Summary of stakeholder feedback about the Consultation Paper on Enhancements to Euribor's Hybrid Methodology

The European Money Markets Institute

D0023-2024

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Table of Contents

Executive Summary

On 11 October 2023, The European Money Markets Institute published the Consultation Paper on Enhancements to Euribor's Hybrid Methodology. The Consultation Paper sought market's feedback on the proposed enhancements to the Euribor Hybrid methodology. The methodology changes presented in the Consultation Paper consisted of:

- the reformulation of Level 2.3;
- the discontinuation of Level 3.

The consultation period closed on 11 December 2023. The European Money Market Institute received a total of twenty (20) responses from a range of stakeholders, including market participants, trade associations, infrastructure providers, and others.

International regulatory standards require benchmark administrators to establish procedures for potential benchmark evolution. Specifically, IOSCO Principle 10 advises a regular review of conditions in the benchmark's underlying market to assess whether adjustments to the benchmark methodology are necessary. The EU Regulation 2016/1011 on indices used as benchmarks (EU BMR) also addresses this matter extensively. Benchmark administrators are expected to select a determination methodology that accurately reflects the benchmark underlying interest, considering the market's structure and dynamics. As a result, EMMI and the Euribor Oversight Committee have the obligation to review the Euribor's methodology on a yearly basis. While the proposed enhancements result in a material change to the Euribor's hybrid methodology these should not be interpreted as a change in Euribor's underlying interest, which remains unchanged as "the rate at which wholesale funds in euro could be obtained by credit institutions in current and former EU and EFTA countries in the unsecured money market" (c.f. paragraph 1 in Benchmark Determination Methodology for EURIBOR)."These enhancements should not be considered as an automatic trigger event for the activation of fallback provisions in contracts referencing Euribor.

In the context of the recent Public Consultation, EMMI presented nine (9) questions to stakeholders concerning various facets of the proposed modifications to the Euribor hybrid methodology.

- Strengthening of Level 2.3 and discontinuation of Level 3

EMMI received broad support on its proposal to reformulate Level 2.3 and eliminate Level 3 from the Euribor hybrid methodology.

Respondents emphasised the benefits of implementing these changes, in particular reducing Panel Bank's risk exposure and operational burden. Additionally, they highlighted the important role that the implementation of these changes could have in a potential enlargement of Euribor's panel of contributors.

- Enlargement of the Level spectrum used in the calculation of the proposed Level 2.3

EMMI received broad support on its proposal to enlarge the starting point for the calculation of a Level 2.3 contribution. As a result, not only prior Level 1 contributions can be considered as a basis of Level 2.3, but also any prior Level 2 contributions.

- ❖ Redefinition of the Level 2.3's Market Adjustment Factor

EMMI received broad support on its proposal to redefine the Level 2.3's Market Adjustment Factor in terms of the changes in the euro "risk-free" rate curve and changes in the perceived credit risk.

A large majority of respondents agreed on the use of:

- the day-to-day Efterm rate differential to capture the daily changes in the euro area future "risk-free" rates trajectory;
- and the use of the day-on-day Euribor – Efterm spread term rate differential to capture the daily changes in the perceived credit risk.

However, two respondents identified a design oversight in the credit risk change component which led to a marginal revision in the proposed Level 2.3 methodology, consisting in including an additional control parameter.

- ❖ Dynamic rate and Volume threshold test

EMMI received broad support on its proposal to introduce a Dynamic rate and Volume threshold test as a set of eligibility criteria to ensure the representativeness of the 'Bank's cost of funding' component and prevent the perpetuation of one-off anecdotic market-driven outlier rate behaviour.

These two tests will undergo an annual review as an integral component of the methodology evaluation, ensuring their ongoing suitability for the intended purpose.

- ❖ Efterm as input data for the interest rate change component

EMMI received broad support on its proposal to use Efterm as input data to compute the interest rate change component. Market participants consider Efterm as an adequate instrument to measure the expected average evolution of wholesale euro unsecured overnight borrowing costs of euro area banks over defined tenor periods.

