The European repo market at 2021 year-end

An ICMA European Repo & Collateral Council (ERCC) briefing note

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Executive summary

- Concerns about the 2021 year-end and the potential for a collateral shortage, particularly in the euro market, were being raised as early as October. Participants report that many investors began positioning for the turn around this time. This is corroborated by data.
- In the lead-up to year-end, the ERCC and others flagged concerns with the ECB about accessibility to the National Central Bank (NCB) lending programmes, particularly with respect to German collateral.
- The market for core euro repo over year-end was relatively orderly, from an operational perspective, despite printing at the most expensive levels since the 2016 episode, and with French collateral trading more expensively than German. This is largely attributed to considerable pre-positioning well ahead of the turn and improved accessibility to the relevant NCB lending programmes, albeit at expensive levels.
- A lack of liquidity for non-core euro repo seems to have caught the market off guard, with a scramble for Italian and Spanish collateral and weighted average rates printing at post-euro historic lows. Participants cite a shortage of collateral, perhaps largely as a result of the ECB Targeted Longer-term Refinancing Operations, and a lack of access, whether directly or through local intermediaries, to NCB holdings.
- Some participants have expressed concern at the extreme trading levels observed in the euro repo market over year-end, the relative lack of liquidity, and the fact that participants were pre-positioning actively, and expensively, from as early as October. They question whether this is reflective of a healthy, functional repo market.
- GBP repo rates saw downward pressure over year-end as a result of excess reserves and short supply of specials. Participants report that liquidity was poor, but the market was relatively orderly, and no more expensive than had been anticipated.
- USD funding rates, both onshore and offshore, remained relatively unaffected by the turn, with participants reporting good liquidity. The Federal Reserve's reverse repo facility helped to ease any downward pressure on rates.
- Excess USD liquidity, and availability of balance sheet, also seem to have helped to normalize cross-currency bases, which in turn took downward pressure off non-USD rates.

Euro repo

The lead up

There had been a lot of focus on the 2021 three-day "turn" from as early as November, in particular with concerns about the prospect of a collateral shortage. The key considerations were: positioning, with a substantive short base in sovereign debt in the anticipation of higher yields; the amount of bonds swallowed up in the ECB Public Sector Purchase Programme (PSPP) and Pandemic Emergency Purchase Programme (PEPP); an abundance of euro cash in the system, which was becoming ever cheaper through the USD-swap (*See Figure 11*); and the usual concerns over reduced bank balance sheets and limited capacity for intermediation due to various jurisdictional reporting requirements. Further worries had been raised with respect to the various Eurosystem lending programmes, in particular a lack of widespread accessibility, mainly as a result of the non-standard contractual arrangements under which they operate, and limited credit lines for bank counterparts. These concerns were flagged to the ECB, both by the ECB's Bond Market Contact Group (BMCG), Money Market Contact Group (MMCG), and the ERCC.

Already, year-end general collateral (GC) was being priced expensively, none more so than Germany, with implied rates between -4.50% and -5.00%. To put this into context, on December 1, German GC was trading around -0.60% with specific collateral (SC) around -0.70%, while Italy GC was -0.56% and SC -0.59%.

Implied rates for the turn continued to tighten through November (reaching a low of around -9%). However, by mid-December implied rates had begun to cheapen, with German collateral priced around -4.25%, France -3.75%, Italy -3.00%, and Spain -3.25%. The cross-currency basis had also been moving back towards parity (*see Figure 11*), which helped to relieve some of the downward pressure on euro rates. Furthermore, participants report that many clients had started to place cash or cover shorts over year-end from as early as October, which perhaps also reduced bid-side demand.

Core

In the days leading up to year-end, market participants report that liquidity felt thin, but trading was orderly and, in the case of Germany, levels were only slightly tighter than those implied during the previous weeks, with a weighted average of -4.50% for GC in the interbank market, and an average of -4.66% and a low of -5.00% for SC. France surprised slightly, averaging -4.28% for GC and -4.82% for SC, with a low of -5.31%, making French specials more expensive than German. (*See Figures 3 and 4*.) That said, prints as low as -10% for German SC have been reported in the bilateral market.

