European Rates Viewpoint

Euro funding pressures underpriced

19 March 2024

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LCR drives reserve demand…

We believe the LCR is the regulatory requirement that demands the most reserves. We estimate LCR-related reserve demand to be between €2.1trn and €3.4trn, and estimate supply will be around €2.8trn by the end of the 2024. This means demand could exceed supply. As the ECB continues QT and TLTROs roll off, we estimate banks in Italy may need to raise c. €220bn of reserves for LCR purposes by the end of 2024.

… while NSFR incentivises longer-term funding

Retail deposits are a very attractive source of funding for NSFR, but QT is ultimately reducing its supply. Generally, it is difficult to sustain ASF levels as the ECB continues with QT unless the residual maturity of new funding is more than one year. We estimate that QT alone could lead to NSFR pressures in France from 2029 and in the euro area in aggregate from 2031.

Flows show reserve competition is rising…

The 3M Euribor fixing vs €str spread is still below pre-Covid levels. But we believe euro funding pressures are not as benign as they may appear to be. Flow data indicate growing reserve competition: 1) banks in Italy have sold assets and increased debt to raise reserve holdings; 2) euro area banks are locking in deposits via higher term rates; and 3) transactions in the wholesale unsecured market are picking up.

… and market pricing is too benign

The ECB is expected to tighten the refi-depo corridor from 50bp to 15bp in September 2024 following the outcome of its operational framework review. But this still leaves room for funding costs to rise from spot levels. The implied fair value, even with a narrower corridor, is higher than what the market is pricing in medium term. Structural longer-term credit operations may offer a sustainable solution. But the details, yet to be provided by the ECB, could impact market perception of their effectiveness in addressing growing reserve scarcity.

We enter EUR 2y 3s6s wideners

We add a new recommendation to express our view of growing bank demand for term funding via EUR 2y 3s6s basis wideners**.** We also maintain our ERU4-€str widener recommendation to express our view that the market is underpricing the fair value of 3M Euribor-€str. Risks to both recommendations are the ECB's structural longer-term credit operations are priced meaningfully below market rates, the ECB reduces QT, bank demand for reserves is lower than expected. An additional risk to the EUR 2y 3s6s widener is widening pressures only reflected at tenors above 6M.

For a list of our open rates trades and those closed over the past 12 months, see the latest Global Rates Weekly (15 March 2024).

Abbreviations

ASF: available stable funding

c.: circa

depo: deposit facility rate

ECB: European central bank

Euribor: euro interbank offered rate

€str: euro short-term rate

GC: general collateral

HQLA: high quality liquid assets

IMM: international monetary market

LCR: liquidity coverage ratio

LTRO: longer-term refinancing operation

MRO: main refinancing operation

o/n: overnight

NSFR: net stable funding ratio

QT: quantitative tightening

TARGET: trans-European automated real-time gross settlement express transfer

TLTRO: targeted longer-term refinancing operation

LCR drives reserve demand

We believe the LCR is the regulatory requirement that demands the most reserves. We estimate LCR-related reserve demand to be between €2.1trn and €3.4trn, and estimate supply will be around €2.8trn by the end of the 2024. This means demand could exceed supply. As the ECB continues QT and TLTROs roll off, we estimate banks in Italy may need to raise c. €220bn of reserves for LCR purposes by the end of 2024.

Banks hold reserves to meet multiple regulatory requirements. A unit of reserves may be used to meet more than one requirement simultaneously. So, to estimate bank reserve demand, we need to identify the requirement that demands the most reserves. We believe this is the LCR, where reserves are included in a bank's HQLA portfolio.

Banks supervised by the ECB kept their LCR stable at roughly 160% in the past year (Exhibit 1). This occurred despite the ECB conducting QT, which reduces reserves. The regulatory LCR requirement is 100%. Our interpretation of the high and stable LCR is that banks still care about the optics associated with a high reading.

Cash, predominantly reserves, accounts for the majority of bank's HQLA portfolio at c. 75% (Exhibit 2). HQLA are calculated using market value. This means one advantage of reserves over other HQLA, including government bonds, is that there are no mark to market risks for LCR purposes.

To estimate LCR-related reserve demand, we use the definition of LCR:

$$LCR = \frac{HQLA}{Net\ expected\ outflow\ over\ 30\ day\ stress\ period}$$

Rearrange:

$$HQLA = LCR * Net\ expected\ outflow\ over\ 30\ day\ stress\ period$$

Assuming

- Cash is fully represented by reserves and account for 60-80% of HQLA
- LCR = 130%
- Net expected outflows over 30 day stress period will change by -15% to +5% from the latest level. This measure is a weighted sum of a bank's liabilities, which we believe would be biased down (Exhibit 3).

