Collateral Scarcity in Europe: Recent Developments & Outlook

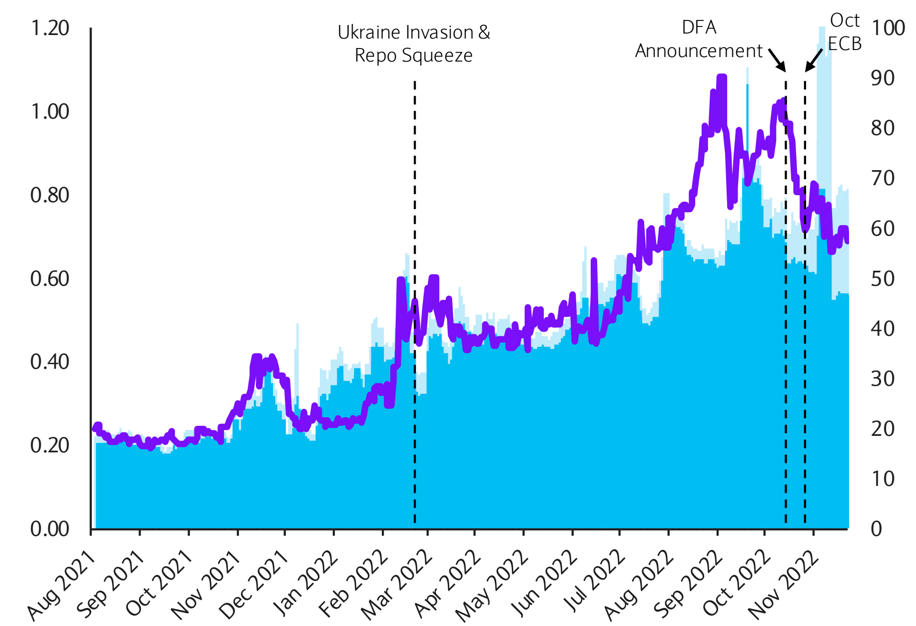
Presentation to ECB Money Market Contact Group

7th December 2022

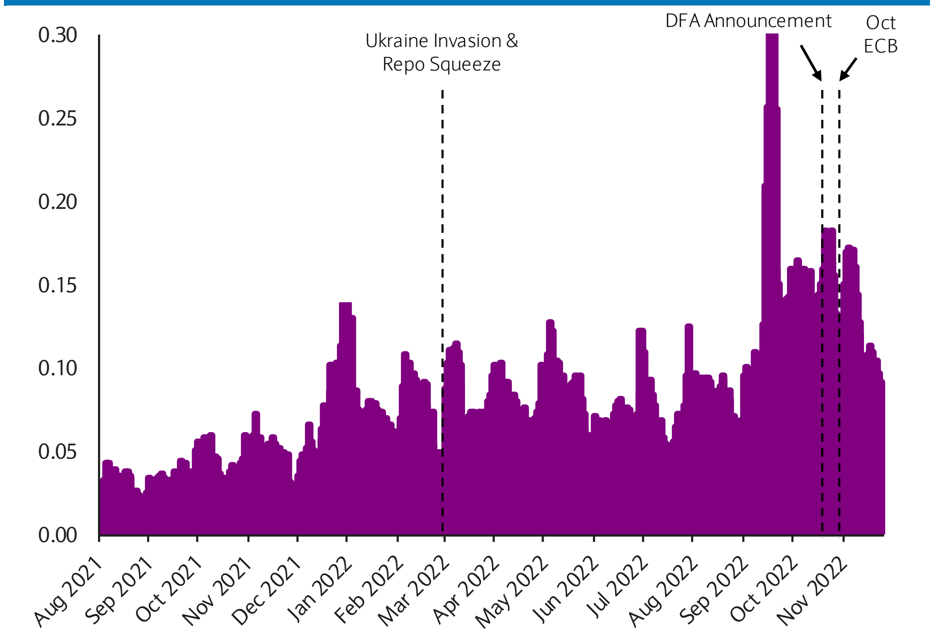
BARCLAYS

The Backdrop for European Collateral

German Specials Spread vs ECB Depo (Excluding Turns, LHS) & DU ESTR (RHS)



French GC vs ESTR (Excluding Turns)



Collateral scarcity, most notably in German bonds, has been one of the key themes in the EGB market this year. First aggravat ed by collateral market disruptions following the Ukraine invasion including financial sanctions against Russia, it was driven further by factors including an already low free float, low net supply, and both a high short base and increased demand for front-end instruments due to the rising rate environment.