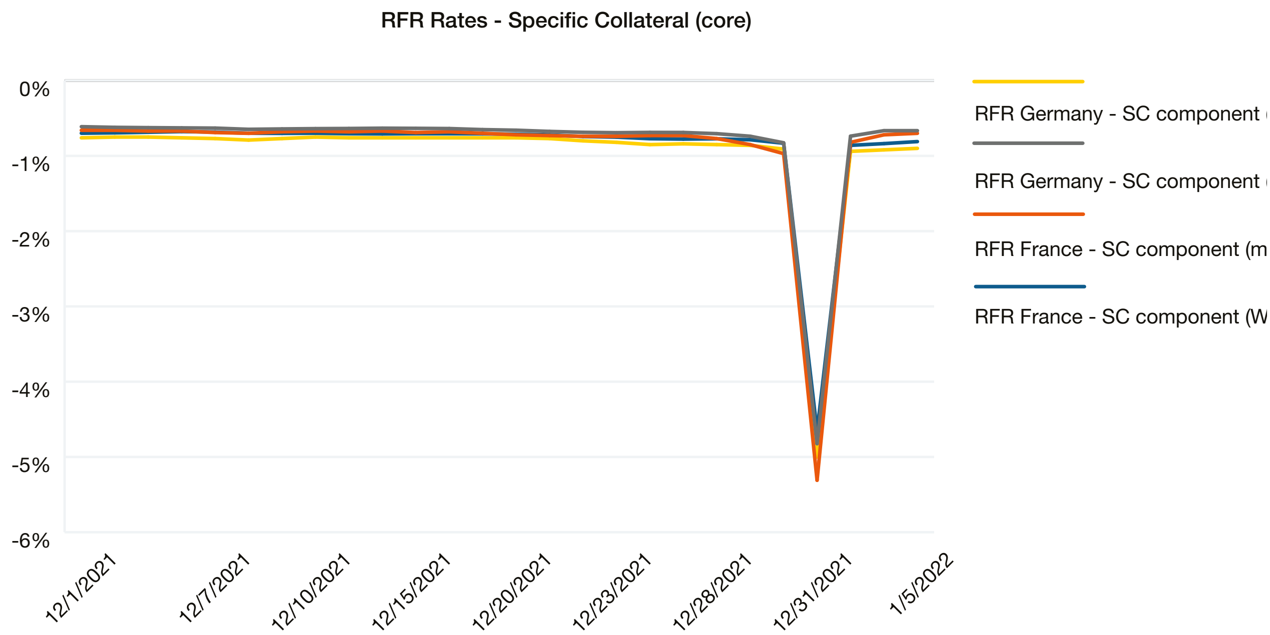
Many attribute the relatively orderly trading of core repo to a mixture of pre-positioning and improved accessibility to the NCB lending programmes, such as the increase in the ECB lending facility against cash from €75bn to €150bn. However, while the ECB lending data for December has yet to be published, some participants have raised doubts as to whether the increase in the lending versus cash facility made much of an impact, noting that balances up until November were well below the €75bn limit (*see Figure 8*), and borrowing against cash is expensive on banks' limited balance sheets. More likely, an increase in the relevant NCB credit lines helped to ease any potential bottlenecks; although this does not appear to have normalized trading levels.

Non-core

It was the periphery segment that seems to have caught the market off guard. Participants report that liquidity became very patchy leading up to year-end, but few expected a sudden tightening of more than 100bp to previously implied rates. Italian GC averaged -3.37% in the interbank market, with specifics averaging -4.19% and a low of -4.86%. Some specials were reported trading as low as -5% in the bilateral market. Meanwhile, Spanish GC averaged -3.41% and specifics -5.02%, with a low of -5.75%, and some reported prints for specials as tight as -10% bilaterally, albeit in small size. (*See Figures 3 and 5*.)

This unexpected and sudden tightening of periphery rates is attributed largely to collateral scarcity, perhaps as a consequence of bonds being used in the ECB Targeted Longer-term Refinancing Operations (TLTROs), and limited access to the underlying central bank lending programmes. This may have been hampered further by a lack of intermediation capacity among local banks.

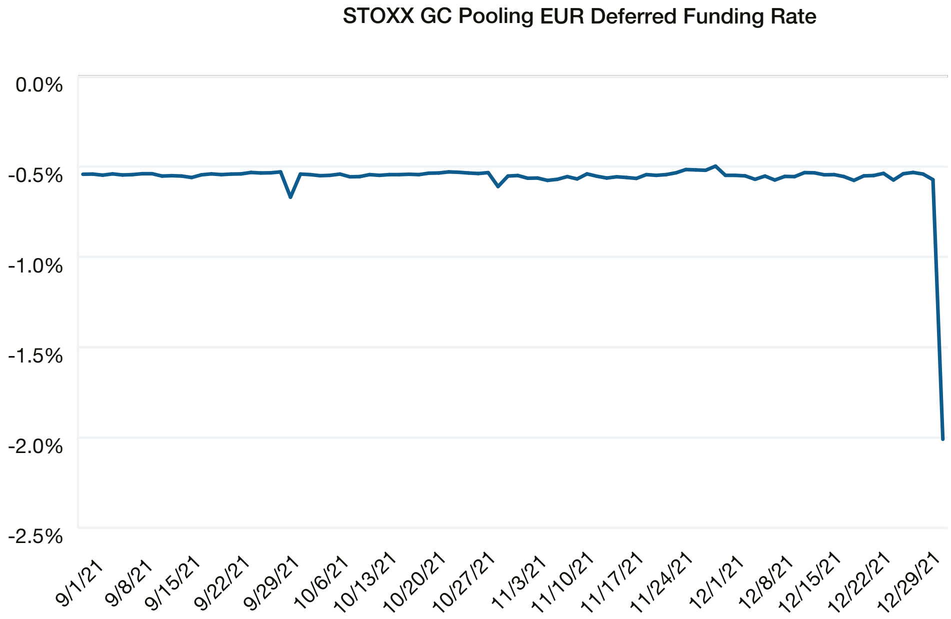
Figure 1: Euro Repo Funds Rate[1]



