The Price of Term Liquidity - Liquidity Coverage Ratio (LCR) Premium in the Term-Repo Market

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1. Abstract

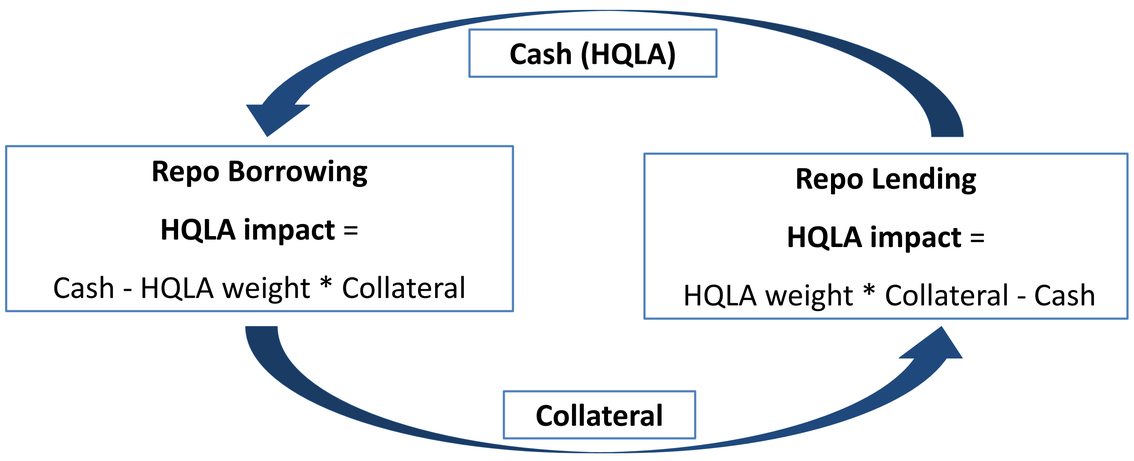
The analysis investigates a repo trade that allows banks to increase their Liquidity Coverage Ratio (LCR) by exchanging collateral that are not High Quality Liquid Assets (HQLA) for cash that fully counts as HQLA. We find that these types of trades in the term-repo market are becoming more popular both in relative and absolute terms. Based on rich and comprehensive MMSR transaction level data, we estimate the price for liquidity as a spread to the OIS that banks pay for generating HQLA and to improve their LCR. This premium varies over time and across banks in line with LCR needs.

2. Motivation

The LCR is one of the main measures for the liquidity resilience of banks:

$$\text{LCR} = \frac{\text{High Quality Liquid Assets (HQLA)}}{\text{Stressed Net Outflows over 30 Days}}$$

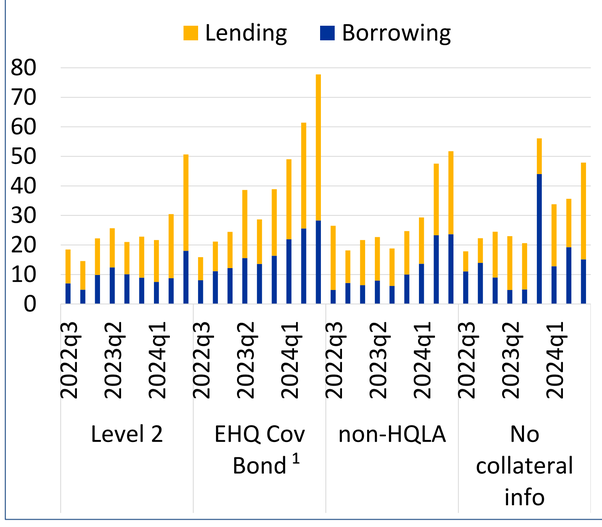
Banks can increase their LCR by borrowing cash in term repo against collateral with low or zero HQLA weights:



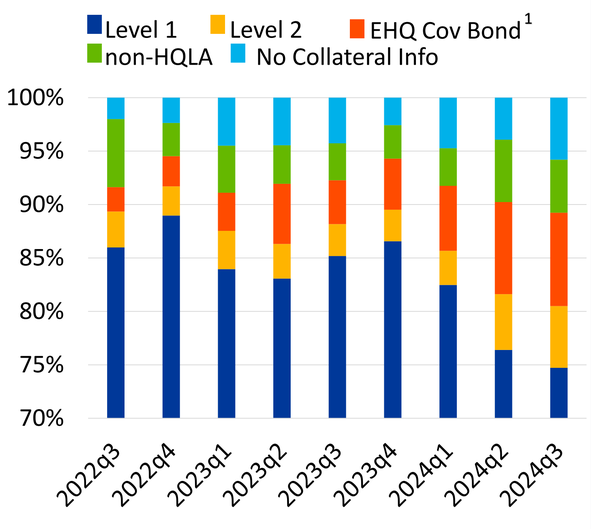
Borrowing HQLA impact = Collateral Value*(LCR Haircut-Repo Haircut)

The volume and share of transaction with non-HQLA collateral (LCR Haircut>0) in the term-repo market is increasing:

Quarterly total term repo volume (EUR bn)



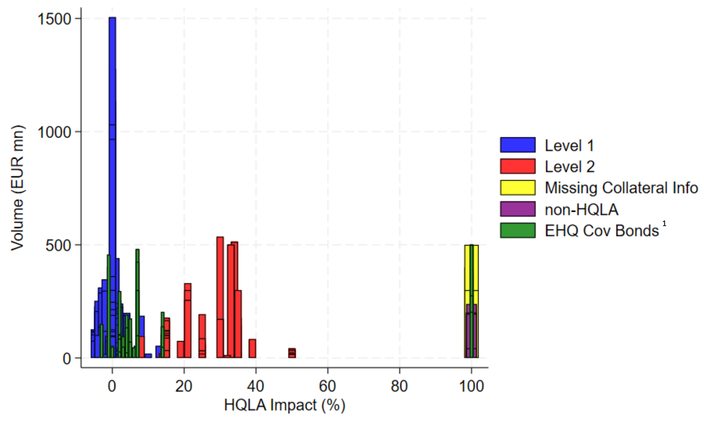
Quarterly term repo volume share by collateral category



1) Extremely high-quality covered bonds

3. MMSR transaction and collateral quality data

Based on MMSR transaction and collateral HQLA data, we can estimate the rate premium that is paid for transactions that have an impact on HQLA:



4. Results: Estimating the LCR premium

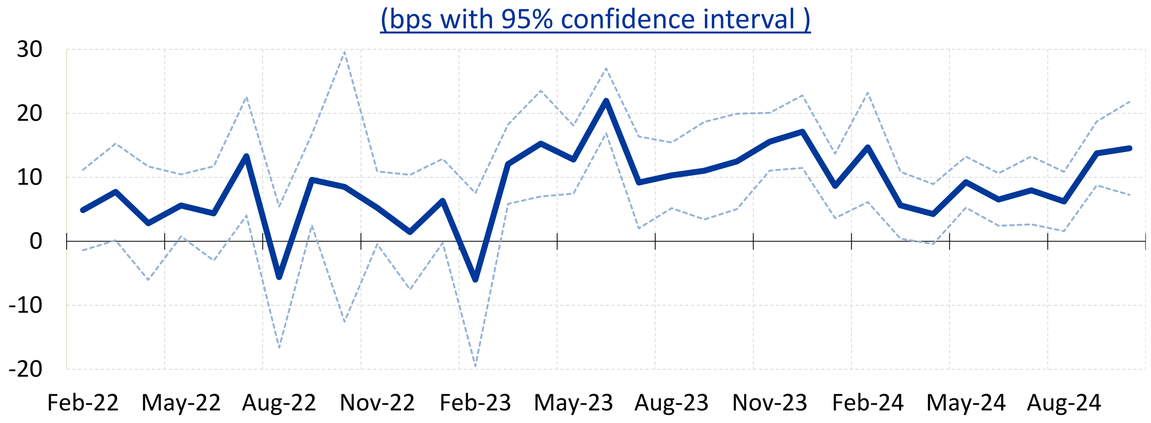
$$Rate\ Spread_j = \beta_1 * HQLA\ impact_j + \sum \beta_k * Controls + FE_t + FE_b + FE_c + FE_i + \epsilon$$