EMMI monitors daily the Efterm waterfall methodology to ensure its ability to reflect its underlying interest. Efterm also undergoes an annual review of its methodology. Moreover, the Efterm Oversight Committee has the responsibility of guaranteeing the adequateness of the governance surrounding its determination and the robustness of its methodology.

- ❖ Euribor versus Efterm spread as input data for the credit risk change component

EMMI received broad support on its proposal to use the Euribor versus Efterm spread to compute the credit risk change component. Most respondents consider it as an adequate way to measure the evolution of the perceived credit risk in the economy. As previously mentioned, two respondents identified a design oversight in the credit risk change component which led to a marginal revision of the proposed Level 2.3 methodology, consisting in including an additional control parameter.

❖ **Enhancements to the Market Adjustment Factor**

EMMI received broad support on its proposal to redefine the Level 2.3's Market Adjustment Factor. Market participants highlighted its ability to correctly represent the liquidity and credit risk in the market by maintaining an agile and efficient methodology.

❖ **The enhancements to the Euribor hybrid methodology paves the way for the discontinuation of Level 3**

A large majority of market participants agreed on the discontinuation of Level 3 as a consequence of the Level 2.3 reformulation.

Following the broad support to EMMI's proposals, the implementation of the enhancements to the Euribor hybrid methodology will be implemented in the course of 2024. EMMI has opted for a gradual approach in migrating the Euribor Panel Banks from the current methodology to the one incorporating the enhancements. The phase-in process is expected to begin in May 2024 and is expected to finalise after approximately six months.

1. Introduction

On 11 October 2023, EMMI released the Consultation Paper on the proposed enhancements to the Euribor hybrid methodology. The paper encapsulates EMMI's findings derived from an exercise conducted between January 2020 and May 2023 with a dedicated taskforce and the support of the Euribor Panel Banks to assess the suggested modifications to the Euribor hybrid methodology. The outcomes of this exercise can be summarised as follows:

- reformulation of Level 2.3;
- discontinuation of Level 3.

The proposed modifications to the Euribor Hybrid methodology resulted in a material change in the methodology which led EMMI to release a Public Consultation as per EMMI's internal policy. The material change is not to be interpreted as a change of the Euribor's underlying interest, which remains fully unchanged. On the contrary, the modifications proposed by EMMI to the Euribor hybrid methodology present an alternative approach to continue gauging the same economic reality. Therefore, these modifications should not result in an automatic trigger event as stipulated in the guidance provided by the Working Group on euro risk-free rates of the 11 May 2021, specifically articulated in Section 3.2.10, which emphasizes that a "*material change in the EURIBOR methodology as defined by the European Money Markets Institute (EMMI) should not result in an automatic trigger event*".

The consultation phase concluded on 11 December 2023, with EMMI receiving twenty (20) responses from various entities, including banks, trade associations, infrastructure providers, consultancy firms, and other respondents. A list of these respondents can be found in Section 4 of this document. This report aims to provide a summary of the feedback received from the respondents regarding EMMI's inquiries. When required, additional considerations to the concerns expressed by the respondents are provided.

2. Summary of the respondents' feedback to the questions of the Public Consultation

2.1. Strengthening of Level 2.3 and discontinuation of Level 3

Do you consider that EMMI's proposal to strengthen the Level 2.3 determination in a way that allows to discontinue Level 3 enhances the EURIBOR hybrid methodology?