Source: ICMA analysis using CME data

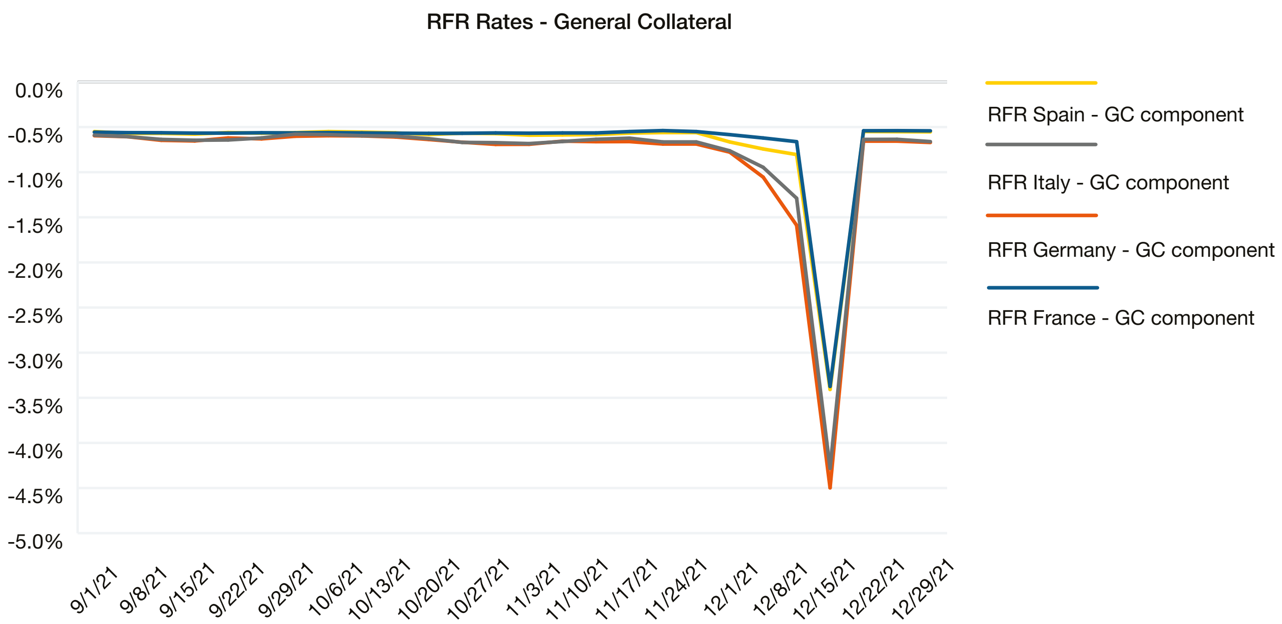
1 The Euro Repo Funds Rate is a one-day, risk-free rate based on centrally cleared repo trades on either BrokerTec or MTS. RFR Euro is calculated on trades using sovereign bonds issued by many Eurozone countries.

Figure 2: Stoxx GC pooling EUR Deferred Funding Rate[2]



Source: ICMA analysis using CME data

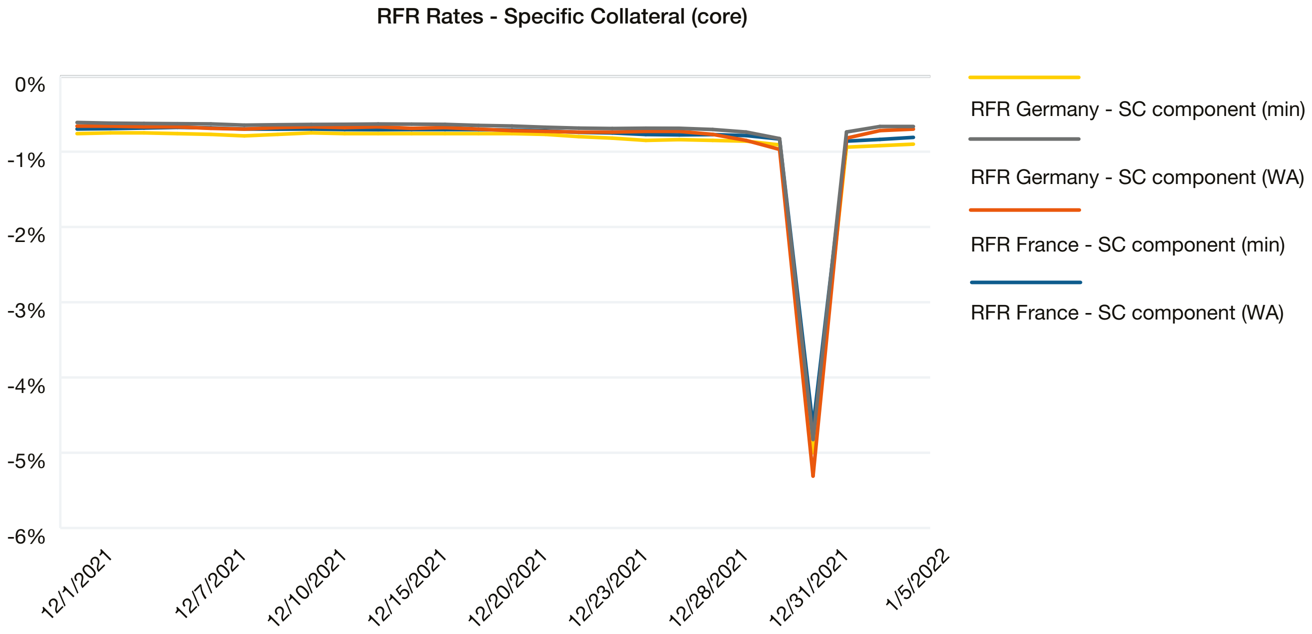
Figure 3: Euro RFR General Collateral Rates



