European Rates Viewpoint

Proposal to remove expert judgment from Euribor

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Key takeaways

- Euribor still relies heavily on expert judgment as volumes underlying panel bank submissions remain low
- EMMI's latest Consultation Paper means there will be no more need for expert judgment and increases €str's role in Euribor
- One risk is that Euribor may not capture increased funding costs in stress events as well as before

Euribor still relying on experts...

The volume of transactions underpinning the euro interbank offered rate (Euribor) panel bank submissions remains low, with a significant share of submissions still based on expert judgment (Exhibit 1). On 11 October 2023, the European Money Markets Institute (EMMI) published their Consultation Paper on Enhancements to Euribor's Hybrid Methodology. The summary of responses to the consultation will be made public in February 2024.

... EMMI's proposals mean no need for expert judgment...

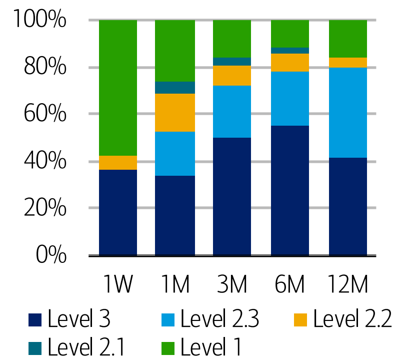
The Paper proposes enhancements for submissions based on transactions from prior dates. These are known as Level 2.3 submissions. Enhancements include 1) enlarging the scope of transactions from prior dates that can be used for Level 2.3 submissions, and 2) introducing explicit components to capture interest rate change and credit risk change. The proposed enhancements imply it is possible for a panel bank to always have a Level 2.3 submission. This means a further backstop would no longer be necessary and removes the need for Level 3 submissions, which rely on expert judgment, in the Euribor methodology.

... and may give €str a bigger role in Euribor methodology

In our view, there are four implications from the proposed enhancements. First, it opens the door for an euro-short term rate (€str) term rate to be actively used in Euribor submissions. Second, potential volatility of Euribor fixings may be reduced around future expiry dates. Third, the representativeness and diversity of the Euribor panel may increase. Fourth, there is a risk is that Euribor may not capture stress events as well as before.

Exhibit 1: Use of each level of the Euribor hybrid methodology

Level 3 still accounts for significant share



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Euribor still relying on experts

There are five defined tenors for Euribor: one-week, one-month, three-months, six-months, and twelve months. Euribor currently uses a hybrid methodology, where contributions follow a three-level hierarchical approach:

- Level 1: contributions solely on transactions at the defined tenor from the prior Trans-European Automated Real-time Gross Settlement Express Transfer System (TARGET) day.
- Level 2.1: based on linear interpolation with a spread adjustment from Level 1 contributions at adjacent defined tenors. Only applicable for one-month, three-month, and six-month tenors.
- Level 2.2: based on qualifying non-standard maturity transactions where the maturity date falls between two defined tenors. Can only be used to determine a contribution at the two nearest defined tenors.
- Level 2.3: based on market adjusted Level 1 contribution from prior fixing dates. Only applicable for one-month, three-month, six-month, and twelve-month tenors.
- Level 3: based on markets closely related to the unsecured euro money market using a combination of modelling techniques and/or the Panel Bank's judgment.

Data from EMMI's Transparency Indictor Reports show that Euribor submissions by panel banks based on Level 1 and 2 transactions have increased since 2022 (Exhibit 2). The largest increase in volumes used for Euribor submissions have been concentrated in the one-week tenor (Exhibit 3). For tenors greater than three-months, Level 3 submissions still account for the largest share of submissions.

