

**EGOV**

ECONOMIC GOVERNANCE AND EMU SCRUTINY UNIT



MONETARY POLICY

# Euro area monetary policy: Quarterly overview, September 2023

*This briefing paper was prepared ahead of the Monetary Dialogue between the Committee on Economic and Monetary Affairs (ECON) and the European Central Bank (ECB) President on Monday, 25 September. It provides a summary of key monetary policy developments and decisions taken by the ECB's Governing Council.*

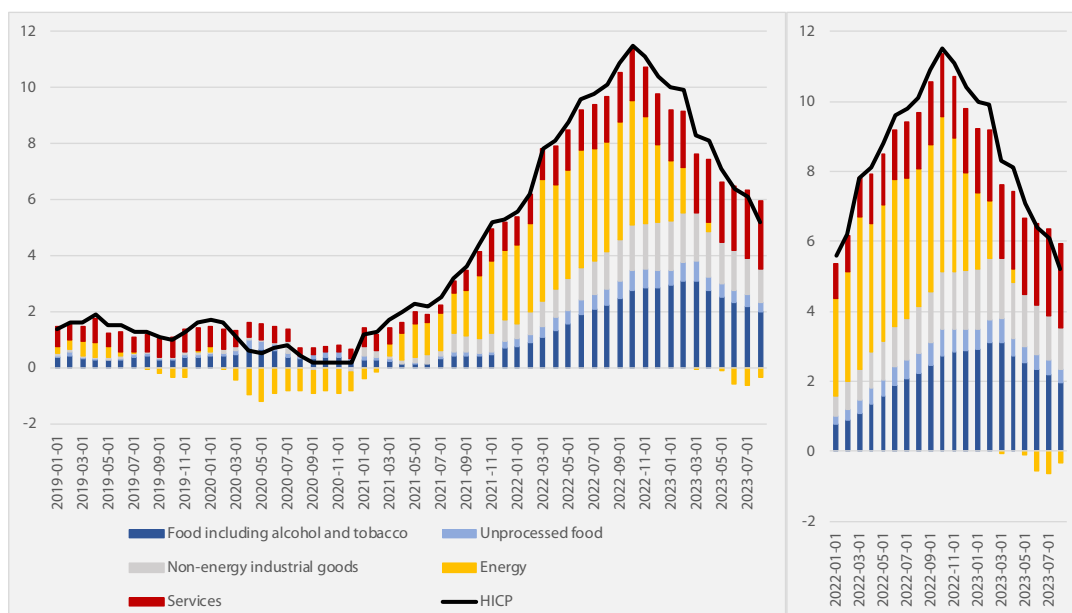
## 1. Key developments

### Current inflation dynamics

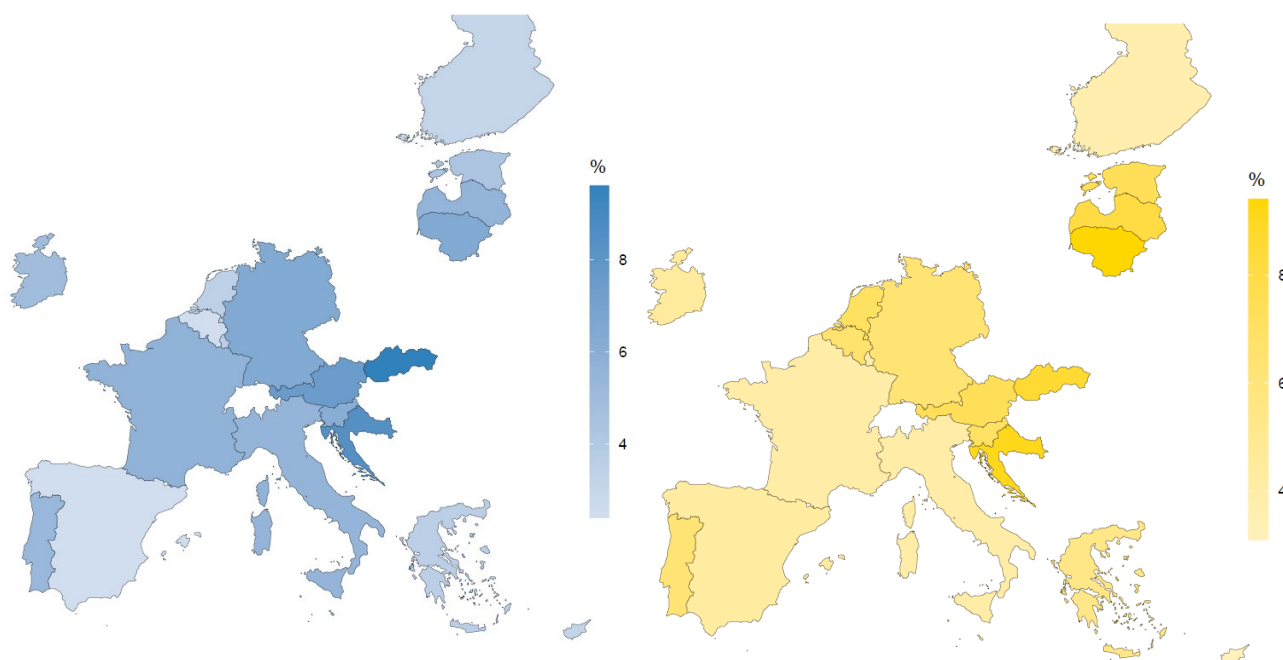
**According to Eurostat, the euro area annual headline inflation rate (as measured by the harmonised index of consumer prices, HICP) continued on a decelerating path from 5.3% in July to 5.2% in August.** Energy prices continue to decrease in August (3.4% compared to the same month in 2022) albeit slower than in the previous month (6.2%). At the same time, food and non-energy industrial goods price increases slowed down further, at 1.9% and 1.2% on an annual basis, respectively. Services price increases continued on an upward trajectory driven by strong spending during the summer and robust wage growth. Labour costs contributed more to domestic inflation, while profits' contribution declined for the first time since early 2022. The largest contributors to inflation are currently food and services, as shown in **Figure 1**.

**Core inflation, excluding energy and food, also slowed down to 5.3% in August 2023**, slightly decreasing from the previous month (5.5% in July). As demand and supply are becoming more balanced, many indicators of core inflation are beginning to decline, and the impact of previous increases in energy prices is diminishing. Altogether, there is a sustained strength in domestic price pressures. See **Figure 2** for divergences in headline and core inflation rates across euro area countries in August, as well as Annex for headline (**Table 7**) and core (**Table 8**) inflation rates by Member State over the past 12 months.



**Figure 1:** Contribution to HICP inflation in euro area, percentage points

Source: Authors' own elaboration based on [Eurostat](#).

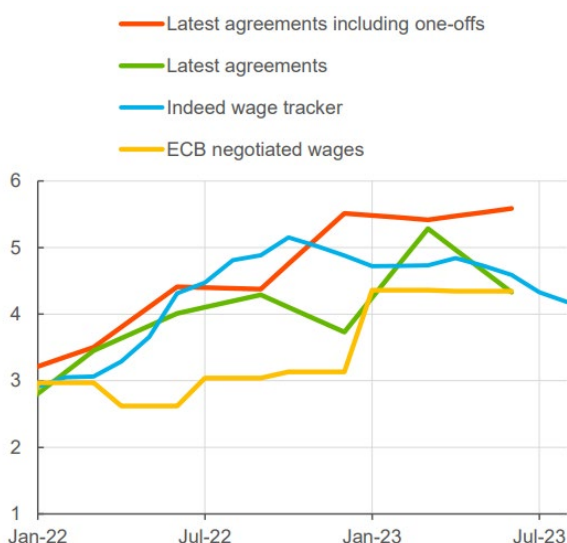
**Figure 2:** Headline (left) and core inflation rates (right) across euro area countries in August 2023, in %

Source: Authors' own elaboration based on [Eurostat](#).

**As the relative contribution of energy-sensitive sectors to core inflation is falling, wage-sensitive sectors have become the main driver of inflationary pressure.** In the first half of 2023, the ECB Governing Council noted that growth in wages has been the primary driver of underlying inflation and that its contribution has doubled compared to period in 2019-2020. According to the [account](#) of the July 2023 monetary policy meeting, members discussed various inflation-related risks, with some focusing on the potential for extended periods of elevated wage growth and profit margins. The forward-looking ECB wage tracker shows that workers' demands for recouping some of the purchasing power losses have translated in strengthening wage growth (**Figure 3**). According to the [ECB's September 2023 macroeconomic](#)

[projections](#), nominal wage growth is anticipated to gradually decrease over time, although it will remain relatively high due to tight labour markets, rising minimum wages, and inflation adjustments. Compensation per employee is projected to decrease from 5.3% in 2023 to 3.8% in 2025, while slightly lower growth is expected in 2024 and 2025 due to a weakening labour market.

**Figure 3.** Wage trackers, annual % change



Notes (from source document): Calculated based on micro data on wage agreements provided by Deutsche Bundesbank, Banco de España, the Dutch employer association (AWVN), Oesterreichische Nationalbank, Bank of Greece, Banca d'Italia and Banque de France. Indicator of latest wage agreements shows the wage growth implied by agreements reached in a quarter for 12 months ahead. Indeed tracker measures wage growth in online job ads, computed by the Central Bank of Ireland. Latest observations: August 2023 for Indeed Wage Tracker; June 2023 for the rest.

