IMPLEMENTING MONETARY POLICY WITH EXCESS RESERVES: FISCAL IMPLICATIONS FOR THE EURO AREA

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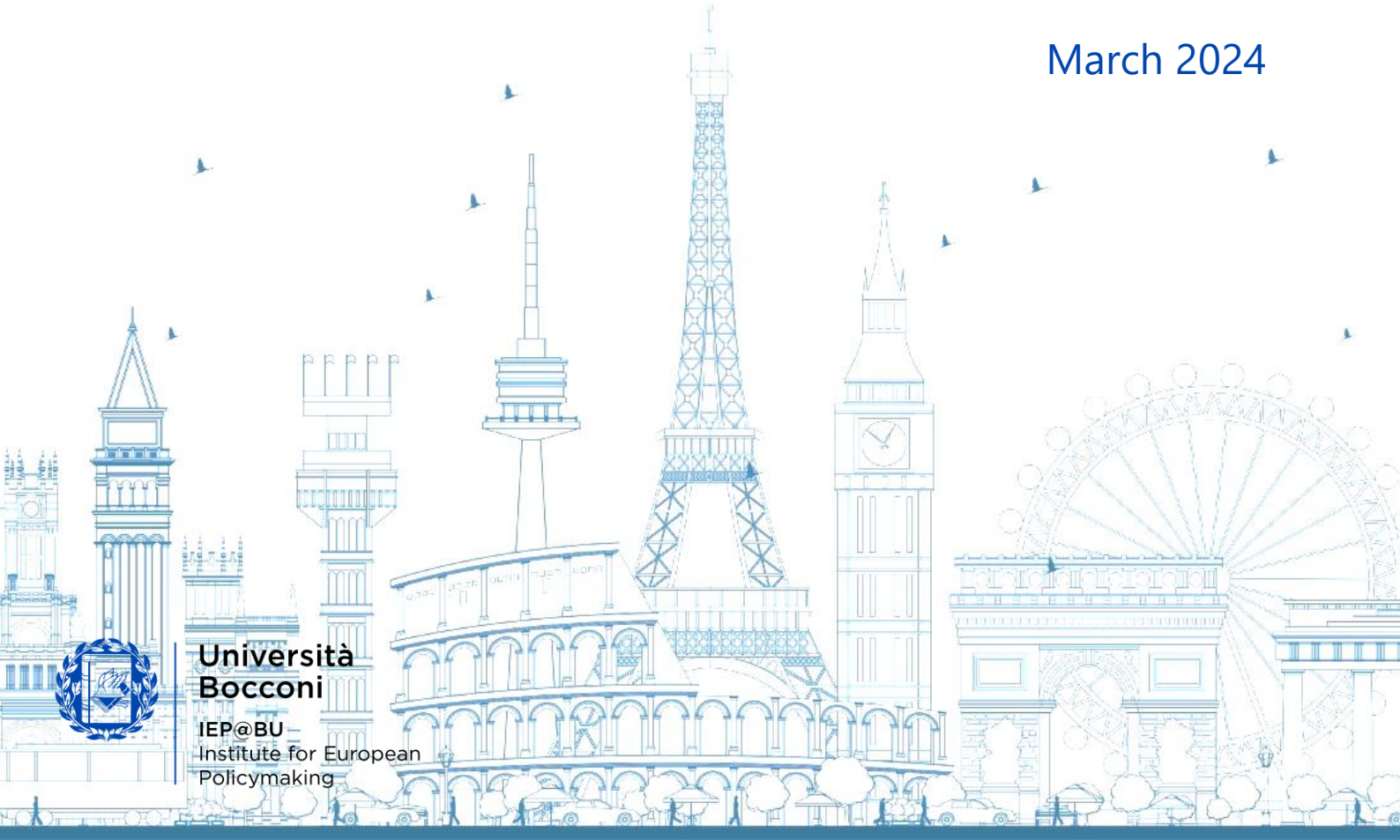

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Abstract[1] [2]

This paper shows that the current operational framework of monetary policy relying on excess liquidity, together with a high level of interest rates, produces a remarkable redistribution of interest payments across the national central banks of the Eurosystem, due to the rules governing the pooling of monetary income among them. This mechanism implies significant fiscal transfers across the member countries of the euro area. Our estimates for 2023 show that their size can be in the order of several billion euro. A way to limit those cross-country subsidies would be to increase the unremunerated minimum reserve requirement. Another remedy may come from a more even distribution of excess reserves across the euro area: the recent review of the ECB's operational framework goes in that direction. Finally, the paper calls for a better alignment between the income pooling and risk-sharing rules, as far as the Eurosystem's government bond holdings are concerned.