However, both specials and GC have cheapened significantly in the past month reflecting increased supply from the DFA (and ot her lenders), and collateral return from TLTRO repayments following the terms change at the October ECB meeting.

Sources: Barclays, Bloomberg, BrokerTec, CME Group

Recent Catalysts for Easing

DFA Specials Action and ECB TLTRO Terms Change

What has driven the recent easing?

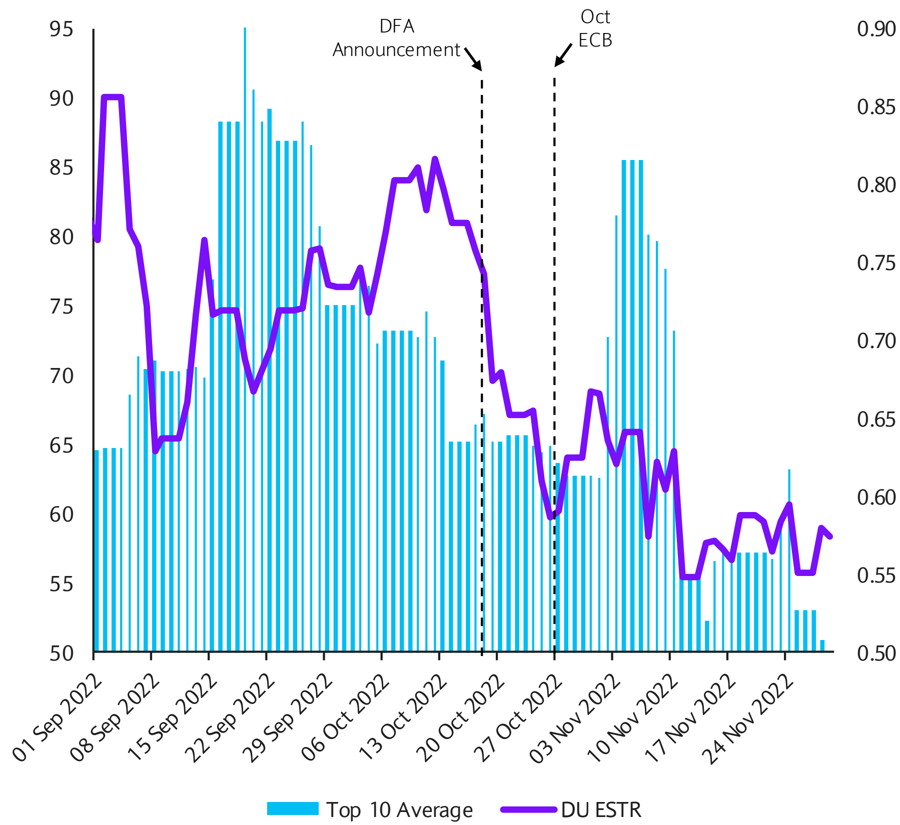
Two main factors have driven the recent cheapening move:

- **The Deutsche Finanzagentur (DFA)'s decision on 19th October to increase their holdings for repo market trading by tapping 18 of the most special German bonds for €3bn each**
- **The October ECB meeting's announcement of a change in TLTRO terms to eliminate deposit facility arbitrage and allow for early repayments starting in November**

In terms of the extent of the impact of both factors:

- **Schatz spreads (using here as a proxy for German collateral richness due to high correlation with both specialness in short-dates and implicit expectations for term repo) cheapened aggressively in the days following the DFA announcement**
- **The increase in specials supply was material and clearly signalled to the market that the DFA was carefully monitoring the collateral scarcity situation and willing to take action if it became too extreme**
- **The ECB TLTRO terms change had less of an immediately obvious impact, particularly on German specials and Schatz spreads**
- **However, despite the limited amount of German collateral assumed to be held against TLTROs, both specials and Schatz spreads have continued to drift cheaper in the weeks following the announcement**

German Specials Spread vs ECB Depo (RHS) & DU ESTR (LHS)



Sources: Barclays, BrokerTec, CME Group

TLTRO Repayments and Market Impact (1/2)