Source: Isabel Schnabel, "[Challenges of monetary policy at times of stubborn inflation](#)" at Association of German Banks, Meeting of the Economic and Monetary Policy Committee, 20 September 2023.

**Though headline inflation is slowing down, it is still excessively above the 2% target, while underlying price pressures remain stubbornly high.** As [explained](#) by the Executive Board member Isabel Schnabel, in recent months underlying inflation indicators have conveyed mixed messages regarding the rate of disinflation, thus affecting among other things, our understanding of the dynamics of Phillips curve. The ambiguity surrounding the speed of disinflation is also evident in the latest changes in market-based indicators of inflation compensation. On top of that, as [noted](#) by the Executive Board member Fabio Panetta, as the process of disinflation has started, inflation expectations have been further pushed down. According to the [European Central Bank \(ECB\)](#), while the majority of longer-term inflation expectations hover around 2%, some indicators are showing an uptick that requires close monitoring.

### Inflation forecasts

**The most recent [ECB staff macroeconomic projections](#) for the euro area (MPE) from September have revised up headline inflation projections for 2023 and 2024 (by 0.2 p.p.) and slightly down for 2025 (by 0.1 p.p.).** ECB staff currently expects headline inflation to reach the 2% target in the third quarter of 2025. Energy prices are expected to continue with the negative contribution to inflation until the end of 2023, and then turn positive in 2024 due to unwinding of related fiscal measures, base effects and renewed increase of energy commodity prices.

**Other official forecasts are all projecting both headline and core inflation in the euro area above 5% in 2023 and around 3% in 2024.** Table 1 shows a summary of most recent official forecasts by the ECB, the European Commission, the IMF, the OECD and the ECB's Survey of Professional Forecasters.

**Table 1:** Recent euro area headline and core inflation forecasts and surveys

Source		2023	2024	2025
<b>ECB staff macroeconomic projections</b> (September 2023) <i>Revision from June 2023</i>	<b>Headline</b>	<b>5.6%</b> ↑0.2 p.p.	<b>3.2%</b> ↑0.2 p.p.	<b>2.1%</b> ↓0.1 p.p.
	<b>Core<sup>1</sup></b>	<b>5.1%</b> =	<b>2.9%</b> ↓0.1 p.p.	<b>2.2%</b> ↓0.1 p.p.
<b>European Commission</b> (September 2023) <i>Revision from May 2023</i>	<b>Headline</b>	<b>5.6%</b> ↓0.2 p.p.	<b>2.9%</b> ↑0.1 p.p.	n.a.
<b>IMF World Economic Outlook</b> (July 2023) <i>Revision from April 2023</i>	<b>Headline</b>	<b>5.2%</b> ↓0.1 p.p.	<b>2.8%</b> ↓0.1 p.p.	n.a.
<b>OECD Interim Economic Outlook</b> (September 2023) <i>Revision from June 2023</i>	<b>Headline</b>	<b>5.5%</b> ↓0.3 p.p.	<b>3.0%</b> ↓0.2 p.p.	n.a.
	<b>Core<sup>2</sup></b>	<b>5.1%</b> ↓0.3 p.p.	<b>3.1%</b> ↓0.5 p.p.	n.a.
<b>ECB Survey of Professional Forecasters</b> (July 2023) <i>Revision from May 2023</i>	<b>Headline</b>	<b>5.5%</b> ↓0.1 p.p.	<b>2.7%</b> ↑0.1 p.p.	<b>2.2%</b> =
	<b>Core<sup>3</sup></b>	<b>5.1%</b> ↑0.2 p.p.	<b>3.1%</b> ↑0.3 p.p.	<b>2.3%</b> =

Sources: [ECB staff macroeconomic projections September 2023](#), [European Commission Summer 2023 forecast](#), [IMF World Economic Outlook update, July 2023](#), [OECD Interim Economic Outlook, September 2023](#), [ECB May 2023 Survey of Professional Forecasters](#).

<sup>1</sup> The ECB's measure of core inflation excludes all food and energy. The European Commission's measure of core inflation excludes unprocessed food and energy.

<sup>2</sup> HICP inflation excluding food and energy.

<sup>3</sup> HICP inflation excluding energy, food, alcohol and tobacco.

## Monetary policy transmission: latest bank lending survey (BLS)

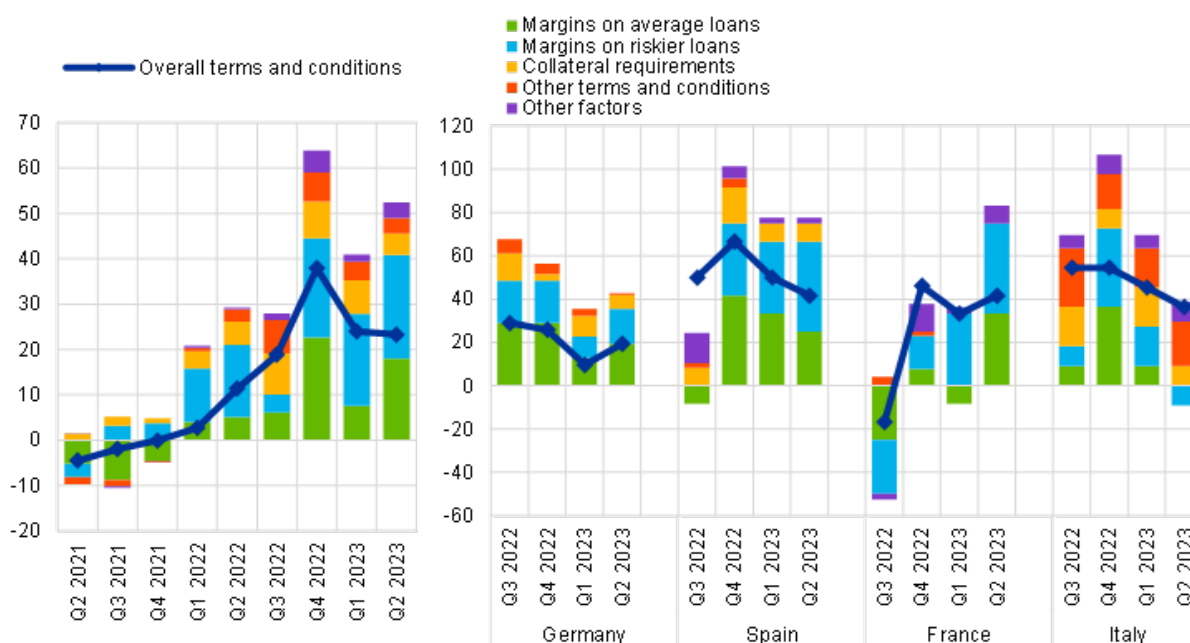
The ECB's latest euro area [bank lending survey \(BLS\)](#) continues to show a tightening of banks' credit standards in the second quarter of 2022, in line with the previous quarter, although fewer banks are reporting a tightening (from 27% in Q1 2023 to 14% in Q2 2023). For overall terms and conditions, the BLS recognises the transmission of higher market rates to both firms and households as "widening loan margins and rising interest rates accounted for the main tightening effect".

The BLS shows in particular a tightening of credit standards for loans to enterprise. This is in line with a broader trend leading to "significant weakening in lending dynamics" since autumn 2022 (Figure 4). Banks seem to be driven in their tightening by risk perception, lower risk appetite, higher credit risk among worsening economic prospects and rising interest rates, as well as by the cost of funds and their balance sheet situation, namely "higher capital costs and banks' lower liquidity position".

Net demand for corporate loans stands at its lowest level since 2003 when the first survey was first launched. This contraction in demand is stronger than previously expected and appears driven by higher interest rates as well as by a reduction in the financing needs for fixed investments. It is particularly strong for longer-term loans. The demand for loans is expected continue to decline, though at a slower pace, also in Q3 2023.

Banks also reported a tightening in credit standards for loans to households, which is stronger for consumer credit and weaker for housing loans than in the previous quarter. Once again, risk perception, risk tolerance and, to a lesser extent, increases in funding costs represent the main drivers. The BLS further highlights the emergence of competition among banks by indicating that it "contributed somewhat to alleviating the net tightening pressures".

**Figure 4:** Changes in credit standards applied to the approval of loans or credit lines to enterprises, and contributing factors (net % of banks reporting tightening of credit standards and contributing factors)



Source: [ECB](#)

**The net decrease in lending for housing loans is more contained than in previous quarters.** The worsening housing market prospects are weighing on both the supply and the demand side. Banks seem particularly concerned with clients' creditworthiness whereas potential borrowers are constrained by higher interest rates and low consumer confidence. As the BLS points out, *"For the fourth quarter in a row, the general level of interest rates remained the main negative contributor to housing loan demand"* in line with the rise of mortgage rates and the fall in housing prices across the euro area.

**The contraction in demand for loans has been particularly pronounced for real estate (both commercial and residential).** This reflects the lower profitability of potential projects or constraints on borrowers' capacity to invest due to tumbling prices and spiking interest rates. On aggregate, in the first half of the year, the tightening of credit standards for new loans has been particularly strong for commercial real estate as well as energy-intensive manufacturing sector.