Introduction

The normalization of monetary policies over the last couple of years, after a long period of exceptionally expansionary policies, has led several central banks to adopt an operational framework that combines large amounts of excess liquidity, inherited from the Quantitative Easing (QE) policies, with rather high levels of (nominal) policy rates. This framework (labelled "new normal" below) relies on a large supply of bank reserves, i.e. the money deposited by banks at the central bank. Such reserves are generally remunerated. Even more importantly, the rate paid on bank reserves is the key policy rate in several countries, like US, UK, and the euro area. This way of implementing monetary policy has raised some concerns among scholars. For example, De Grauwe and Yuemei (2023) argue that this operating procedure implies large and questionable transfers from the central bank to commercial banks. Others take a different view. For example, Bernanke and Kohn (2016) argue that the actual transfer should be computed by taking the difference between the policy rate and the market short term rate: by taking this approach, the size of the transfer turns out to be much lower than by looking at the gross interest payment from the central bank to the banking sector.

This note addresses an issue specific to the euro area, namely the cross-country subsidies implied by the Eurosystem's rules on the allocation of income across the National Central Banks (NCBs) of

[1] *Keywords*: Eurosystem, operational framework, excess liquidity, pooling of monetary income.
[2] *JEL codes*: E51, E52, E58.

the euro area, in presence of an implementing framework that relies on excess liquidity. As we are going to see below, those rules imply an internal redistribution of the interest payments made by the Eurosystem on the Deposit Facility (DF), where the commercial banks of the euro-zone deposit their excess liquidity. The allocation of that interest burden is based on the capital keys, i.e. the shares of ECB's capital retained by each NCB. Whenever an NCB has a capital key lower than its share in the aggregate size of the DF, it receives a subsidy from the rest of the Eurosystem. In the opposite case, it has to pay something as a result of the pooling mechanism. It must be stressed that these positive/negative outcomes of the interest payment allocation among the NCBs can be offset by other items entering the pooling of monetary income within the Eurosystem. This note focusses on one item: the interest paid on the DF. Since these payments contribute to the profit/losses of NCBs, which in turn are transferred to their respective Governments every year, the re-distribution of that interest burden has a clear fiscal implication: in the end, it implies cross-country subsidies affecting the tax-payers of the euro-zone member countries.

The issue raised in this paper is strictly linked to the review of the operational framework of the Eurosystem, that has recently taken place.[3] The view taken here is not that the ECB should go back to an operational framework relying on liquidity shortage, as it used to be prior to QE policies. Actually, as I will argue in the next section, there are good reasons to continue implementing monetary policy with abundant reserves in the euro area, as it happens in other countries. The decision taken by the Governing Council on 13 March 2024 goes in that direction, by stating that the ECB will continue to inject bank reserves through lending operations (Main Refinancing Operations and three-month refinancing operations) with fixed-rate full allotment tender procedures: they will add liquidity to that inherited from past large-scale asset purchases, which will gradually decline in the next few years. The Governing Council has also confirmed that the DF rate will continue to be the key policy rate: the money market interest rates are expected to evolve in the vicinity of that rate.[4] The purpose of this note is to (hopefully) clarify an issue, that of cross-country transfers implied by the pooling of interest payments within the Eurosystem, that seems to remain "under the carpet" in the current policy debate on this topic. I will also suggest a possible way to limit those transfers, namely an increase of the (unremunerated) minimum reserve requirement on commercial banks (in line with De Grauwe and Yuemei (2023) and others referred to in their article).

[3] See ECB (2024).
[4] Schnabel (2024) defines the new ECB's operational framework a "soft floor with a narrow spread", due to the decision to reduce the spread between the MRO and the DF rates from 50 to 15 basis points (as of September 2024).

A stream of literature strictly related to this paper deals with the different options available for implementing monetary policy. As far as the euro area is concerned, some contributions on this matter have been presented at the European Parliament ahead of the Monetary Dialogue with the ECB.[5] With some differences, they point to the same direction: the problems related to the unwinding of the huge excess liquidity, accumulated during several rounds of QE, and the difficulties in providing reliable estimates of the demand for bank reserves, suggest that the implementation framework based on excess liquidity should be kept in place, albeit together with a downsizing of the central bank balance sheet.

In the next section, I am going to discuss the evolution of the operational framework of monetary policy, and I will provide some arguments supporting the view that the ECB should continue relying on an excess supply of liquidity to implement its policy. In Section 3, I will address the main issue of this note, namely the cross-country subsidies resulting from the pooling of interest payments on the DF among the NCBs of the euro area. In section 4, I will touch upon the discrepancy between the pooling of interest income, deriving from the securities held by the Eurosystem for monetary policy purposes, and the allocation of risk related to those securities, which is for the most part not shared among the NCBs. Finally, Section 5 will provide a summary and some concluding remarks.