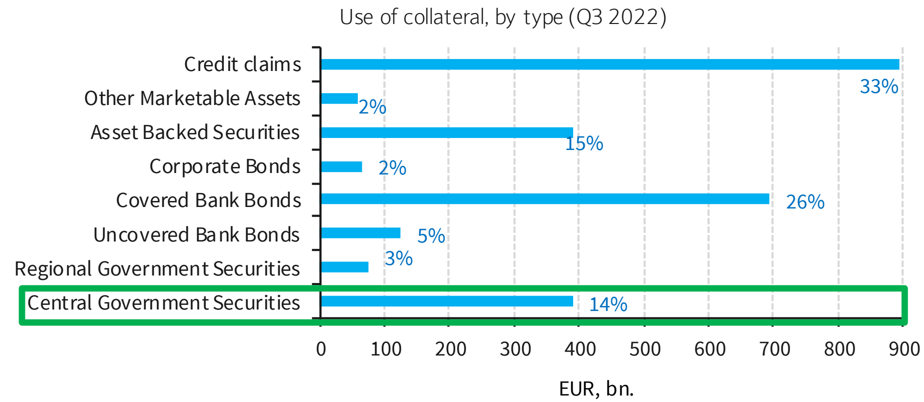
Collateral Dynamics, 2022 Repayments and Year End

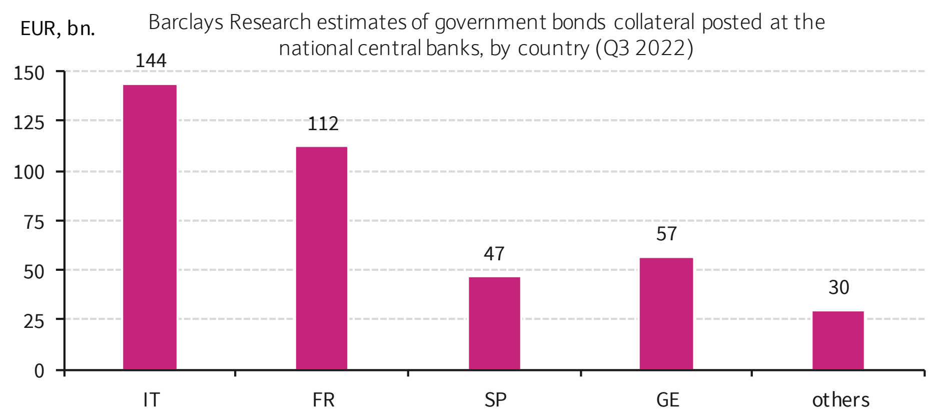
November TLTRO Repayments: Collateral Dynamics

Prior to the November repayments:

- There was a total of €2,050bn of outstanding TLTRO III liquidity
- Of the collateral held against this, only 14% was made up of central government securities; this was the most likely type of collateral to be recalled given the higher opportunity cost of its continued use vs. lower-quality credit claims
- In terms of the sovereign split of bonds used as collateral:
    - Given the significantly higher overall cost of using German or French bonds as collateral vs. for example those of Italy / Spain / Portugal, it is likely the split was materially weighted towards the latter among both core and peripheral banks
    - One exception to this is the significant amount of OATs likely posted by French banks simply given the large total amount of government bonds they had posted at the Banque de France (Barclays estimate €112bn), of which OATs would likely be a significant component
- Given the greater structural need for TLTRO funding amongst peripheral vs. core banks, we expected early repayments to be skewed materially towards the latter
- We expected German collateral to be little affected given its very limited usage, and OATs and BTPs to show the highest beta to repayments in terms of cheapening

TLTRO Collateral Statistics





Sources: ECB, Barclays Research

Restricted - External

TLTRO Repayments and Market Impact (2/2)