**The BLS notes a deterioration in banks' access to funding, particularly on the retail side.** This could be a consequence of higher competition for retail deposits against the backdrop of higher deposit remuneration and outflows of overnight deposits. This deterioration is particularly strong for short-term funding. Access to money markets, instead, seems unaffected.

**Among others, the BLS points to a net tightening impact of NPL ratios on lending conditions to enterprises** and suggests that *"banks expect a larger relevance of NPLs in the coming months"*.





















**The pass-through to the real economy seems to be lagging behind the transmission of monetary policy to financial conditions.** This was recently underlined by ECB's Executive Board member Fabio Panetta who indicated that *"While our past decisions have already led to a material tightening in credit conditions and loan dynamics, their effects have yet to be felt in full across the real economy"*.

#### Eurosystem central banks' profit and loss accounts

**The abrupt shift in the monetary policy cycle that started in July 2022 has left Eurosystem central banks' balance sheets exposed to financial risks.** On the liability side of central banks' balance sheets, income from negative interest rates on bank reserves (in excess of minimum reserves), in place since 2014, has been replaced by significant expenses when the deposit facility rate went to 2% by the end of 2022 (and until now to 4%). On the asset side, national central banks (NCBs) and the ECB hold long-term, low-yield securities purchased under the APP and PEPP. The Eurosystem is thus exposed to interest rate risk resulting from maturity and yield mismatches between assets and liabilities.

**This risk has started to materialise in 2022, as evidenced in NCBs' financial statements.** In 2021, aggregate Eurosystem net profits amounted to EUR 14.5 billion while in 2022 the profits fell to EUR 5.1 billion. In 2022, six NCBs recorded net profits, two recorded losses and the other 12 had net zero profits. Some NCBs have used financial buffers accumulated in previous years to reduce/avoid recorded losses. For instance the Deutsche Bundesbank transferred EUR 972 million from its provision for general risk and EUR 172 million from a reserve, while the ECB itself released EUR 1.6 billion for the same reason. For an overview of NCBs' net profits in 2022 and five previous years, see **Table 2**.

**Table 2:** Eurosystem central banks: net profits/losses and profits distributed to governments, 2017-2022, in millions

		Net profit/loss						Profit distributed to government**					
		2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
	BE	633	746	825	661	355	-580	265	317	364	288	122	0
	DE	1,902	2,433	5,851	0	0	0*	1,902	2,433	5,851	0	0	0
	EE	4	11	28	3	4	0	1	4	19	1	1	0
	IE	2,629	2,983	2,560	830	1,321	575	2,101	2,385	2,050	666	1,068	500
	EL	942	658	842	662	3,271	457	928	644	779	633	499	401
	ES	1,858	2,199	2,252	2,135	1,785	2,403	1,858	2,199	2,252	2,135	1,785	2,403
	FR	3,328	4,624	3,846	2,190	763	0	2,306	3,222	3,478	1,913	568	0
	IT	3,895	6,240	8,247	6,286	5,945	2,056	3,365	5,710	7,867	5,906	5,565	1,676
	CY	50	30	0	0	0	0	24	24	0	0	0	0
	LV	24	15	27	27	21	0	16	10	19	19	15	0
	LT	32	34	25	25	38	0	11	13	14	17	20	0
	LU	2	2	2	2	1	0	0	0	0	0	0	0
	MT	35	28	31	33	22	0	35	28	31	33	22	0
	NL	121	188	1,176	15	15	0	115	179	637	15	15	0
	AT	215	227	263	10	71	0	175	185	214	8	58	0
	PT	656	806	759	535	508	297	525	645	607	428	406	238
	SI	71	63	181	81	37	2	18	16	45	20	9	0
	SK	128	172	212	26	63	-156	0	0	0	0	0	0
	FI	156	230	320	142	52	0	104	143	188	100	26	0
	ECB	1,275	1,575	2,366	1,643	192	0	1,275	1,575	2,366	1,643	192	0

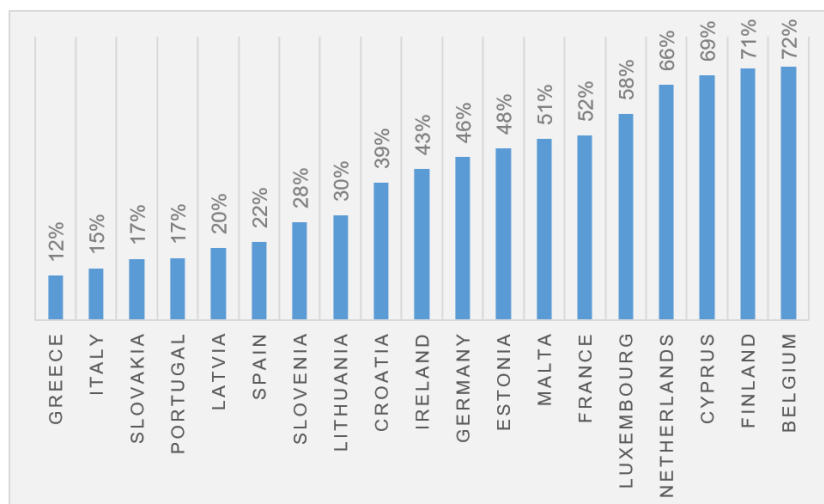
Source: NCBs, ECB.

Notes: Croatia joined the euro area on 1 January 2023 and is therefore not included in the table. \* Deutsche Bundesbank recorded a loss of EUR 172 million in its profit and loss account for 2022. However, pursuant to Section 253(6) of the German Commercial Code, the loss was covered from reserves. Hence, here we show the distributable profit of the Bundesbank, which was zero. \*\* In the case of the ECB, the profits are distributed to Eurosystem NCBs.

**The switch from negative to positive interest rates on the deposit facility had a universally negative impact on all Eurosystem central banks' profit and loss accounts.** However, NCBs that have a higher share of deposit facility liabilities in total liabilities are more vulnerable<sup>4</sup>. See **Figure 5** for an overview of the relative share of the deposit facility in total liabilities by NCB. Going forward, interest expenses arising from the remuneration of excess reserves to commercial banks will continue to weigh on NCBs profitability, with the deposit facility rate currently at 4% and EUR 3.7 trillion of reserves in Eurosystem's deposit facility.

<sup>4</sup> For a broader discussion and estimates on individual NCBs financial vulnerability, see Urban, M. (2023). "[Central bank losses will have a fiscal, not monetary, impact](#)". Oxford Economics Research Briefing. 19 May.



**Figure 5:** Eurosystem NCBs, share of deposit facility in total liabilities, July 2023.

Source: ECB.

**Apart from the increase of the deposit facility rate, there are a number of other factors arising from the current monetary policy juncture that affect NCBs profit and loss accounts, and their effects vary between NCBs.** Some are listed here:

- Asset structure: e.g. high- vs low-yield government bonds, average residual maturity of the NCBs asset holdings, share of inflation-indexed government bonds, share of TLTRO III.
- TARGET2<sup>5</sup> balances.
- Financial risk buffers and provisions.

**As a result of APP and PEPP asset purchases, NCBs have accumulated large portfolios of securities, mostly government bonds, and their composition differs.** NCBs that purchased lower-yield government bonds are now more affected as their yield mismatch between assets and liabilities is greater than for those NCBs that purchased higher-yield government bonds during the net purchase phase<sup>6</sup>. At the same time, those NCBs with shorter average residual maturity in their government bond portfolios will be able to reduce the mismatch quicker than those with longer maturities. In some particular cases, most notably with Banque de France, government bond holdings from APP and PEPP had the opposite effect on financial results due to its large holdings of inflation-indexed government bonds ([OATi](#)). In 2022, due to high inflation, Banque de France's interest income from asset holdings jumped to almost EUR 8.5 billion, from EUR 4.1 billion in 2021.

**Slow-paced quantitative tightening (QT) with a passive runoff of APP holdings and full reinvestment of PEPP holdings is not helping in reducing the asset-liability mismatch.** However, as Eurosystem holdings are valued at amortised cost, as opposed to the "marked-to-market" approach, the impact of the reduced market value of securities held currently does not result in valuation losses being recorded in the NCBs' profit and loss accounts. Should the Governing Council decide to speed up QT by pursuing an active sales approach, the valuation losses would then be recorded, with an adverse impact on financial results across Eurosystem NCBs.

<sup>5</sup> TARGET ("Trans-European Automated Real-time Gross settlement Express Transfer"), the Eurosystem's real-time gross settlement system where commercial banks' transactions in central bank money are processed and settled, was replaced in 2008 by TARGET2. Since March 2023, TARGET2 was replaced by T2. In this paper, we use the term "TARGET2" since it was in effect at the end of 2022.

<sup>6</sup> This was also mentioned in a [letter](#) from the De Nederlandsche Bank governor to the Dutch finance minister from September 2022.



Since marginal refinancing operations (MRO) rates became positive in July 2022, intra-Eurosystem [TARGET2 balances](#) also started playing an important role for profitability of some NCBs. TARGET2 balances are remunerated at the MRO rate. In July 2022, with the first increase of key ECB interest rates, the MRO rate turned positive for the first time since 2015 and went to 2.5% until the end of 2022. For countries with positive TARGET2 balances, this meant increased interest income and for those with negative balances, it meant increased interest expenses. At two opposite sides of the spectrum, the Deutsche Bundesbank recorded EUR 7.2 billion income in 2022 due to positive TARGET2 balances, while Banca d'Italia had EUR 3.9 billion interest expense due to negative balances.