Monetary policy implementation: from scarce to abundant reserves

Monetary policy implementation underwent profound changes in the last fifteen years. Apart from specific national details, a common pattern can be identified at the international level, including three stages: i) interest rate steering (IRS) with scarce reserves, ii) Quantitative easing (QE), and iii) "new normal". Let me briefly expand on each of them.[6]

i) **IRS with scarce reserves**. This way of managing monetary policy was prevalent in many countries (including US, UK, and the euro area) before the great financial crisis of 2007/2008. Under this framework, the central bank is able to steer the level of money market rates by using two levers. First, by announcing a desired level for the overnight (O/N) rate, which is the operational target of monetary policy. Such announcements

[5] See Whelan (2023), Blot *et al*. (2023), and Dabrowsky (2023). For a review of the literature on monetary policy implementation, see Baglioni (2024, a), chapter 2.
[6] For a detailed exposition, see Baglioni (2024, a).

define the stance of monetary policy. Second, by exploiting its monopoly position in the creation of base money, in particular the component consisting of banks' deposits at the central bank, i.e. bank reserves. Thanks to this position, the central is able to set the supply of reserves at the level necessary for the interbank market to be in equilibrium at an interest rate level in line with its target. This monetary control mechanism is based on the relative scarcity of bank reserves (possibly in the presence of a minimum reserve requirement) and on the active management of the reserve supply by the central bank, making frequent, even daily, interventions in the money market.

ii) **Quantitative Easing**. With the transition to QE, the stance of monetary policy is no longer identified by the level of interest rates, but by the size of the central bank's balance sheet: this is the new operational target of monetary policy, and it is mainly affected by the asset purchase (AP) programs. Since every purchase of securities by the central bank is matched by an issuance of base money, large-scale purchase programs end up creating a structural excess of bank reserves. The monetary control framework is thus characterized by an oversupply in the interbank market, which pushes the market rates to the lower bound of the system: this is why it is called “floor system”. The floor can either coincide with the zero-lower bound (ZLB) or with the interest rate applied on bank reserves (which may take even negative values, as it used to be the case for several years in the eurozone). In addition to asset purchases, the unconventional policies include the long-term lending operations (LTLOs), which differ from the traditional (short-term) lending operations for their large size and long maturity.

iii) **New normal**. The exit from QE policies and the normalization of monetary policy have led some major central banks (including Fed, Bank of England, and Bank of Canada)[7] to adopt a “new normal” that combines some features of the IRS approach with others deriving from the QE experience. In the new normal, the level of interest rates is again the primary operational target of monetary policy: the stance is signaled by setting a target level for a short-term (O/N) market rate. However, this target is achieved in a floor system, where the market for bank reserves features a structural excess supply: the central bank manages its securities portfolio in order to keep an abundance of liquidity in the system, albeit lower than it used to be in the QE era. The relevant policy rate is the interest rate

[7] See Fed (2022 a,b), Bank of England (2022), and Bank of Canada (2022).

paid on bank reserves, which is generally positive. The new tools remain in the toolkit of central banks, which can decide to start new AP programs and rounds of LTLO whenever they decide that these can be useful to expand the stance or preserve the transmission of monetary policy. Those measures, that used to be called "unconventional", have become standard tools available to implement monetary policy in the new normal.

The ECB is currently implementing its policy within an excess liquidity framework, and the recent review of its operational framework has confirmed that this framework will continue to be in place in the future, albeit together with a decline of the amount of excess reserves from the peak levels of the past.[8] There are good reasons to believe that the "ample reserves regime" (using the terminology of the Fed) is superior to the old IRS framework. Such reasons can be briefly summarized as follows.[9]

1) The ability of the central bank to keep the market O/N rate in line with the announced target level is stronger in the floor system than under the IRS approach. The latter relies on the ability of the central bank to forecast the daily liquidity needs of the banking system, to be matched by the active management of the supply of bank reserves. Such forecasts are necessarily subject to some errors, due to liquidity shocks, introducing an undesired volatility of money market rates. To the contrary, liquidity shocks do not have any impact on the money market rates in a floor system, where they are absorbed by the "buffer" provided by the structural excess supply of reserves. Actually, the fine tuning of the liquidity supply is even unnecessary under this approach.

