⁶ Another climate stress test was conducted in 2024, and climate stress testing will continue to be performed on a regular basis in the coming years.²⁷

1.4.2 Operational risk

The Executive Board is responsible for and approves the ECB's operational risk management (ORM) policy and framework.²⁸ The Operational Risk Committee supports the Executive Board in the performance of its role in overseeing the management of operational risks. **ORM is an integral part of the ECB's governance structure and management processes.**²⁹

The main objective of the ECB's ORM framework is to **contribute to ensuring that the ECB achieves its mission and objectives, while protecting its reputation and assets against loss, misuse and damage.** Under the ORM framework, each business area is responsible for identifying, assessing, responding to, reporting on and monitoring its operational risks, incidents and controls. In this context, the ECB's risk tolerance policy provides guidance on risk response strategies and risk acceptance procedures. It is linked to a five-by-five risk matrix based on impact and likelihood grading scales using quantitative and qualitative criteria.

The environment in which the ECB operates is exposed to increasingly complex and interconnected threats and there are a wide range of operational risks associated with the ECB's day-to-day activities. The main areas of concern for the ECB include a wide spectrum of non-financial risks resulting from people, systems, processes and external events. Consequently, the ECB has put in place

²⁶ The results of the stress test for corporate bond holdings were incorporated in climate-related disclosures on corporate bond holdings of euro area NCBs under the CSPP and the PEPP, which the ECB started to publish annually from March 2023 onwards. For more details, see [Climate-related financial disclosures of the Eurosystem's corporate sector holdings for monetary policy purposes](#), ECB, March 2023.

The general qualitative results of this stress test were also published in the ECB's Economic Bulletin. See "[Results of the 2022 climate risk stress test of the Eurosystem balance sheet](#)", *Economic Bulletin*, Issue 2, ECB, 2023.

²⁷ The publication of the results of the 2024 climate stress test in qualitative form is envisaged for the first half of 2025.

²⁸ Operational risk encompasses all non-financial risks and is defined as the risk of a negative business, reputational and/or financial impact on the ECB resulting from people, the inadequate implementation or failure of internal governance and business processes, the failure of systems on which processes rely, or external events (e.g. natural disasters or external attacks).

²⁹ Further information about the ECB's [governance structure](#) can be found on the ECB's website.

processes to facilitate ongoing and effective management of its operational risks and to integrate risk information into the decision-making process. Moreover, the ECB is continuing to focus on enhancing its resilience, taking a broad view of risks and opportunities from an end-to-end perspective, including sustainability aspects. Response structures and contingency plans have been established to ensure the continuity of critical business functions in the event of any disruption or crisis.

1.4.3 Conduct risk

The ECB has a dedicated **Compliance and Governance Office as a key risk management function to strengthen the ECB's governance framework** in order to address conduct risk.³⁰ Its purpose is to support the Executive Board in protecting the integrity and reputation of the ECB, to promote ethical standards of behaviour and to strengthen the ECB's accountability and transparency. An independent Ethics Committee provides advice and guidance to high-level ECB officials on integrity and conduct matters and supports the Governing Council in managing risks at the executive level appropriately and coherently. At the level of the Eurosystem and the Single Supervisory Mechanism (SSM), the Ethics and Compliance Committee (ECC) works towards achieving coherent implementation of the conduct frameworks for NCBs and national competent authorities (NCAs).

In 2024 the ECB and seven other EU institutions agreed to establish an "EU Ethics Body" to strengthen ethics, integrity and related transparency and accountability standards in European decision-making.³¹ The agreement was signed on 15 May 2024 and entered into force on 6 June 2024.³² The main task of the new EU Ethics Body is to develop common minimum standards for the conduct of high-level officials. At the ECB, the scope covers members of the Executive Board, the Governing Council and the Supervisory Board. It is anticipated that the implementation of future common standards will have a beneficial effect on ethical conduct, including associated risks.

³⁰ Conduct risk management has gained increasing attention in the corporate and public sector. It complements financial and operational risk management and for the ECB can be defined as the exposure of the institution to reputational damage, but also to financial or other types of harm that negatively affect its interests, as a result of intentional or negligent actions carried out by its high-level officials, employees or contractors that are not in conformance with the institution's ethics, legal and integrity rules or good governance and good administration standards.

³¹ The other institutions are the European Parliament, the Council of the European Union, the European Commission, the Court of Justice of the European Union, the European Court of Auditors, the European Economic and Social Committee and the European Committee of the Regions.

³² See [Agreement between the European Parliament, the Council of the European Union, the European Commission, the Court of Justice of the European Union, the European Central Bank, the European Court of Auditors, the European Economic and Social Committee and the European Committee of the Regions, establishing an interinstitutional body for ethical standards for members of institutions and advisory bodies referred to in Article 13 of the Treaty on European Union](#) (OJ L, 2024/1365, 17.5.2024).

2 Financial statements of the ECB

2.1 Balance sheet as at 31 December 2024

ASSETS	Note number	2024 € millions	2023 € millions
Gold and gold receivables	1	40,895	30,419
Claims on non-euro area residents denominated in foreign currency	2	58,117	55,876
Receivables from the IMF	2.1	2,227	2,083
Balances with banks and security investments, external loans and other external assets	2.2	55,890	53,793
Claims on euro area residents denominated in foreign currency	2.2	4,094	1,450
Other claims on euro area credit institutions denominated in euro	3	2	17
Securities of euro area residents denominated in euro	4	376,781	425,349
Securities held for monetary policy purposes	4.1	376,781	425,349
Intra-Eurosystem claims	5	127,067	125,378
Claims related to the allocation of euro banknotes within the Eurosystem	5.1	127,067	125,378
Other assets	6	33,644	34,739
Tangible and intangible fixed assets	6.1	971	1,023
Other financial assets	6.2	22,781	22,172
Off-balance-sheet instruments revaluation differences	6.3	681	552
Accruals and prepaid expenses	6.4	9,158	10,905
Sundry	6.5	53	88
Total assets		640,600	673,229

Note: Totals in the financial statements and in the tables included in the notes may not add up due to rounding. The figures 0 and (0) indicate positive or negative amounts rounded to zero, while a dash (-) indicates zero.

LIABILITIES	Note number	2024 € millions	2023 € millions
Banknotes in circulation	7	127,067	125,378
Other liabilities to euro area credit institutions denominated in euro	8	2,388	4,699
Liabilities to other euro area residents denominated in euro	9	24,554	20,622
General government	9.1	73	143
Other liabilities	9.2	24,482	20,479
Liabilities to non-euro area residents denominated in euro	10	39,859	23,111
Liabilities to non-euro area residents denominated in foreign currency	11	-	24
Deposits, balances and other liabilities	11.1	-	24
Intra-Eurosystem liabilities	12	388,676	445,048
Liabilities equivalent to the transfer of foreign reserves	12.1	40,562	40,671
Liabilities related to TARGET (net)	12.2	348,074	404,336
Other liabilities within the Eurosystem (net)	12.3	40	40
Other liabilities	13	7,615	9,498
Off-balance-sheet instruments revaluation differences	13.1	-	68
Accruals and income collected in advance	13.2	6,288	8,030
Sundry	13.3	1,327	1,401
Provisions	14	72	67
Other provisions	14.1	72	67
Revaluation accounts	15	50,653	37,099
Capital and reserves	16	8,925	8,948
Capital	16.1	8,925	8,948
Accumulated losses carried forward	17	(1,266)	-
Profit/(loss) for the year		(7,944)	(1,266)
Total liabilities		640,600	673,229

2.2

Profit and loss account for the year ending 31 December 2024

	Note number	2024 € millions	2023 € millions
Net interest income/(expense)	24	(6,983)	(7,193)
Interest income		66,898	63,723
Interest expense		(73,881)	(70,916)
Net result of financial operations and write-downs		(286)	(144)
Realised gains/(losses) arising from financial operations	25	(17)	(106)
Write-downs on financial assets and positions	26	(269)	(38)
Net income/(expense) from fees and commissions	27	674	650
Income from equity instruments and participating interests	28	1	1
Other income	29	119	72
Staff costs	30	(844)	(676)
Administrative expenses	31	(513)	(481)
Depreciation of tangible and intangible fixed assets		(104)	(106)
Banknote production services	32	(9)	(9)
Profit/(loss) before the transfer (to)/from risk provisions		(7,944)	(7,886)
Transfer (to)/from risk provisions	33	-	6,620
Profit/(loss) for the year		(7,944)	(1,266)

Frankfurt am Main, 11 February 2025
European Central Bank

Christine Lagarde
President

2.3 Accounting policies

Form and presentation of the financial statements

The financial statements of the ECB have been drawn up in accordance with the following accounting policies,³³ which, in the view of the Governing Council of the ECB, achieve a fair presentation of the financial statements, reflecting at the same time the nature of central bank activities.

Accounting principles

The following accounting principles have been applied: economic reality and transparency, prudence, recognition of post-balance-sheet events, materiality, going concern, the accruals principle, consistency and comparability.

Recognition of assets and liabilities

An asset or liability is only recognised in the balance sheet when it is probable that any associated future economic benefit will flow to or from the ECB, substantially all of the associated risks and rewards have been transferred to the ECB, and the cost or value of the asset or the amount of the obligation can be measured reliably.

Basis of accounting

The accounts have been prepared on a historical cost basis, modified to include the market valuation of marketable securities (other than debt securities currently held for monetary policy purposes), gold and all other on-balance-sheet and off-balance-sheet assets and liabilities denominated in foreign currency.

Transactions in financial assets and liabilities are reflected in the accounts on the basis of the date on which they were settled.

With the exception of spot transactions in securities, transactions in financial instruments denominated in foreign currency are recorded in off-balance-sheet accounts on the trade date. At the settlement date, the off-balance-sheet entries are reversed, and transactions are booked on-balance-sheet. Purchases and sales of

³³ The detailed accounting policies of the ECB are laid down in [Decision \(EU\) 2024/2938 of the European Central Bank of 14 November 2024 on the annual accounts of the European Central Bank \(ECB/2024/32\)](#) (OJ L, 2024/2938, 11.12.2024).

In order to ensure the harmonised accounting and financial reporting of Eurosystem operations, the above-mentioned Decision is based on [Guideline \(EU\) 2024/2941 of the European Central Bank of 14 November 2024 on the legal framework for accounting and financial reporting in the European System of Central Banks \(ECB/2024/31\)](#) (OJ L, 2024/2941, 11.12.2024).

These policies, which are reviewed and updated regularly as deemed appropriate, are consistent with the provisions of Article 26.4 of the Statute of the ESCB, which require a harmonised approach to the rules governing the accounting and financial reporting of Eurosystem operations.

foreign currency affect the net foreign currency position on the trade date, and realised results arising from sales are also calculated on that date. Accrued interest, premiums and discounts related to financial instruments denominated in foreign currency are calculated and recorded daily, and the foreign currency position is also affected daily by these accruals.

Gold and foreign currency assets and liabilities

Assets and liabilities denominated in foreign currency are translated into euro at the exchange rate prevailing on the balance sheet date. Income and expenses are translated at the exchange rate prevailing on the recording date. The revaluation of foreign exchange assets and liabilities, including on-balance-sheet and off-balance-sheet instruments, is performed on a currency-by-currency basis.

Revaluation to the market price for assets and liabilities denominated in foreign currency is treated separately from the exchange rate revaluation.

Gold is valued at the market price prevailing at the balance sheet date. No distinction is made between the price and currency revaluation differences for gold. Instead, a single gold valuation is accounted for on the basis of the price in euro per fine ounce of gold, which, for the year ending 31 December 2024, was derived from the exchange rate of the euro against the US dollar on 31 December 2024.

The special drawing right (SDR) is defined in terms of a basket of currencies and its value is determined by the weighted sum of the exchange rates of five major currencies (the US dollar, euro, Chinese renminbi, Japanese yen and pound sterling). The ECB's holdings of SDRs were translated into euro using the exchange rate of the euro against the SDR as at 31 December 2024.

Securities

Securities held for monetary policy purposes

Debt securities currently held for monetary policy purposes are accounted for at amortised cost subject to impairment.

Other securities

Marketable securities (other than debt securities currently held for monetary policy purposes) and similar assets are valued either at the mid-market prices or on the basis of the relevant yield curves prevailing on the balance sheet date, on a security-by-security basis. Options embedded in securities are not separated for valuation purposes. For the year ending 31 December 2024, mid-market prices on 30 December 2024 were used.

Marketable investment funds are revalued on a net basis at fund level, using their net asset value. No netting is applied between unrealised gains and losses in different investment funds.

Illiquid equity shares and any other equity instruments held as permanent investments are valued at cost subject to impairment.

Income recognition

Income and expenses are recognised in the period in which they are earned or incurred.³⁴ Realised gains and losses resulting from the sale of foreign currency, gold and securities are recorded in the profit and loss account. Such realised gains and losses are calculated by reference to the average cost of the respective asset.

Unrealised gains are not recognised as income and are transferred directly to a revaluation account.

Unrealised losses are recorded in the profit and loss account if, at the year-end, they exceed previous revaluation gains accumulated in the corresponding revaluation account. Such unrealised losses on any one security or currency or on gold are not netted against unrealised gains on other securities, currencies or gold. In the event of such unrealised losses on any item being recorded in the profit and loss account, the average cost of that item is reduced to the year-end exchange rate or market price.

Impairment losses are recorded in the profit and loss account and are not reversed in subsequent years unless the impairment decreases and the decrease can be attributed to an observable event that occurred after the impairment was first recorded.