This gives an estimated LCR-related reserve demand of between €2.1trn and €3.4trn.

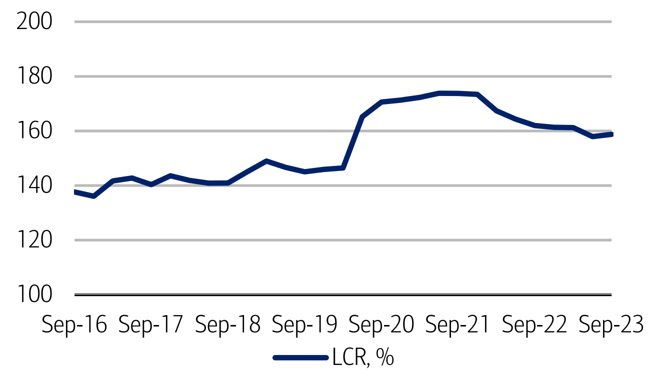
We estimate excess liquidity in the euro area, a measure of reserve supply, will be €2.8trn by the end of 2024 driven by TLTRO maturities and QT. This implies, in the absence of additional borrowing by banks from the central bank, reserve demand may exceed supply in the euro area by the end of 2024 (Exhibit 4).

The distribution of reserve shortfall varies by country. Using the same assumptions for estimating the range of reserve demand for the system, we plot country level (Exhibit 5):

- LCR-related reserve demand range (grey bars)
- Current excess liquidity levels
- Projected excess liquidity levels at the end of 2024

By the end of 2024, we estimate banks in Italy as a system will need to raise c. €220bn of reserves for LCR purposes, while banks in Spain will need to raise c. €90bn.

Exhibit 1: LCR of banks supervised by ECB
Banks kept LCR stable in the past year



Source: ECB

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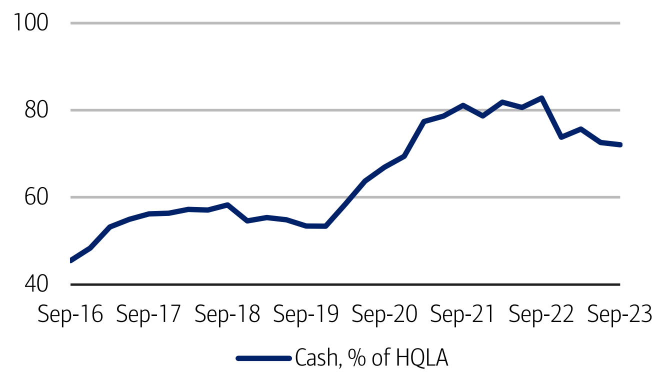
Exhibit 2: Share of cash in banks' HQLA portfolio
Cash accounts for the largest share of banks' HQLA



Source: BofA Global Research, ECB

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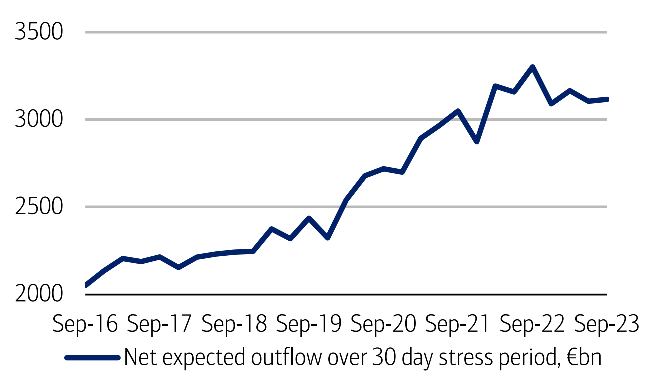
Exhibit 3: Net expected outflow over 30 day stress period
Net expected outflows have been biased down recently



Source: ECB

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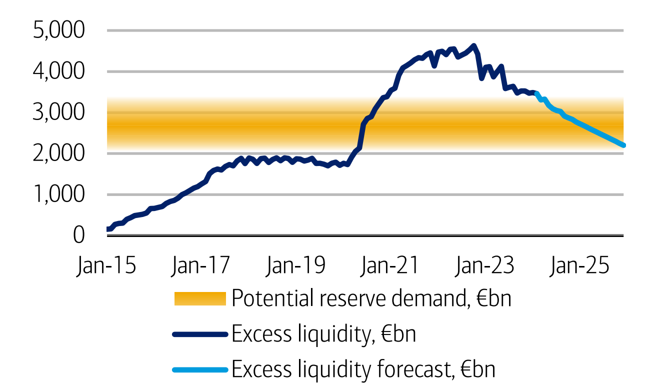
Exhibit 4: Reserve demand and supply estimates
Demand could outstrip supply in 2024