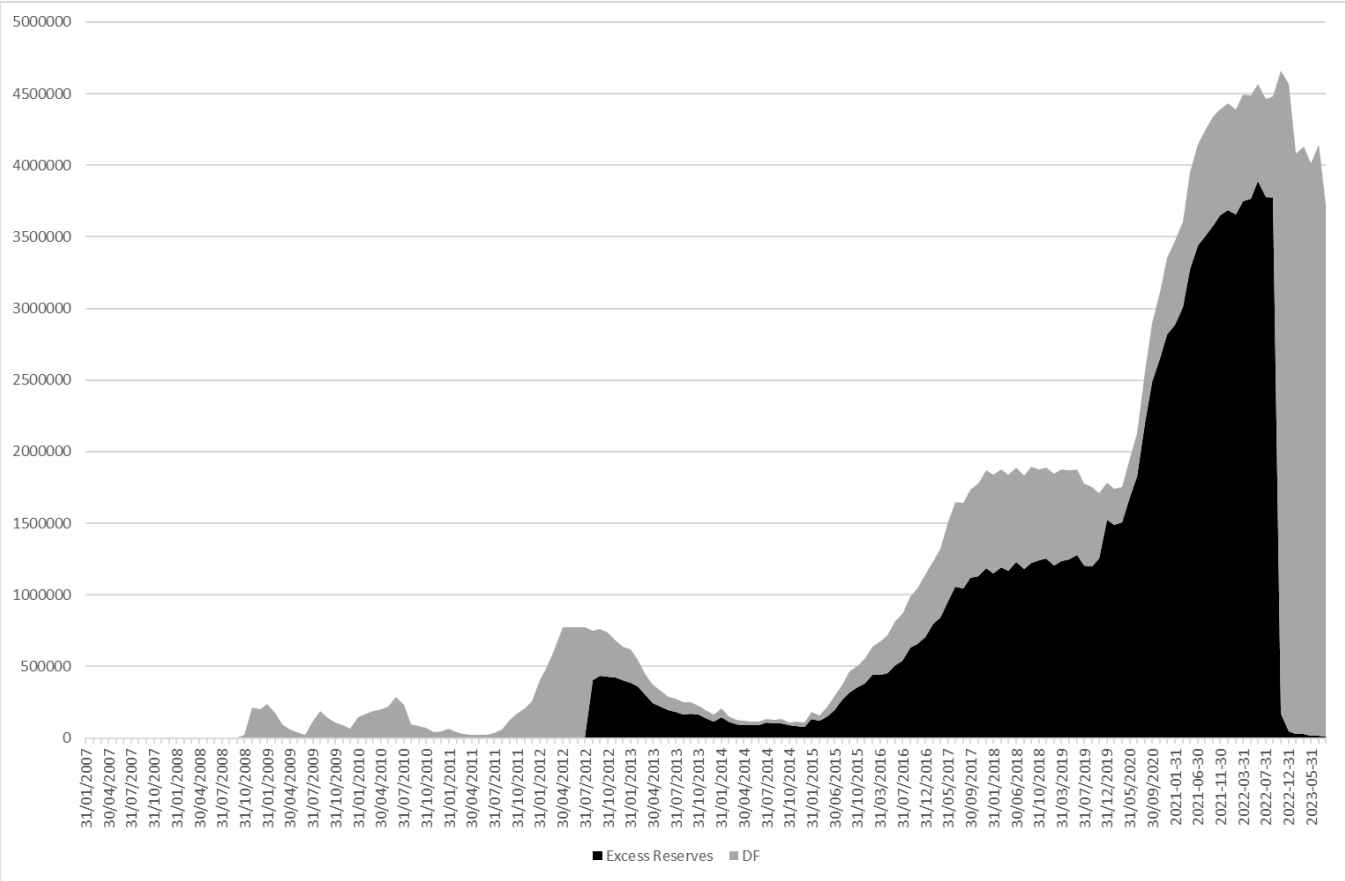
2) Given the current size of the excess liquidity in the euro area (see its evolution over time in Figure 1), going back to the scarce reserves regime would require a strong acceleration of the Quantitative Tightening (QT) currently taking place, implying a sharp downsizing of the Eurosystem's securities portfolio. The deposits of the euro area banking system with the central bank (in excess of the required reserves) amount to over EUR 3.5 trillion (as of early January 2024). Even if we consider that 400 billion of this excess liquidity will be reabsorbed in the coming months through the repayment of outstanding long-term loans (Longer-Term Refinancing Operations), 3.1 trillion remains to be reabsorbed. At the current rate of repayment of maturing securities purchased under the Asset Purchase Program (around 300 billion per year), it would take about ten years to reabsorb

[8] See ECB (2024) and Schnabel (2024).
[9] For a detailed analysis, see Baglioni (2024, b). In particular, this paper provides some empirical evidence supporting point 1).

the excess liquidity. Of course, we should add to this redemption flow that of the securities purchased under the Pandemic Emergency Purchase Program: starting by July 2024, the PEPP portfolio will be reduced by 7.5 billion per month and the reinvestment of maturing securities will be completely discontinued at the end of this year. These calculations, although approximate, give us an idea of the effort needed to reabsorb the excess liquidity accumulated over the past few years as a result of QE policies.