EMMI received broad support on its proposal to reformulate Level 2.3 and eliminate Level 3 to enhance the Euribor hybrid methodology. A summary of the respondents' answers is illustrated in *figure 1.*

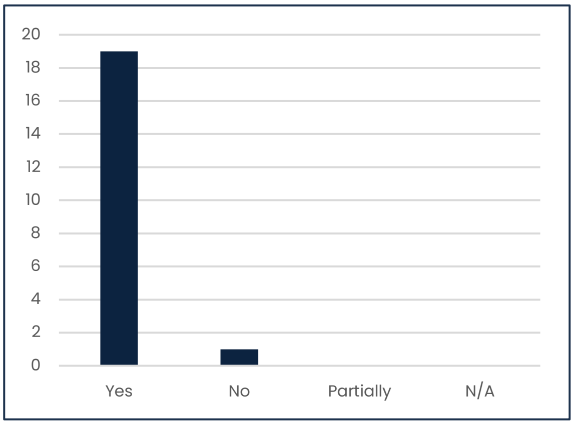

Figure 1: Respondents' answers to question 1

Following the public consultation, Level 2.3 will be revised with a new design allowing for the discontinuation of Level 3. Consequently, Panel Banks will no longer be obligated to submit rates calculated using their specific model-based contribution methods.

From the analysis of the respondents' feedback to the first question of the Euribor public consultation three topics can be identified:

1. the reduced risk and operational burden for Panel Banks;
2. the implementation of this change could have a positive impact on the enlargement of the Euribor panel of contributors;
3. the harmonisation of the Euribor hybrid methodology across all the Panel banks.

Nineteen (19) respondents believe that EMMI's intention to reformulate Level 2.3 and discontinue Level 3 would lead to an improvement in the Euribor hybrid methodology. Specifically, they indicated that this decision would minimise the risk exposure and operational burden for contributors. Panel Banks would no longer be required to submit Level 3 contributions, allowing for the dismantling of the supporting infrastructure. Consequently, entry barriers for banks seeking to join the Euribor panel of contributors would significantly decrease. Finally, this decision would ultimately result in the harmonization of the Euribor contribution methodologies across all Panel Banks. These positive aspects would be accompanied by the sustained ability of Euribor to accurately reflect its underlying interest.

2.2. Enlargement of the Level spectrum used in the calculation of the proposed Level 2.3

Do you agree that not only Level 1 contributions but also Level 2.1 or Level 2.2 could serve as basis for Level 2.3 contributions?

EMMI received broad support on its proposal to enlarge the starting point for the calculation of a Level 2.3 contribution. As a result, not only prior Level 1 contributions, as foreseen in the current methodology, can be considered as a basis of Level 2.3, but also any prior Level 2 contributions. EMMI considers that Level 2 contributions are accurate representations of a Panel Bank's cost of funding, transparently derived from the Panel Bank's real transactions. A summary of the respondents' answers is illustrated in *figure 2.*

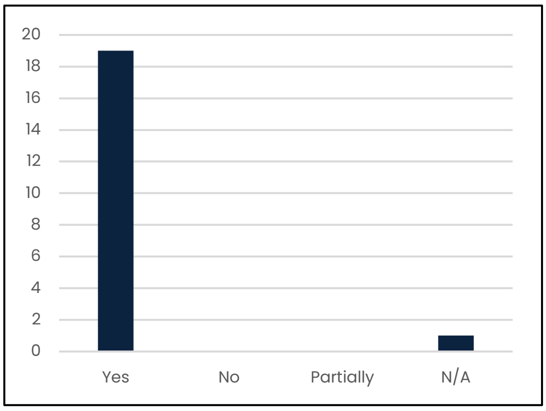

Figure 2: Respondents' answers to question 2

Nineteen (19) respondents have indicated that EMMI's intention to enlarge the starting point for the calculation of the "Bank's cost of funding component" would lead to a correct determination of the Level 2.3 contribution. As detailed later in this document, the levels used for the calculation of the Level 2.3 contribution will be subject to two Qualifying Criteria.

2.3. Redefinition of the Level 2.3's Market Adjustment Factor

Do you agree with the proposed redefinition of Level 2.3's Market Adjustment Factor in terms of the changes in the euro "risk-free" rate curve and changes in the perceived credit risk? Do you agree with the proposed proxies of the respective components?

EMMI garnered widespread support for its proposal to redefine the Market Adjustment Factor of Level 2.3 in terms of changes in the euro "risk-free" rate curve and changes in the perceived credit risk.