Source: BofA Global Research, ECB

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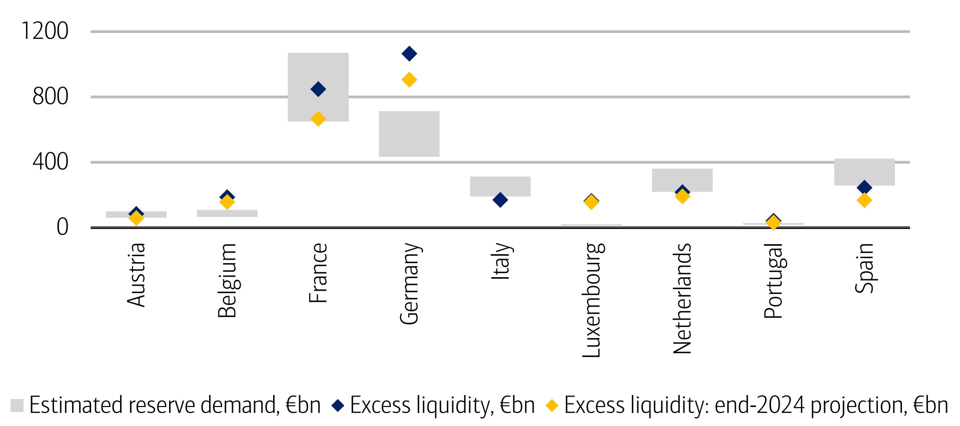
Exhibit 5: Reserve demand and supply estimates by country
Italy may need to attract c. €220bn of reserves



Source: BofA Global Research, ECB. Note: end-2024 excess liquidity projection for Italy is negative.

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NSFR incentivises longer-term funding

Retail deposits are a very attractive source of funding for NSFR, but QT is ultimately reducing its supply. Generally, it is difficult to sustain ASF levels as the ECB continues with QT unless the residual maturity of new funding is more than one year. We estimate that QT alone could lead to NSFR pressures in France from 2029 and in the euro area in aggregate from 2031.

The NSFR ratio compares a bank's weighted liabilities and own funds against its weighted assets. It creates an incentive for banks to use more stable funding sources and is defined as:

$$\frac{Available\ stable\ funding}{Required\ stable\ funding}$$

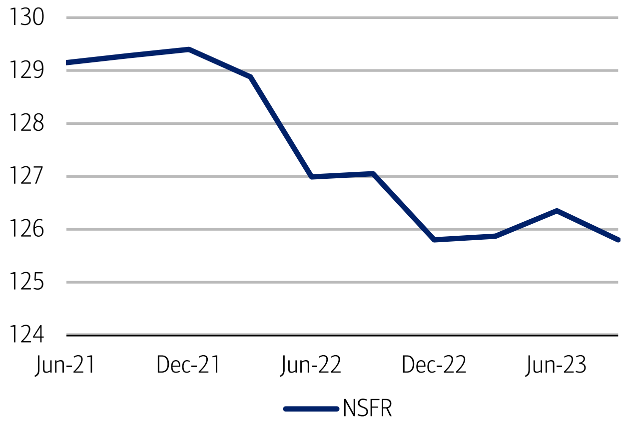
Banks are required to maintain a NSFR ratio of at least 100%. As a system, banks' NSFR is c. 125% but variations across countries exist (Exhibit 6 and Exhibit 7).

The ASF is a weighted sum of the accounting value of various liability types and own funds by their respective ASF factor. The largest component of banks' ASF is retail deposits (Exhibit 8). Retail deposits are particularly good for banks' NSFR because, regardless of maturity, they have an ASF factor of at least 90%.

QT by the ECB will ultimately reduce retail deposits. To maintain the same ASF and NSFR, all other things being equal, banks will need to turn to other funding sources. But the NSFR benefit of alternative funding sources depend on the type of fund and its residual maturity (Exhibit 9). Generally, it is difficult to sustain ASF levels as the ECB continues with QT unless the residual maturity of new funding is more than one year.

We estimate that QT alone could lead to NSFR pressures in France from 2029, Belgium and Italy from 2030, and the euro area in aggregate from 2031 (Exhibit 10). As we believe LCR could cause reserve demand to exceed supply in 2024, this would suggest that, between LCR and NSFR, LCR pressures may be at the forefront.