**NCBs' deteriorating profitability also has a direct but limited impact on government finances.** Since non-standard monetary policy measures have been implemented, the NCBs have been steadily recording sizeable profits from monetary policy operations, which were then, to a varying degree and subject to national rules and practices,<sup>7</sup> distributed to the respective euro area governments. Between 2017 and 2021, EUR 78.7 billion of NCB profits were distributed to governments (see **Table 2** above). In addition to distributed profits, NCBs are subject to national income tax, revenue from which will also be affected. At least in 2022 and 2023, governments will thus not benefit from this fiscal revenue which, on the other hand, represents only a fraction of total government revenues.

**While deteriorating NCBs' profitability is unlikely to have a significant operational impact, the effect on central bank credibility of a more protracted period of financial weakness is more difficult to estimate.** According to its mandate, the ECB is tasked with pursuing price stability, regardless of the potential negative financial consequences for itself and the NCBs. Central banks can and some have operated with losses or even negative equity<sup>8</sup>, including within the Eurosystem<sup>9</sup>. However, threats to financial independence of the Eurosystem can potentially undermine central bank credibility and effectiveness of monetary policy<sup>10</sup>. In a recent [paper](#), IMF staff have analysed "top 5" Eurosystem NCBs and concluded that financial losses are expected be "temporary and recoupable" and that NCBs will not need state recapitalisation.

## 2. Governing Council's monetary policy decisions

### Interest rates and forward guidance

In its last [meeting](#) on 14 September 2023, the Governing Council decided to further increase key interest rates by 25 basis points (bps). In the [press conference](#) following the meeting, President Lagarde stated that the decision was supported by a "solid majority" of Governing Council members. Since July 2022, the ECB has delivered a cumulative 450 bps of interest rate increases, making it by far the fastest hiking cycle in the history of the euro area. The ECB's main policy rate, the deposit facility rate (DFR), is now at its highest level ever, at 4%. However, considering that the MRO rate, the ECB's policy rate in the "corridor system" at

<sup>7</sup> See Bunea, D., Karakitsos, P., Merriman, N. and Studener, W. (2016). "[Profit distribution and loss coverage rules for central banks](#)", ECB Occasional Paper Series, No 169.

<sup>8</sup> Lagarde, C. (2022). [Press conference, monetary policy statement](#), 15 December. "...I think when you look at history and what has happened to other banks around the world, central banks can actually operate despite being in a loss position, and some of them have operated with negative equity as well."

<sup>9</sup> E.g. National Bank of Slovakia.

<sup>10</sup> See the June 2022 ECB's "[Convergence Report](#)", June, in which it states that "...any situation should be avoided whereby for a prolonged period of time an NCB's net equity is below the level of its statutory capital or is even negative, including where losses beyond the level of capital and the reserves are carried over. Any such situation may negatively impact on the NCB's ability to perform its ESCB-related tasks but also its national tasks. Moreover, such a situation may affect the credibility of the Eurosystem's monetary policy." See also Schwarz, C., Karakitsos, P., Merriman, N. and Studener, W. (2014). "[Why accounting matters: a central bank perspective](#)". ECB Occasional Paper Series, No 153.

the time, was 4.25% or above between June 2000 and September 2001, this is not the highest level the policy rate has been.

**The latest monetary policy decision implies that the Governing Council considers that the peak interest rate level has been reached<sup>11</sup>.** The carefully-worded statement, that does not exclude a future change of course if conditions would so require, states that “[b]ased on its current assessment, the Governing Council considers that the key ECB interest rates have reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target.” Comparison in the monetary policy statements and used wording about interest rate decisions are shown in **Table 3**.

**Table 3:** Wording used to describe decisions on interest rates

Meeting	Decision / wording
Governing Council meeting, September 2023	↑ interest rate hike of 25 bps (DFR = 4.00%)
	“...the Governing Council considers that the key ECB interest rates have reached levels that, maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target. The Governing Council’s future decisions will ensure that the key ECB interest rates will be set at sufficiently restrictive levels for as long as necessary.”
Governing Council meeting, July 2023	↑ interest rate hike of 25 bps (DFR = 3.75%)
	“The Governing Council’s future decisions will ensure that the <b>key ECB interest rates will be set at sufficiently restrictive levels for as long as necessary</b> to achieve a timely return of inflation to the 2% medium-term target.”
Governing Council meeting June 2023	↑ interest rate hike of 25 bps (DFR = 3.50%)
	“The Governing Council’s future decisions will ensure that the <b>key ECB interest rates will be brought to levels sufficiently restrictive</b> to achieve a timely return of inflation to the 2% medium-term target and will be kept at those levels for as long as necessary.”

Source: ECB Monetary policy decisions.

Note: In an environment of ample excess liquidity, ECB’s main policy rate is the deposit facility rate (DFR).

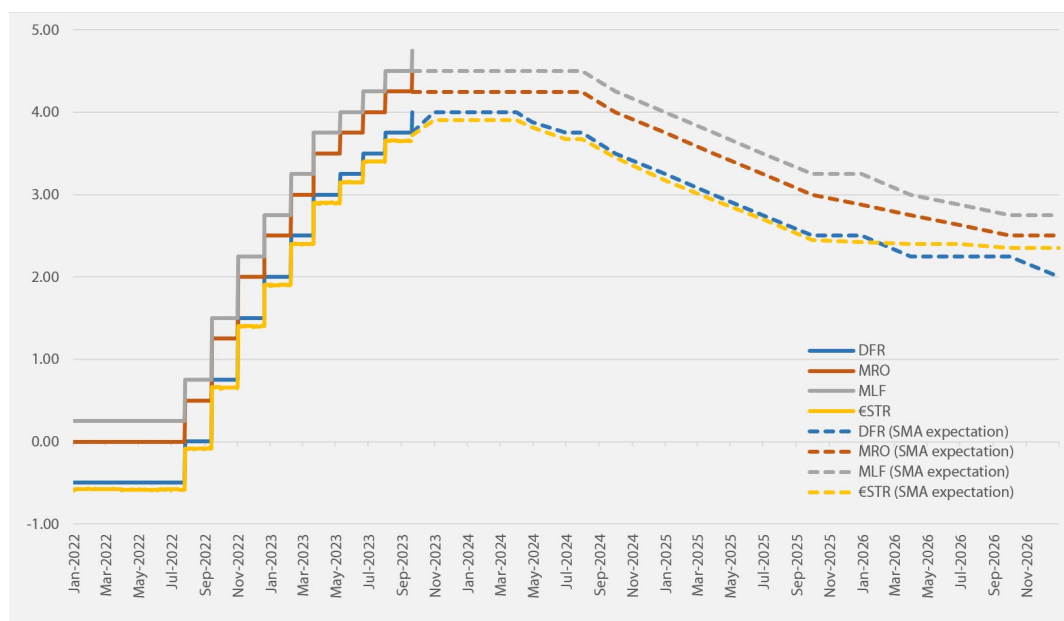
**While the ECB has acknowledged that the peak interest level has been reached, it has also highlighted that upcoming decisions will ensure that these key ECB interest rates remain at levels sufficiently restraining for as long as required.** In the meantime the ECB will continue to follow a data-dependent approach in determining the appropriate degree of restriction and its duration. Specifically, the decisions regarding interest rates will be guided by its analysis of the inflation outlook, taking into account incoming economic and financial data, the dynamics of underlying inflation, and the effectiveness of monetary policy transmission.

**According to the latest [Survey of Monetary Analysts \(SMA\)](#) conducted in August, i.e. before the last decisions of the Governing Council, markets expect that the deposit facility rate has peaked at 4%, where it would stay until the April 2024.** SMA respondents expect thereafter the ECB to start interest rate cuts, arriving at 3.25% at the end of 2024, 2.5% at the end of 2025 and 2% at the end of 2026. Interestingly, SMA median responses on the interbank €STR rate seem to imply that the ECB would follow the floor system

<sup>11</sup> In February 2023, the Governing Council had made a commitment to raise interest rates by 50 basis points in the subsequent meeting scheduled for March, a commitment that was fulfilled despite financial market tensions that arose between the two meetings. However, since then, Governing Council has abstained from providing specific indications regarding future interest rate hikes or identifying the anticipated “terminal” or “peak” rate.

until 2026, when they expect the €STR to align more closely to the MRO rate and not the deposit facility rate (see **Figure 6**).

**Figure 6:** ECB's key interest rates and €STR, in %

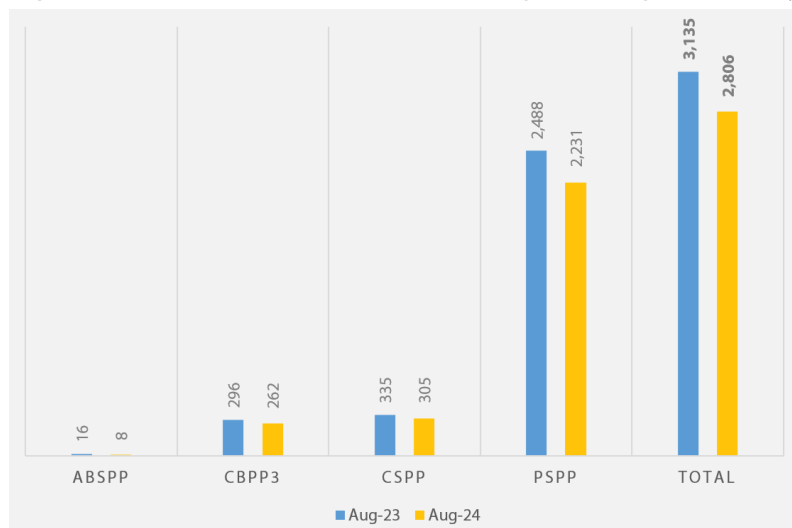


Source: ECB Statistical Data Warehouse and Survey of Monetary Analysts, September 2023.