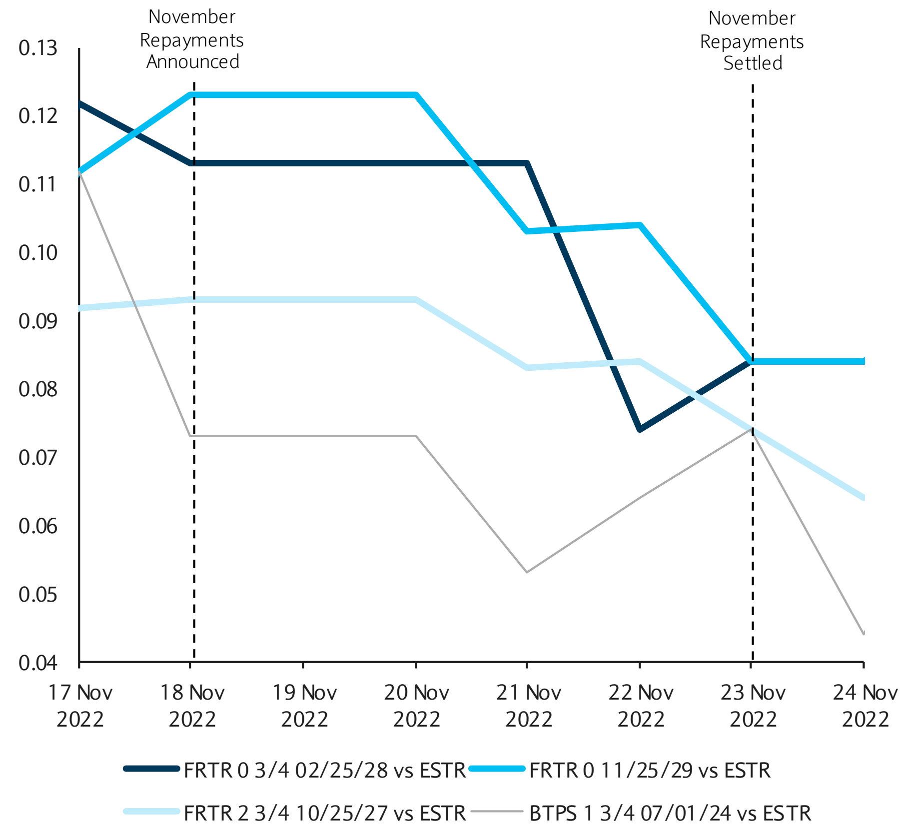
Collateral Dynamics, 2022 Repayments and Year End

2022 Repayments and Year End

The median market expectation for November repayments was roughly €650bn, while actual repayments came in well below this at €296.3bn.

- Reasons for lower than expected repayments could have included (amongst others):
  - The limited time to prepare for the repayment decision in November (three weeks) vs. three additional weeks for the December window
  - Banks waiting for final 2023 deposit forecasts before deciding on the amount to repay before year end
  - Difficulty replacing TLTRO funding with alternate sources of liquidity
- Since the repayment announcement, we have seen OATs and BTPs cheapen in short dates by roughly 5bps, suggesting that French and Italian government bonds made up a large part of the initial government bond collateral recall
- The lower than expected repayment in November increases the risk of a larger repayment in December, the size of which could have a material impact on late repo pricing for year end given the settlement date on 21st December
- This is a notable risk of late cheapening on a large repayment given that many firms requiring collateral over year end will have already locked it in in advance

French & Italian Cheapening: Sample ISINs (Repo Spread vs ESTR)