Exhibit 6: NSFR of banks supervised by ECB
Banks need to maintain NSFR of at least 100%



Source: ECB

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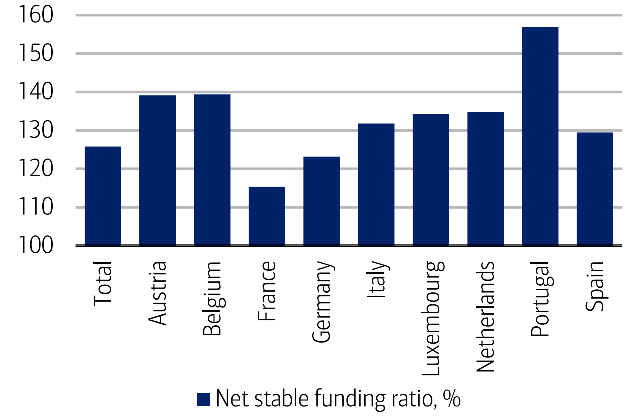
Exhibit 7: NSFR by country
Banks in France have a relatively low NSFR of 115%



Source: ECB

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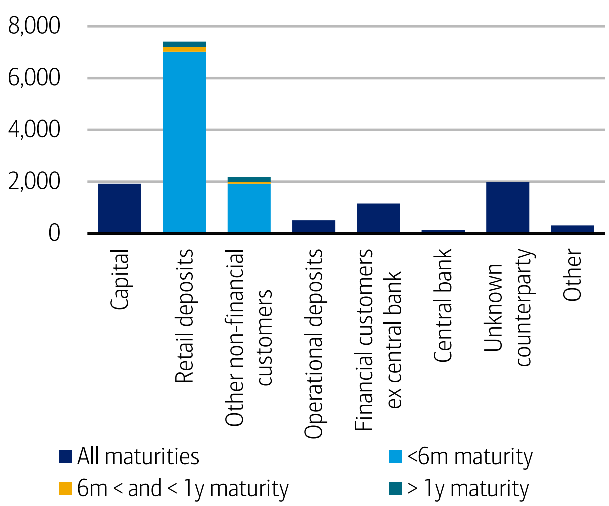
Exhibit 8: ASF decomposition
Retail deposits are the largest source of banks' ASF



Source: ECB

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Exhibit 9: ASF factor on selected funding sources
Most funding with less than 1Y residual maturity have lower ASF factor

	Residual maturity		
	Less than 6M	Between 6M and 1Y	More than 1Y
Debt securities	0%	50%	100%
Central bank	0%	50%	100%
National treasuries	50%		100%
Retail deposits	At least 90%		

Source: BofA Global Research, ECB

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Exhibit 10: NSFR projections based on QT and no additional borrowing from central bank
NSFR pressures could grow in France from 2029

%	Total	Austria	Belgium	France	Germany	Italy	Luxembourg	Netherlands	Portugal	Spain
2024	123	136	135	112	121	127	134	133	157	129
2025	120	133	129	110	119	122	133	131	150	126
2026	116	130	123	107	117	117	131	129	144	122
2027	113	127	117	104	116	112	129	127	137	118
2028	109	124	111	101	114	107	128	125	131	114
2029	105	121	105	98	112	102	126	123	124	111
2030	102	117	99	95	110	97	125	121	118	107
2031	98	114	93	93	108	92	123	119	111	103
2032	95	111	87	90	106	87	122	117	105	99

Source: BofA Global Research

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Reserve competition rising

The 3M Euribor fixing vs €str spread is still below pre-Covid levels. But we believe euro funding pressures are not as benign as they may appear to be. Flow data indicate growing reserve competition: 1) banks in Italy have sold assets and increased debt to raise reserve holdings; 2) euro area banks are locking in deposits via higher term rates; and 3) transactions in the wholesale unsecured market are picking up.

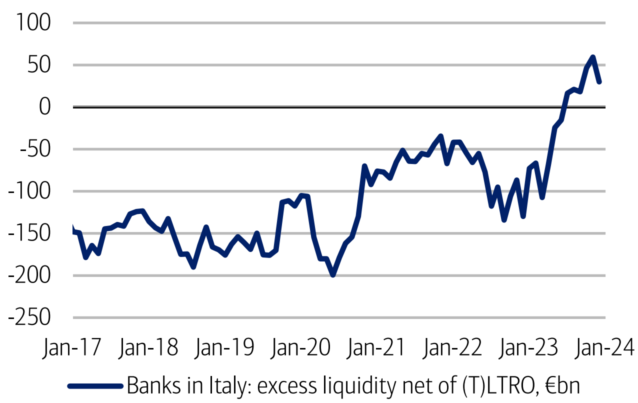
From borrowing to competing

Banks' growing reserve demand as the ECB began to exit unconventional monetary policy is illustrated clearly by banks in Italy. Since mid-2023, banks in Italy as a system accumulated enough reserves to repay all their TLTROs for when they become due (Exhibit 11). Net cross-border bank flows suggest that the increase in reserves among banks in Italy was facilitated by lending from banks in France in the first eight months of 2023 (Exhibit 12).