### Asset purchase programmes

**The ECB is continuing with quantitative tightening (QT) through a gradual unwinding of APP holdings, by stopping reinvestments of maturing assets and letting them “run off” the Eurosystem’s balance sheet.** In a first phase, between March and June 2023, the run off was limited to EUR 15 billion per month. Then, from July 2023 onwards, the limits were removed and principal repayments are no longer reinvested. This means that the stock of assets held by the Eurosystem is reduced at a pace that depends on the monthly amount of redemptions. In the 12-month period between September 2023 and August 2024, the monthly average is EUR 27.4 billion, with large variations, from EUR 8.6 billion in December 2023 to EUR 52.5 billion in October 2023.

**The current pace of QT will lead to a very gradual reduction of the Eurosystem’s balance sheet.** Over the next 12 months APP holdings are expected to decrease by EUR 328.4 billion, or by 10.5% (see **Figure 7**). For reference, total Eurosystem asset [holdings](#) are currently in the range of EUR 4.8 trillion, out of which APP accounts for EUR 3.1 trillion, while pandemic emergency purchase programme (PEPP) (unaffected by QT and subject to full reinvestment at least until end-2024) for EUR 1.7 trillion. The aggregate Eurosystem balance sheet now stands at EUR 7.1 trillion. Therefore, in the bigger picture, QT at the current pace will contribute with only less than 5% to the reduction of the Eurosystem’s balance sheet in the next 12 months. The remaining TLTRO III loans of around EUR 600 billion that will mature by the end of 2024 will have a far greater effect on the balance sheet in the near term.

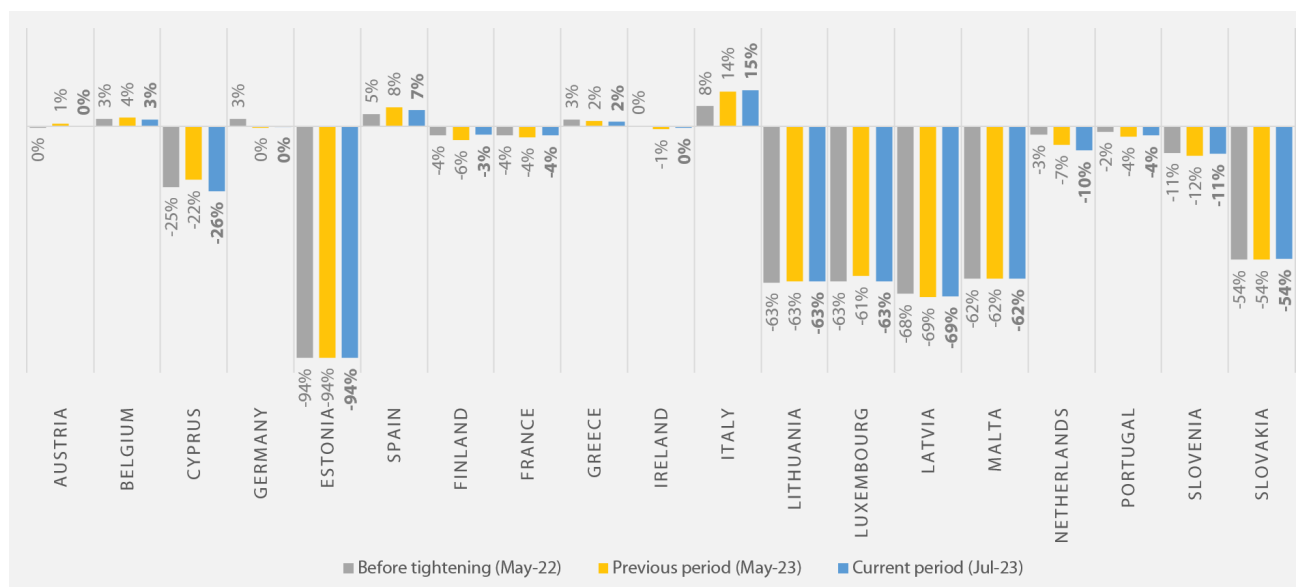
**Figure 7:** Expected pace of APP unwinding until August 2024, by programme, EUR billion

Source: Authors' own elaboration based on ECB ([APP holdings](#); [APP redemptions](#)).

**In general, the effect of QT on inflation is expected to be limited.** The ECB's models [suggest](#) that reducing the Eurosystem's asset portfolio by EUR 500 billion over 3 years would contribute to lowering inflation by 0.15 percentage points. In March 2023, [Monetary Dialogue Papers](#) discussed the expected effects of QT and reasons to pursue it.

**The unwinding of the corporate sector purchase programme (CSPP) will interfere with the ECB's plan to decarbonise the Eurosystem's corporate bond holdings and support the EU's green transition objectives.** According to the [plan](#), the tilting of corporate sector asset holdings, started in October 2022, was to be done through reinvestment purchases. Now that reinvestments under the CSPP are discontinued, the ECB cannot use them to adjust the [carbon profile](#) of the Eurosystem's stock of corporate bonds. Corporate sector holdings under the PEPP are not part of QT and reinvestments will continue at least until end-2024. However, the PEPP's corporate sector holdings (around EUR 46 billion) are much smaller than under the APP (about EUR 335 billion). In press conferences following the [May](#), [July](#) and [September](#) 2023 Governing Council meetings, President Lagarde indicated that the ECB will consider options to ensure alignment with the Paris Agreement.

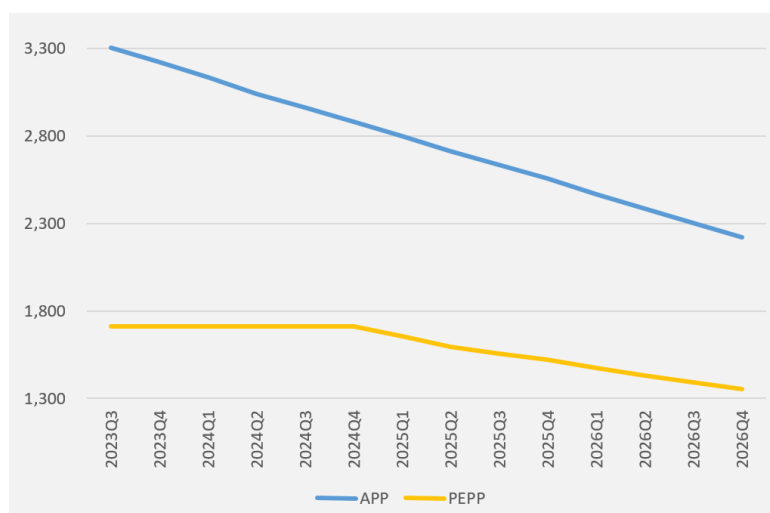
**Concerning PEPP, the Governing Council maintained its earlier decision and confirmed that the Eurosystem will keep reinvesting the principal repayments until at least the end of 2024.** PEPP reinvestments are conducted flexibly across Member States, as a first line of defence against fragmentation. Using the ECB's bi-monthly reporting, **Figure 6** shows the current (as of July 2023) deviation of PEPP public sector holdings from the capital key, with a comparison with the previous reporting period (May 2023) and with the last period before the monetary policy tightening cycle began (May 2022).

**Figure 8:** PEPP public sector holdings, deviation from the capital key, in %

Source: Authors' own elaboration based on ECB, [bimonthly breakdown of public sector securities under the PEPP](#).

Notes: Croatia joined the euro area after the net purchases under the PEPP had stopped. The deviation from the capital key takes into account PEPP [cumulative net purchases of public sector securities](#) (excluding supranational) and uses the [share of paid-up capital](#) of Eurosystem NCBs (excluding the Croatian National Bank).

In gauging market expectations of the future unwinding of the APP and PEPP portfolios, the most recent survey points to an expectation of a stable and moderate reduction of APP and PEPP holdings until the end of 2026. Figure 8 shows expected future APP and PEPP holdings, based on the September 2023 SMA. Respondents' APP indications suggest an average monthly reduction of EUR 28 billion until the end of 2026. Concerning the PEPP, market analysts seem to trust the ECB's commitment to maintain full reinvestment of the PEPP redemptions until the end of 2024. Afterwards, in 2025 and 2026, modest reductions of about EUR 15 billion per month on average are expected. Overall, analysts seem to expect a total reduction of the Eurosystem's asset holdings of about 29% until end-2026.

**Figure 9:** Market expectations for Eurosystem asset holdings under APP and PEPP, EUR billion

Source: Authors' own elaboration from the [Survey of Monetary Analysts, September 2023](#).