Source: ICMA analysis using CME data

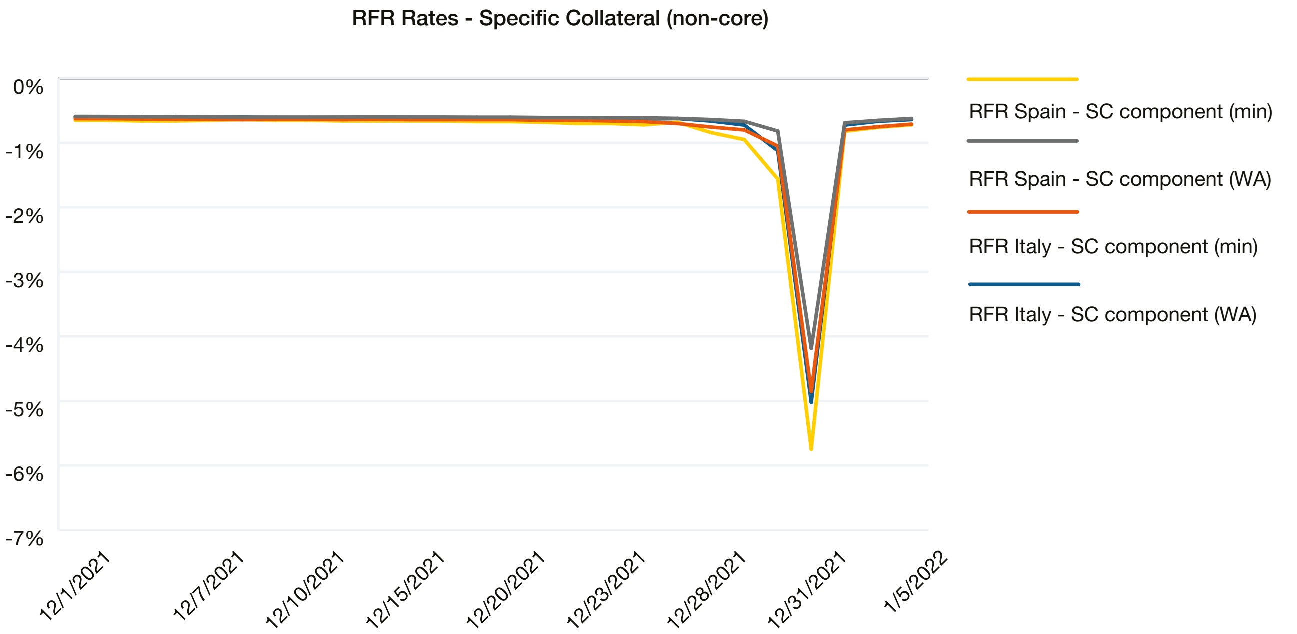
2 The STOXX GC Pooling Deferred Funding Rate is part of the STOXX GC Pooling index family and is based on the Eurex Repo GC Pooling Market. It offers a transparent, rules-based, independent alternative to the ECB's unsecured €STR and CME's EUR RFR. The Deferred Funding Rate represents the cost of cash driven Pan European EUR GC funding and is based on anonymously traded, secured, centrally cleared, cash driven euro transactions against two TriParty baskets including approx. 14,000 ISINs of high-quality ECB eligible Pan European collateral.

Figure 4: Euro RFR Specific Collateral Rates (core)



Source: ICMA analysis using CME data

Figure 5: Euro RFR Specific Collateral Rates (non-core)



Source: ICMA analysis using CME data

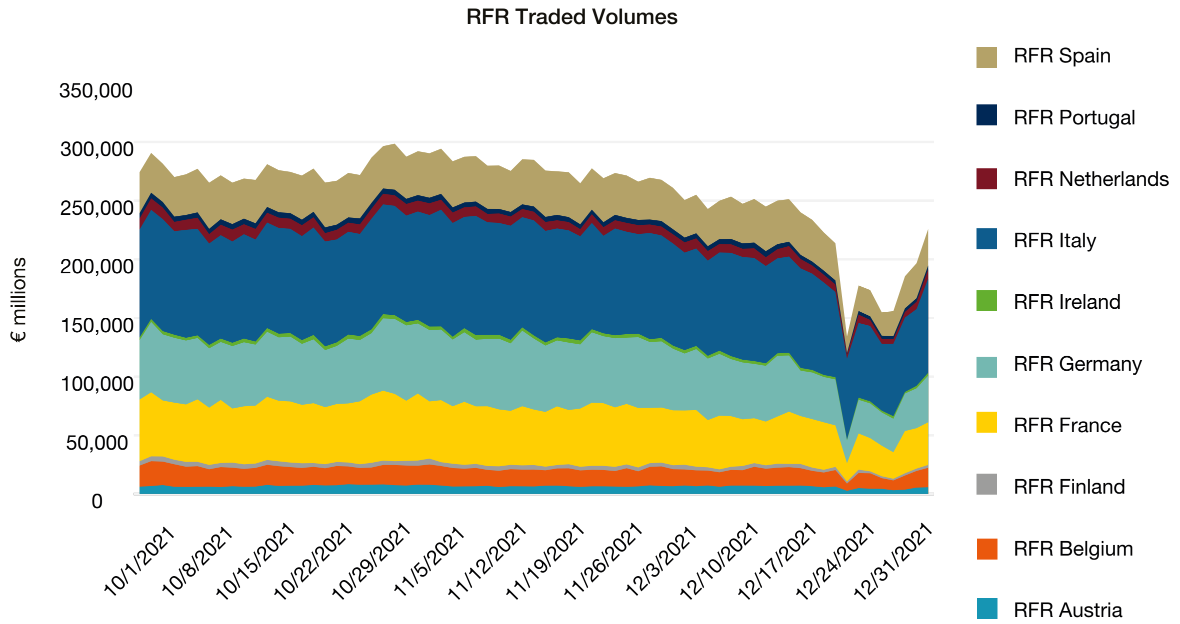
Traded volumes

Using traded volumes in the CME Euro Repo Funds Rate (representing activity on BrokerTec and MTS) and outstanding volumes taken from Eurex, while representing different interbank liquidity pools, it is possible to build a profile of trading activity into and over year-end. RFR volumes (*see Figure 6*) gradually begin to tail-off from late November before dropping sharply in the last two weeks of December. Meanwhile, outstanding volumes using Eurex data as a proxy for the overall market (*see Figure 7*), increases steadily over the same period, peaking around year-end.