Premiums or discounts arising on securities are amortised over the securities' remaining contractual life.

Reverse transactions

Reverse transactions are operations whereby the ECB buys or sells assets under a repurchase agreement or conducts credit operations against collateral.

Under a repurchase agreement, securities are sold for cash with a simultaneous agreement to repurchase them from the counterparty at an agreed price on a set future date. Repurchase agreements are recorded as collateralised deposits on the liabilities side of the balance sheet. Securities sold under such an agreement remain on the balance sheet of the ECB.

Under a reverse repurchase agreement, securities are bought for cash with a simultaneous agreement to sell them back to the counterparty at an agreed price on a set future date. Reverse repurchase agreements are recorded as collateralised loans on the assets side of the balance sheet, but are not included in the ECB's security holdings.

³⁴ A minimum threshold of €100,000 applies for administrative accruals and provisions.

Reverse transactions (including securities lending transactions) conducted under a programme offered by a specialised institution are only recorded in the balance sheet when collateral has been provided in the form of cash and this cash remains uninvested.

Off-balance-sheet instruments

Currency instruments, namely 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, are included in the net foreign currency position for the purpose of calculating foreign exchange gains and losses.

Interest rate instruments are revalued on an item-by-item basis. Daily changes in the variation margin of open interest rate futures contracts are recorded in the profit and loss account.

The valuation of forward transactions in securities is carried out by the ECB based on generally accepted valuation methods using observable market prices and rates, as well as discount factors from the settlement dates to the valuation date.

Fixed assets

Fixed assets, including intangible assets but excluding land and works of art, are valued at cost less depreciation. Land and works of art are valued at cost. The ECB's main building is valued at cost less depreciation, subject to impairment. For the depreciation of the ECB's main building, costs are assigned to the appropriate asset components, which are depreciated in accordance with their estimated useful lives. Depreciation is calculated on a straight-line basis over the expected useful life of the asset, beginning in the quarter after the asset becomes available for use. The expected useful lives of the main asset classes are as follows:

Buildings	20, 25 or 50 years
Plant in buildings	10 or 15 years
Technical equipment	4, 10 or 15 years
Computers, related hardware and software, and motor vehicles	4 years
Furniture	10 years

The depreciation period for capitalised refurbishment expenditure relating to the ECB's existing rented premises is adjusted to take account of any events that have an impact on the expected useful life of the asset concerned.

The ECB performs an annual impairment test of its main building and right-of-use assets relating to office buildings (see "Leases" below). If an impairment indicator is identified, and it is assessed that the asset may be impaired, the recoverable amount

is estimated. An impairment loss is recorded in the profit and loss account if the recoverable amount is less than the net book value.

Fixed assets costing less than €10,000 are written off in the year of acquisition.

Fixed assets that comply with the capitalisation criteria, but are still under construction or development, are recorded under “Assets under construction”. The related costs are transferred to the relevant fixed asset classes once the assets are available for use.

Leases

The ECB acts both as a lessee and a sub-lessor.

The ECB as a lessee

For all leases for which the ECB is a lessee and which involve a tangible asset, the related right-of-use asset and lease liability are recognised in the balance sheet at the lease commencement date, i.e. once the asset is available for use, and are included under the relevant fixed asset classes in “Tangible and intangible fixed assets” and under “Sundry” (liabilities) respectively. Where leases comply with the capitalisation criteria, but the asset involved is still under construction or adaptation, the costs incurred before the lease commencement date are recorded under “Assets under construction”.

Right-of-use assets are valued at cost less depreciation. In addition, right-of-use assets relating to office buildings are subject to impairment (for more information on annual impairment test, see “Fixed assets” above). Depreciation is calculated on a straight-line basis from the lease commencement date to either the end of the useful life of the right-of-use asset or the end of the lease term, whichever is earlier.

The lease liability is initially measured at the present value of the future lease payments (comprising only lease components), discounted using the ECB’s incremental borrowing rate. Subsequently, the lease liability is measured at amortised cost using the effective interest method. The related interest expense is recorded in the profit and loss account under “Other interest expense”. When there is a change in future lease payments arising from a change in an index or other reassessment of the existing contract, the lease liability is remeasured. Any such remeasurement results in a corresponding adjustment to the carrying amount of the right-of-use asset.

Short-term leases with a duration of 12 months or less and leases of low-value assets below €10,000 (consistent with the threshold used for the recognition of fixed assets) are recorded as an expense in the profit and loss account.

The ECB as a sub-lessor

For all leases for which the ECB is a sub-lessor, the ECB grants to third parties the right to use the underlying asset (or a part of such asset), while the lease between the original lessor and the ECB (head lease) remains in effect. The sub-lease is

classified as a finance or operating lease³⁵ by reference to the right-of-use asset arising from the head lease, rather than by reference to the underlying asset.

The sub-leases for which the ECB is a sub-lessor are classified as a finance lease and the ECB derecognises from “Tangible and intangible fixed assets” the right-of-use asset relating to the head lease (or a part of such asset) that is transferred to the sub-lessee, and recognises under “Sundry” (assets) a sub-lease receivable. The lease liability relating to the head lease remains unaffected by the sub-lease.

At the lease commencement date, the sub-lease receivable is initially measured at the present value of the future lease payments accruing to the ECB, discounted using the discount rate used for the head lease. Subsequently, the sub-lease receivable is measured at amortised cost using the effective interest method. The related interest income is recorded in the profit and loss account under “Other interest income”.

The ECB's post-employment benefits and other long-term benefits

The ECB operates defined benefit plans for its staff and the members of the Executive Board, as well as for the members of the Supervisory Board employed by the ECB.

The staff pension plan is funded by assets held in a long-term employee benefit fund. The compulsory contributions made by the ECB and the staff are reflected in the defined benefit pillar of the plan. Staff can make additional contributions on a voluntary basis in a defined contribution pillar that can be used to provide additional benefits.³⁶ These additional benefits are determined by the amount of voluntary contributions together with the investment returns arising from those contributions.

Unfunded arrangements are in place for the post-employment and other long-term benefits of members of the Executive Board and the members of the Supervisory Board employed by the ECB. For staff, unfunded arrangements are in place for post-employment benefits other than pensions and for other long-term benefits.

Net defined benefit liability

The liability recognised in the balance sheet under “Sundry” (liabilities) in respect of the defined benefit plans, including other long-term benefits, is the present value of the defined benefit obligation at the balance sheet date, less the fair value of plan assets used to fund the related obligation.

The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is calculated by discounting the estimated future cash flows using a rate which is determined by reference to market yields at the balance sheet date on high-quality

³⁵ A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset, otherwise it is classified as an operating lease.

³⁶ The funds accumulated by a staff member through voluntary contributions can be used at retirement to purchase an additional pension. This pension is included in the defined benefit obligation from that point on.

euro-denominated corporate bonds that have similar terms to maturity to the related obligation.

Actuarial gains and losses can arise from experience adjustments (where actual outcomes are different from the actuarial assumptions previously made) and changes in actuarial assumptions.

Net defined benefit cost

The net defined benefit cost is split into components reported in the profit and loss account and remeasurements in respect of post-employment benefits shown in the balance sheet under “Revaluation accounts”.

The net amount charged to the profit and loss account comprises:

1. the current service cost of the defined benefits accruing for the year;
2. the past service cost, if any, of the defined benefits resulting from a plan amendment;
3. net interest at the discount rate on the net defined benefit liability;
4. remeasurements in respect of other long-term benefits, in their entirety.

The net amount shown under “Revaluation accounts” comprises the following items:

1. actuarial gains and losses in respect of post-employment benefits;
2. the actual return on plan assets, excluding amounts included in the net interest on the net defined benefit liability.

These amounts are valued annually by independent actuaries to establish the appropriate liability to be recognised in the financial statements.

Intra-ESCB balances/intra-Eurosystem balances

Intra-ESCB balances result primarily from cross-border payments in the European Union (EU) that are settled in central bank money in euro. These transactions are for the most part initiated by private entities (e.g. credit institutions, corporations and individuals). They are settled in TARGET – the Trans-European Automated Real-time Gross settlement Express Transfer system – and give rise to bilateral balances in the TARGET accounts of EU central banks. Payments conducted by the ECB and the national central banks (NCBs) also affect these accounts. All settlements are automatically aggregated and adjusted to form part of a single position for each NCB vis-à-vis the ECB. These positions in the books of the ECB represent the net claim or liability of each NCB against the rest of the European System of Central Banks (ESCB). The movements in TARGET accounts are reflected in the accounting records of the ECB and the NCBs on a daily basis.

Intra-Eurosystem balances of euro area NCBs vis-à-vis the ECB arising from TARGET are presented in the balance sheet of the ECB as a single net asset or

liability position under either “Claims related to TARGET (net)” or “Liabilities related to TARGET (net)”. Intra-ESCB balances of non-euro area NCBs vis-à-vis the ECB, arising from their participation in TARGET,³⁷ are disclosed under “Liabilities to non-euro area residents denominated in euro”.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are included as a single net asset under “Claims related to the allocation of euro banknotes within the Eurosystem” (see “Banknotes in circulation” below).

Intra-Eurosystem balances arising from the transfer of foreign reserve assets to the ECB by NCBs joining the Eurosystem are denominated in euro and reported under “Liabilities equivalent to the transfer of foreign reserves”.

Other intra-Eurosystem balances denominated in euro (e.g. the ECB’s interim profit distribution to NCBs, if any) are presented in the balance sheet of the ECB as a single net asset or liability position under either “Other claims within the Eurosystem (net)” or “Other liabilities within the Eurosystem (net)”.

Banknotes in circulation

The ECB and the euro area NCBs, which together constitute the Eurosystem, issue euro banknotes.³⁸ The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.³⁹

The ECB has been allocated an 8% share of the total value of euro banknotes in circulation, which is disclosed in the balance sheet under the liability item “Banknotes in circulation”. The ECB’s share in total euro banknotes in circulation is backed by claims on the NCBs. These claims, which bear interest,⁴⁰ are disclosed under “Claims related to the allocation of euro banknotes within the Eurosystem” (see “Intra-ESCB balances/intra-Eurosystem balances” above). Interest income on these claims is included in the profit and loss account under “Interest income”.

Provision for financial risks

The Governing Council may decide to transfer all or part of the ECB’s income to a provision for financial risks. This provision can be used to the extent deemed

³⁷ As at 31 December 2024 the non-euro area NCBs participating in TARGET were Българска народна банка (Bulgarian National Bank), Danmarks Nationalbank, Narodowy Bank Polski and Banca Națională a României.

³⁸ [Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes \(ECB/2010/29\) \(2011/67/EU\)](#) (OJ L 35, 9.2.2011, p. 26), as amended. The [unofficial consolidated text](#) with the list of amendments is also available.

³⁹ The “banknote allocation key” reflects the percentages that result from taking into account the ECB’s share in the total euro banknote issue and applying the subscribed capital key to the NCBs’ share in that total.

⁴⁰ [Decision \(EU\) 2016/2248 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 \(ECB/2016/36\)](#) (OJ L 347, 20.12.2016, p. 26), as amended. The [unofficial consolidated text](#) with the list of amendments is also available.

necessary by the Governing Council to offset losses that arise as a result of exposures to financial risks. The size of and continuing requirement for the provision for financial risks is reviewed annually, based on the ECB's assessment of its exposure to these risks and taking a range of factors into account, unless (i) its size is zero, and (ii) there is no ECB income to be transferred to it.⁴¹

Interim profit distribution

An amount that is equal to the sum of the ECB's income on euro banknotes in circulation and income arising from the debt securities held for monetary policy purposes purchased under (i) the Securities Markets Programme, (ii) the third covered bond purchase programme, (iii) the asset-backed securities purchase programme, (iv) the public sector purchase programme, and (v) the pandemic emergency purchase programme is distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council.⁴² Any such decision is taken where, on the basis of a reasoned estimate prepared by the Executive Board, the Governing Council expects that the ECB will have an overall annual loss or will make an annual profit that is less than this income. The Governing Council may also decide to transfer all or part of this income to a provision for financial risks (see "Provision for financial risks" above).

Furthermore, the Governing Council may decide to reduce the amount of the income on euro banknotes in circulation to be distributed in January by the amount of the costs incurred by the ECB in connection with the issue and handling of euro banknotes.

Post-balance-sheet events

The values of assets and liabilities are adjusted for events that occur between the annual balance sheet date and the date on which the Executive Board authorises the submission of the ECB's Annual Accounts to the Governing Council for approval, if such events materially affect the condition of assets and liabilities at the balance sheet date.

Important post-balance-sheet events that do not affect the condition of assets and liabilities at the balance sheet date are disclosed in the notes.

Changes to accounting policies

In 2024 there were no changes to the accounting policies applied by the ECB.

⁴¹ At the end of 2023 and 2024 this provision stood at zero, as it was released in full to partially cover losses that arose in 2023.

⁴² [Decision \(EU\) 2015/298 of the European Central Bank of 15 December 2014 on the interim distribution of the income of the ECB \(ECB/2014/57\)](#) (OJ L 53, 25.2.2015, p. 24), as amended. The [unofficial consolidated text](#) with the list of amendments is also available.

Changes to accounting estimates

In 2024 the ECB changed the method used to accrue interest income on fixed income securities. Coupon interest, premiums and discounts on these securities are now recognised in accordance with the internal rate of return (IRR) method. Previously, the IRR method was applied to premiums and discounts, while the straight-line method was applied to coupon interest. The change has an impact on the timing of income recognition, while the total gains or losses over the full term of the fixed income securities remain unaffected.