The survey results indicate a 5%, 11% and 33% probability that the transmission protection instrument (TPI) would be triggered within the next 6 months, between 4 and 6 months and after 6

**months, respectively.** 51% of respondents consider that TPI will never be triggered. The median response suggests German, French, Italian and Spanish 10-year government bond yields to remain broadly stable in the 12- to 24-month timeframe, at 2.4% (Germany), 2.9% (France), 3.4% (Spain) and 4.2% (Italy).

### Targeted longer-term refinancing operations (TLTROs)

**Through TLTROs, the ECB provides longer-term financing to euro area credit institutions at favourable terms, with incentives to encourage lending to the real economy.** The TLTRO III programme started in September 2019 with 10 quarterly operations having a maturity of three years. [Initial conditions](#) applicable under TLTRO III were eased on several occasions: in [September 2019](#), and then in response to the COVID-19 pandemic in [March](#), [April](#) and [December 2020](#). Banks achieving certain lending benchmarks could benefit from interest rates as low as -1%. With the steep and successive increases in the deposit facility rate, i.e. the rate that banks receive for overnight deposits at the ECB, that started in July 2022, the existing TLTRO III conditions became no longer tenable.

**In October 2022, the Governing Council [decided](#) to update the TLTROs III [conditions](#) were updated to complement the current tightening environment.** From 23 November 2022 and until the operations maturity or the early repayment, the interest rate should be indexed to the average applicable key ECB interest rates over this period, thus incentivising banks to repay early. Three additional early repayment dates were made available.

**As of 18 September 2023, total outstanding loans under TLTRO III amount to EUR 592 billion.** So far, EUR 1.75 trillion have been repaid by euro area banks. Since the Governing Council's October 2022 decision, banks made early repayments amounting to EUR 995 billion.

**The largest tranche of TLTROs (TLTRO III.4) of EUR 477 billion matured on 28 June 2023.** Before the next repayment date on 27 September 2023, the total TLTRO III outstanding amount was EUR 592 billion. On that day, EUR 101 billion will be repaid by the banks to the ECB; EUR 67 billion as part of the maturing TLTRO III.5 operation, and EUR 34 billion as pre-announced voluntary repayments. See **Table 3** for an overview of outstanding amount and voluntary early repayments since the October 2022 decision.

**Table 4:** Overview of TLTRO III outstanding amounts and early repayments, EUR billion

TLTRO III operation	Maturity date	Alloted amount	Outstanding amount	Voluntary early repayments since the October 2022 decision						
				23 Nov 2022	21 Dec 2022	25 Jan 2023	22 Feb 2023	29 Mar 2023	28 Jun 2023	27 Sep 2023
1	28-Sep-2022	3.40	0.00							
2	21-Dec-2022	97.72	0.00	-11.16						
3	29-Mar-2023	114.98	0.00	-12.35	-36.36	-4.07	-2.90			
4	28-Jun-2023	1308.40	0.00	-212.41	-350.60	-52.23	-30.25	-71.95		
5	27-Sep-2023	174.46	66.74	-21.21	-42.98	-2.43	-2.22	-5.98	-17.07	
6	20-Dec-2023	50.41	41.17	-1.38	-0.55	-0.29	-0.24	-0.45	-4.34	-3.92
7	27-Mar-2024	330.50	280.73	-23.69	-6.47	-3.21	-0.31	-5.92	-3.52	-23.15
8	26-Jun-2024	109.83	69.83	-11.73	-8.64	-0.24	-0.41	-3.08	-3.45	-5.59
9	25-Sep-2024	97.57	90.60	-1.58	-0.65	-0.05	-0.20	-0.06	-0.27	-0.92
10	18-Dec-2024	51.97	43.08	-0.78	-1.24	-0.23	-0.07	-0.31	-0.81	-0.66
<b>TOTAL</b>		<b>2,339.24</b>	<b>592.15</b>	<b>-296.29</b>	<b>-447.49</b>	<b>-62.75</b>	<b>-36.6</b>	<b>-87.73</b>	<b>-29.46</b>	<b>-34.23</b>
										<b>-994.54</b>

Source: Own elaboration based on ECB, [open market operations](#) (outstanding amount), [voluntary repayments](#).

Notes: Figures may not add up due to rounding. Amounts marked in yellow will mature or be repaid early on 27 September 2023.

**The TLTRO III phase out has contributed significantly to shrinking the Eurosystem's balance sheet, with more than EUR 1.75 trillion repaid by euro area banks.** Since the Governing Council's October 2022 decision, banks made voluntary early repayments amounting to EUR 995 billion. When it comes to the impact on monetary policy, the Governing Council maintains that that it will continue assessing how this impacts the ECB's monetary policy stance.



### 3. Monetary policy in other jurisdictions

#### United States

**On 20 September 2023, the US Federal Reserve (Fed) decided to maintain its target range for the federal funds rate between 5.25% and 5.5%, as set in its previous meeting in July.** This is the highest level in US interest rates in 22 years. At the same time, the Fed indicated that “[it] will continue to assess additional information and its implications for monetary policy” as the Chair, Jerome Powell, emphasised the readiness to further hike interest rates “if appropriate”. In his remarks, Powell noted the consensus of the majority of the members of the Federal Open Market Committee (FOMC) on the likelihood of an additional interest rate increase before the end of the year as inflation still remains above the 2% target. FOMC participants’ median [projections](#) for the midpoint of the federal funds range for 2023 is 5.6%, suggesting another interest rate increase. For 2024, the median projection has been revised up materially compared to June, by 50 bps, to 5.1%. The latest [estimates](#) show that annual headline Consumer Price Inflation (CPI) grew by 3.7% in August 2023, whereas core inflation remains high and persistent at 4.3%.

**The Fed’s announcement was accompanied by [new economic projections](#) that indicate that the economy will continue to grow at a relatively high rate and that the unemployment rate is not expected to raise substantively.** It is now expected the inflation will not fall back to its 2% target until 2026. Overall, these forecasts for stronger economic activity, which might suggest the persistence of underlying inflationary pressures, indicate that the Fed might not proceed as swiftly as previously expected with rate cuts in 2024. Similarly, Powell has hinted to a potential “higher-for-longer” approach among expectations that the neutral interest rate might be higher than expected. He also made the case for a soft landing.

Among others, the [statement](#) of the FOMC also addressed financial stability considerations, on the wave of the turmoil of the first part of the year, noting that the “US banking system is sound and resilient”. The statement also reaffirmed the Fed’s commitment to reduce the size of its balance sheet.

**Overall, the decision to put on ice further hikes by the Fed marks a departure from a common approach between the central banks.** The perspectives for a soft landing might diverge between the euro area and the US amid the worsening of the outlook in Europe and expectations of a robust economic growth across the Atlantic. At the same time, inflation rates in both the euro area and the US remain above 2% and a return to target is not expected any time before 2025 in the euro area or even 2026 in the US.

#### United Kingdom

**On [21 September 2023](#), the Monetary Policy Committee (MPC) of Bank of England (BoE), with a split vote of 5 to 4, decided to hold its Bank Rate at 5.25%** after 25 bps interest rate hike decision in [August](#). This marks the conclusion of a sequence of 14 consecutive rate hikes that began in December 2021 when rates were 0.1%. For the first time in 2 years, BoE decided to keep the interest rates unchanged. Among the members of the Committee, 5 opted to keep rates steady, while 4 advocated for an increase to 5.5%. Governor Andrew Bailey, who possessed the deciding vote, decided to retain the current rate.

**BoE will continue to monitor indicators of inflationary pressures and has kept the door open to future rate hikes:** “Further tightening in monetary policy would be required if there were evidence of more persistent inflationary pressures”. [In an open letter to Chancellor](#) the BoE governor also noted that “there is absolutely no room for complacency”. Consumer price inflation (CPI) surprisingly fell from 7.9% in July to 6.7% in August, below Committees expectations. However, BoE presented its last *modal projections* in August that even though the inflation is expected to fall significantly further in the short-term due to lower annual energy



price inflation and further declines in food and core goods inflation, it would not meet its 2% inflation target before second quarter of 2025. The Committee recognized that the risks to the central inflation forecast were tilted upwards, albeit to a lesser extent than in May, owing to the possibility that the lingering effects of external cost shocks on wages and domestic prices might persist longer than their initial emergence. The mean projection for CPI inflation, factoring in these risks, stood at 2.0% and 1.9% at the two and three-year horizons, respectively. Underlying economic growth in the second half of 2023 will most likely fall short of initial expectations.

**In addition to the decision on maintaining the interest rate levels unchanged**, the Committee voted unanimously to reduce the stock of UK government bond purchases held for monetary policy purposes, and financed by the issuance of central bank reserves, by [GBP 100 billion](#) over the next 12 months, to a total of [GBP 658 billion](#).

**In a recent [hearing](#) with at the House of Commons in the beginning of September, BoE's Governor Andrew Bailey indicated that the policy rate is getting closer to the peak:** *"We are much nearer now to the top of the cycle. I am not saying that we are at the top of the cycle, [...], but I think we are much nearer to it on interest rates, on the basis of current evidence."*

## 4. Upcoming Monetary Dialogue

**The next Monetary Dialogue between the Committee on Economic and Monetary Affairs (ECON) and ECB President Christine Lagarde will take place on Monday, 25 September 2023.** Two topics were selected by the coordinators of the ECON committee for discussion with President Lagarde:

1. Achieving the right fiscal-monetary mix (in the context of the economic governance review), and
2. Excess liquidity in the euro area: developments and implications.