This would corroborate participant observations that the market began positioning for year-end through the term market as early as October, and that by mid-December most trading activity had already been done. For example, Eurex commented that in Q4 2021 it observed an 83% year-on-year increase in term repo transactions with end-legs settling in January 2022.

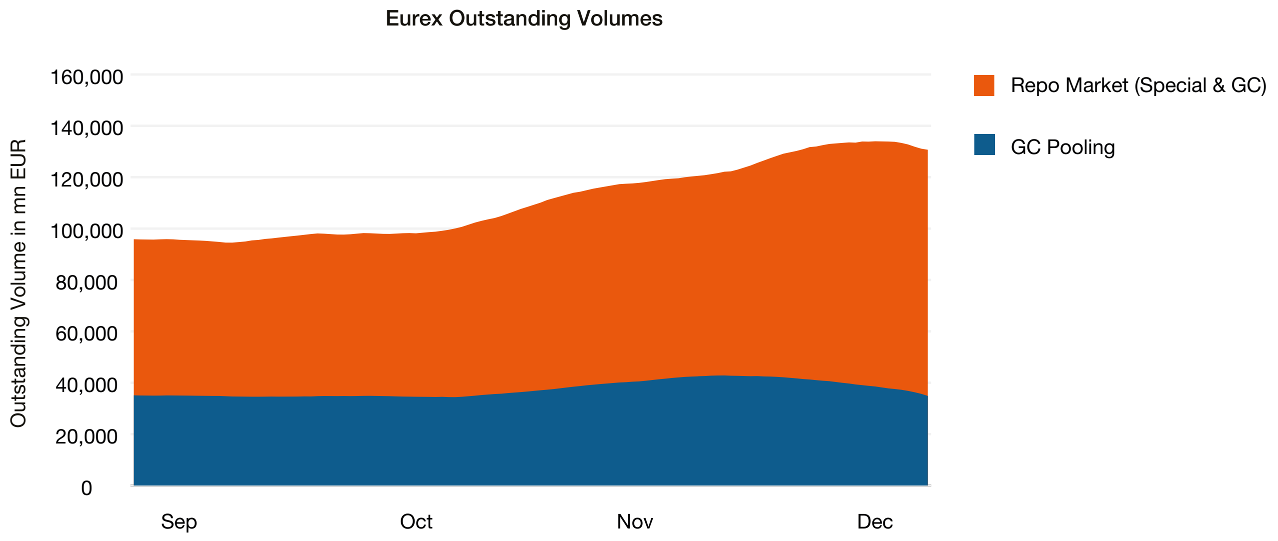
Some participants also point out that another challenge to managing their books over year-end, particularly in the case of Germany, is the fragmentation of liquidity pools between the two main clearing houses. While liquidity, or pricing, on one may appear better at any point in time, banks are ultimately driven by netting considerations, with balance sheet taking priority over price.

Figure 6: Euro RFR traded volumes



Source: ICMA analysis using CME data

Figure 7: Eurex outstanding volumes (EUR)



Source: Eurex

Liquidity

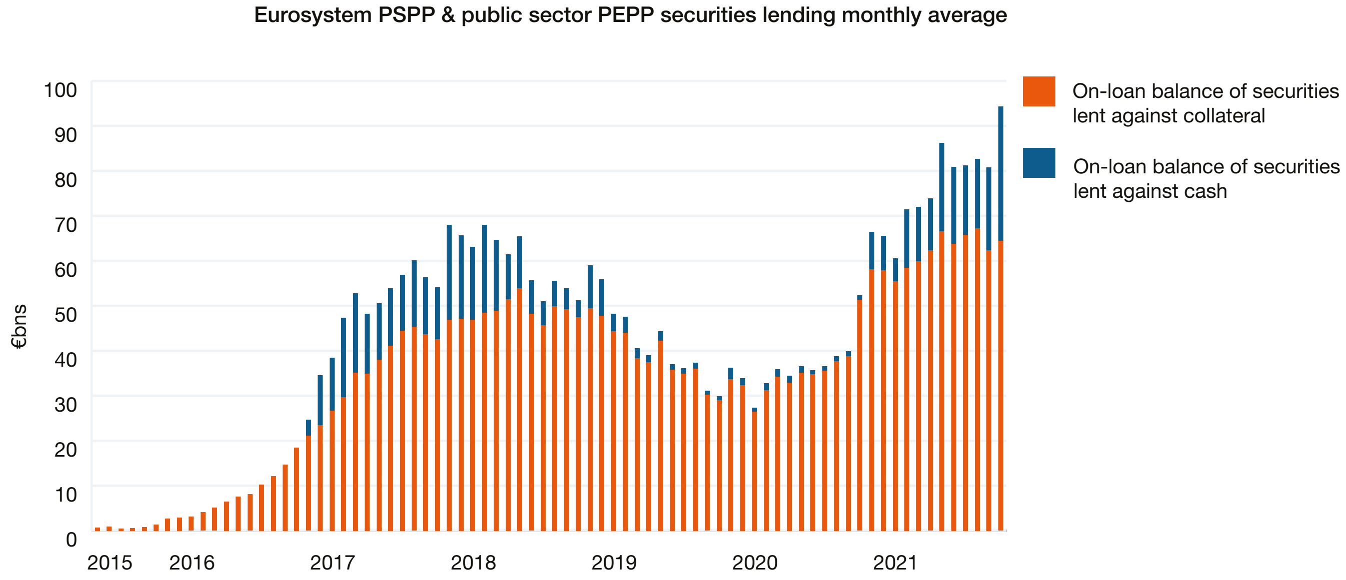
Buy-side respondents report that while a number of their dealer counterparties did appear to close their books as year-end approached, there were still enough banks offering liquidity and that it remained possible to transact, even in size, albeit expensively. Some also question how the market may have performed had so much pre-positioning not been secured far in advance.