Since August 2023, net cross-border lending by banks in France and net cross-border bank borrowing by banks in Italy stabilised. Yet reserves in Italy continued to increase. We find this was driven by banks in Italy selling assets, including government securities, and issuing more debt securities (Exhibit 13). The assets must have been sold, and debt raised, on a cross-border basis as reserves for the whole banking system in Italy increased. We find that some of these reserves may have ultimately come from France from TARGET2 flows (Exhibit 14).

We interpret the shift in source of reserve increase by banks in Italy from net cross-border bank borrowing to cross-border asset sale / debt issuance as a sign of growing competition for reserves.

Exhibit 11: Excess liquidity net of (T)LTRO of banks in Italy
Banks in Italy had enough reserves to repay (T)LTROs since mid-2023



Source: BofA Global Research, ECB

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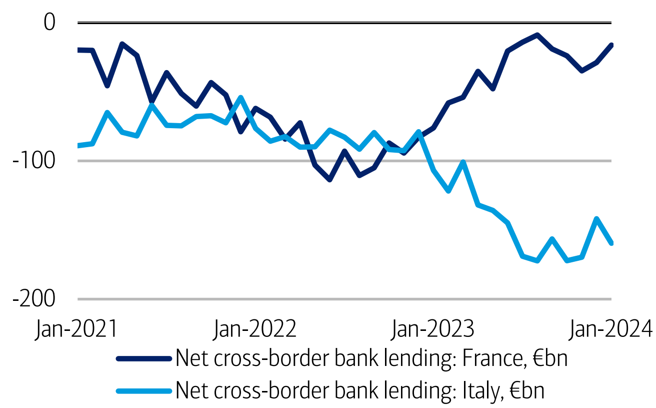
Exhibit 12: Net cross-border lending
Banks in France had been lending to banks in Italy



Source: BofA Global Research, ECB

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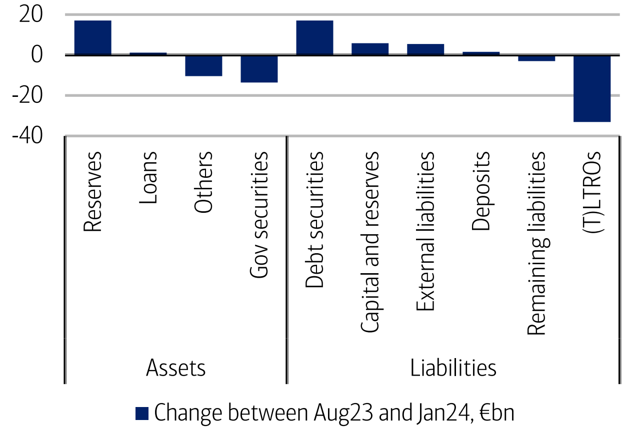
Exhibit 13: Balance sheet changes of banks in Italy
Banks sold gov bonds and increased debt securities



Source: BofA Global Research, ECB

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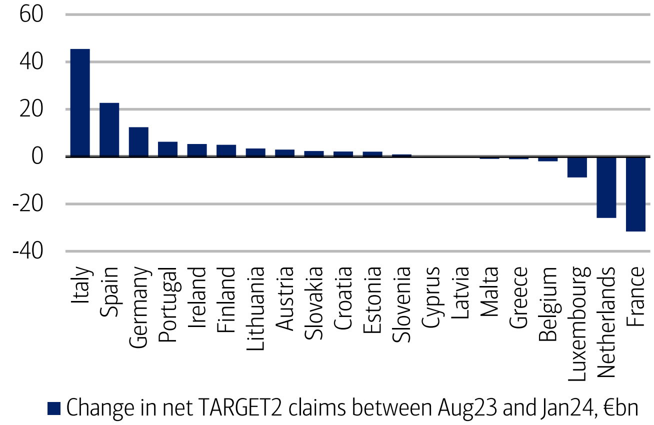
Exhibit 14: Change in net TARGET2 claims
France recorded largest decrease in net claims



Source: BofA Global Research, ECB

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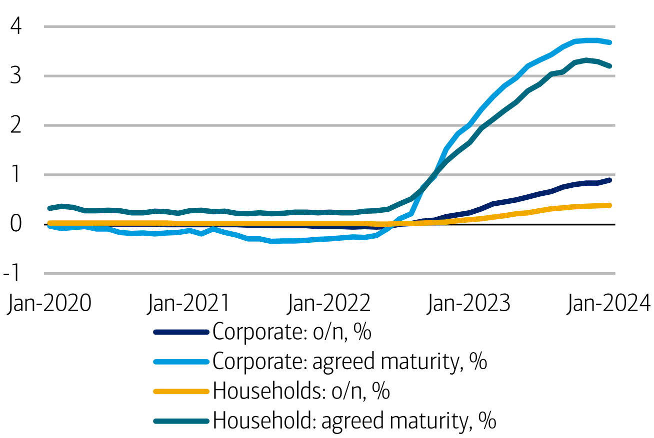
Banks are locking deposits

Competition among banks to protect their funding sources has been evident in the deposit market. As the ECB raised policy rates, banks in the euro area passed on the increase in policy rates to depositors primarily through term deposit rates rather than on o/n deposits (Exhibit 15). This led to an 80% increase in term deposits since the end of 2021 (Exhibit 16).