Changes to presentation in the financial statements

[Decision \(EU\) 2024/2938 of the European Central Bank of 14 November 2024 on the annual accounts of the European Central Bank \(ECB/2024/32\)](#) introduced changes to the presentation of the items “Loss for the year” and “Accumulated losses carried forward” in the balance sheet. In the ECB’s Annual Accounts 2023, the item “Loss for the year” was presented as a standalone item on the assets side, following the applicable [Decision \(EU\) 2016/2247 of the European Central Bank of 3 November 2016 on the annual accounts of the European Central Bank \(ECB/2016/35\)](#), as amended, while there were no outstanding accumulated losses carried forward.⁴³ In the ECB’s Annual Accounts 2024, both the “Profit/(loss) for the year” and the “Accumulated losses carried forward” are presented as standalone negative items on the liabilities side of the balance sheet.

Furthermore, Decision (EU) 2024/2938 introduced additional changes to the layout of the balance sheet and the profit and loss account of the ECB. These include (i) dividing the item “Provisions” into “Risk provisions”⁴⁴ and “Other provisions” in the balance sheet; and (ii) removing the breakdown under “Interest income” and “Interest expense” in the profit and loss account, while providing the relevant information in the dedicated notes to the accounts.

Among other things, these changes are intended to foster transparency and increase the information value of the financial statements of the ECB.

The comparative figures for 2023 have been adjusted accordingly. The presentation of the loss of €1,266 million disclosed for 2023 as a negative item on the liabilities side of the balance sheet results in the reduction of total assets and liabilities for that year to €673,229 million compared with the €674,496 million that was disclosed in the [ECB’s Annual Accounts 2023](#).

Finally, in 2024 the ECB amended the presentation of interest income (e.g. coupon interest) and interest expense (e.g. amortisation of premiums) for items not related to monetary policy operations. Up until now, different ways of netting interest income and interest expense under “Net interest income” presented in the profit and loss

⁴³ In the event of outstanding balances, these would have been presented under “Sundry” on the assets side of the balance sheet.

⁴⁴ The provision for financial risks to be disclosed under this item stood at zero at the end of both 2023 and 2024. For this reason, the liability item “Risk provisions” is not shown in the balance sheet.

account were applied, depending on the type of transaction. The ECB decided that, starting in 2024, the interest accruing on individual instrument types within one balance sheet item or portfolio should be presented on a net basis under either “Interest income” or “Interest expense”, depending on whether the net amount on the instrument type or portfolio is positive or negative. This presentation is deemed to better reflect the substance of the transaction and at the same time aligns with the netting principle applied to the interest income and expense arising from assets and liabilities related to monetary policy operations.⁴⁵ The comparable amounts for 2023 have been adjusted as follows:

	Balance as at 31 December 2023 € millions	Adjustment € millions	Restated balance as at 31 December 2023 € millions
Interest income	63,751	(28)	63,723
Interest expense	(70,944)	28	(70,916)
Net interest income/(expense)	(7,193)	-	(7,193)

Other issues

In accordance with Article 27 of the Statute of the ESCB, and on the basis of a recommendation of the Governing Council, the Council of the EU initially approved the appointment of Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft, Düsseldorf (Federal Republic of Germany) as the external auditors of the ECB for a five-year period up to the end of the financial year 2022. In 2023 the Council of the EU, based on a recommendation by the Governing Council, approved an extension of this period by two additional years until the end of the financial year 2024.

2.4 Notes to the balance sheet

Note 1 – Gold and gold receivables

This item comprises the ECB’s holdings of gold:

⁴⁵ For assets and liabilities related to monetary policy operations, interest income and expense are netted at the level of the balance sheet item.

	2024	2023
Quantity		
Ounces of fine gold ¹	16,285,778	16,285,778
Price		
US dollars per fine ounce of gold	2,608.750	2,063.950
US dollars per euro	1.0389	1.1050
Market value (€ millions)	40,895	30,419

1) This corresponds to 506.5 tonnes for both 2024 and 2023.

The increase in the euro equivalent value of the ECB's gold holdings was due to the rise in the market price of gold in euro terms (see "Gold and foreign currency assets and liabilities" in Section 2.3 "Accounting policies" and note 15 "Revaluation accounts").

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

Note 2.1 – Receivables from the IMF

This item represents the ECB's holdings of SDRs; as at 31 December 2024 they amounted to €2,227 million (2023: €2,083 million). The holdings arise as the result of a two-way SDR buying and selling voluntary trading arrangement with the International Monetary Fund (IMF), whereby the IMF is authorised to arrange sales or purchases of SDRs against euro, on behalf of the ECB, within minimum and maximum holding levels. For accounting purposes, SDRs are treated as a foreign currency (see "Gold and foreign currency assets and liabilities" in Section 2.3 "Accounting policies"). The ECB's holdings of SDRs increased in 2024 as a result of the interest income earned during the year. Furthermore, the appreciation of the SDR against the euro during 2024 contributed to the increase in the euro equivalent value of these holdings.

Note 2.2 – Balances with banks and security investments, external loans and other external assets; and claims on euro area residents denominated in foreign currency

These two items consist of balances with banks and loans denominated in foreign currency, and investments in securities denominated in US dollars, Japanese yen and Chinese renminbi.

	2024 € millions	2023 € millions	Change € millions
Claims on non-euro area residents			
Current accounts	6,778	7,161	(384)
Money market deposits	737	474	264
Reverse repurchase agreements	241	-	241
Security investments	48,135	46,158	1,977
Total claims on non-euro area residents	55,890	53,793	2,098
Claims on euro area residents			
Current accounts	17	25	(8)
Money market deposits	1,464	1,426	39
Reverse repurchase agreements	2,613	-	2,613
Total claims on euro area residents	4,094	1,450	2,644
Total	59,985	55,243	4,741

The total value of these items increased in 2024, mainly owing to the appreciation of the US dollar against the euro and the reinvestment of income earned during the year, primarily on the US dollar portfolio.

The ECB's net foreign currency holdings⁴⁶ were as follows:

	2024 Foreign currency in millions	2023 Foreign currency in millions
US dollars	55,047	52,590
Japanese yen	1,087,826	1,089,844
Chinese renminbi	4,694	4,545

No foreign exchange interventions took place during 2024.

⁴⁶ These holdings comprise assets minus liabilities denominated in the given foreign currency that are subject to foreign currency revaluation. They are included under "Claims on non-euro area residents denominated in foreign currency", "Claims on euro area residents denominated in foreign currency", "Accruals and prepaid expenses", "Liabilities to non-euro area residents denominated in foreign currency", "Off-balance-sheet instruments revaluation differences" (liabilities side) and "Accruals and income collected in advance" and take into account foreign exchange forward and swap transactions included in off-balance-sheet items. Price gains on financial instruments denominated in foreign currency arising from revaluations are not included.

Note 3 – Other claims on euro area credit institutions denominated in euro

As at 31 December 2024 this item consisted of current account balances with euro area residents amounting to €2 million (2023: €17 million).

Note 4 – Securities of euro area residents denominated in euro

Note 4.1 – Securities held for monetary policy purposes

As at 31 December 2024 this item consisted of debt securities acquired by the ECB under the Securities Markets Programme (SMP), the third covered bond purchase programme (CBPP3), the asset-backed securities purchase programme (ABSPP), the public sector purchase programme (PSPP) and the pandemic emergency purchase programme (PEPP).

	Start date	End date ¹	Decision	Universe of eligible securities ²
Securities Markets Programme (SMP)				
SMP	May 2010	September 2012	ECB/2010/5	Public and private debt securities issued in the euro area ³
Asset purchase programme (APP)				
CBPP3	October 2014	June 2023	ECB/2020/8, as amended	Covered bonds of euro area residents
ABSPP	November 2014	June 2023	ECB/2014/45, as amended	Senior and guaranteed mezzanine tranches of asset-backed securities of euro area residents
PSPP	March 2015	June 2023	ECB/2020/9	Bonds issued by euro area central, regional or local governments or recognised agencies as well as by international organisations and multilateral development banks located in the euro area
CSPP⁴	June 2016	June 2023	ECB/2016/16, as amended	Bonds and commercial paper issued by non-bank corporations established in the euro area
Pandemic emergency purchase programme (PEPP)				
PEPP	March 2020	December 2024	ECB/2020/17, as amended	All asset categories eligible under the APP

1) For the SMP, "End date" refers to the termination date of the programme, while for the APP and PEPP it denotes the final date of purchases.

2) Further eligibility criteria for the individual programmes can be found in the relevant Governing Council decisions.

3) Only public debt securities issued by five euro area treasuries were purchased under the SMP.

4) The ECB did not acquire any securities under the corporate sector purchase programme (CSPP).

The asset purchase programme (APP)⁴⁷ portfolio continued to decline in 2024, as the Eurosystem ceased reinvesting the principal payments from maturing securities in July 2023.⁴⁸

Regarding the PEPP,⁴⁹ following a Governing Council decision in December 2023,⁵⁰ the Eurosystem continued during the first half of 2024 to reinvest, in full, the principal

⁴⁷ Further details on the [asset purchase programme](#) can be found on the ECB's website.

⁴⁸ See the [press release](#) of 15 June 2023 on the Governing Council's monetary policy decisions.

⁴⁹ Further details on the [pandemic emergency purchase programme](#) can be found on the ECB's website.

⁵⁰ See the [press release](#) of 14 December 2023 on the Governing Council's monetary policy decisions.

payments from maturing securities. Over the second half of the year, the PEPP portfolio declined by an average of €7.5 billion every month, as the Eurosystem did not reinvest all of the principal payments from maturing securities. Reinvestments under the PEPP were discontinued at the end of 2024.

The debt securities purchased by the ECB under these programmes are accounted for at amortised cost, subject to impairment (see “Securities” in Section 2.3 “Accounting policies”).

The amortised cost of the debt securities held by the ECB and their market value⁵¹ (which is not recorded in the balance sheet or the profit and loss account, and is provided for comparison purposes only) were as follows:

	2024 € millions		2023 € millions		Change € millions	
	Amortised cost	Market value	Amortised cost	Market value	Amortised cost	Market value
SMP	286	298	496	522	(210)	(224)
APP						
CBPP3	20,437	18,844	23,530	21,490	(3,092)	(2,646)
ABSPP	7,047	6,979	13,348	13,225	(6,301)	(6,247)
PSPP – government/agency securities	192,664	175,885	224,867	205,847	(32,203)	(29,962)
Total APP	220,149	201,708	261,744	240,562	(41,596)	(38,854)
PEPP						
PEPP – covered bonds	867	781	839	736	28	45
PEPP – government/agency securities	155,480	138,927	162,270	143,669	(6,790)	(4,741)
Total PEPP	156,347	139,709	163,109	144,405	(6,762)	(4,696)
Total	376,781	341,714	425,349	385,489	(48,568)	(43,775)

The changes during the year in the amortised cost of the debt securities held by the ECB were as follows:

⁵¹ Market values are indicative and calculated on the basis of market quotes. When market quotes are not available, market prices are estimated using internal Eurosystem models.

	2023 € millions	Purchases ¹ € millions	Redemptions € millions	Net discount/ (premium) ² € millions	2024 € millions
SMP	496	-	(217)	7	286
APP					
CBPP3	23,530	-	(3,069)	(23)	20,437
ABSPP	13,348	-	(6,251)	(50)	7,047
PSPP – government/agency securities	224,867	(146)	(30,567)	(1,489)	192,664
Total APP	261,744	(146)	(39,887)	(1,562)	220,149
PEPP					
PEPP – covered bonds	839	47	(20)	0	867
PEPP – government/agency securities	162,270	14,185	(19,474)	(1,501)	155,480
Total PEPP	163,109	14,232	(19,493)	(1,501)	156,347
Total	425,349	14,086	(59,598)	(3,056)	376,781

1) Following the discontinuation of reinvestments under the APP, this column may show negative amounts resulting from sales of securities conducted primarily to ensure compliance with the risk control framework.

2) "Net discount/(premium)" includes net realised gains/(losses), if any.

The Governing Council assesses on a regular basis the financial risks associated with the securities held under these programmes.

In this context, impairment tests are conducted on an annual basis using year-end data and approved by the Governing Council. In these tests, impairment indicators are assessed separately for each programme. In cases where impairment indicators are observed, further analysis is performed to confirm that the cash flows of the underlying securities have not been affected by an impairment event. Based on the results of this year's impairment tests, no losses have been recorded by the ECB for the debt securities held in its monetary policy portfolios in 2024.

The amortised cost⁵² of the securities held by the Eurosystem was as follows:

⁵² Except for equity shares received by a Eurosystem NCB in 2024 as a result of a corporate restructuring, which are accounted for at market value.

	2024 € millions			2023 € millions		
	ECB	Euro area NCBs	Total Eurosysteem	ECB	Euro area NCBs	Total Eurosysteem
SMP	286	1,050	1,336	496	1,901	2,397
APP						
CBPP3	20,437	232,571	253,009	23,530	262,090	285,620
ABSPP	7,047	-	7,047	13,348	-	13,348
PSPP – government/agency securities	192,664	1,704,258	1,896,922	224,867	1,922,907	2,147,774
PSPP – supranational securities	-	227,808	227,808	-	255,261	255,261
CSPP	-	288,377	288,377	-	323,921	323,921
Total APP	220,149	2,453,015	2,673,164	261,744	2,764,180	3,025,924
PEPP						
PEPP – covered bonds	867	5,097	5,964	839	5,197	6,036
PEPP – government/agency securities	155,480	1,243,391	1,398,871	162,270	1,297,397	1,459,667
PEPP – supranational securities	-	158,931	158,931	-	154,332	154,332
PEPP – corporate sector securities	-	45,105	45,105	-	45,989	45,989
Total PEPP	156,347	1,452,524	1,608,871	163,109	1,502,915	1,666,024
Total	376,781	3,906,589	4,283,370	425,349	4,268,996	4,694,345

Note: "Euro area NCBs" figures are preliminary and may be subject to revision, which would also result in an equivalent change in the "Total Eurosysteem" figures.