Figure 1 – Excess liquidity in the euro area

(stocks in euro million)



Excess reserves: balances held by euro area banks on their current accounts at the Eurosystem, exceeding the reserve requirement.

DF: balances held by the euro area banking system on the deposit facility.

Excess liquidity is defined as the sum of Excess reserves and DF (i.e. the sum of the two areas in the picture).

Source of data: Ecb, Statistical Data Warehouse.

The fiscal implications of pooling the interest payments on the Deposit Facility

Despite the above arguments, supporting the view that the implementation of monetary policy in the euro area should continue relying on excess liquidity in the coming years, the current operational framework (labelled "new normal" in the previous section) raises a critical issue: it implies large cross-country subsidies among the member countries, due to the income pooling within the Eurosystem. Of course, this issue is specific to the euro-area and to the institutional framework of the Eurosystem, and it does not apply to other countries.

The legal basis for pooling of monetary income in the Eurosystem is the following:

i) art. 32.5 of the Statute of the European System of Central Banks, stating that "The sum of the national central bank's monetary income shall be allocated to the NCBs in proportion to their paid-up shares in the capital of the ECB". The latter are the well-known "capital keys", computed upon the population and the GDP of each member country of the euro area.

ii) the Decision of the ECB (EU 2016/2248) on the "allocation of monetary income of the NCBs of Member States whose currency is the euro", in particular art. 3, detailing the method for measuring the monetary income of each NCB.

In practice, the pooling mechanism works as follows. Once a year, the ECB pools together the (previous year) net monetary incomes of the NCBs. The total net monetary income of the Eurosystem is then redistributed to each NCB according to its capital key. The difference between the monetary income pooled by each NCB in the Eurosystem and the amount redistributed to that NCB is reported in its profit and loss account (this item is called "Net result of the pooling of monetary income") and it is settled at the end of January of the year following the reference year. Of course, the net result of pooling for each NCB will be either positive or negative, depending on whether the income redistributed to that NCB is either larger or smaller than the income pooled by it in the Eurosystem.

The monetary income, to be pooled by each NCB, is equal to its annual income derived from the "earmarkable" assets including (among other items): lending to euro-area credit institutions relating to monetary policy operations, securities held for monetary policy purposes, TARGET balances (if positive), net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem, and gold holdings. The monetary income, deriving from the earmarkable assets, is measured at the actual rate of return, except for some assets (e.g. securities) which are considered to generate a return equal to the "reference rate", currently set at the level of interest rate applied to the Main Refinancing Operations (MRO rate), or to zero in the case of gold. An NCB's liability base consists primarily of the following items: banknotes in circulation, liabilities to euro-area credit

institutions related to monetary policy operations, TARGET balances (if negative), and the net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem. The interest on the liabilities included in the liability base is deducted, on an actual basis, from the monetary income to be pooled by each NCB. The result is the net monetary income to be pooled in the Eurosystem.

The above rules imply that the interest payments on the DF are fully pooled within the Eurosystem. Each NCB shoulders a share of the Eurosystem's aggregate interest burden proportional to its capital key. Whenever this key is lower (larger) than its share in the aggregate DF balance, resulting from the consolidated Eurosystem balance sheet, an NCB will gain (loose) from the pooling mechanism: its redistributed interest payment, due on the DF, will be lower (larger) than its pooled interest. Of course, this gain/loss can be offset by some other items contributing to the net result of income pooling among the NCBs.[10]

The following two tables provide a measure of the redistribution of interest payments on the DF across the NCBs of the Eurosystem for 2023. In Table 1, the first column reports the share of each NCB in the aggregate DF balance of the Eurosystem (by taking the average of twelve monthly balances). The second column reports the Capital Key of each NCB. In the third column, reporting the difference between the previous two items, it is possible to notice that some NCBs have a capital key significantly lower than their share in the aggregate DF balance. As a consequence, Germany, Luxemburg, France and other countries benefit from the allocation of the interest burden on the DF: they are allocated a share of that burden lower than their share in the aggregate DF balance. Other countries, notably Italy and Spain, are in the opposite situation: their capital keys exceed their shares in the aggregate DF balance by more than ten and five percentage points respectively. As a consequence, they are allocated a share of interest payment much larger than their share in the aggregate DF balance.