Exhibit 15: Rate on new deposits
Banks passed higher rates through term deposits



Source: ECB

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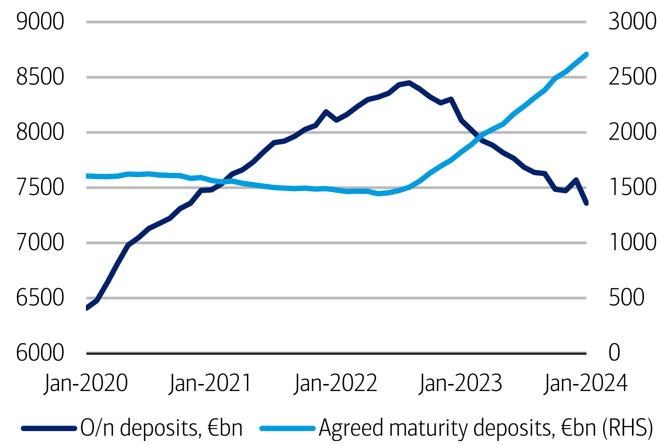
Exhibit 16: Deposits by maturity
Depositors reacted and shifted to term deposits



Source: BofA Global Research, ECB

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Life returning to wholesale unsecured market

Banks are also tapping the unsecured wholesale market more for funding. Volumes of eligible transactions used to calculate the one-week Euribor fixing are at their highest since records began at the end of 2019 (Exhibit 17).

While the one-week tenor still accounts for the lion's share of eligible transactions for Euribor fixing calculations, the shift in Euribor fixing submission across all tenors away from level 3 submissions signals life is returning to the wholesale unsecured market. Level 3 submissions are used when a panel bank does not have any eligible transactions at a specific tenor. In January 2023, level 3 contributions accounted for 40-50% of Euribor fixing submissions; in January 2024, they accounted for 30-45% (Exhibit 18 and Exhibit 19).

Exhibit 17: Notional volumes to determine one-week Euribor

Volumes at highest since records began

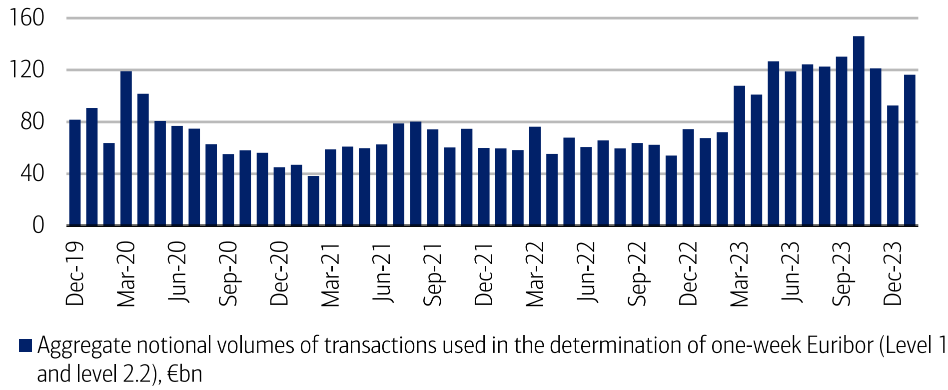

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Exhibit 18: Decomposition Euribor submissions in January 2023