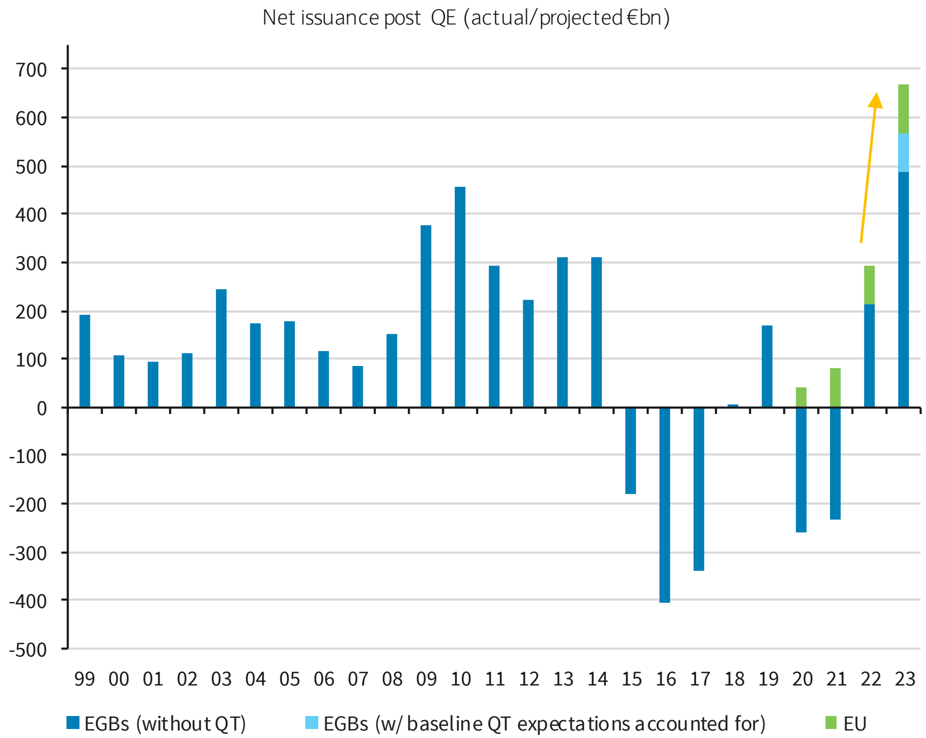


Sources: Barclays, BrokerTec

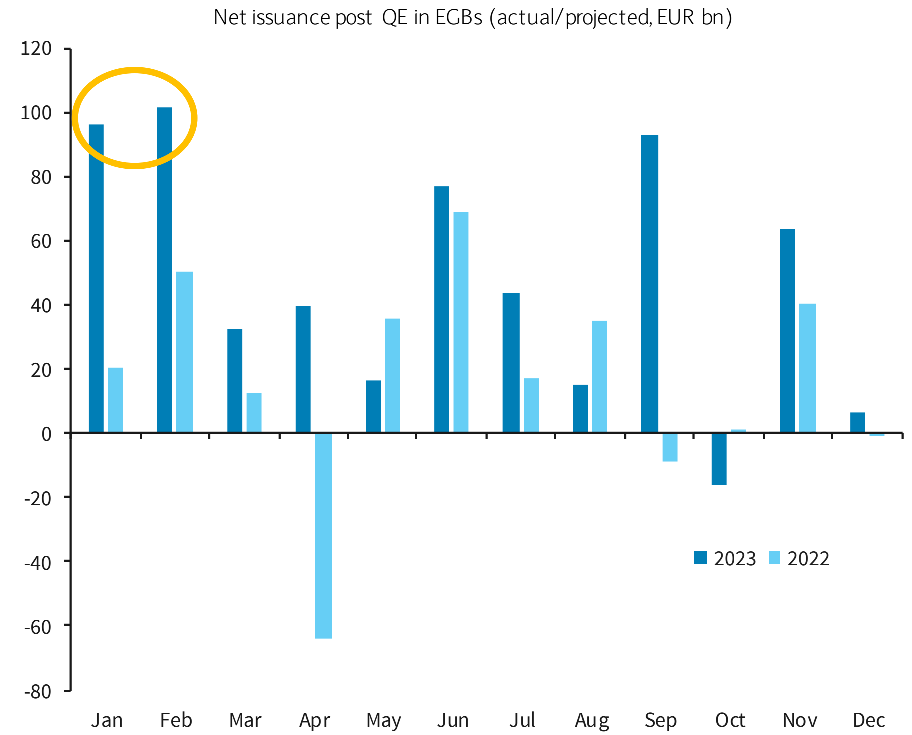
Beyond Year End: Looking Ahead to 2023 (1/2)

2023 Supply Outlook

Gross 2023 EGB supply expected to be the highest on record even before QT…



With net issuance heavily concentrated in Q1…



Whilst net supply remains negative until the end of 2022, the heavy pickup from January – in addition to further TLTRO repayments – should help to relieve some of the collateral scarcity pressure in EGBs.

N.B. Barclays' baseline QT assumptions are 75% reinvestment of APP proceeds in Q2 2023, followed by 50% in Q3 and 25% in Q4, to end APP reinvestments completely at the end of 2023.
Sources: Barclays Research

Beyond Year End: Looking Ahead to 2023 (2/2)

Other Structural Factors & Risks

Structural Factors and Risks to Further Easing

Despite the heavy supply outlook and further TLTRO repayments to come, we would caution against assuming that collateral scarcity will be resolved in the near term.