Note 5 – Intra-Eurosysteem claims

Note 5.1 – Claims related to the allocation of euro banknotes within the Eurosysteem

This item consists of the claims of the ECB vis-à-vis the euro area NCBs relating to the allocation of euro banknotes within the Eurosysteem (see "Banknotes in circulation" in Section 2.3 "Accounting policies"). As at 31 December 2024 the total amounted to €127,067 million (2023: €125,378 million). The remuneration of these claims in 2024 was calculated on a daily basis at the latest available interest rate used by the Eurosysteem in its tenders for main refinancing operations (see note 24.2 "Interest income arising from the claims related to the allocation of euro banknotes within the Eurosysteem" and note 34 "Change in the interest rate used for the remuneration of intra-Eurosysteem balances").

Note 6 – Other assets

Note 6.1 – Tangible and intangible fixed assets

This item comprises the following:

	2024 € millions	2023 € millions	Change € millions
Cost			
Land and buildings	1,015	1,014	0
Right-of-use buildings	352	315	37
Plant in buildings	222	222	-
Computer hardware and software	142	142	(0)
Equipment, furniture and motor vehicles	114	111	3
Right-of-use equipment	1	2	(1)
Assets under construction	10	0	10
Other fixed assets	11	11	0
Total cost	1,866	1,818	48
Accumulated depreciation			
Land and buildings	(251)	(227)	(24)
Right-of-use buildings	(243)	(197)	(46)
Plant in buildings	(160)	(144)	(16)
Computer hardware and software	(135)	(129)	(6)
Equipment, furniture and motor vehicles	(102)	(92)	(10)
Right-of-use equipment	(1)	(2)	1
Other fixed assets	(4)	(3)	(0)
Total accumulated depreciation	(895)	(795)	(100)
Total net book value	971	1,023	(52)

An impairment test was conducted on the ECB's main building and right-of-use office buildings at the end of the year and no impairment loss was identified.

Note 6.2 – Other financial assets

This item consists mainly of the ECB's own funds portfolio, which predominantly consists of investments of the ECB's paid-up capital as well as of amounts set aside in the general reserve fund and in the provision for financial risks. It also includes 3,211 shares in the Bank for International Settlements (BIS) at an acquisition cost of €42 million and other current accounts denominated in euro.

The components of this item were as follows:

	2024 € millions	2023 € millions	Change € millions
Current accounts in euro	45	46	(1)
Securities denominated in euro	21,269	20,355	914
Reverse repurchase agreements in euro	1,425	1,730	(305)
Other financial assets	42	42	(0)
Total	22,781	22,172	608

The net increase in this item in 2024 was primarily due to the reinvestment of interest income generated on the ECB's own funds portfolio.

Note 6.3 – Off-balance-sheet instruments revaluation differences

This item is composed of valuation changes in swap and forward transactions in foreign currency that were outstanding on 31 December 2024 (see note 21 “Foreign exchange swap and forward transactions”). These valuation changes amounted to €681 million (2023: €552 million). They are the result of the translation of such transactions into their euro equivalents at the exchange rates prevailing on the balance sheet date, compared with the euro values resulting from the translation of the transactions at the average cost of the respective foreign currency on that date (see “Off-balance-sheet instruments” and “Gold and foreign currency assets and liabilities” in Section 2.3 “Accounting policies”).

Note 6.4 – Accruals and prepaid expenses

This item comprises the following:

	2024 € millions	2023 € millions	Change € millions
Accrued interest on TARGET balances due from NCBs	3,656	4,955	(1,299)
Accrued interest on claims related to the allocation of euro banknotes within the Eurosystem	1,093	1,429	(336)
Accrued interest on securities	3,519	3,709	(190)
Accrued income related to supervisory tasks	681	654	27
Other accruals and prepaid expenses	210	158	52
Total	9,158	10,905	(1,747)

As at 31 December 2024 this item included accrued interest receivable on TARGET balances due from euro area NCBs for December 2024 (see note 12.2 “Liabilities related to TARGET (net)”) and accrued interest receivable from euro area NCBs for the final quarter of 2024 in respect of the ECB's claims related to the allocation of euro banknotes within the Eurosystem (see note 5.1 “Claims related to the allocation

of euro banknotes within the Eurosystem”). These amounts were settled in January 2025.

It also included accrued coupon interest on securities, including outstanding interest paid at acquisition (see note 2.2 “Balances with banks and security investments, external loans and other external assets; and claims on euro area residents denominated in foreign currency”, note 4 “Securities of euro area residents denominated in euro” and note 6.2 “Other financial assets”).

Accrued income related to supervisory tasks corresponds to the supervisory fees to be received for the fee period 2024 that will be collected in 2025 (see note 27 “Net income/(expense) from fees and commissions”).⁵³

The remainder of this item mainly comprised (i) accrued income from ESCB projects and services in operation (see note 29 “Other income”); (ii) accrued interest income on other financial instruments; and (iii) miscellaneous prepayments.

Note 6.5 – Sundry

As at 31 December 2024 this item amounted to €53 million (2023: €88 million), comprising mainly balances with a value of €24 million (2023: €28 million) related to swap and forward transactions in foreign currency outstanding on 31 December 2024 (see note 21 “Foreign exchange swap and forward transactions”). These balances arose from the translation of such transactions into their euro equivalents at the respective currency’s average cost at the balance sheet date compared with the euro values at which the transactions were initially recorded (see “Off-balance-sheet instruments” in Section 2.3 “Accounting policies”).

It also included receivables in relation to ESCB projects and services in operation (see note 29 “Other income”) and balances in respect of recoverable value added tax.

Note 7 – Banknotes in circulation

This item consists of the ECB’s share (8%) of total euro banknotes in circulation (see “Banknotes in circulation” in Section 2.3 “Accounting policies”), which amounted to €127,067 million as at 31 December 2024 (2023: €125,378 million).

Note 8 – Other liabilities to euro area credit institutions denominated in euro

The Eurosystem central banks have the possibility of accepting cash as collateral in their PSPP and public sector PEPP securities lending facilities without having to

⁵³ Further details on [supervisory fees](#) can be found on the ECB’s banking supervision website.

reinvest it. In the case of the ECB, these operations are conducted via a specialised institution.

As at 31 December 2024 the balances arising from such outstanding lending transactions conducted with euro area credit institutions totalled €2,388 million (2023: €4,699 million). Cash received as collateral was transferred to TARGET accounts and since it remained uninvested at year-end, these transactions were recorded in the balance sheet (see “Reverse transactions” in Section 2.3 “Accounting policies” and note 18 “Securities lending programmes”).⁵⁴

Note 9 – Liabilities to other euro area residents denominated in euro

Note 9.1 – General government

As at 31 December 2024 this item consisted of deposits of the European Financial Stability Facility (EFSF) amounting to €73 million (2023: €143 million). At the end of 2023 it also included deposits of the European Stability Mechanism (ESM). In accordance with Article 21 of the Statute of the ESCB, the ECB may act as fiscal agent for Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States.

Note 9.2 – Other liabilities

This item consists of balances of the euro area ancillary systems⁵⁵ connected to TARGET through the TARGET-ECB component. As at 31 December 2024 it amounted to €24,482 million (2023: €20,479 million).

Note 10 – Liabilities to non-euro area residents denominated in euro

This item comprises the following:

⁵⁴ Securities lending transactions that do not result in uninvested cash collateral at year-end are recorded in off-balance-sheet accounts (see note 18 “Securities lending programmes”).

⁵⁵ Ancillary systems are financial market infrastructures that have been granted access to the TARGET-ECB component by the Governing Council, provided they fulfil the requirements defined in [Decision \(EU\) 2022/911 of the European Central Bank of 19 April 2022 concerning the terms and conditions of TARGET-ECB and repealing Decision ECB/2007/7 \(ECB/2022/22\)](#) (OJ L 163, 17.6.2022, p. 1), as amended. The [unofficial consolidated text](#) with the list of amendments is also available. Depending on the managing entity, the ancillary systems are considered either euro area residents (see note 9.2 “Other liabilities”) or non-euro area residents (see note 10 “Liabilities to non-euro area residents denominated in euro”). Further details on [ancillary systems](#) can be found on the ECB’s website.

	2024 € millions	2023 € millions	Change € millions
TARGET balances of non-euro area NCBs and ancillary systems	2,908	3,854	(947)
Cash received as collateral in securities lending transactions	2,062	5,637	(3,575)
Deposits accepted by the ECB in its role as fiscal agent	33,823	12,383	21,440
Liquidity-providing swap arrangements	1,067	1,237	(171)
Total	39,859	23,111	16,748

As at 31 December 2024 the largest component of this item was deposits accepted by the ECB in its role as fiscal agent for the European Commission, relating to the administration of EU borrowing and lending activities (see note 22 “Administration of borrowing and lending operations”).

This item also included TARGET balances, consisting of balances of non-euro area NCBs vis-à-vis the ECB (see “Intra-ESCB balances/intra-Eurosystem balances” in Section 2.3 “Accounting policies”) and balances of the non-euro area ancillary systems connected to TARGET through the TARGET-ECB component.

Furthermore, it included balances arising from outstanding PSPP and public sector PEPP securities lending transactions conducted with non-euro area credit institutions. Cash received as collateral was transferred to TARGET accounts and since it remained uninvested at year-end, these transactions were recorded in the balance sheet (see “Reverse transactions” in Section 2.3 “Accounting policies” and note 18 “Securities lending programmes”).

The remainder of this item consisted of a balance arising from the standing reciprocal currency arrangement with the Federal Reserve System. Under this arrangement, US dollars are provided by the Federal Reserve Bank of New York to the ECB by means of swap transactions, with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously enters into back-to-back swap transactions with euro area NCBs, which use the resulting funds to conduct US dollar liquidity-providing operations with Eurosystem counterparties in the form of reverse transactions. The back-to-back swap transactions result in intra-Eurosystem balances between the ECB and the euro area NCBs. Furthermore, the swap transactions conducted by the ECB with the Federal Reserve Bank of New York and the euro area NCBs result in forward claims and liabilities that are recorded in off-balance-sheet accounts (see note 21 “Foreign exchange swap and forward transactions”).

Note 11 – Liabilities to non-euro area residents denominated in foreign currency

Note 11.1 – Deposits, balances and other liabilities

As at 31 December 2024 there were no balances under this item, while at the end of 2023 it comprised a liability in foreign currency vis-à-vis a non-euro area resident amounting to €24 million, which arose in the context of the management of the ECB's foreign reserves.

Note 12 – Intra-Eurosystem liabilities

Note 12.1 – Liabilities equivalent to the transfer of foreign reserves

These are the liabilities to euro area NCBs arising from the transfer of foreign reserve assets to the ECB when those NCBs joined the Eurosystem. In line with Article 30.2 of the Statute of the ESCB, these contributions are fixed in proportion to the NCBs' shares in the subscribed capital of the ECB.

The five-yearly adjustment of the NCBs' weightings in the key for subscription of the ECB's capital on 1 January 2024 resulted in the weighting of the euro area NCBs in the ECB's subscribed capital decreasing (see note 16 "Capital and reserves"). This led to a reduction of €109 million in these liabilities on 1 January 2024, which was repaid to the euro area NCBs accordingly.

	Since 1 January 2024 € millions	As at 31 December 2023 € millions
Nationale Bank van België/Banque Nationale de Belgique (Belgium)	1,488	1,470
Deutsche Bundesbank (Germany)	10,802	10,635
Eesti Pank (Estonia)	121	114
Central Bank of Ireland (Ireland)	884	683
Bank of Greece (Greece)	916	998
Banco de España (Spain)	4,796	4,811
Banque de France (France)	8,114	8,240
Hrvatska narodna banka (Croatia)	314	327
Banca d'Italia (Italy)	6,498	6,854
Central Bank of Cyprus (Cyprus)	89	87
Latvijas Banka (Latvia)	157	157
Lietuvos bankas (Lithuania)	239	233
Banque centrale du Luxembourg (Luxembourg)	148	133
Central Bank of Malta (Malta)	52	42
De Nederlandsche Bank (Netherlands)	2,396	2,364
Oesterreichische Nationalbank (Austria)	1,199	1,181
Banco de Portugal (Portugal)	943	944
Banka Slovenije (Slovenia)	200	194
Národná banka Slovenska (Slovakia)	466	462
Suomen Pankki – Finlands Bank (Finland)	737	741
Total	40,562	40,671

The remuneration of these liabilities in 2024 was calculated on a daily basis at the latest available interest rate used by the Eurosystem in its tenders for main refinancing operations, adjusted to reflect a zero return on the gold component (see note 24.3 “Remuneration of NCBs’ claims in respect of foreign reserves transferred” and note 34 “Change in the interest rate used for the remuneration of intra-Eurosystem balances”).