Share of level 3 contributions was between 40% and 50%

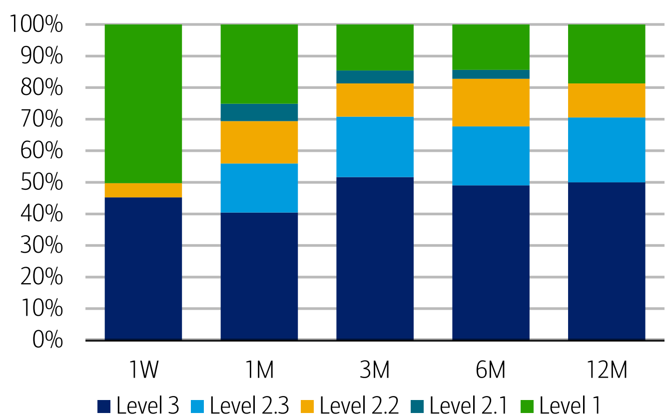

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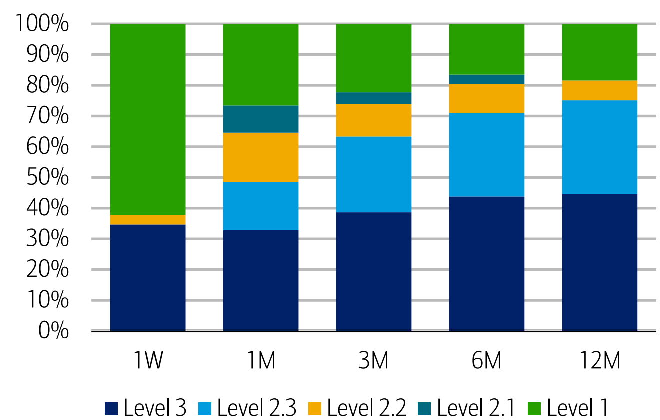
Exhibit 19: Decomposition Euribor submissions in January 2024

Share of level 3 contributions fell to 30-45%



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Market pricing too benign

The ECB is expected to tighten the refi-depo corridor from 50bp to 15bp in September 2024 following the outcome of its operational framework review. But this still leaves room for funding costs to rise from spot levels. The implied fair value, even with a narrower corridor, is higher than what the market is pricing in medium term. Structural longer-term credit operations may offer a sustainable solution. But the details, yet to be provided by the ECB, could impact market perception of their effectiveness in addressing growing reserve scarcity.

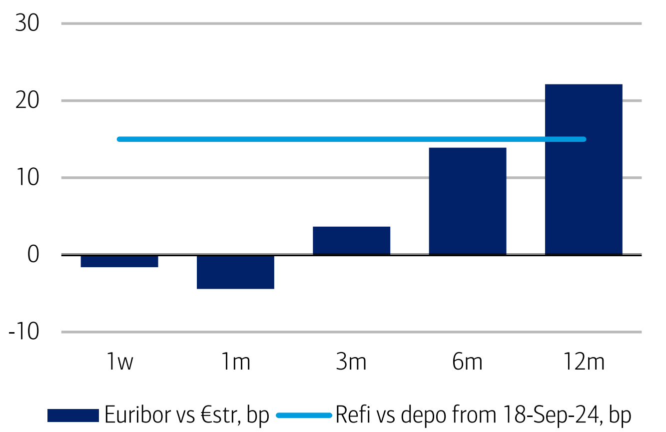
15bp corridor still leaves room for funding costs to rise

If the ECB continues QT, banks will ultimately need to turn to the ECB's lending operations for reserves. The narrowing of the refi-depo corridor from 18 September 2024 from 50bp to 15bp would theoretically cap the cost of reserves to around the deposit facility rate plus 15bp up to three months, as the refi rate is applied to the ECB's one-week MROs and three-month LTROs. This means there is still scope for:

- One-week, one-month and three-month Euribor-€str spreads (Exhibit 20), and
- GC repo-€str spreads up to three months (Exhibit 21)

to widen from their current spot levels.

Exhibit 20: Euribor vs €str spreads
Spreads can widen in the unsecured market...



Source: BofA Global Research, Bloomberg

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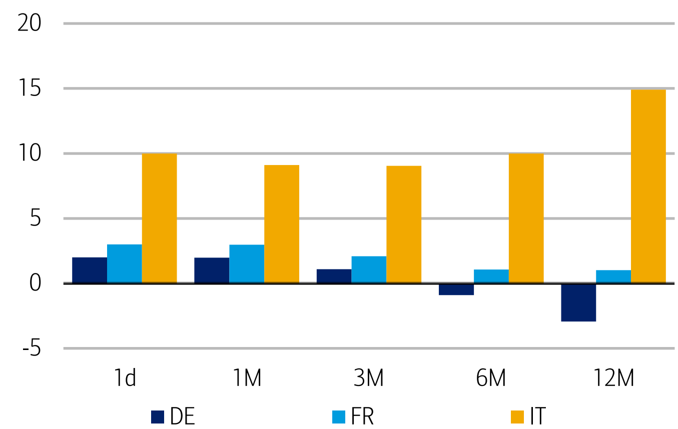
Exhibit 21: GC repo-€str spreads across countries and tenor
... as well as in the secured market



Source: BofA Global Research

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Fair value of terminal spreads fall

The narrowing of the refi-depo corridor impacts the fair value of 3M Euribor-€str spreads. We believe three-month is an appropriate tenor to gauge the impact of this corridor because the LTROs are priced at the refi rate and have a maturity of three months.