[10] For a comprehensive illustration of the income pooling rules within the Eurosystem, see Belhocine *et al*. (2023). A quite useful explanation is also provided in Bank of Italy (2023): see box on Monetary income.

Table 1 – Shares in Deposit Facility balances* vs. capital keys

	Share in DF (A)	**Capital Key (B)**	**(A) - (B)**
Germany (DE)	31,68%	26,63%	5,05%
Luxembourg (LU)	4,75%	0,36%	4,39%
France (FR)	24,11%	20,00%	4,11%
Netherlands (NL)	8,92%	5,91%	3,01%
Belgium (BE)	6,16%	3,67%	2,49%
Finland (FI)	3,58%	1,82%	1,77%
Cyprus (CY)	0,60%	0,22%	0,38%
Malta (MT)	0,15%	0,13%	0,02%
Ireland (IE)	2,17%	2,18%	-0,01%
Estonia (EE)	0,20%	0,30%	-0,10%
Slovenia (SI)	0,25%	0,49%	-0,24%
Latvia (LV)	0,14%	0,39%	-0,25%
Austria (AT)	2,70%	2,96%	-0,26%
Lithuania (LT)	0,25%	0,59%	-0,34%
Croatia (HR)	0,37%	0,77%	-0,40%
Slovakia (SK)	0,36%	1,15%	-0,79%
Portugal (PT)	0,94%	2,33%	-1,39%
Greece (GR)	0,81%	2,26%	-1,45%
Spain (ES)	6,17%	11,82%	-5,65%
Italy (IT)	5,70%	16,02%	-10,32%
	100,00%	100,00%	

** Average of monthly data for 2023*

The above findings are confirmed by computing the pooled and redistributed interest payments for 2023, reported in Table 2. Column 1 shows the estimated interests paid by each NCB to credit institutions on the DF and then pooled in the Eurosystem. For each of them, the monthly interest payments have been computed, based on their DF monthly balances and the relevant DF rate, and then summed up over the whole year. Column 2 shows the interest payment redistributed to each NCB, computed by multiplying the aggregate interest burden on the DF for the Eurosystem (reported in the last row of the table) by the capital key of each NCB. Column 3 reports the net outcome of the interest pooling mechanism, namely the difference between the previous two items.

The numbers reported in Table 2 provide an approximation of the true numbers, since they are based on monthly data instead of daily balances (which are not publicly available). However, their magnitude enables us to say that the pooling mechanism implies, at least for 2023, quite relevant national gains and losses. In particular, for the Bundesbank the redistributed interest is lower than the pooled interest by more than 6 billion euro. Let me expand on this point to clarify the numbers reported in the table. On the one hand, the Bundesbank has paid interests on the DF to German banks for 38.832 billion euro in 2023 (based on our estimates). This interest payment is fully deducted from the monetary income pooled by the Bundesbank in the Eurosystem: in such a way, the Bundesbank is compensated for such interest payment. On the other hand, it has to contribute to the aggregate interest burden paid by the Eurosystem on the DF: this contribution amounts to 32.503 billion euro. Since the interest deducted from the pooled income is larger than its contribution to the aggregate redistributed interest, the Bundesbank receives an implicit subsidy equal to the difference between them: 6.329 billion euro. For the NCBs of Luxemburg and France, this subsidy is around 5 billion. To the opposite side, for the NCBs of Italy and Spain the outcome of the interest pooling is negative for almost 13 and 7 billion euro respectively: their contributions to the aggregate redistributed interest burden on the DF is larger than their interest payments deducted from the pooled monetary income.

Table 2 – Gains and Losses from DF interest redistribution - 2023 (Euro million)

	Pooled Interest (A)	**Redistributed Interest (B)**	**Gain/Loss (A) - (B)**
Germany (DE)	38832	32503	6329
Luxembourg (LU)	5750	444	5306
France (FR)	29279	24416	4862
Netherlands (NL)	10839	7211	3628
Belgium (BE)	7528	4479	3050
Finland (FI)	4367	2217	2150
Cyprus (CY)	741	269	472
Malta (MT)	182	157	25
Ireland (IE)	2679	2659	20
Estonia (EE)	243	364	-121
Slovenia (SI)	318	603	-285
Latvia (LV)	171	473	-302
Austria (AT)	3294	3609	-315
Lithuania (LT)	299	720	-421
Croatia (HR)	463	945	-482
Slovakia (SK)	444	1404	-960
Portugal (PT)	1160	2838	-1679
Greece (GR)	977	2758	-1780
Spain (ES)	7605	14433	-6827
Italy (IT)	6883	19553	-12670
TOTAL	122054	122054	

(A) Estimated interest pooled by each NCB in the Eurosystem, based on monthly DF balances for 2023.