Note 12.2 – Liabilities related to TARGET (net)

This item consists of the TARGET balances of euro area NCBs vis-à-vis the ECB (see “Intra-ESCB balances/intra-Eurosystem balances” in Section 2.3 “Accounting policies”).

	2024 € millions	2023 € millions
Due to euro area NCBs in respect of TARGET	1,593,185	1,616,387
Due from euro area NCBs in respect of TARGET	(1,245,111)	(1,212,050)
Net TARGET liability	348,074	404,336

The decrease in the net TARGET liability was mainly attributable to the cash inflows as a result of (i) the maturing of securities under the APP and the PEPP, which were settled via TARGET accounts and were only partially offset by the reinvestments under the PEPP (see note 4 “Securities of euro area residents denominated in euro”); and (ii) higher deposits accepted by the ECB in its role as fiscal agent for the European Commission, relating to the administration of EU borrowing and lending activities (see note 10 “Liabilities to non-euro area residents denominated in euro”). The impact of these factors was partially offset, mainly by the cash outflows resulting from interest expense paid on the ECB’s net TARGET liability (see note 24.5 “Net interest expense arising from TARGET balances due from/to NCBs”).

With the exception of balances arising from back-to-back swap transactions in connection with US dollar liquidity-providing operations, the remuneration of TARGET positions held by euro area NCBs vis-à-vis the ECB in 2024 was calculated on a daily basis at the latest available interest rate used by the Eurosystem in its tenders for main refinancing operations (see note 24.5 “Net interest expense arising from TARGET balances due from/to NCBs” and note 34 “Change in the interest rate used for the remuneration of intra-Eurosystem balances”).

Note 12.3 – Other liabilities within the Eurosystem (net)

As at 31 December 2024 this item amounted to €40 million (2023: €40 million). It comprised predominantly deposits accepted by the ECB in its role as fiscal agent for the European Commission, relating to the administration of EU borrowing and lending activities (see note 22 “Administration of borrowing and lending operations”).

Note 13 – Other liabilities

Note 13.1 – Off-balance-sheet instruments revaluation differences

As at 31 December 2024 there were no balances under this item. At the end of 2023 it was composed primarily of valuation changes in swap and forward transactions in foreign currency that were outstanding at year-end (see note 21 “Foreign exchange swap and forward transactions”). These valuation changes amounted to €68 million. They are the result of the translation of such transactions into their euro equivalents at the exchange rates prevailing on the balance sheet date, compared with the euro values resulting from the translation of the transactions at the average cost of the respective foreign currency on that date (see “Off-balance-sheet instruments” and “Gold and foreign currency assets and liabilities” in Section 2.3 “Accounting policies”).

Note 13.2 – Accruals and income collected in advance

This item comprises the following:

	2024 € millions	2023 € millions	Change € millions
Accrued interest on TARGET balances due to NCBs	4,636	6,390	(1,754)
Accrued interest on NCBs' claims in respect of foreign reserves transferred to the ECB	1,448	1,335	114
Accrued interest on deposits accepted by the ECB in its role as fiscal agent	103	172	(69)
Other accruals and deferred income	101	134	(33)
Total	6,288	8,030	(1,742)

As at 31 December 2024 the two main components of this item were accrued interest payable on TARGET balances due to NCBs for December 2024 (see note 10 “Liabilities to non-euro area residents denominated in euro” and note 12.2 “Liabilities related to TARGET (net)”) and accrued interest payable to euro area NCBs for 2024 in respect of their claims relating to foreign reserves transferred to the ECB (see note 12.1 “Liabilities equivalent to the transfer of foreign reserves”). These amounts were settled in January 2025.

This item also included accrued interest payable on deposits accepted by the ECB in its role as fiscal agent (see note 9.1 “General government”, note 10 “Liabilities to non-euro area residents denominated in euro” and note 12.3 “Other liabilities within the Eurosystem (net)”).

The remainder of this item included mainly (i) accrued interest payable on balances of the euro area ancillary systems connected to TARGET through the TARGET-ECB component (see note 9.2 “Other liabilities”); and (ii) miscellaneous accruals and deferred income.

Note 13.3 – Sundry

As at 31 December 2024 this item stood at €1,327 million (2023: €1,401 million). The total included balances amounting to €574 million (2023: €635 million) related to swap and forward transactions in foreign currency that were outstanding on 31 December 2024 (see note 21 “Foreign exchange swap and forward transactions”). These balances arose from the translation of such transactions into their euro equivalents at the respective currency's average cost on the balance sheet date, compared with the euro values at which the transactions were initially recorded (see “Off-balance-sheet instruments” in Section 2.3 “Accounting policies”).

The item also included a lease liability of €110 million (2023: €117 million) (see “Leases” in Section 2.3 “Accounting policies”).

In addition, this item included the ECB's net defined benefit liability in respect of the post-employment and other long-term benefits of its staff,⁵⁶ the members of the Executive Board and the members of the Supervisory Board employed by the ECB.

The ECB's post-employment benefits and other long-term benefits

Balance sheet

The amounts recognised under "Sundry" (liabilities) in the balance sheet in respect of post-employment and other long-term benefits were as follows:

	2024 € millions			2023 € millions		
	Staff	Boards	Total	Staff	Boards	Total
Defined benefit obligation	2,712	37	2,749	2,458	35	2,493
Fair value of plan assets	(2,253)	-	(2,253)	(1,983)	-	(1,983)
Net defined benefit liability included under "Sundry" (liabilities)	459	37	496	475	35	510

Note: The columns labelled "Boards" report amounts in respect of both the Executive Board and the Supervisory Board.

The present value of the defined benefit obligation vis-à-vis staff of €2,712 million in 2024 (2023: €2,458 million) included unfunded benefits amounting to €293 million (2023: €278 million) relating to post-employment benefits other than pensions and to other long-term benefits. The present value of the defined benefit obligation vis-à-vis the members of the Executive Board and the members of the Supervisory Board of €37 million (2023: €35 million) relates solely to unfunded arrangements in place for post-employment and other long-term benefits.

Remeasurements of the ECB's net defined benefit liability in respect of post-employment benefits are recognised in the balance sheet under "Revaluation accounts". In 2024 remeasurement gains under that item amounted to €416 million (2023: €238 million) (see note 15 "Revaluation accounts").

Changes in the defined benefit obligation, plan assets and remeasurement results

Changes in the present value of the defined benefit obligation were as follows:

⁵⁶ The defined benefit pillar of the plan reflects only the compulsory contributions made by the ECB and staff. Voluntary contributions made by staff in a defined contribution pillar in 2024 amounted to €266 million (2023: €228 million). These contributions are invested in the plan assets and give rise to a corresponding obligation of equal value.

	2024 € millions			2023 € millions		
	Staff	Boards	Total	Staff	Boards	Total
Opening defined benefit obligation	2,458	35	2,493	1,947	31	1,978
Current service cost	121	3	123	101	2	103
Past service cost	119	1	120	-	-	-
Interest cost on the obligation	85	1	86	77	1	79
Contributions paid by plan participants ¹	38	0	38	36	0	36
Benefits paid	(31)	(3)	(34)	(30)	(3)	(33)
Remeasurement (gains)/losses	(77)	0	(77)	327	4	331
Closing defined benefit obligation	2,712	37	2,749	2,458	35	2,493

Note: The columns labelled "Boards" report amounts in respect of both the Executive Board and the Supervisory Board.

1) Net total including compulsory contributions and transfers into/out of the plans. The compulsory contributions paid by staff amount to 7.4% of their basic salary, while those paid by the ECB amount to 20.7%.

The past service cost in 2024 related to the current contributors and pensioners and resulted from an amendment to the rules governing the ECB's pension plans in 2024, according to which the annual increase of pensions aligns with the annual general salary adjustments for ECB employees starting from 2026.

The remeasurement gains on the defined benefit obligation in 2024 arose mainly as a result of the increase in the discount rate used for the actuarial valuation from 3.4% in 2023 to 3.6% in 2024 and the change of demographic assumptions.

Changes in the fair value of plan assets in the defined benefit pillar relating to staff were as follows:

	2024 € millions	2023 € millions
Opening fair value of plan assets	1,983	1,638
Interest income on plan assets	69	66
Remeasurement gains	104	189
Contributions paid by employer	81	75
Contributions paid by plan participants	38	36
Benefits paid	(21)	(20)
Closing fair value of plan assets	2,253	1,983

The remeasurement gains on plan assets in 2024 reflect the fact that the actual return on the fund units was higher than the assumed interest income on plan assets, which was based on the discount rate assumption of 3.4%.

Changes in the remeasurement results were as follows:

	2024 € millions	2023 € millions
Opening remeasurement gains	238	369
Contributions by NCBs joining the Eurosystem ¹	-	3
Gains on plan assets	104	189
Gains/(losses) on obligation	77	(331)
(Gains)/losses recognised in the profit and loss account	(2)	8
Closing remeasurement gains included under "Revaluation accounts"	416	238

1) Upon the adoption of the single currency by Croatia, Hrvatska narodna banka contributed to the balances of all the revaluation accounts of the ECB as at 31 December 2022, which also included the remeasurement gains outstanding as of that date.

Profit and loss account

The amounts recognised in the profit and loss account were as follows:

	2024 € millions			2023 € millions		
	Staff	Boards	Total	Staff	Boards	Total
Current service cost	121	3	123	101	2	103
Past service cost	119	1	120	-	-	-
Net interest on the net defined benefit liability	16	1	17	12	1	13
- Interest cost on the obligation	85	1	86	77	1	79
- Interest income on plan assets	(69)	-	(69)	(66)	-	(66)
Remeasurement (gains)/losses on other long-term benefits	(2)	0	(2)	8	(0)	8
Total included in "Staff costs"	253	5	258	121	3	124

Note: The columns labelled "Boards" report amounts in respect of both the Executive Board and the Supervisory Board.

The amounts recognised in the profit and loss account for the current service cost, interest cost on the obligation and interest income on plan assets are estimated using the rates that applied in the preceding year. The discount rate used for the actuarial valuation fell from 3.9% in 2022 to 3.4% in 2023, resulting in 2024 in higher current service cost. The interest cost on the obligation and interest income on plan assets also increased due to higher balances that offset the impact of the lower discount rate used.

The past service cost resulting from the amendment to the rules governing the ECB's pension plans in 2024 was recognised in full in the profit and loss account for the year in which the amendment decision was taken.

Key assumptions

When preparing the valuations referred to in this note, the independent actuaries used assumptions which the Executive Board has accepted for the purposes of accounting and disclosure. The principal assumptions used for the purposes of calculating the liability for post-employment benefits and other long-term benefits were as follows:

	2024 %	2023 %
Discount rate	3.60	3.40
Expected return on plan assets ¹	4.60	5.30
Future general salary increases ²	2.00	2.00
Future pension increases ³	2.00	1.70

1) These assumptions were used to calculate the part of the ECB's defined benefit obligation which is funded by assets with an underlying capital guarantee.

2) In addition, allowance is made for prospective individual salary increases of up to 1.8% per annum, depending on the age of the plan participants.

3) In accordance with the ECB's pension plan rules, pensions will be increased annually. In 2024 these rules were amended to align the annual increase in pensions with the annual general salary adjustments for ECB employees starting from 2026. Prior to this amendment, the annual increase in pensions was also linked to the general salary adjustment, but subject to further conditions.

Note 14 – Provisions

Note 14.1 – Other provisions

As at 31 December 2024 this item comprised administrative provisions amounting to €72 million (2023: €67 million).

Note 15 – Revaluation accounts

This item consists mainly of revaluation balances arising from unrealised gains on assets, liabilities and off-balance-sheet instruments (see “Gold and foreign currency assets and liabilities”, “Securities”, “Income recognition” and “Off-balance-sheet instruments” in Section 2.3 “Accounting policies”). It also includes remeasurements of the ECB's net defined benefit liability in respect of post-employment benefits (see “The ECB's post-employment benefits and other long-term benefits” in Section 2.3 “Accounting policies” and note 13.3 “Sundry”).

	2024 € millions	2023 € millions	Change € millions
Gold	37,097	26,622	10,476
Foreign currency	12,819	9,842	2,976
- US dollars	12,717	9,624	3,093
- Japanese yen	-	206	(206)
- Chinese renminbi	30	9	21
- SDRs	72	4	68
- Others	0	0	0
Securities and other instruments	320	397	(77)
Net defined benefit liability in respect of post-employment benefits	416	238	179
Total	50,653	37,099	13,554

The revaluation accounts increased in 2024 due predominantly to the rise in the market price of gold in euro terms. The revaluation accounts related to foreign currency also increased, mainly owing to the appreciation of the US dollar against the euro.

The foreign exchange rates used for year-end revaluation were as follows:

Exchange rates	2024	2023
US dollars per euro	1.0389	1.1050
Japanese yen per euro	163.06	156.33
Chinese renminbi per euro	7.5833	7.8509
Euro per SDR	1.2544	1.2157
Euro per fine ounce of gold	2,511.069	1,867.828

Note 16 – Capital and reserves

Note 16.1 – Capital

Change to the ECB's capital key

Pursuant to Article 29 of the Statute of the ESCB, the weightings assigned to the NCBs in the key for subscription of the ECB's capital are adjusted every five years.⁵⁷ The fifth such adjustment following the establishment of the ECB was made on 1 January 2024.

Paid-up capital of the ECB

The ECB's paid-up capital decreased by €23 million on 1 January 2024. This is due to the overall reduction of 0.2200 percentage points in the weighting of the euro area NCBs (with fully paid-up subscriptions) in the ECB's subscribed capital of €10,825 million, and the equivalent increase in that of the non-euro area NCBs (which only pay up 3.75% of their subscriptions).