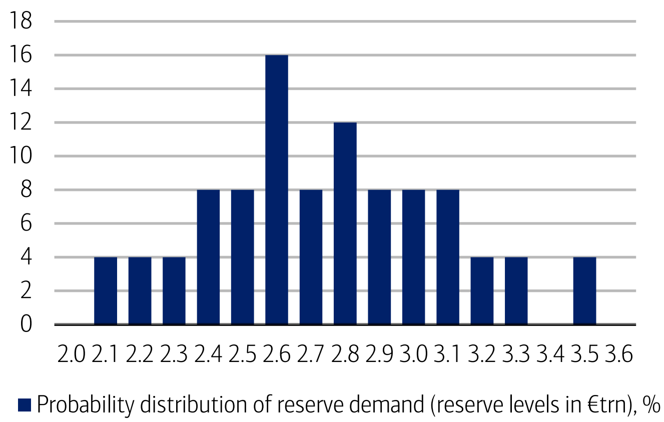
Using the same analysis used to derive LCR-related reserve demand, we use the distribution of reserve demand to assign probabilities to the following outcomes (Exhibit 22):

- If demand is greater than supply, the spread would be 15bp, as banks would ultimately need to borrow from the central bank and pay the corridor spread

- If supply is as much as €400bn more than demand, the spread would also be 15bp, i.e. still use the central bank's lending operation. Note that this spread was just over 20bp before the ECB began QE, which implies that the new corridor will keep bank funding relatively cheap and so the cap from the corridor will be binding.
- If supply is more than €400bn above demand, then the spread would be 5bp, i.e., close to spot

This gives a fair value for 3M Euribor-€str of c. 13bp, which is lower than what the market is pricing in at least through the end of 2025 (Exhibit 23).

Exhibit 22: Reserve demand distribution
Distribution based on LCR analysis



Source: BofA Global Research

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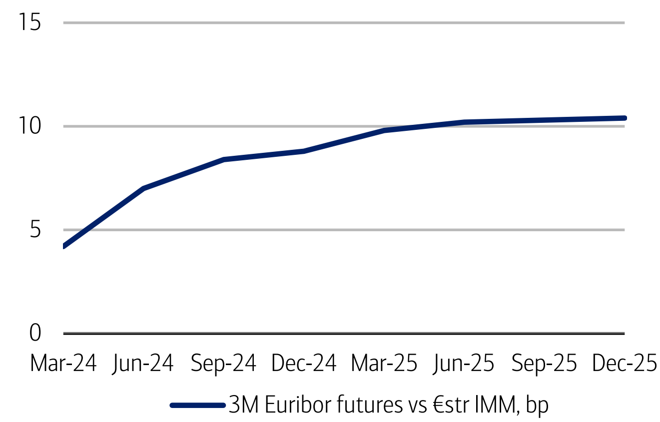
Exhibit 23: 3M Euribor futures vs €str IMM dates
Long-term pricing much lower than fair value



Source: BofA Global Research

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Characteristics of a sustainable solution

We do not think MROs and LTROs alone will be the sustainable solution to bank funding needs as the ECB continues QT. This is arguably also recognised by the ECB given its announcement to eventually introduce structural longer-term credit operations and a structural portfolio of securities.

The details of the structural longer-term credit operations will be important for front-end rates market because it could impact market perception of their effectiveness in addressing growing reserve scarcity. In particular:

- Maturity: we think it will need to be around a year if this funding were to help banks with regulatory requirements, including the NSFR, as the ECB continues with QT.
- Price: if the maturity of these operations is one year, then we think the price will be more than refi after the corridor is narrowed. This is because current market pricing is already more expensive than that implied by the new corridor and there are no signs of meaningful stress. In our view, the case for the central bank to make it cheaper is not strong.
- Early repayment options may need to be offered to allow banks to extend the residual maturity of these borrowings if desired.
- Whether operations are provided at full allotment and at a fixed rate. Full allotment reduces the need for the ECB to estimate how much reserves banks need.

Enter EUR 2y 3s6s widener

We add a new recommendation to express our view of growing bank demand for term funding via EUR 2y 3s6s basis wideners (entry: 8.1bp, target: 14.0bp, stop: 5.0bp). While theoretically using basis vs 12M Euribor would better reflect term funding pressures due to NSFR considerations, we choose the 3s6s due to better liquidity and expect demand for term funding to steepen the Euribor-€str curve generally.

We also maintain our ERU4-€str widener recommendation (see report) to express our view that the market is underpricing the fair value of 3M Euribor-€str, even with the new corridor (current: 9bp, target: 15bp, stop: 5bp).

Risks to both recommendations are the ECB's structural longer-term credit operations are priced meaningfully below market rates, the ECB reduces QT, bank demand for reserves is lower than expected. An additional risk to the EUR 2y 3s6s widener is widening pressures only reflected at tenors above 6M.

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