Some respondents report that there was a notable increase in settlement fails over year-end, which is often an indicator of market stress or dysfunction. Others have suggested that while fails may have increased, this was by no more than is usual for the turn. In the absence of public data for EU settlement efficiency rates it is difficult to draw any meaningful conclusions. However, this is perhaps a factor that warrants further analysis.

Conclusion

The general view of market participants is that year-end for the euro repo market was relatively orderly from an operational perspective, particularly for core sovereign collateral, where, along with significant pre-positioning, central bank lending programmes are likely to have played an important role. That said, this was still the most expensive year-end for core repo since 2016, and certainly for the most sustained period leading up to any year-end. Meanwhile, non-core repo rates, somewhat unexpectedly, were even tighter than 2016, making this the most expensive turn since the euro was launched. And while we did not observe the levels of stress experienced at the 2016 year-end, some participants have expressed concern at the extreme levels recorded, the relative lack of liquidity, and the fact that participants were pre-positioning actively, and expensively, from as early as October. They question whether this is reflective of a healthy, functional repo market.

Figure 8: PSPP and PEPP public sector lending balances

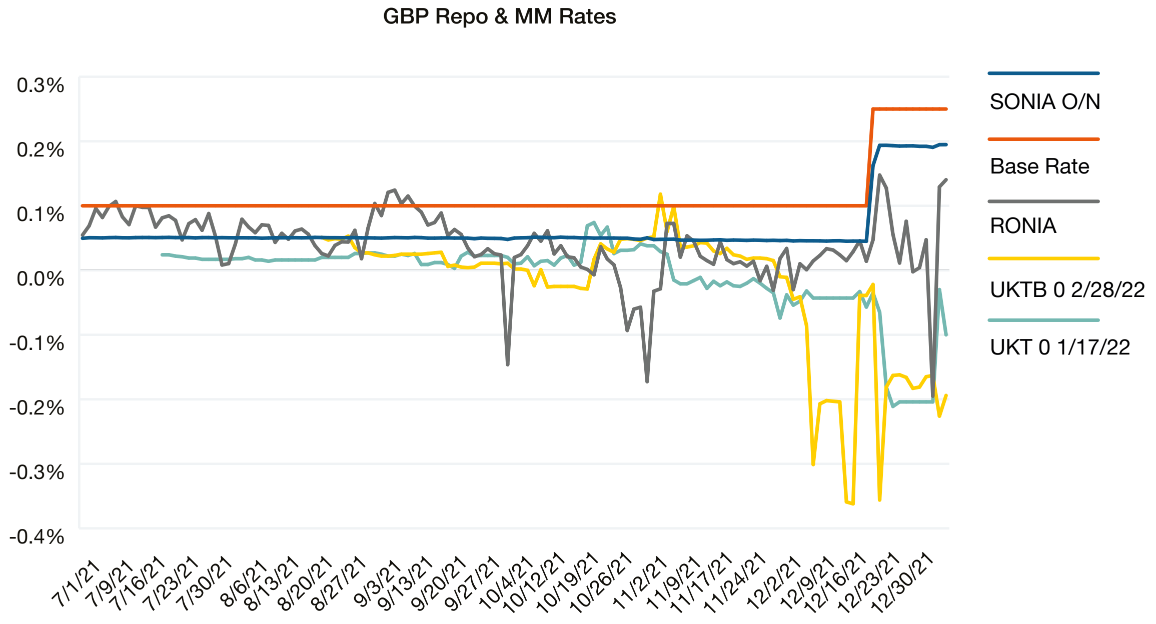


Source: ICMA analysis using ECB data

GBP repo

The gilt repo market was experiencing a higher degree of volatility than usual going into November and December due to the possibility of a Bank of England hike in interest rates, which eventually came at the December 16 meeting, with the Base Rate raised from 0.10% to 0.25%. However, participants point out that this was still against a background of significant excess central bank reserves, a well-established short-base in gilts, largely in anticipation of rising yields, particularly in the shorter-end of the curve (sub-10-year), and supply concerns in light of the Government Bond Purchase Programme.