Exhibit 2: Use of each level of the hybrid methodology for 3M tenor

Share of Level 1 and 2 increased since 2022 but remains low

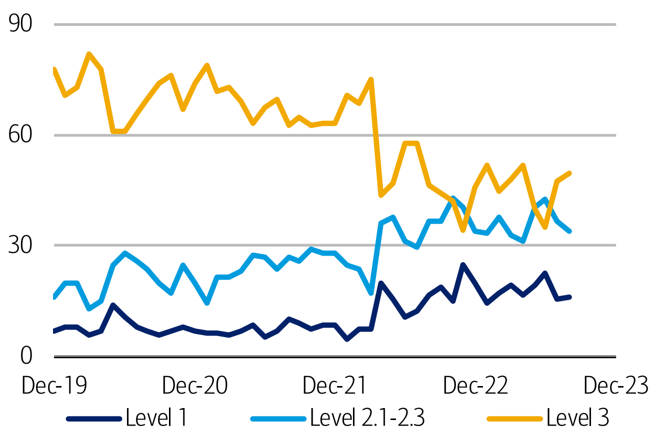

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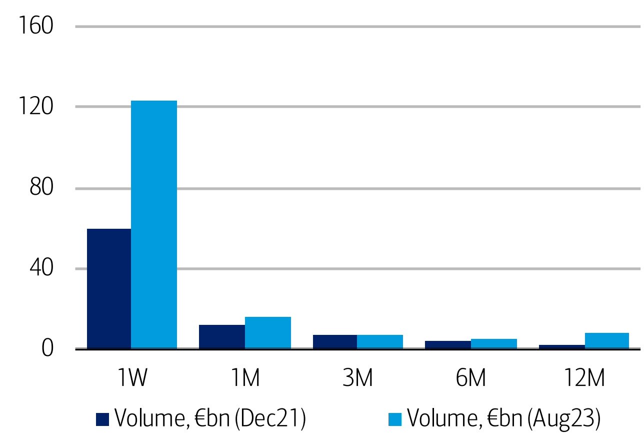
Exhibit 3: Aggregate notional volumes of transactions used in the determination of EURIBOR® (Level 1 and Level 2.2)

Increase in volumes since Dec21 mainly in one-week tenor



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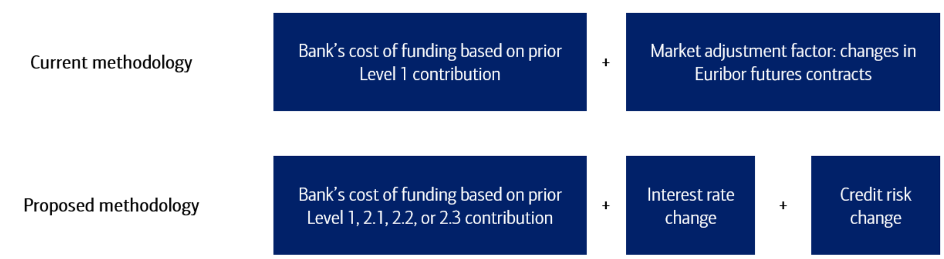
Proposal to remove expert judgment

On 11 October 2023, EMMI published their Consultation Paper on Enhancements to Euribor's Hybrid Methodology. The consultation period will remain open until 11 December 2023 and a summary of responses to the consultation will be made public in February 2024. The enhancements are for Level 2.3 submissions. Currently, Level 2.3 submissions are based on two components:

- **Cost of funding based on prior Level 1 contribution**. For the contribution on TARGET date T+1: Level 1 contributions on days T to T-4 may be used for one-month, three-month, and six-month tenors; Level 1 contributions on days T to T-6 may be used for the twelve-month tenor.

- **Market adjustment factor**. Calculated based on changes in the closing price of the Intercontinental Exchange (ICE) EURIBOR futures contracts for the quarterly months. For the one-month and three-month tenor: the change in the near-quarter contract is used; for the six-month tenor: the arithmetic average change in the first two near-quarter contracts is used; for the twelve-month tenor: the arithmetic average change in the first four near-quarter contracts is used.

Exhibit 4: Current methodology and proposed enhancements to Level 2.3 submissions
Proposed enhancements to decompose market adjustment factor into two components



Source: EMMI

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The proposed enhancements are for Level 2.3 submissions to be based on three components, which partly decomposes the market adjustment factor into two components (Exhibit 4):

- **Cost of funding based on prior Level 1, 2.1, 2.2, or 2.3 contribution**. The Panel Bank may use the previous day's Level 1, 2.1, and 2.2 contributions if it meets the Qualifying Criterion of satisfying at least the dynamic rate threshold test or the volume threshold test[1]. If neither test is satisfied, then older contributions will be examined until one meets the Qualifying Criterion. Prior Level 2.3 contributions are directly eligible.

- **Interest rate change** defined as changes in the EFTERM term rate, which is published by EMMI to capture changes in the risk-free rate. The EFTERM term rates are forward-looking €str term rates over defined tenor periods based on available market data on overnight index swaps and futures that reference €str.

[1] Dynamic rate threshold test: Day-to-day change of bank's contribution spread vis-à-vis EFTERM for the corresponding tenor must fall within two standard deviations from the average spread over a 21-day lookback period.
Volume threshold test: For Level 1 candidate rate, underlying volume is at least €20m; for Level 2.1 candidate rate, weighted average of the sum of the transaction underlying the Level 1 contribution in the adjacent tenors is at least €20m; for Level 2.2 candidate rate, sum of volumes underlying the split transaction composing the contribution at least €20m.