(B) Redistributed interest, computed upon national capital keys.

The evidence reported in Table 2 shows that the pooling of monetary income within the Eurosystem can originate substantial cross-subsidies among the euro-zone member countries, as far as the interest liability related to the DF is concerned. This issue has become more relevant nowadays than it used to be in the past, due to the changes in the operational framework of the ECB. Under the old IRS framework, the DF balances were extremely low (almost zero), since that framework used to rely on liquidity shortage. During the years of QE, the DF balances became quite large, but the interest rate applied to that facility was nil or even negative (by no more than 50 basis points). The normalization of monetary policy has led to an operational framework, the “new normal”, which relies both on a sizable excess liquidity, deposited on the DF by euro-zone banks, and on a level of policy rates that can possibly be quite high (at time of writing, the rate applied to the DF is 4%). It is the combination of large DF balances and high policy rates that generate the significant cross-country redistribution of interest payments on the DF.

A possible objection is that 2023 might be seen as a rather exceptional year, due to the large excess liquidity inherited from the QE policies (APP, PEPP and T-LTROs) implemented in previous years and the aggressive interest rate policy adopted in that year. However, the excess liquidity in the euro area will presumably be downsized slowly and partially in the coming years, for the reasons outlined in the previous section. As far as policy rates are concerned, the DF rate was at 2% at the beginning of 2023 and it has been raised up to 4% in several steps. It is expected to be gradually lowered from that peak level in 2024. Looking ahead, both the level of excess liquidity and the DF rate will presumably remain such that the redistribution of interest payments on the DF might still be sizable, albeit possibly lower than in 2023.

The allocation of interest payments within the Eurosystem has a remarkable fiscal implication. The net result of the pooling of monetary income among the NCBs is an item of their annual accounts, thus contributing to their yearly profits (or losses). The yearly profit of an NCB is ultimately transferred to the Government of its own country, after deduction of operating expenses. Losses are generally covered by making recourse to reserves accumulated (by non-distributed profits) in previous years. In the end, the outcome of the interest redistribution among the NCBs affects the taxpayers of their respective countries. As we noted above, the gain/loss arising from such redistribution can be offset by some other items contributing to the net result of income pooling among the NCBs. Despite this caveat, it remains true that the implementation of monetary policy, based on excess liquidity and levels of policy rates well above zero, implies the kind of cross-country fiscal transfers highlighted in this note.

A way to limit the size of those transfers would be to increase the minimum reserve coefficient, presently set at 1% (it used to be 2% until 2011). Since September 2023, the balances held by euro-zone banks on their current accounts at the Eurosystem, to meet the minimum reserve requirement,

are not remunerated.[11] By increasing the reserve coefficient, the ECB would force banks to move part of their liquidity from the DF to their current accounts, thus reducing the interest payments on the DF and the implied cross-country subsidies illustrated above. Given that the current aggregate size of the current account balances (as of early January 2024) is rather small (140 billion euro) compared to the size of the DF (3.5 trillion), the increase of the reserve coefficient, needed to "freeze" in the required reserve a significant portion of the liquidity currently held on the DF, would be significant, say from 1% to 5% or even more. However, an increase of that size would presumably face a strong opposition by the banking sector, fearing to lose a remarkable source of revenue.

Securities portfolio: income pooling without risk sharing

The above-mentioned rules, related to the pooling of monetary income within the Eurosystem, imply that the revenues accruing to the NCBs, deriving from their holdings of securities for monetary policy purposes, are pooled and redistributed to the NCBs in proportion to their capital keys. To this aim, those securities are considered to generate a return equal to the MRO rate.

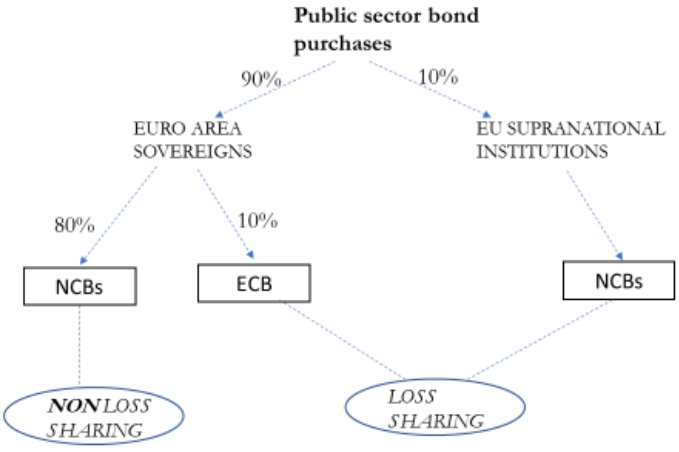
This income pooling mechanism contrasts with the rules governing the allocation of risk within the Eurosystem, related to the holdings of Government securities purchased under PSPP and PEPP (see Figure 2). Those rules imply that risk-sharing is applied to 20% only of the asset purchases, namely: the national Government bonds purchased by the ECB (10% of those programs) and the securities issued by European supranational institutions and purchased by the NCBs (another 10% of the programs). The remaining share of the asset purchases (80%) is made by the NCBs, buying domestic Government bonds: the risk related to this share of the securities under purchase remains on the books of the NCBs.[12] As it is well known, the allocation of purchases of Government bonds across member countries follows the principle of capital keys, with some (limited) flexibility applied to the PEPP.