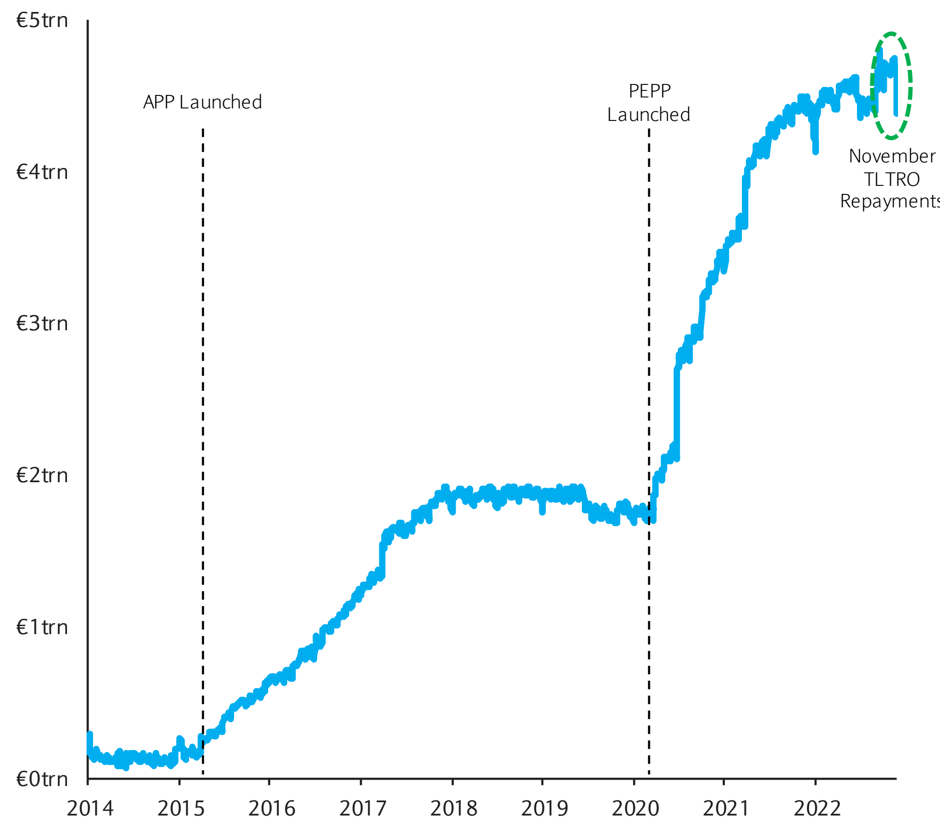
Many factors remain which should support structural collateral richness including:

- A low free float, which will only increase quite gradually given the very large stock of bonds already owned by the ECB and the likely slow pace of QT
- Continued APP and PEPP reinvestments for the foreseeable future
- High demand for front-end instruments
- A vast amount of excess liquidity remaining in the system (€4.4trn)

Additionally:

- At the September meeting, the ECB temporarily removed the 0% interest rate ceiling for remuneration of government deposits; this is currently due to be reinstated on 30th April 2023
- Central government deposits with the ECB are roughly €670bn
- If this ceiling is reinstated, we would likely see large-scale flows of these funds out of the deposit facility and into money market funds, short-term bonds, bills and GC
- This could significantly exacerbate the collateral scarcity situation once again

Eurozone Excess Liquidity



Source: Bloomberg, ECB

ECB Balance Sheet Normalisation

Outlook and Collateral Impact vs TLTRO Repayments

What do we know so far about the ECB's plans for QT?

From recent ECB communication, we know that commencing QT is on the agenda for 2023.

Whilst specifics have not yet been discussed in detail, comments from speakers have been consistent on several key points:

- It should be implemented passively – likely by stepping down to less than 100% reinvestment of coupons and redemptions of asset purchase programme (APP) holdings – rather than via active sales as in the UK
- It should be enacted in a 'gradual', 'measured' and 'predictable' manner
- A discussion on QT will be held at the 15th December ECB meeting, at which "the key principles of the reduction of the APP monetary portfolio" will be decided
- For context, circa €220bn of total APP redemptions are expected in 2023

Given the already heavy net supply outlook and the emphasis from recent speakers on the cautious approach of any programme:

- Barclays' baseline expectation is for QT to begin in Q2 2023 with a step down to 75% reinvestment of APP proceeds, followed by 50% in Q3, 25% in Q4 and an end to all APP reinvestments at the end of 2023
- The ECB will likely be watching closely to ensure the market continues to function effectively and prevent undue widening of sovereign spreads

How will QT compare to TLTRO repayments in terms of impact on collateral?