Figure 9: GBP repo and money market rates[3]



Source: ICMA analysis using Bloomberg data

Following the hike, and leading up to year-end, the implied gilt repo curve was pricing in the turn between -0.55% and -0.75%. The effects of excess cash and concerns of a collateral shortage could also be observed in T-bill rates, as short-dated bills became very well bid (*see Figure 9*). While participants report that liquidity was poor going into year-end, the market was relatively orderly, with DBV[4] trading around -0.60%, and sub-10-year specifics trading expensively between 10 to 25bp tighter (and largely floored by the DMO lending programme).

Participants also comment that term rates (from 3-months to 1-year) also remained steady over year-end. Since Q2 of 2021, term GC spreads have been the tightest in memory relative to SONIA (between +7 and +12bp moving along the curve), which is also largely a function of excess reserves.

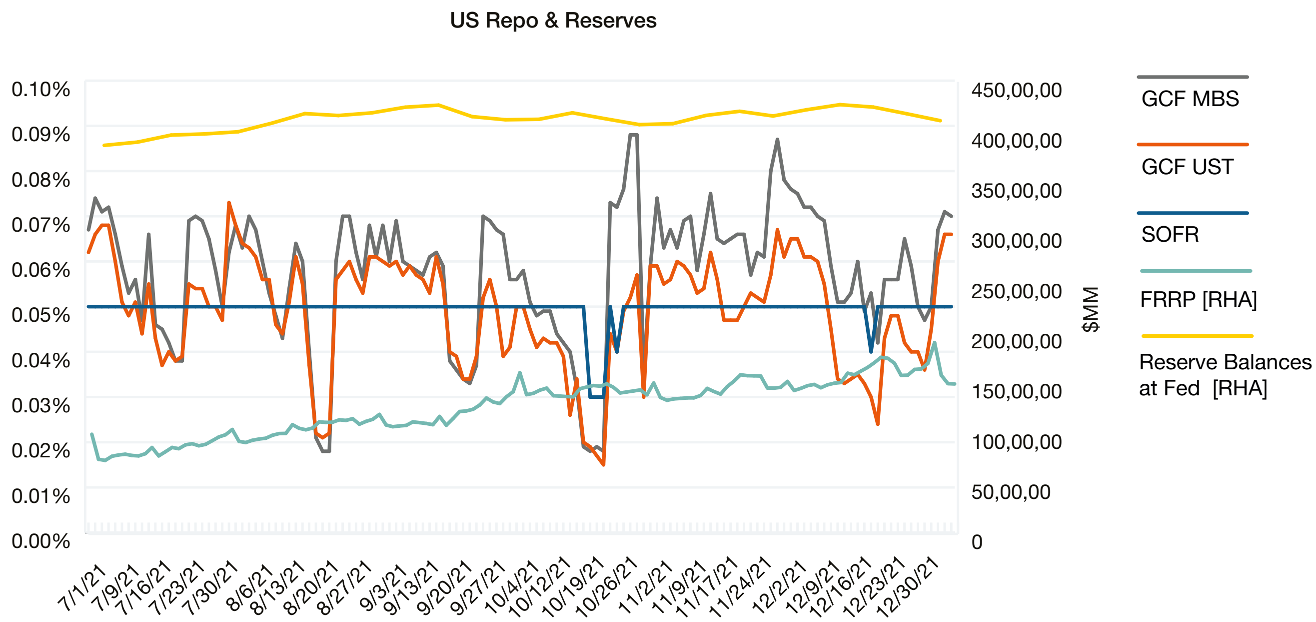
3 The Sterling Overnight Index Average (SONIA) is based on actual transactions and reflects the average of the interest rates that banks pay to borrow unsecured sterling overnight from other financial institutions and other institutional investors. The sterling Repurchase Overnight Index Average (RONIA) is the equivalent for secured borrowing against gilt collateral.

4 DBV ('Delivery By Value') repo is a mechanism whereby a Crest/Central Gilts Office (CGO) settlement system member may borrow from or lend funds to another CGO member against overnight gilt collateral. The CGO system automatically selects and delivers securities to a specified aggregate value on the basis of the previous night's CGO reference prices. Givers and takers of collateral can specify the classes of security included in the DBV.

USD repo

Similar to the euro and sterling markets, the build-up to year-end for the USD repo market was against a backdrop of excess reserves and concerns about collateral scarcity, exacerbated by MBS settlements and large T-bill paydowns. Unlike the euro and sterling markets, however, the Federal Reserve's Overnight Reverse Repo (RRP) facility is a useful pressure valve which seems to have helped stabilize rates going into the turn, reaching a record uptake of $1.9tn on December 31 (*see Figure 10*).

Figure 10: USD repo and reserves[5]