The following table shows the changes to the capital key, subscribed capital and paid-up capital:

⁵⁷ These weights are also adjusted whenever there is a change in the number of NCBs that contribute to the ECB's capital. These are the NCBs of EU Member States.

	Since 1 January 2024			As at 31 December 2023		
	Capital key %	Subscribed capital € millions	Paid-up capital € millions	Capital key %	Subscribed capital € millions	Paid-up capital € millions
Nationale Bank van België/ Banque Nationale de Belgique (Belgium)	3.0005	325	325	2.9630	321	321
Deutsche Bundesbank (Germany)	21.7749	2,357	2,357	21.4394	2,321	2,321
Eesti Pank (Estonia)	0.2437	26	26	0.2291	25	25
Central Bank of Ireland (Ireland)	1.7811	193	193	1.3772	149	149
Bank of Greece (Greece)	1.8474	200	200	2.0117	218	218
Banco de España (Spain)	9.6690	1,047	1,047	9.6981	1,050	1,050
Banque de France (France)	16.3575	1,771	1,771	16.6108	1,798	1,798
Hrvatska narodna banka (Croatia)	0.6329	69	69	0.6595	71	71
Banca d'Italia (Italy)	13.0993	1,418	1,418	13.8165	1,496	1,496
Central Bank of Cyprus (Cyprus)	0.1802	20	20	0.1750	19	19
Latvijas Banka (Latvia)	0.3169	34	34	0.3169	34	34
Lietuvos bankas (Lithuania)	0.4826	52	52	0.4707	51	51
Banque centrale du Luxembourg (Luxembourg)	0.2976	32	32	0.2679	29	29
Central Bank of Malta (Malta)	0.1053	11	11	0.0853	9	9
De Nederlandsche Bank (Netherlands)	4.8306	523	523	4.7662	516	516
Oesterreichische Nationalbank (Austria)	2.4175	262	262	2.3804	258	258
Banco de Portugal (Portugal)	1.9014	206	206	1.9035	206	206
Banka Slovenije (Slovenia)	0.4041	44	44	0.3916	42	42
Národná banka Slovenska (Slovakia)	0.9403	102	102	0.9314	101	101
Suomen Pankki – Finlands Bank (Finland)	1.4853	161	161	1.4939	162	162
Subtotal for euro area NCBs	81.7681	8,851	8,851	81.9881	8,875	8,875
Българска народна банка (Bulgarian National Bank) (Bulgaria)	0.9783	106	4	0.9832	106	4
Česká národní banka (Czech Republic)	1.9623	212	8	1.8794	203	8
Danmarks Nationalbank (Denmark)	1.7797	193	7	1.7591	190	7
Magyar Nemzeti Bank (Hungary)	1.5819	171	6	1.5488	168	6
Narodowy Bank Polski (Poland)	6.0968	660	25	6.0335	653	24
Banca Națională a României (Romania)	2.8888	313	12	2.8289	306	11
Sveriges Riksbank (Sweden)	2.9441	319	12	2.9790	322	12
Subtotal for non-euro area NCBs	18.2319	1,974	74	18.0119	1,950	73
Total	100.0000	10,825	8,925	100.0000	10,825	8,948

The euro area NCBs have fully paid up their share of subscribed capital.

The non-euro area NCBs are required to pay up 3.75% of their subscribed capital as a contribution to the operational costs of the ECB. Non-euro area NCBs are not entitled to receive any share of the distributable profits of the ECB, nor are they liable to cover any loss of the ECB.

Note 17 – Accumulated losses carried forward

As at 31 December 2024 this item amounted to €1,266 million (2023: zero). It comprised the ECB's loss for 2023, which, following a decision by the Governing Council, was carried forward on the ECB's balance sheet to be offset against future profits.

2.5 Off-balance-sheet instruments

Note 18 – Securities lending programmes

As part of the management of the ECB's own funds, the ECB has a securities lending programme agreement in place under which a specialised institution enters into securities lending transactions on behalf of the ECB. In accordance with the Governing Council's decisions, the ECB has also made securities held for monetary policy purposes available for lending.⁵⁸

Depending on the collateral received, securities lending operations are recorded in (i) off-balance-sheet accounts, when conducted against securities collateral; or (ii) on-balance-sheet accounts, when conducted against cash that remains uninvested at the end of the year (see note 8 "Other liabilities to euro area credit institutions denominated in euro" and note 10 "Liabilities to non-euro area residents denominated in euro").

The market value of the securities lent and the corresponding collateral was as follows:

⁵⁸ Further details on [securities lending](#) can be found on the ECB's website.

	2024 € millions	2023 € millions
Securities lent against securities collateral ¹	(37,393)	(32,791)
<i>of which related to securities held for monetary policy purposes</i>	<i>(28,585)</i>	<i>(26,577)</i>
Securities lent against cash collateral	(4,273)	(10,088)
<i>of which related to securities held for monetary policy purposes</i>	<i>(4,273)</i>	<i>(10,088)</i>
Market value of securities lent	(41,666)	(42,879)
Collateral in the form of securities ¹	38,970	34,042
<i>of which related to securities held for monetary policy purposes</i>	<i>29,761</i>	<i>27,651</i>
Collateral in the form of cash ²	4,450	10,336
<i>of which related to securities held for monetary policy purposes</i>	<i>4,450</i>	<i>10,336</i>
Market value of collateral	43,420	44,379

1) This amount is recorded in off-balance-sheet accounts.

2) This amount is recorded in on-balance-sheet accounts under "Other liabilities to euro area credit institutions denominated in euro" and "Liabilities to non-euro area residents in euro".

Note 19 – Interest rate futures

The following transactions, translated at year-end foreign exchange rates, were outstanding at year-end:

Foreign currency interest rate futures	2024 Contract value € millions	2023 Contract value € millions	Change € millions
Purchases	382	2,207	(1,825)
Sales	734	4,142	(3,408)

These transactions were conducted in the context of the management of the ECB's foreign reserves.

Note 20 – Forward transactions in securities

As at 31 December 2024 there were no forward transactions in securities outstanding. At the end of 2023, by contrast, forward purchases and sales of securities, each in the amount of €45 million, translated at year-end foreign exchange rates, remained outstanding:

Forward transactions in securities	2024 € millions	2023 € millions	Change € millions
Purchases	-	45	(45)
Sales	-	45	(45)

These transactions were conducted in the context of the management of the ECB's foreign reserves.

Note 21 – Foreign exchange swap and forward transactions

Management of foreign reserves

Foreign exchange swap and forward transactions were conducted in the context of the management of the ECB's foreign reserves. The following claims and liabilities resulting from these transactions, translated at year-end foreign exchange rates, were outstanding at year-end:

Foreign exchange swap and forward transactions	2024 € millions	2023 € millions	Change € millions
Claims	2,873	2,778	96
Liabilities	2,742	2,901	(159)

Liquidity-providing swap arrangements

The ECB is part of a swap-line network of central banks and has in place reciprocal swap arrangements with the Bank of Canada, the Bank of England, the Bank of Japan, the Federal Reserve System and the Swiss National Bank. It also holds a reciprocal swap-line with the People's Bank of China. These swap arrangements allow for the provision of (i) liquidity in any of the respective currencies of the above central banks to euro area banks, or (ii) euro liquidity to financial institutions in the jurisdictions of the above central banks. Furthermore, swap agreements are also in place with Danmarks Nationalbank and Sveriges Riksbank for the provision of euro liquidity to financial institutions in their jurisdictions. The above arrangements are aimed at alleviating tensions in international funding markets and minimising the risks of adverse feedback loops.⁵⁹

US dollar-denominated claims and liabilities with a maturity date in 2025 arose in connection with the provision of US dollar liquidity to Eurosystem counterparties (see note 10 "Liabilities to non-euro area residents denominated in euro").

⁵⁹ Further details on the ECB's [liquidity-providing swap arrangements](#) can be found on the ECB's website. The repo lines also described on this website are operated by euro area NCBs and therefore not considered in the ECB's Annual Accounts.

Note 22 – Administration of borrowing and lending operations

In 2024 the ECB continued to be responsible for the administration of accounts and the processing of payments relating to the borrowing and lending operations of the EU under the medium-term financial assistance facility, the European Financial Stabilisation Mechanism and the loan facility agreement for Greece.

In response to the COVID-19 pandemic, the EU granted loans to the Member States under its instrument for temporary Support to mitigate Unemployment Risks in an Emergency (SURE). The availability of this instrument ended on 31 December 2022, but the relevant issuances consisted of bonds ranging from 5 to 30 years maturity.

In 2024 the EU also continued to provide financing in the form of non-repayable financial support and loan support to Member States under the Next Generation EU (NGEU) programme, which was established to support the economic recovery in the EU, while facilitating the green and digital transition of the Union's economy. In 2024 the EU also provided support both to Ukraine, in the form of loans under the new Ukraine Facility Regulation including exceptional bridge financing, and to the Arab Republic of Egypt in the form of short-term macro-financial assistance. The ECB supported the European Commission in the administration of the operations related to these instruments.

Moreover, the ECB acts as paying agent for the European Commission in relation to its new EU Issuance Service, which was launched in January 2024.

In 2024 the ECB processed payments related to all the operations mentioned above.

Note 23 – Contingent liabilities from pending lawsuits

Lawsuits have been filed against the ECB relating to the exercise of its supervisory functions over Banca Carige S.p.A. (Banca Carige). In two of these lawsuits, Banca Carige's shareholders are seeking financial compensation from the ECB for the harm allegedly sustained as a result of various actions by the ECB in the exercise of its supervisory functions in respect of Banca Carige, consisting both of alleged failures to act and harmful actions. The ECB won one of these two cases at first instance; the relevant judgment of the General Court has been appealed by the counterparty and is currently pending before the Court of Justice. The other lawsuit is still pending before the General Court. These cases will be decided taking into account, among other factors, the final outcome of other related cases. In one of these, the General Court of the EU deemed, in its judgment of 12 October 2022, that the ECB's decision to place Banca Carige under temporary administration lacked an appropriate legal basis under Italian law. Accordingly, the General Court annulled the ECB's decision to place Banca Carige under temporary administration as well as the first extension of the duration of temporary administration in 2019. However, the General Court's judgment was appealed by the ECB before the Court of Justice of the EU, which may still overturn that judgment. Moreover, two further ECB decisions extending the temporary administration are currently being contested in an action for annulment, which is still pending.

2.6 Notes to the profit and loss account

Note 24 – Net interest income/(expense)

	2024 € millions	2023 € millions	Change € millions
Foreign reserves	2,537	2,382	155
Securities held for monetary policy purposes	3,850	3,467	383
Lending of securities held for monetary policy purposes	32	67	(35)
Claims related to the allocation of euro banknotes within the Eurosystem	5,232	4,817	415
TARGET balances due from NCBs	54,542	52,363	2,179
Own funds	703	625	77
Other	3	2	0
Total interest income	66,898	63,723	3,175
Foreign reserves	(0)	-	(0)
Lending of securities held for monetary policy purposes ¹	(137)	(374)	238
NCBs' claims in respect of foreign reserves transferred	(1,448)	(1,335)	(114)
TARGET balances due to NCBs	(70,216)	(66,598)	(3,618)
Deposits accepted by the ECB in its role as fiscal agent	(1,219)	(1,953)	734
Other	(861)	(655)	(206)
Total interest expense	(73,881)	(70,916)	(2,965)
Net interest expense	(6,983)	(7,193)	210

1) This item comprises the interest expense on cash received as collateral.

Note 24.1 – Net interest income on foreign reserves

The net interest income or expense on the ECB's foreign reserves, broken down by instrument type, is shown below:

	2024 € millions	2023 € millions	Change € millions
Current accounts	85	82	3
Money market deposits	149	129	20
Repurchase agreements	(0)	-	(0)
Reverse repurchase agreements	225	271	(46)
Securities	1,936	1,745	191
Forward and swap transactions in foreign currencies	142	155	(13)
Net interest income on foreign reserves	2,537	2,382	155

The net interest income or expense on the ECB's foreign reserves, broken down by foreign currency, was as follows:

	2024 € millions	2023 € millions	Change € millions
US dollars	2,434	2,298	136
Japanese yen	9	(2)	11
Chinese renminbi	12	13	(1)
SDRs	83	73	10
Net interest income on foreign reserves	2,537	2,382	155

Note 24.2 – Interest income arising from the claims related to the allocation of euro banknotes within the Eurosystem

In 2024 the interest income relating to the ECB's 8% share of the total value of euro banknotes in circulation (see "Banknotes in circulation" in Section 2.3 "Accounting policies" and note 5.1 "Claims related to the allocation of euro banknotes within the Eurosystem") amounted to €5,232 million (2023: €4,817 million). The increase resulted from the higher average rate on the main refinancing operations compared with the previous year (2024: 4.1%, 2023: 3.8%).

Note 24.3 – Remuneration of NCBs' claims in respect of foreign reserves transferred

In 2024 the remuneration expense arising from euro area NCBs' claims in respect of the foreign reserves transferred to the ECB (see note 12.1 "Liabilities equivalent to the transfer of foreign reserves") amounted to €1,448 million (2023: €1,335 million). The increase resulted from the higher average rate on the main refinancing operations compared with the previous year (2024: 4.1%, 2023: 3.8%).