Dependent Variable: Repo Rate OIS Spread (bps)					
HQLA impact (%)	**0.27*** **	**0.22*** **	**0.20*** **	**0.21*** **	**0.14*** **
	(0.010)	(0.010)	(0.010)	(0.013)	(0.019)
Transaction Volume		0.94***	0.63***	0.18	0.23**
		(0.117)	(0.118)	(0.121)	(0.093)
Haircut		1.35***	0.83***	1.19***	0.41**
		(0.138)	(0.156)	(0.172)	(0.171)
Maturity Basket:					
2M up to 6M		0.27	0.95***	0.66***	0.54***
		(0.201)	(0.197)	(0.201)	(0.180)
6M up to 12M		3.14***	2.54***	0.78*	0.52
		(0.444)	(0.393)	(0.437)	(0.396)
12M+		8.77***	8.43***	4.81***	2.49***
		(1.253)	(1.357)	(1.152)	(0.740)
Time FE	No	**Yes**	**Yes**	**Yes**	**Yes**
Borrower FE	No	No	**Yes**	**Yes**	**Yes**
Lender FE	No	No	No	**Yes**	**Yes**
Issuer FE	No	No	No	No	**Yes**
Observations	8131	8131	8127	8096	8028
Adj. R2	0.28	0.40	0.51	0.63	0.71

- **LCR premium is estimated to be 14 bps above the maturity matched OIS rate for a 100% HQLA generation after full set of risk controls**

Interacting the LCR premium coefficient with month dummies provides a time series showing the variation of the premium over time:

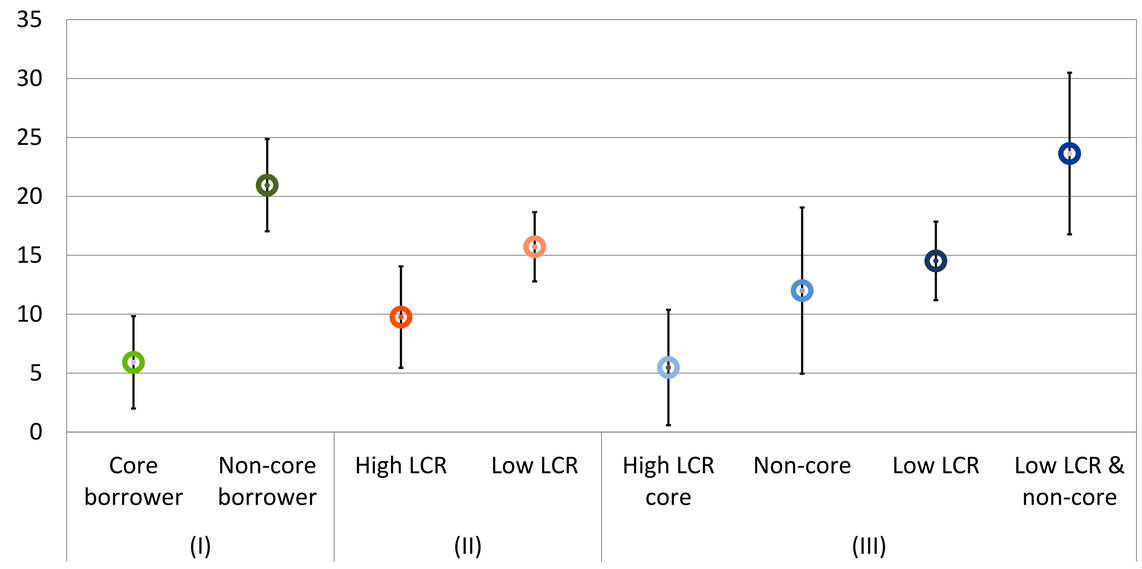
Monthly LCR premium (bps with 95% confidence interval)



- **LCR premium spiked before the large TLTRO payments in June 2023, year-end 2024 and increased recently.**

Interacting the LCR premium coefficient with borrower specific characteristics (location, LCR level relative to peers) allows to explore cross-sectional heterogeneity:

LCR premium by borrower location and LCR level (bps with 95% confidence interval)



- **LCR premium is higher for banks located in EU non-core countries and with relatively lower LCR values compared to their peers (bottom quartile within country and business model). Low LCR banks that are located in non-core countries pay a premium of 24 bps vs the 14 bps sample average.**

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