Whilst both TLTRO repayments and QT remove excess liquidity from the Eurosystem, their impact on collateral scarcity is likely to differ significantly:

- As discussed earlier, just 14% of collateral held against TLTROs is in the form of central government securities (most collateral consists of lower-quality credit claims)
- Thus, for every €1 of TLTRO repaid, on average just €0.14 of government bond collateral will be returned to the market
  - In reality this is likely to be non-linear, with more impact on collateral availability from earlier repayments given that government collateral is likely to be recalled prior to other claims
- By contrast, any coupons and redemptions not reinvested are a direct increase to net supply; thus, QT should have a one-for-one impact on net supply of EGB collateral
- However, the total size of TLTRO repayments is likely to be much larger than the total size of QT enacted in 2023, so the final impact will come down to the exact size of repayments vs. APP runoff
- One last point worth noting is that German specials scarcity is likely to be much more heavily impacted by APP runoff than TLTRO, given its full capital-key weighting within APP holdings vs. assumed very limited use as TLTRO collateral

Source: Barclays Research

Final Thoughts

Micro-Stresses and Conclusion

Micro-Stresses & Conclusion

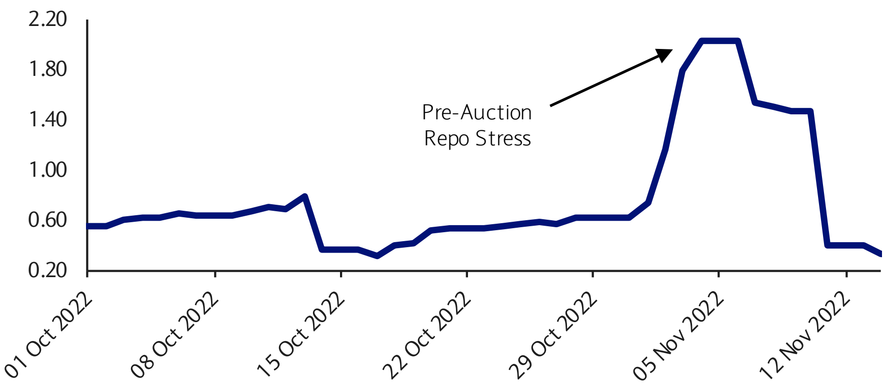
One final point worth highlighting in the context of still-scarce German collateral is the possibility for micro-stresses to eventuate in individual bonds:

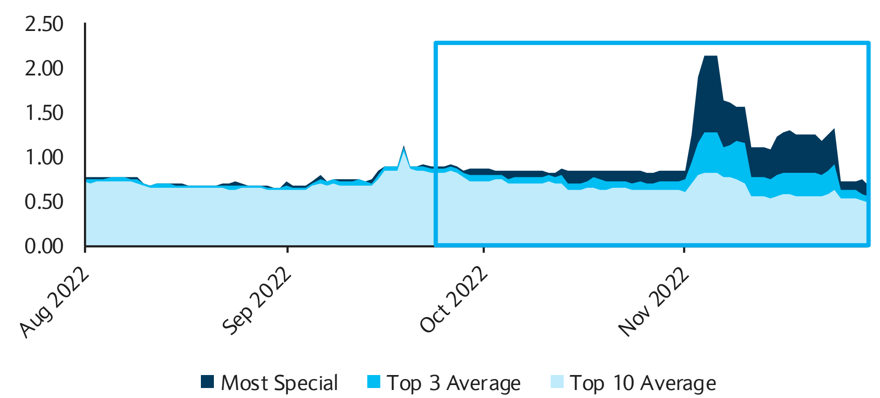
- For example, DBR 8/32 (the current on-the-run 10yr German bond) richened from a 62bp repo spread vs ESTR to 203bps within four days at the start of November
- Colour from dealers is that the bond was a target of short positions from hedge funds in advance of its auction the following week, and having been issued since the end of QE there is very little backstop supply amongst regular lenders of specials including the Bundesbank
- We saw similar dynamics in the current on-the-run 30yr, DBR 8/53, in advance of its own auction on 23rd November
- Another indicator of increasing ISIN-specific stress is the recent divergence we have seen in richness between the top 10, top 3 and most special German bond(s)
- If such episodes continue, the DFA may need to step in again in order to ensure effective market functioning

In conclusion:

- 2023 should bring collateral easing across the board given high net supply, initiation of QT and further TLTRO repayments
- However, factors supporting underlying structural scarcity remain, and further action may be required from the ECB / DFA to prevent stresses from leading to disorderly market conditions.

DBR 1.7 08/15/32 Repo Spread vs ESTR Excluding Turns (Upper Chart) & German Specialness vs ECB Depo (Lower Chart)





Sources: Barclays, BrokerTec

Discussion