Note 24.4 – Net interest income on securities held for monetary policy purposes

The net interest income on securities held for monetary policy purposes was as follows:

	2024 € millions	2023 € millions	Change € millions
SMP¹	24	49	(24)
APP			
CBPP3	178	179	(1)
ABSPP	419	642	(223)
PSPP – government/agency securities	2,022	1,997	25
Total APP	2,619	2,818	(199)
PEPP			
PEPP – covered bonds	6	4	2
PEPP – government/agency securities	1,201	597	604
Total PEPP	1,206	600	606
Net interest income on securities held for monetary policy purposes	3,850	3,467	383

1) The ECB's net interest income on SMP holdings of Greek government bonds amounted to €18 million (2023: €31 million).

Note 24.5 – Net interest expense arising from TARGET balances due from/to NCBs

The interest income or expense arising from TARGET balances due from/to NCBs was as follows:

	2024 € millions	2023 € millions	Change € millions
Interest income arising from TARGET balances due from NCBs	54,542	52,363	2,179
- <i>Euro area NCBs</i>	54,542	52,363	2,179
Interest expense arising from TARGET balances due to NCBs	(70,216)	(66,598)	(3,618)
- <i>Euro area NCBs</i>	(70,150)	(66,534)	(3,615)
- <i>Non-euro area NCBs</i>	(66)	(64)	(2)
Net interest expense arising from TARGET balances due from/to NCBs	(15,674)	(14,236)	(1,439)

The increase resulted mainly from the higher average rate on the main refinancing operations compared with the previous year (2024: 4.1%, 2023: 3.8%).

Note 25 – Realised gains/(losses) arising from financial operations

Realised gains and losses arising from financial operations were as follows:

	2024 € millions	2023 € millions	Change € millions
Net realised price losses	(53)	(117)	63
Net realised exchange rate and gold price gains	36	11	26
Net realised losses arising from financial operations	(17)	(106)	89

Net realised price losses include realised gains and losses on securities and interest rate futures. The net realised price losses in 2024 mainly arose from the accounting treatment of premium and discount amortisation related to repayments of securities held in the ABSPP.⁶⁰ The net realised price losses were partially offset by net realised exchange rate gains, which largely arose as a result of the year-end price write-downs of a number of US dollar securities.

The following table shows the realised gains and losses arising from financial operations, broken down by currency and quarter:

	2024 € millions					2023 € millions				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
Net realised price gains/(losses)										
US dollars	(10)	(23)	38	(13)	(8)	41	22	(64)	(20)	(21)
Japanese yen	(0)	(2)	(0)	(2)	(4)	(5)	4	(1)	(4)	(5)
Chinese renminbi	1	1	3	1	7	0	0	0	(0)	0
Euro	(27)	(11)	(3)	(6)	(48)	(42)	(21)	(16)	(12)	(91)
Subtotal	(36)	(35)	38	(20)	(53)	(5)	4	(81)	(35)	(117)
Net realised exchange rate and gold price gains/(losses)										
US dollars	(0)	(0)	0	37	37	0	2	1	5	8
Japanese yen	(0)	(0)	(0)	(0)	(1)	2	0	0	0	2
Chinese renminbi	0	(0)	(0)	(0)	(0)	0	(0)	0	(0)	0
Other	0	0	0	0	0	0	0	0	0	0
Subtotal	(0)	(0)	0	37	36	2	3	1	5	11
Total	(36)	(35)	38	17	(17)	(3)	7	(80)	(30)	(106)

⁶⁰ Where the actual repayment date differs from the legal maturity date (which is usually the case for the ABSPP), the amount of the premium or discount that has not yet been amortised is considered realised in proportion to the value of the principal repaid.

Note 26 – Write-downs on financial assets and positions

Write-downs on financial assets and positions were as follows:

	2024 € millions	2023 € millions	Change € millions
Unrealised price losses on securities	(187)	(38)	(150)
Unrealised exchange rate losses	(81)	-	(81)
Write-downs on financial assets and positions	(269)	(38)	(231)

The market value of a number of securities, mainly held in the US dollar portfolio, declined alongside an increase in the corresponding yields towards the end of 2024. This resulted in unrealised price losses at year-end.

The unrealised exchange rate losses arose due to the write-down of the average acquisition cost of the ECB's holding of Japanese yen to the 2024 year-end exchange rate. This reflects the depreciation of the Japanese yen against the euro since the purchases were made.

Note 27 – Net income/(expense) from fees and commissions

	2024 € millions	2023 € millions	Change € millions
Income from fees and commissions	697	672	24
Expenses relating to fees and commissions	(22)	(22)	(0)
Net income from fees and commissions	674	650	24

Income under this item consists primarily of supervisory fees. Expenses comprise predominantly custody fees.

Income and expenses related to supervisory tasks

Banking supervision-related income mainly comprises supervisory fee income. The ECB levies annual fees on supervised entities in order to recover expenditure incurred in the performance of its supervisory tasks. Based on the ECB's actual annual expenses incurred in the performance of its banking supervision tasks, the supervisory fee income for 2024 stood at €681 million (2023: €654 million).

In order to determine the amount of supervisory fees to be levied, the actual annual expenditure is adjusted for amounts reimbursed to/received from individual banks for previous fee periods and other adjustments, including interest received on late payments.⁶¹ Taking into account an adjustment corresponding to interest received

⁶¹ See Article 5(3) of [Regulation \(EU\) No 1163/2014 of the European Central Bank of 22 October 2014 on supervisory fees \(ECB/2014/41\)](#) (OJ L 311, 31.10.2014, p. 23), as amended. The [unofficial consolidated text](#) with the list of amendments is also available.

on late payments as well as net reimbursements to individual banks for previous fee periods, the annual supervisory fees to be levied on the supervised entities for the fee period 2024 correspond to an amount almost equal to the actual annual expenses of €681 million⁶² (see note 6.4 “Accruals and prepaid expenses”). The individual supervisory fees will be invoiced in the second quarter of 2025.⁶³

The ECB is also entitled to impose administrative penalties on supervised entities for failure to comply with applicable EU banking law on prudential requirements (including ECB supervisory decisions). The related income is not considered in the calculation of the annual supervisory fees, nor are reimbursements of such penalties in the event that previous sanction decisions are amended or annulled. Instead, the related amounts are recorded in the ECB’s profit and loss account. In 2024 the income arising from penalties on supervised entities amounted to €16 million (2023: €18 million).

Thus, the income of the ECB for supervisory tasks was as follows:

	2024 € millions	2023 € millions	Change € millions
Income from supervisory fees	681	654	27
- Fee income from significant entities or significant groups	651	626	25
- Fee income from less significant entities or less significant groups	29	27	2
Administrative penalties imposed	16	18	(2)
Income related to banking supervision tasks	696	671	25

Banking supervision-related expenses result from the direct supervision of significant entities, the oversight of the supervision of less significant entities and the performance of horizontal tasks and specialised services. They consist of the direct expenses of the ECB’s supervisory function and the relevant expenses arising from support areas needed to fulfil the ECB’s supervisory responsibilities, reflecting their services in relation to premises and facilities; human resources; information technology (IT); legal, audit and administration; communication and translation; and other activities.

The actual expenses relating to the ECB’s supervisory tasks, which are recovered via the annual supervisory fees for 2024, amounted to €681 million (2023: €654 million). In addition to the impact of inflation, the intensification of supervisory initiatives, together with higher costs associated with continuous developments and improvements to IT systems dedicated to banking supervision, contributed to the overall increase in these expenses.

⁶² The ECB decision on the total amount of annual supervisory fees for 2024 will be adopted and subsequently published in mid-March 2025.

⁶³ Further details on [supervisory fees](#) can be found on the ECB’s banking supervision website.

Note 28 – Income from equity instruments and participating interests

The dividend of €1 million in 2024 (2023: €1 million) received on the shares in the BIS held by the ECB (see note 6.2 “Other financial assets”) is shown under this item.

Note 29 – Other income

Miscellaneous other income stood at €119 million in 2024 (2023: €72 million). The total arose mainly from contributions of participating NCBs to costs incurred by the ECB in connection with ESCB projects and services in operation.

Note 30 – Staff costs

Staff costs were as follows:

	2024 € millions	2023 € millions	Change € millions
Salaries and allowances	560	528	32
Staff insurance	26	25	2
Post-employment and other long-term benefits	258	124	134
Staff costs	844	676	167

The average number of employees in 2024, expressed in full-time equivalents (FTEs),⁶⁴ amounted to 4,297 (2023: 4,222), of which 386 (2023: 380) were managerial staff.

Higher costs for post-employment benefits arose from an amendment to the rules governing the ECB’s pension plans in 2024. In accordance with the ECB’s relevant accounting rules for pensions, the past service cost resulting from this amendment was recognised in full in the profit and loss account for 2024 when the decision was taken (see note 13.3 “Sundry”). Salaries and allowances increased in line with the planned higher average number of staff employed by the ECB and the regular salary adjustments.

Remuneration of the Executive and Supervisory Boards

Members of the Executive Board and the members of the Supervisory Board employed by the ECB receive a basic salary and a residence allowance. In the case of the President, a residence is provided in lieu of a residence allowance. Members of the Executive Board and the Chair of the Supervisory Board also receive a representation allowance. Subject to the Conditions of Employment for Staff of the

⁶⁴ A full-time equivalent (FTE) is a unit equivalent to one employee working full-time for one year. Staff with permanent, fixed or short-term contracts and participants in the ECB’s Graduate Programme are included in proportion to their hours worked. Staff on maternity or long-term leave are also included, while staff on unpaid leave are excluded.

European Central Bank, members of both boards may be entitled to household, child, education and other allowances, depending on their individual circumstances. Salaries are subject to a tax for the benefit of the EU, as well as to deductions in respect of contributions to the pension, medical, long-term care and accident insurance schemes. Allowances are non-taxable and non-pensionable.

In 2024 the basic salaries of the members of the Executive Board and the members of the Supervisory Board employed by the ECB (i.e. excluding representatives of national supervisors) were as follows:⁶⁵

	2024 €	2023 €
Christine Lagarde (President)	466,092	444,984
Luis de Guindos (Vice-President)	399,528	381,444
Piero Cipollone (Board Member since 1 November 2023)	332,928	52,976
Frank Elderson (Board Member)	332,928	317,856
Philip R. Lane (Board Member)	332,928	317,856
Fabio Panetta (Board Member until 31 October 2023)	-	264,880
Isabel Schnabel (Board Member)	332,928	317,856
Total Executive Board	2,197,332	2,097,852
Total Supervisory Board (members employed by the ECB)¹	1,364,558	1,374,853
<i>of which:</i>		
<i>Claudia Buch (Chair of the Supervisory Board since 1 January 2024)</i>	332,928	-
<i>Andrea Enria (Chair of the Supervisory Board until 31 December 2023)</i>	-	317,856
Total	3,561,890	3,472,705

1) The total figure includes the remuneration of the Chair of the Supervisory Board and the ECB members. Frank Elderson does not receive any additional remuneration in his role as Vice-Chair of the Supervisory Board. The totals for 2024 were affected by a gap between the end and start of the terms of office of two members of the Supervisory Board and their successors, whereas in 2023 all ECB members of the Supervisory Board were in office throughout the year.

Total allowances paid to members of both boards and the ECB's contributions to medical, long-term care and accident insurance schemes on their behalf amounted to €1,254,013 (2023: €1,169,703).

Transitional payments may be made to former members of both boards for a limited period after the end of their terms of office. In 2024 these payments, the related allowances and the ECB's contributions to the medical, long-term care and accident insurance schemes of former members of both boards amounted to €552,772 (2023: €365,864). The increase was due to a larger number of former board members receiving these payments in 2024 than in 2023.

Pension-related payments, including post-employment allowances, and contributions to the medical, long-term care and accident insurance schemes for former board members and their dependants amounted to €2,185,215 (2023: €2,670,313).⁶⁶ In

⁶⁵ Amounts are presented gross, i.e. before any deductions of tax for the benefit of the EU.

⁶⁶ These pension-related payments reduced the defined benefit obligation recognised in the balance sheet. For the net amount charged to the profit and loss account in relation to the pension arrangements for current members of the Executive Board and the current members of the Supervisory Board employed by the ECB, see note 13.3 "Sundry".

2024 this amount included a lump sum payment to one former board member upon departure, while in 2023 it included a lump sum payment to a former board member upon retirement. These payments were made in lieu of future pension payments.

Note 31 – Administrative expenses

Administrative expenses were as follows:

	2024 € millions	2023 € millions	Change € millions
Rent, property maintenance and utilities	57	52	5
Staff-related expenses	74	67	7
IT-related expenses	153	137	16
External services	162	161	0
Other expenses	67	64	3
Administrative expenses	513	481	32

The increase in administrative expenses in 2024 was mainly due to (i) higher IT spending in relation to the digital transformation (“IT-related expenses”); and (ii) the ECB’s contribution to the expansion of childminding facilities at the European School Frankfurt (“Staff-related expenses”). Inflation continued to affect various expenses recorded under this item.

Note 32 – Banknote production services

In 2024 this expense amounted to €9 million (2023: €9 million). The total arose predominantly from the cross-border transportation of euro banknotes between banknote printing works and NCBs, for the delivery of new banknotes, and between NCBs, for the compensation of shortages with surplus stocks. These costs are borne centrally by the ECB.

Note 33 – Transfer (to)/from risk provisions

In 2023 this item comprised the full release of the provision for financial risks of €6,620 million to partially cover losses arising from exposures to financial risks (see “Provision for financial risks” in Section 2.3 “Accounting policies”). As a result, this provision stood at zero as at 31 December 2023. No transfers occurred in 2024.