The bottom line is that the internal rules of the Eurosystem imply that the income from the securities, held for monetary policy purposes, is pooled (up to the MRO rate) among the NCBs, while the related risk is mostly not shared. Given the amount of securities held for monetary policy purposes by the Eurosystem as a whole (4.7 trillion euro as of January 2024, of which more than 4 are sovereign

[11] Before then, the interest rate applied to minimum reserve balances was the MRO rate until October 2022, when it was lowered to the DF rate.
[12] For a critique of this risk allocation, see Buiter (2020).

bonds purchased under PSPP and PEPP altogether), this discrepancy seems to be a relevant issue. This suggests that the risk-allocation rule, related to the Eurosystem's holdings of government bonds, should be possibly revised in order to reach a better alignment with the income pooling rule: to that purpose, the portion of the sovereign securities portfolio that goes under risk-sharing should be increased above the current (20%) level.

Figure 2 – Government bonds: distribution of purchases and risk allocation within the Eurosystem



Concluding remarks

The ECB, like other central banks, currently implements its policy by maintaining a large excess supply of bank reserves. The key policy rate, used to steer the general level of interest rates in the financial system, is the rate paid on the deposit facility, where banks keep their excess liquidity. This operational framework has some merits, as we argue in this paper. Draining the huge amount of excess liquidity, inherited from QE policies, out of the banking system is not an easy task, and it cannot be done quickly. However, in presence of a rather high level of interest rates, that framework implies a remarkable redistribution of resources within the Eurosystem, due to the rules governing the pooling of monetary income among the NCBs. In the end, this mechanism produces significant fiscal transfers across the member countries of the euro area. Our estimates for 2023 show that their size can be in the order of several billion euro.

At the origin of such transfers is the uneven distribution of liquidity across the euro area, particularly that injected into the banking system through asset purchases by the Eurosystem. As we have seen above, it is the discrepancy between the allocation of DF balances across the NCBs and their capital keys that produces the redistribution of resources implied by the pooling of monetary income. Under this regard, the recent review of the ECB's operational framework has introduced a positive innovation. In the future, lending operations by the Eurosystem should gain importance, relative to asset purchases, as a source of liquidity, and this should hopefully contribute to a more even distribution of bank reserves across the euro area.[13]

A way to limit the size of the interest payments on the DF, and the implied cross-country subsidies illustrated in this paper, would be to increase the (unremunerated) minimum reserve requirement by a significant amount: a solution that would not be easily accepted by the banking sector, which presently benefits from a large interest income on the DF. Actually, this option has not been taken by the Governing Council in its decision of 13 March 2024, deciding instead to keep the reserve ratio unchanged at its current level (1%).

A related issue, briefly discussed above, is the discrepancy between the pooling of interest income, earned by the Eurosystem on its securities holdings, and the allocation of risk related to those securities, which for the most part is shouldered by each NCB without risk sharing.

Finally, let me stress that the purpose of this note is not that of discussing the internal rules governing the pooling of income within the Eurosystem. It is rather that of highlighting their consequences when monetary policy is implemented with a large excess liquidity together with a high level of interest rates: a rather new situation emerging as an outcome of the normalization process started in mid-2022. Given the institutional architecture of the euro-zone, where the central bank is actually a system of NCBs (and of course the ECB) each with its own budget and where each member country retains its own fiscal capacity, the fiscal implications of the income pooling across the NCBs must be acknowledged and possibly addressed.

[13] Schnabel (2024) documents that about 40% of banks, in terms of total assets, hold the whole excess liquidity from asset purchases, the highest share being held by German banks. This evidence is consistent with that reported in Table 1 above, showing that the Bundesbank's share in the DF Eurosystem's balance is quite larger than its capital key. To the contrary, lending operations lead to more even distribution of reserves across banks and countries.

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