- **Credit risk change** defined as day-to-day changes between successive Euribor-EFTERM spreads.

The proposed enhancements imply it is possible for a panel bank to always have a Level 2.3 submission. This means a further backstop would no longer be necessary and removes the need for Level 3 submissions, which rely on expert judgment, in the Euribor methodology.

Illustrative examples

We illustrate how Level 2.3 contributions may be calculated for the three-month Euribor fixing as a measure of banks' term borrowing costs on 16 October 2023 using hypothetical examples. The purpose of the hypothetical examples is to increase clarity on how the three components are calculated under the proposed enhancements and how contributions prior to the previous day may be incorporated. We do not elaborate on calculations with respect to the Qualifying Criterion.

Euribor for date T is published on T+1, whereas EFTERM for date T is published on T. So for the publication date of 16 October 2023, the 3.975% 3M Euribor shows borrowing costs for banks on 13 October 2023, whereas the 3.921% 3M EFTERM is the 3M €str term rate on 16 October 2023.

Exhibit 5: Data to illustrate Level 2.3 contribution may be calculated under enhancements for 3M Euribor contribution on 16 October 2023

Figures are for illustrative purposes and examples are hypothetical

Publication date	3M Euribor fixing	3M EFTERM	Bank's contribution rate
11-Oct-23	3.952	3.922	
12-Oct-23	3.965	3.919	
13-Oct-23	3.985	3.920	3.99
16-Oct-23	3.975	3.921	3.98

Source: BofA Global Research, Bloomberg

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Example 1

- Contribution for 13 October met Qualifying Criterion or was Level 2.3: 3.98%

Level 2.3 contribution for 16 October:

Cost of funding: 3.98 + **Interest rate change**: (3.921 – 3.920)

+ **Credit risk change**: ([3.975 – 3.920] – [3.985 – 3.919])

= 3.970%

Example 2

- Contribution for 13 October was not Level 2.3 and did not meet Qualifying Criterion
- Contribution for 12 October met the Qualifying Criterion or was Level 2.3: 3.99%

Level 2.3 contribution for 16 October 2023:

Cost of funding: 3.99 + **Interest rate change**: [(3.921 – 3.920) + (3.920 – 3.919)]

+ **Credit risk change**: [{ (3.975 – 3.920) – (3.985 – 3.919) } + { (3.985 – 3.919) – (3.965 – 3.922) }]

= 4.004%

Four implications

Door opened for €str term rate to be actively used in Euribor submissions

The proposed enhancements to Level 2.3 would formally incorporate an €str term rate into the Euribor methodology. We believe this would be another step towards strengthening the relationship between €str and Euribor. Level 2.3 and Level 3 submissions accounted for between 36% and 80% of Euribor submissions in August 2023, depending on tenor. The proposed enhancements mean that Level 2.3 and Level 3 submissions under the current methodology would be made at Level 2.3 after the proposed enhancements, which means a significant share of submissions would be using the €str term rate.

Volatility of Euribor fixings may be reduced around future expiry dates

The current methodology for Level 2.3 uses price changes in certain Euribor futures contracts. Euribor submissions based on Level 2.3 may be subject to distortions when there is a change in the futures contract as expiry dates are approached: futures contracts are currently used for Level 2.3 Euribor submissions up to their penultimate full day of trading. The proposed enhancements for Level 2.3 mean price changes in futures contracts are no longer used and therefore removes this distortion risk.

Representation and diversity of the Euribor panel may increase

There are currently 19 panel banks in the Euribor panel, eighteen of which are spread across nine euro area countries and one of which is in the UK. EMMI stated in its Consultation Paper that the proposed enhancements may reduce costs and risks associated with Level 3 submissions. This may encourage more banks to join the Euribor panel, potentially increasing its representation and diversity. By way of comparison, there are 47 banks spread across ten euro area countries that contribute to the money market statistical reporting (MMSR) sample whose transactions are used to calculate €str.

Potential new panel banks may consider the European Union's Benchmarks Regulation (BMR) that may compel panel banks to contribute to critical benchmarks for up to five years if the potential panel bank intended to cease contributions in the future.

Euribor may not capture stress events as well as before

During stress events when credit risks increase, banks may find it difficult to raise funds from the unsecured wholesale market. Under the current Euribor methodology, a Level 3 submission in such circumstances may account for movements in closely related markets. This means a panel bank with a Level 3 submission may still reflect increased funding costs in the stress event.

But under the proposed enhancements, a Level 2.3 submission would account for credit risk changes with backward looking data only. Therefore, there is a risk the Euribor fixing may not capture increased bank funding costs from increased credit risks when volumes are low, especially at the onset of stress events.

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