**On 19 September 2023, the ECON Committee held a [preparatory meeting](#) ahead of the Monetary Dialogue. ECON Members were able to discuss the latest monetary policy developments and gather insights from leading experts** (see **Table 5** and **Table 6** below for an overview of the papers prepared for the meeting). In the first part, Jeromin Zettelmeyer (Bruegel) presented a paper on the impact of the economic governance review on the monetary-fiscal coordination. This was followed by a discussion with Olivier Blanchard (Peterson Institute for International Economics), and questions and answers with ECON Committee Members. In the second part, Jérôme Creel (OFCE-Sciences Po) and Marek Dabrowski (CASE) presented their papers on excess liquidity in the euro area, followed by Q&A with ECON Committee Members.

**Table 5:** MD papers on “Achieving the right fiscal-monetary mix (in the context of the economic governance review)”

Achieving the right fiscal-monetary mix (in the context of the economic governance review)		
Authors	Title	Abstract
Z. Darvas & J. Zettelmeyer	<a href="#">The economic governance review and its impact on monetary-fiscal coordination</a>	This paper analyses how the fiscal framework proposed by the European Commission in April 2023 might affect the interplay between fiscal and monetary policies, from three perspectives: its impact on the medium-term fiscal stance in the euro area, its design, and its implications for the ECB’s Transmission Protection Instrument (TPI). It concludes with recommendations for amending both the fiscal governance proposal and the TPI.
K. Bernoth, S. Dietz, R. Lastra & M. Rullière	<a href="#">Monetary-fiscal interaction: Achieving the right monetary-fiscal policy mix in the euro area</a>	Achieving a balanced monetary-fiscal policy mix in the euro area is crucial to ensure that monetary policy is able to fulfil its primary price stability objective. This paper outlines, from an economic and legal perspective, the interaction between monetary and fiscal policy in light of the current monetary and fiscal stance and, in particular, the “quasi-fiscal” effects of some unconventional monetary policy measures. Since sustainable public finances are a prerequisite for a price-stability-oriented single monetary policy, the paper also analyses the EU economic governance review proposals.
C. Wyplosz	<a href="#">Big central banks and big public debts: The next challenges</a>	Like most advanced economies, the euro area emerges from a series of historical shocks with larger public debts, a sizeable increase in the already large balance sheets of the Eurosystem central banks, and intensified links between fiscal and monetary policies. The governments and the ECB must now undo what they did. Corrective action must not wait, if only because other shocks may again unexpectedly occur. The paper also presents a procedure to cut public debts.
P. Canofari, G. Di Bartolomeo & M. Messori	<a href="#">An effective policy mix for the EU’s post-pandemic challenges</a>	The geopolitical and economic shocks, due to the Covid-19 pandemic and the war in Ukraine, represent a structural shift for the European Union (EU) economy. The euro area needs to deal with an ongoing inflation process and the EU needs to radically transform its production model to avoid a lasting decline. An expansionary centralised fiscal capacity, grounded on the production of public goods, and a related common industrial policy are required to allow for this structural change. In the meantime, it is necessary to bring the excessive inflation process under control. These two contrasting problems create a policy dilemma. A restrictive monetary policy backed by national fiscal actions and a temporary central fiscal initiative are inadequate to overcome this dilemma. Hence, we propose an innovative policy mix to address the problem.
D. Gros & F. Shamsfakhr	<a href="#">Fiscal adjustment supports the fight against sticky inflation</a>	Fiscal policy becomes less potent in affecting output in an inflationary environment. As the economy nears full employment an increasing part of any fiscal stimulus either crowds out other expenditure or leads to higher prices. This reinforces the case for an accelerated reduction in deficits, especially through the termination of energy subsidies that are no longer appropriate as energy prices have returned to pre-war levels. An unintended (but predictable) consequence of the past bond buying schemes of the ECB (PSPP and PEPP) is that the net income of the Eurosystem is likely to fall by about EUR 70–80 billion, or 0.5–0.6 % of GDP, making the fiscal adjustment harder.

**Table 6:** MD papers on “Excess liquidity in the euro area: developments and implications”

Excess liquidity in the euro area: developments and implications		
Authors	Title	Abstract
C. Blot, J. Creel & F. Geerolf	<a href="#">Excess liquidity in the euro area? Assessment and possible ways forward</a>	This paper analyses the operational frameworks adopted by the ECB and the consequences of a shift from the floor to the corridor system. The concept of excess liquidity in the euro area is examined, alongside discussions on market liquidity and funding liquidity. The paper emphasises the need to evaluate the implications for monetary policy effectiveness and financial stability of the different frameworks, shedding light on the role of liquidity in maintaining well-functioning financial markets.
M. Dabrowski	<a href="#">Excess liquidity in the euro area: sources and remedies</a>	The excess liquidity in the euro area is a product of a long period of quantitative easing. It changed the operational framework of the European Central Bank (ECB)'s monetary policy from the scarce reserves system (SRS) to the abundant reserves system (ARS). To eliminate excess liquidity and return to the SRS, the ECB must intensify quantitative tightening, which is also essential for successful disinflation. Fiscal adjustment can help in this process and mitigate the risk of financial instability.
K. Whelan	<a href="#">The future of ECB liquidity policy</a>	The ECB is reducing its sovereign bond holdings and needs to consider the appropriate size of its balance sheet over the longer term and the best operational framework for supplying liquidity to the banking system. This paper recommends the ECB substantially reduce its balance sheet but should maintain an ample reserves approach by keeping its full allotment policy for refinancing operations.













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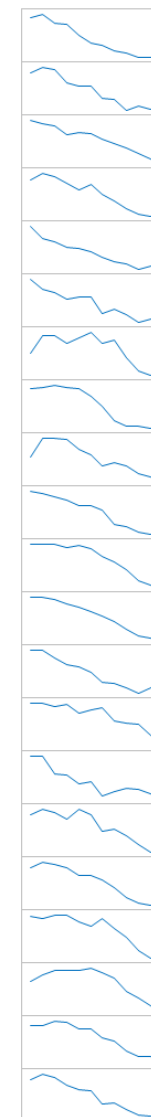
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## ANNEXES




































**Table 7:** Headline HICP inflation rates by euro area Member State, %

	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
 BE	12.1	13.1	10.5	10.2	7.4	5.4	4.9	3.3	2.7	1.6	1.7	2.4
 DE	10.9	11.6	11.3	9.6	9.2	9.3	7.8	7.6	6.3	6.8	6.5	6.4
 EE	24.1	22.5	21.4	17.5	18.6	17.8	15.6	13.2	11.2	9.0	6.2	4.3
 IE	8.6	9.4	9.0	8.2	7.5	8.1	7.0	6.3	5.4	4.8	4.6	4.9
 EL	12.1	9.5	8.8	7.6	7.3	6.5	5.4	4.5	4.1	2.8	3.5	3.5
 ES	9.0	7.3	6.7	5.5	5.9	6.0	3.1	3.8	2.9	1.6	2.1	2.4
 FR	6.2	7.1	7.1	6.7	7.0	7.3	6.7	6.9	6.0	5.3	5.1	5.7
 HR	12.6	12.7	13.0	12.7	12.5	11.7	10.5	8.9	8.3	8.3	8.0	8.4
 IT	9.4	12.6	12.6	12.3	10.7	9.8	8.1	8.6	8.0	6.7	6.3	5.5
 CY	9.0	8.6	8.1	7.6	6.8	6.7	6.1	3.9	3.6	2.8	2.4	3.1
 LV	22.0	21.7	21.7	20.7	21.4	20.1	17.2	15.0	12.3	8.1	6.6	5.6
 LT	22.5	22.1	21.4	20.0	18.5	17.2	15.2	13.3	10.7	8.2	7.2	6.4
 LU	8.8	8.8	7.3	6.2	5.8	4.8	2.9	2.7	2.0	1.0	2.0	3.5
 MT	7.4	7.4	7.2	7.3	6.8	7.0	7.1	6.4	6.3	6.2	5.6	5.0
 NL	17.1	16.8	11.3	11.0	8.4	8.9	4.5	5.8	6.8	6.4	5.3	3.4
 AT	11.0	11.6	11.2	10.5	11.6	11.0	9.2	9.4	8.7	7.8	7.0	7.5
 PT	9.8	10.6	10.2	9.8	8.6	8.6	8.0	6.9	5.4	4.7	4.3	5.3
 SI	10.6	10.3	10.8	10.8	9.9	9.4	10.4	9.2	8.1	6.6	5.7	6.1
 SK	13.6	14.5	15.1	15.0	15.1	15.4	14.8	14.0	12.3	11.3	10.3	9.6
 FI	8.4	8.4	9.1	8.8	7.9	8.0	6.7	6.3	5.0	4.1	4.2	3.1
 EA	9.9	10.6	10.1	9.2	8.6	8.5	6.9	7.0	6.1	5.5	5.3	5.2
























Source: ECB Statistical Data Warehouse.