2.3.1. Interest rate change component

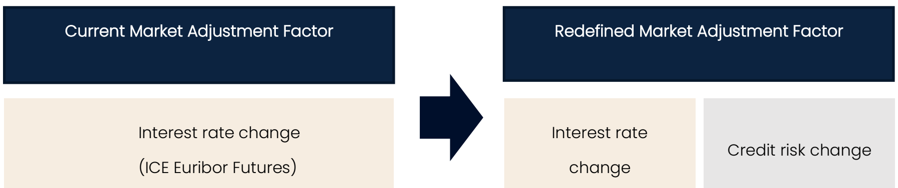

Figure 3: Market Adjustment Factor

Most respondents endorsed the use of the day-to-day Efterm rate differential for computing the interest rate change component. There is overall consensus on Efterm as the optimal choice for capturing daily changes in the trajectory of euro area future "risk-free" rates. EMMI carried out a thorough evaluation to identify the most appropriate instrument for calculating the interest rate change component. EMMI established the following criteria that an instrument must meet to be considered suitable for this task:

- The reference rate should be forward-looking, and able to capture interest rate changes and changes in the expected monetary policy path;
- The reference rate should align closely with the Euribor tenors;
- The reference rate should be published daily with a guarantee of future and continuous publication;
- The reference rate should be equipped with a robust governance framework; preferably as a benchmark as defined by EU BMR;
- The reference rate should be readily available.

Efterm stood out compared to other instruments and established itself as the ideal candidate for the interest rate change component by fulfilling all the aforementioned criteria. While a substantial majority of respondents expressed support for EMMI's proposal, two (2) market participants raised specific points. Firstly, they emphasized that the Efterm snapshots time should align with the time of the Euribor transactions, ultimately resulting in two benchmarks that co-move. Since the Efterm publication, the benchmark has consistently exhibited co-movement with the corresponding Euribor tenors, demonstrating a perfect correlation even during periods of significant market stress, for instance in March 2023, when the banking industry experienced a period of turbulence.

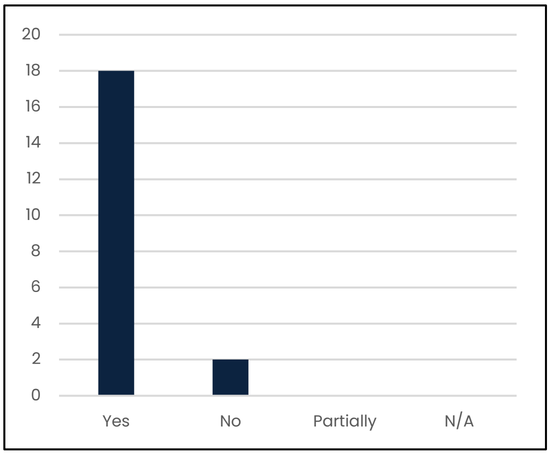

Figure 4: Respondents' answers to question 3

Secondly, they noted that Efterm determination currently is solely based on Efterm's Level 2 (€STR-based OIS dealer-to-client bid and offer prices and volumes). Since its publication in November 2022, Efterm has proven to be representative of its underlying interest. The Efterm methodology includes a Standard Market Size (SMS) that bid and offer quotes must meet to be included in the Efterm calculation. The SMS, unique to each Efterm tenor, ensures the inclusion of sufficient liquid quotes.

Furthermore, there is currently no instrument in the market that reflects the same underlying interest as Efterm and fulfils the criteria above.

2.3.2. *Credit risk change component*

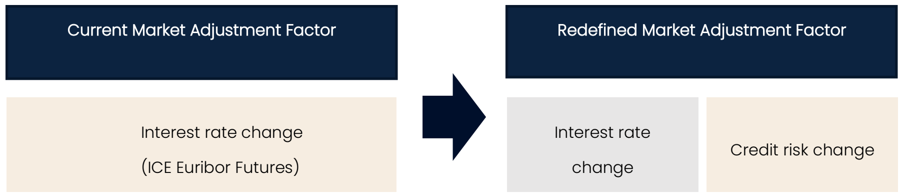

Figure 5: Market Adjustment Factor

A substantial majority of respondents supported the use of the day-on-day Euribor-Efterm spread term rate differential to capture the daily changes in perceived credit risk. Market participants indeed consider the employment of the Euribor-Efterm spread as the optimal balance between algorithmic complexity and the representation of perceived credit risk.