2.7 Post-balance-sheet events

Note 34 – Change in the interest rate used for the remuneration of intra-Eurosystem balances

On 13 March 2024 the Governing Council decided on a set of principles that would guide monetary policy implementation in the future and that, among other key parameters, it would continue to steer the monetary policy stance through the deposit facility rate.⁶⁷ In the same context, the Governing Council decided that from 1 January 2025, the deposit facility rate would become the basis for the remuneration of (i) TARGET balances due from/to euro area NCBs, (ii) claims related to the allocation of euro banknotes within the Eurosystem, and (iii) liabilities equivalent to the transfer of foreign reserves.

⁶⁷ See the [press release](#) of 13 March 2024 on the Governing Council's decisions.

2.8 Financial statements 2020-24

Balance sheet

ASSETS	2020 € millions	2021 € millions	2022 € millions	2023 € millions	2024 € millions
Gold and gold receivables	25,056	26,121	27,689	30,419	40,895
Claims on non-euro area residents denominated in foreign currency	45,971	51,433	55,603	55,876	58,117
Receivables from the IMF	680	1,234	1,759	2,083	2,227
Balances with banks and security investments, external loans and other external assets	45,291	50,199	53,844	53,793	55,890
Claims on euro area residents denominated in foreign currency	4,788	2,776	1,159	1,450	4,094
Claims on non-euro area residents denominated in euro	1,830	3,070	-	-	-
Balances with banks, security investments and loans	1,830	3,070	-	-	-
Other claims on euro area credit institutions denominated in euro	81	38	12	17	2
Securities of euro area residents denominated in euro	349,008	445,384	457,271	425,349	376,781
Securities held for monetary policy purposes	349,008	445,384	457,271	425,349	376,781
Intra-Eurosystem claims	114,761	123,551	125,763	125,378	127,067
Claims related to the allocation of euro banknotes within the Eurosystem	114,761	123,551	125,763	125,378	127,067
Other assets	27,797	27,765	31,355	34,739	33,644
Tangible and intangible fixed assets	1,262	1,189	1,105	1,023	971
Other financial assets	20,785	21,152	21,213	22,172	22,781
Off-balance-sheet instruments revaluation differences	388	620	783	552	681
Accruals and prepaid expenses	3,390	4,055	7,815	10,905	9,158
Sundry	1,970	749	438	88	53
Total assets	569,292	680,140	698,853	673,229	640,600

LIABILITIES	2020 € millions	2021 € millions	2022 € millions	2023 € millions	2024 € millions
Banknotes in circulation	114,761	123,551	125,763	125,378	127,067
Other liabilities to euro area credit institutions denominated in euro	2,559	9,473	17,734	4,699	2,388
Liabilities to other euro area residents denominated in euro	13,700	7,604	63,863	20,622	24,554
General government	10,012	3,200	48,520	143	73
Other liabilities	3,688	4,404	15,343	20,479	24,482
Liabilities to non-euro area residents denominated in euro	11,567	112,492	78,108	23,111	39,859
Liabilities to non-euro area residents denominated in foreign currency	-	-	-	24	-
Deposits, balances and other liabilities	-	-	-	24	-
Intra-Eurosystem liabilities	378,432	375,136	355,474	445,048	388,676
Liabilities equivalent to the transfer of foreign reserves	40,344	40,344	40,344	40,671	40,562
Liabilities related to TARGET (net)	336,828	334,618	315,090	404,336	348,074
Other liabilities within the Eurosystem (net)	1,260	174	41	40	40
Other liabilities	3,095	2,877	5,908	9,498	7,615
Off-balance-sheet instruments revaluation differences	636	568	430	68	-
Accruals and income collected in advance	40	32	3,915	8,030	6,288
Sundry	2,419	2,277	1,562	1,401	1,327
Provisions	7,641	8,268	6,636	67	72
Risk provisions	7,584	8,194	6,566	-	-
Other provisions	57	74	69	67	72
Revaluation accounts	28,235	32,277	36,487	37,099	50,653
Capital and reserves	7,659	8,270	8,880	8,948	8,925
Capital	7,659	8,270	8,880	8,948	8,925
Accumulated losses carried forward	-	-	-	-	(1,266)
Profit/(loss) for the year	1,643	192	-	(1,266)	(7,944)
Total liabilities	569,292	680,140	698,853	673,229	640,600

Note: In order to ensure comparability, the layout of the balance sheet for the years 2020-23 has been adjusted to match the layout introduced in 2024. Furthermore, since the item "Profit/(loss) for the year" has been included as a standalone negative item on the liabilities side of the balance sheet, the amounts for "Total assets" and "Total liabilities" in 2023 have been adjusted accordingly. Further details on these changes can be found under "Changes to presentation in the financial statements" in Section 2.3 "Accounting policies".

Profit and loss account

	2020 € millions	2021 € millions	2022 € millions	2023 € millions	2024 € millions
Net interest income/(expense)	2,017	1,566	900	(7,193)	(6,983)
Interest income	2,027	1,575	12,314	63,723	66,898
Interest expense	(9)	(9)	(11,414)	(70,916)	(73,881)
Net result of financial operations and write-downs	316	(139)	(1,950)	(144)	(286)
Realised gains/(losses) arising from financial operations	342	(6)	(110)	(106)	(17)
Write-downs on financial assets and positions	(26)	(133)	(1,840)	(38)	(269)
Net income/(expense) from fees and commissions	520	559	585	650	674
Income from equity instruments and participating interests	-	2	1	1	1
Other income	37	56	61	72	119
Staff costs	(646)	(674)	(652)	(676)	(844)
Administrative expenses	(434)	(444)	(460)	(481)	(513)
Depreciation of tangible and intangible fixed assets	(106)	(108)	(103)	(106)	(104)
Banknote production services	(14)	(13)	(9)	(9)	(9)
Other expenses	-	(5)	-	-	-
Profit/(loss) before the transfer (to)/from risk provisions	1,691	802	(1,627)	(7,886)	(7,944)
Transfer (to)/from risk provisions	(48)	(610)	1,627	6,620	-
Profit/(loss) for the year	1,643	192	-	(1,266)	(7,944)
Profit distribution	1,643	192	-	-	-

Note: In order to ensure comparability, the layout of the profit and loss account for the years 2020-23 has been adjusted to match the layout introduced in 2024. Furthermore, the amounts shown under the sub-items "Interest income" and "Interest expense" have been restated in line with the interest income and expense netting rationale applied from 2024. Further details on these changes can be found under "Changes to presentation in the financial statements" in Section 2.3 "Accounting policies".

3 Independent auditor's report



To the President and Governing Council
of the European Central Bank
Frankfurt am Main

Report on the Audit of the ECB's Financial Statements 2024

Opinion

We have audited the Financial Statements of the European Central Bank (ECB) for the year ended 31 December 2024 – included in the ECB's Annual Accounts – which comprise the balance sheet, the profit and loss account, and a summary of significant accounting policies and other explanatory notes.

In our opinion, the accompanying Financial Statements give a true and fair view of the financial position of the ECB as at 31 December 2024 and of the results of its financial operations for the year then ended in accordance with the principles established by the Governing Council, which are laid down in Decision (EU) 2024/2938 of the European Central Bank of 14 November 2024 on the annual accounts of the European Central Bank (ECB/2024/32), which is based on Guideline (EU) 2024/2941 of the European Central Bank of 14 November 2024 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2024/31).

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the ECB in accordance with the German ethical requirements that are relevant to our audit of the Financial Statements, which are consistent with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ("IESBA Code") and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The ECB's Executive Board ("Executive Board") is responsible for the other information included in the ECB's Annual Accounts. The other information comprises all the information included in the ECB's Annual Accounts except the Financial Statements of the ECB and our auditor's report.

Our opinion on the Financial Statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Financial Statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Responsibilities of the Executive Board and those charged with Governance for the Financial Statements

The Executive Board is responsible for the preparation and fair presentation of the Financial Statements in accordance with the principles established by the Governing Council, which are laid down in Decision (EU) 2024/2938 of the European Central Bank of 14 November 2024 on the annual accounts of the European Central Bank (ECB/2024/32), which is based on Guideline (EU) 2024/2941 of the European Central Bank of 14 November 2024 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2024/31), and for such internal control as the Executive Board determines is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, the Executive Board is responsible for assessing the ECB's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting.

Those charged with governance are responsible for overseeing the ECB's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the 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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. 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 Financial Statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the planning and performance of the audit. We also:

- Identify and assess the risks of material misstatement of the Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the ECB's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ECB's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report.
- Evaluate the overall presentation, structure and content of the Financial Statements, including the disclosures, and whether the Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.

We are required to communicate with those charged with governance regarding, among 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, 12 February 2025

Baker Tilly GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft



Dr. Stefan Wolfgang Fischer
Wirtschaftsprüfer



Maria Brück
Wirtschaftsprüferin

4 Note on profit distribution/allocation of losses

This note is not part of the financial statements of the ECB for the year 2024.

Pursuant to Article 33 of the Statute of the ESCB, the net profit of the ECB is to be transferred in the following order:

1. an amount to be determined by the Governing Council, which may not exceed 20% of the net profit, is to be transferred to the general reserve fund, subject to a limit equal to 100% of the capital;
2. the remaining net profit is to be distributed to the shareholders of the ECB in proportion to their paid-up shares.⁶⁸

In the event of a loss incurred by the ECB, the shortfall may be offset against the general reserve fund of the ECB and, if necessary, following a decision by the Governing Council, against the monetary income of the relevant financial year in proportion and up to the amounts allocated to the NCBs in accordance with Article 32.5 of the Statute of the ESCB.⁶⁹

The ECB's loss for 2024 was €7,944 million, compared with a loss of €1,266 million in 2023 after the full release of the provision for financial risks. Following a decision by the Governing Council, this loss will be carried forward on the ECB's balance sheet and offset against future profits.

⁶⁸ Non-euro area NCBs are not entitled to receive any share of the ECB's distributable profits, nor are they liable to cover any loss of the ECB.

⁶⁹ Under Article 32.5 of the Statute of the ESCB, the sum of the NCBs' monetary income is to be allocated to the NCBs in proportion to their paid-up shares in the capital of the ECB.

Consolidated balance sheet of the Eurosystème as at 31 December 2024

Assets

(EUR millions)

	31 December 2024	31 December 2023
1 Gold and gold receivables	872,158	649,110
2 Claims on non-euro area residents denominated in foreign currency	522,450	499,610
2.1 Receivables from the IMF	236,843	229,003
2.2 Balances with banks and security investments, external loans and other external assets	285,607	270,607
3 Claims on euro area residents denominated in foreign currency	16,014	13,888
4 Claims on non-euro area residents denominated in euro	20,122	20,333
4.1 Balances with banks, security investments and loans	20,122	20,333
4.2 Claims arising from the credit facility under ERM II	0	0
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	34,221	410,290
5.1 Main refinancing operations	16,979	14,085
5.2 Longer-term refinancing operations	17,194	396,196
5.3 Fine-tuning reverse operations	0	0
5.4 Structural reverse operations	0	0
5.5 Marginal lending facility	48	10
5.6 Credits related to margin calls	0	0
6 Other claims on euro area credit institutions denominated in euro	36,292	28,708
7 Securities of euro area residents denominated in euro	4,533,182	4,898,722
7.1 Securities held for monetary policy purposes	4,283,370	4,694,345
7.2 Other securities	249,812	204,376
8 General government debt denominated in euro	20,394	20,917
9 Other assets	373,596	345,688
Total assets	6,428,429	6,887,265

Liabilities

(EUR millions)

	31 December 2024	31 December 2023
1 Banknotes in circulation	1,588,344	1,567,711
2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	2,991,283	3,508,865
2.1 Current accounts (covering the minimum reserve system)	192,273	174,019
2.2 Deposit facility	2,799,010	3,334,822
2.3 Fixed-term deposits	0	0
2.4 Fine-tuning reverse operations	0	0
2.5 Deposits related to margin calls	0	24
3 Other liabilities to euro area credit institutions denominated in euro	27,929	58,881
4 Debt certificates issued	0	0
5 Liabilities to other euro area residents denominated in euro	203,856	303,860
5.1 General government	122,026	212,789
5.2 Other liabilities	81,830	91,071
6 Liabilities to non-euro area residents denominated in euro	242,366	281,926
7 Liabilities to euro area residents denominated in foreign currency	11,252	16,382
8 Liabilities to non-euro area residents denominated in foreign currency	603	4,513
8.1 Deposits, balances and other liabilities	603	4,513
8.2 Liabilities arising from the credit facility under ERM II	0	0
9 Counterpart of special drawing rights allocated by the IMF	182,810	177,116
10 Other liabilities	215,689	232,132
11 Revaluation accounts	872,327	634,868
12 Capital and reserves	91,969	101,012
Total liabilities	6,428,429	6,887,265

Notes: Based on provisional year-end data. The final annual consolidated balance sheet of the Eurosystem will be published in June 2025.

The comparative 2023 figures for the items "Other assets" and "Capital and reserves" have been restated to reflect presentation changes introduced in the annual consolidated balance sheet of the Eurosystem in line with the new [Guideline \(EU\) 2024/2941 of the European Central Bank of 14 November 2024 on the legal framework for accounting and financial reporting in the European System of Central Banks \(ECB/2024/31\)](#).

Totals/sub-totals may not add up due to rounding.