**Table 8:** Core (excl. energy and food) HICP inflation rates by euro area Member State, %

	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	
 BE	4.6	4.8	5.1	5.5	6.1	6.3	6.3	6.3	6.8	6.5	6.1	6.5	
 DE	4.7	5.1	5.1	5.4	5.1	5.4	5.9	5.6	5.1	6.1	6.2	6.3	
 EE	12.5	13.0	12.3	12.5	12.6	12.7	12.4	10.8	10.7	9.7	7.9	7.4	
 IE	5.1	4.7	4.5	4.1	3.9	4.9	5.4	4.3	4.7	5.1	4.7	4.4	
 EL	6.9	6.6	6.8	5.9	6.5	6.8	7.0	7.2	7.3	4.8	5.4	5.4	
 ES	4.8	4.4	4.0	4.1	5.1	5.2	4.6	4.1	3.8	3.7	4.4	4.3	
 FR	3.7	4.1	4.2	4.2	4.2	4.6	4.6	4.7	4.4	4.4	4.3	4.0	
 HR	9.8	9.7	9.8	10.5	11.3	10.4	10.0	9.4	9.5	9.5	9.5	9.1	
 IT	4.4	4.6	4.7	4.8	5.2	5.5	5.3	5.3	5.1	4.9	4.7	4.0	
 CY	6.2	5.9	5.1	5.3	4.9	5.3	5.4	4.2	4.0	4.0	3.5	3.1	
 LV	8.9	9.5	10.5	10.7	10.9	11.1	10.7	10.2	10.4	8.9	9.0	8.1	
 LT	11.9	12.2	12.7	12.6	12.3	12.1	12.1	11.7	10.9	10.2	10.1	9.4	
 LU	4.9	4.5	4.2	3.9	4.1	3.9	3.6	4.0	4.0	3.8	4.3	3.9	
 MT	7.2	6.7	6.6	6.7	6.4	6.3	6.5	5.8	5.8	5.4	5.0	4.1	
 NL	6.4	6.8	6.2	7.1	7.1	7.6	7.6	7.9	8.2	7.1	7.2	7.0	
 AT	5.8	6.8	6.8	7.6	7.8	8.2	8.1	8.3	7.9	7.7	7.6	7.4	
 PT	6.5	6.3	5.7	5.5	5.2	5.4	5.9	6.4	6.5	6.4	5.8	6.2	
 SI	6.6	6.6	6.8	7.5	7.3	7.1	7.2	7.6	7.3	7.2	7.3	6.9	
 SK	9.0	9.3	9.5	9.8	11.3	11.9	11.7	11.4	10.3	10.1	9.2	8.6	
 FI	4.3	4.5	4.4	4.9	4.5	5.0	5.2	4.9	4.4	4.5	4.5	3.7	
 EA	4.8	5.0	5.0	5.2	5.3	5.6	5.7	5.6	5.3	5.5	5.5	5.3	






















Source: ECB Statistical Data Warehouse.

**Table 9:** Composite cost of borrowing and share of new loans with variable interest rates, households for house purchase, %

		Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	New loans, % with variable rate	
														Jul-22	Jul-23
	BE	2.4	2.5	2.7	2.9	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.6	9.3	▼ 6.9
	DE	2.9	3.0	3.3	3.6	3.5	3.6	3.8	3.9	3.9	3.9	4.0	4.0	13.4	▲ 13.6
	EE	2.8	3.2	3.6	4.0	4.1	4.6	4.8	4.9	5.0	5.2	5.4	5.7	94.0	▲ 96.1
	IE	2.8	2.8	2.7	2.8	2.8	3.0	3.1	3.5	3.6	3.8	4.0	4.0	9.0	▲ 14.4
	EL	3.1	3.4	3.7	3.5	3.7	3.8	3.8	3.8	3.9	3.9	4.1	4.2	-	29.0
	ES	2.0	2.2	2.5	2.7	2.9	3.2	3.4	3.6	3.6	3.7	3.8	3.8	20.4	▲ 19.0
	FR	1.6	1.7	1.8	1.9	2.1	2.2	2.4	2.5	2.7	2.9	3.0	3.2	3.3	▼ 2.9
	HR	n/a	n/a	n/a	n/a	n/a	2.9	3.0	2.9	3.0	3.0	3.1	3.3	-	5.9
	IT	2.3	2.6	3.1	3.4	3.3	3.7	3.8	4.0	4.2	4.2	4.2	4.2	45.5	▲ 27.3
	CY	2.5	3.0	2.9	3.0	3.4	3.2	3.5	4.7	4.5	4.3	4.3	4.6	94.1	▲ 71.4
	LV	2.9	3.3	3.7	4.0	4.3	4.6	5.0	5.1	5.3	5.5	5.6	5.7	94.6	▲ 92.0
	LT	2.8	3.5	3.8	4.1	4.4	4.6	4.9	5.0	5.3	5.4	5.6	5.7	94.2	▲ 97.1
	LU	2.3	2.3	2.8	3.0	3.1	3.6	3.7	3.8	4.0	4.1	4.0	4.1	55.2	▲ 43.8
	MT	2.1	2.0	2.2	2.3	2.3	2.3	2.4	2.3	2.2	2.1	2.3	2.2	77.5	-
	NL	2.7	2.9	3.1	3.2	3.4	3.5	3.5	3.5	3.6	3.7	3.9	3.9	13.3	▲ 21.6
	AT	2.0	2.2	2.7	3.0	2.9	3.2	3.4	3.6	3.8	3.9	3.9	3.9	44.9	▲ 62.8
	PT	2.0	2.2	2.9	3.2	3.3	3.3	3.5	3.9	4.0	4.2	4.3	4.3	68.0	▲ 51.1
	SI	2.4	2.7	3.1	3.4	3.7	3.9	4.1	4.1	4.1	4.1	4.1	4.2	7.5	▼ 2.7
	SK	2.4	2.5	2.8	3.0	3.1	3.2	3.4	3.7	3.7	3.8	3.9	3.9	3.7	▼ 3.2
	FI	1.9	2.5	2.8	2.8	2.9	3.0	3.2	3.4	3.6	3.8	4.0	4.1	97.7	▲ 98.6
	EA	<b>2.3</b>	<b>2.5</b>	<b>2.7</b>	<b>2.9</b>	<b>2.9</b>	<b>3.1</b>	<b>3.2</b>	<b>3.4</b>	<b>3.5</b>	<b>3.6</b>	<b>3.7</b>	<b>3.8</b>	17.8	▲ 20.2

Source: ECB Statistical Data Warehouse.

**Table 10:** Composite cost of borrowing, non-financial corporations, %

	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
 <b>BE</b>	1.8	2.4	2.4	3.1	3.5	3.7	3.9	4.3	4.4	4.5	4.9	4.9
 <b>DE</b>	2.2	2.8	3.0	3.3	3.5	3.7	4.0	4.5	4.6	4.8	5.0	5.2
 <b>EE</b>	3.4	3.7	4.0	5.0	4.7	4.8	6.1	5.7	5.5	5.8	6.1	6.1
 <b>IE</b>	3.2	4.0	3.6	4.4	4.6	4.3	4.8	5.5	5.5	5.9	5.5	5.8
 <b>EL</b>	3.2	4.1	4.3	4.4	4.7	5.1	5.4	5.6	5.7	6.0	5.7	6.2
 <b>ES</b>	1.7	2.3	2.8	3.0	3.3	3.6	3.9	4.0	4.2	4.4	4.5	4.7
 <b>FR</b>	1.8	2.1	2.4	3.0	3.1	3.4	3.7	3.8	4.0	4.3	4.4	4.5
 <b>HR</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.6	4.8	4.7
 <b>IT</b>	1.6	2.1	2.6	3.1	3.6	3.8	3.7	4.3	4.6	4.9	5.1	5.1
 <b>CY</b>	3.2	3.7	3.6	4.3	3.9	5.1	4.6	5.3	5.3	6.0	5.6	6.0
 <b>LV</b>	3.1	3.5	3.3	3.9	5.0	4.5	5.3	5.5	5.7	5.8	5.6	6.5
 <b>LT</b>	3.4	3.7	3.9	4.3	4.7	4.6	5.0	5.1	5.4	6.1	6.1	6.0
 <b>LU</b>	1.5	2.0	2.3	2.7	3.1	3.2	3.3	3.9	3.6	3.3	3.4	3.8
 <b>MT</b>	3.3	3.5	3.8	4.2	4.4	4.1	4.6	4.5	4.3	4.7	4.4	5.0
 <b>NL</b>	1.5	1.9	2.1	2.5	3.0	3.1	3.2	3.5	3.7	3.7	4.0	4.1
 <b>AT</b>	1.7	2.0	2.6	2.8	3.0	3.4	3.7	3.9	4.3	4.3	4.6	4.8
 <b>PT</b>	2.8	3.1	3.7	4.0	4.5	4.7	4.8	5.1	5.1	5.4	5.5	5.7
 <b>SI</b>	1.9	2.5	3.0	3.2	3.8	4.4	4.1	4.4	4.7	5.0	5.1	5.0
 <b>SK</b>	2.5	2.4	2.9	3.6	3.9	4.2	4.3	4.6	5.0	5.1	5.7	5.4
 <b>FI</b>	1.7	2.4	2.8	3.0	3.5	3.9	4.2	4.4	4.4	4.8	4.8	5.0
 <b>EA</b>	<b>1.9</b>	<b>2.4</b>	<b>2.7</b>	<b>3.1</b>	<b>3.4</b>	<b>3.6</b>	<b>3.9</b>	<b>4.2</b>	<b>4.4</b>	<b>4.6</b>	<b>4.8</b>	<b>4.9</b>

Source: ECB Statistical Data Warehouse.