Among the eighteen (18) market participants who agreed with EMMI's proposal, two (2) raised specific points. Firstly, it was emphasized that during periods of severe financial market stress, the proposed credit risk change component might encounter challenges in updating correctly. The reason behind this concern is that, in order to calculate a Level 2.3 contribution with a reference period of t-1, the proposed methodology updates a contribution with a reference period of t-2 using a credit risk change component from the reference period of t-3 to t-2. This could potentially result in a slower response of the credit risk change component to severe market stress events. *Figure 6* provides a representation of this situation. However, it is worth indicating that such a scenario never occurred in the three-year simulation period (from January 2020 to May 2023) which covered periods of severe market stress, low market liquidity and interest rate volatility. Indeed, the methodology demonstrated its robustness during all the following periods:

- The COVID-19 related crisis;
- The Ukraine war;
- The European Central Bank rate-hiking;
- The Silicon Valley Bank failure.

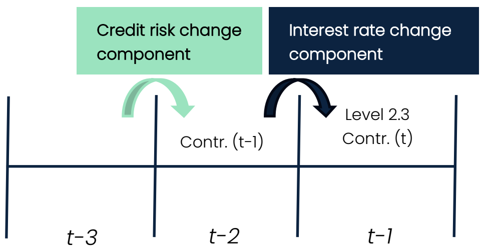

Figure 6: Level 2.3 formula in the three reference periods

The second point raised pertained to the credit risk change component's capability to adapt accurately during periods characterised by a limited number of transactions. EMMI was cognizant of this potential issue. The COVID-19 period stress-tested the proposed methodology's performance in periods characterised by few transactions. Consequently, internal simulations that included the COVID-19 period were conducted. Once again, the methodology demonstrated robustness in addressing this concern.

Of the two (2) market participants who expressed reservations with EMMI's proposal, two specific points were raised. The first point one referred to the reference period, as previously discussed. The second point highlighted a design oversight in the credit risk change component, resulting in a marginal revision of the proposed Level 2.3 methodology consisting in including an additional control parameter.

Specifically, it was noted that there is an inherent characteristic in the credit risk change component design that could lead to an incorrect Euribor fixing in rare scenarios. In order to prevent this situation, EMMI introduced an additional feature to the proposed Level 2.3 methodology: the "credit risk change component" will be considered in the calculation of Level 2.3 only if at least one Panel Bank submits a transaction-based contribution (level 1, 2.1 or 2.2) in a specific day and tenor; otherwise, the credit risk change component will be set to zero for this day and tenor. This adjustment has proven to be effective in addressing the identified issue.

2.4. Dynamic rate threshold test

Do you agree with the application of the Empirical Rule (under the assumption of normality referred to in the text) for the identification of outlier candidate rates for Level 2.3's Bank's cost of funding component?

EMMI received extensive support on its proposal to apply an empirical rule to identify outlier candidate rates for the Level 2.3's "Bank's cost of funding component". Consequently, this test serves to mitigate the persistence of isolated, market-driven outlier rate behaviour. Notably, contributions driven by transactions may exhibit higher-than-expected volatility, potentially influenced by factors such as the specific counterparty involved. A summary of the respondents' answers is illustrated in *figure 7*. Seventeen (17) respondents expressed the view that EMMI's decision to apply an empirical rule for identifying outlier candidate rates in the Level 2.3's "Bank's cost of funding component" is an appropriate measure to prevent the perpetuation of outlier rates. One (1) market participant suggested that it might be more effective to apply an empirical rule tailored for small sample sizes. However, EMMI has confirmed, through statistical analysis, that the chosen empirical rule is suitable for the probability distribution observed in the data under statistical testing.