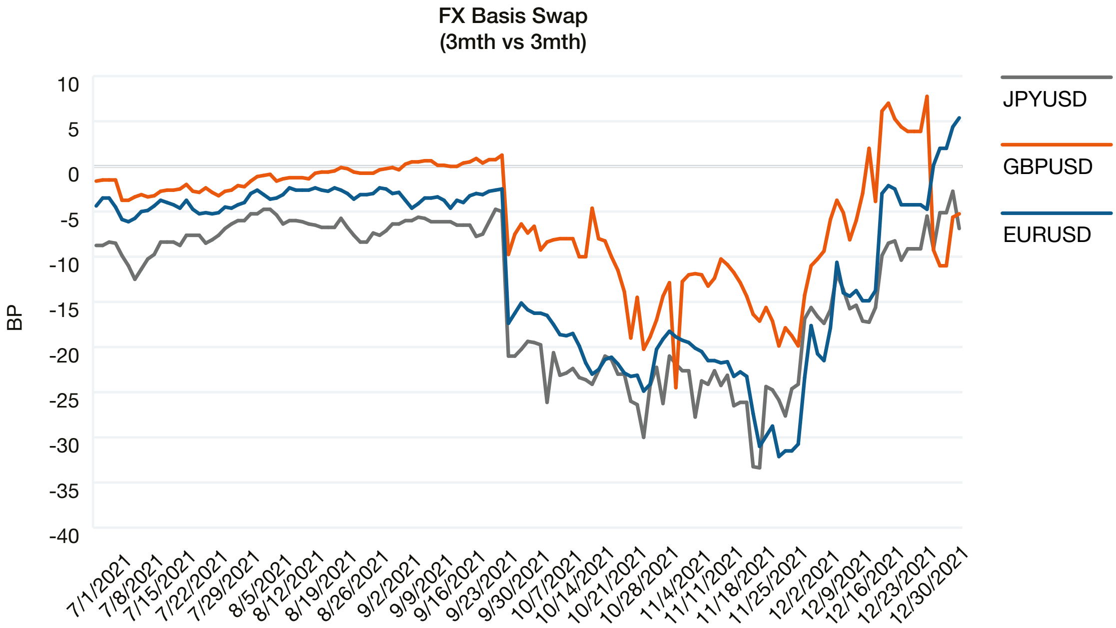
Source: ICMA analysis using Bloomberg data

So it transpired that the US repo market was relatively uneventful over year-end, with rates largely steady, and participants reporting no noticeable balance sheet pressures with good liquidity for both GC and specials. This was evident in both the onshore and offshore funding markets. It has been further suggested that the end-of-year G-SIB score assessments seem to have had less impact on US banks compared with non-US banks.

The ample supply of USD funding, along with balance sheet availability, is also responsible for the normalizing of the cross-currency basis, which had been trending ever more negative since the start of October. This had contributed to concerns about downward pressure on year-end funding rates in other currencies, in particular for euros (see earlier commentary), and at one point the implied euro rate for the turn through the basis swap was close to -10%. However, from the start of December the basis quickly reverted (*see Figure 11*), and by year-end itself it was actually cheaper to fund in euros than through the USD swap.

5 The Secured Overnight Financing Rate (SOFR) is a broad measure of the cost of borrowing cash overnight collateralised by Treasury securities. The DTCC GCF Repo Index is the weighted average of the interest rates paid each day for the 3 most traded CUSIPs of General Collateral Finance Repurchase Agreements. Finance Repurchase Agreements. Figure 10 shows both the US Treasury and Mortgage-Backed Security (MBS) indices.

Figure 11: the currency basis swap

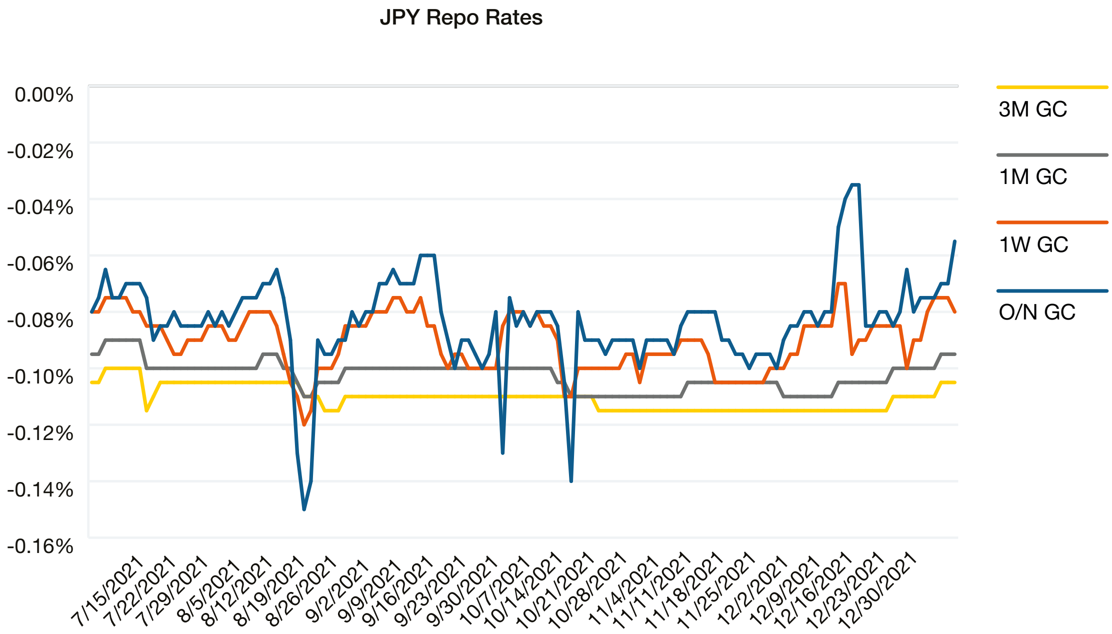


Source: ICMA analysis using Bloomberg data

JPY repo

The JGB repo market had seen some relative volatility and upward pressure over the end of the December 15 maintenance period, but rates quickly stabilized with no meaningful premium priced into calendar year-end through the term markets. Participants report that the turn itself was uneventful (*see Figure 12*), other than the usual drop in liquidity, that tends to make specials more expensive than normal.

Figure 12: JPY repo rates



Source: ICMA analysis using Bloomberg data

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