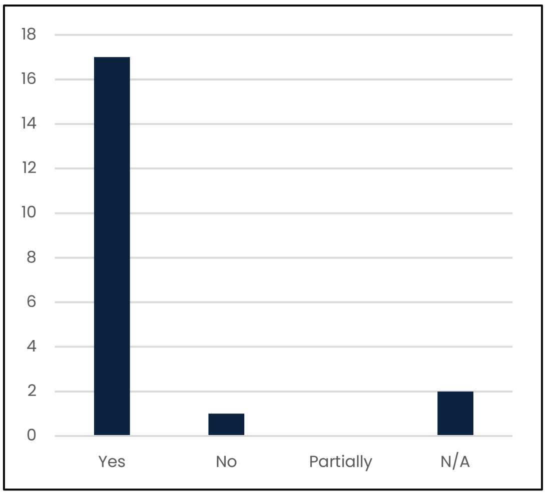

Figure 7: Respondents' answers to question 4

The dynamic rate eligibility test will undergo an annual review as an integral component of the methodology evaluation, ensuring its ongoing suitability for the intended purpose.

2.5. Dynamic rate and Volume threshold test

Do you consider that EMMI's proposal to introduce the two eligibility tests described above ensures the representativeness of the 'Bank's cost of funding' component and prevents the perpetuation of one-off anecdotic market-driven outlier rate behaviour?

EMMI received broad support on its proposal to introduce a set of Qualifying Criteria to ensure the representativeness of the 'Bank's cost of funding' component and prevent the perpetuation of one-off anecdotic market-driven outlier rate behaviour. The objective behind the implementation of this test is to guarantee that transactions with a significant volume, identified as outliers under the dynamic rate test, are considered. These transactions are regarded to reflect genuine changes in an individual Panel Bank's appetite for funds. *Figure 8* provides a summary of the respondents' feedback.

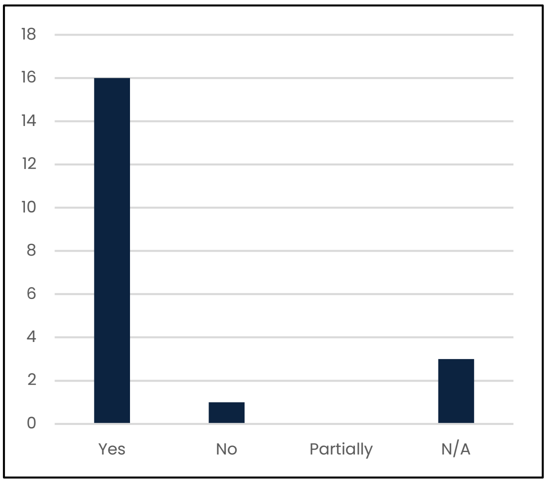

Figure 8: Respondents' answers to question 5

Sixteen (16) respondents expressed the view that EMMI's decision to apply the Dynamic rate and Volume threshold test is an adequate measure to ensure the representativeness of the 'Bank's cost of funding' component. Among the sixteen market participants who agreed with EMMI's proposal, three specific points were raised. First, a respondent sought reassurance regarding the efficacy of the proposed Qualifying Criteria in fulfilling their intended purpose during periods of market turmoil and credit rating downgrades affecting one or more of the Euribor Panel Banks.

As detailed in Section 2.3.2, EMMI's three-year simulation period encompassed periods of severe market stress, during which the Qualifying Criteria demonstrated resilience. Regarding the performance of the Qualifying Criteria in the event of a credit rating downgrade for one or more Euribor Panel Banks, EMMI affirms their suitability. Specifically, if a Panel Bank experiencing a credit rating deterioration executes a transaction at a rate identified as an outlier, such transactions will be included in the Level 2.3 calculation if the corresponding volume passes the Volume threshold test.

Secondly, a respondent suggested that EMMI could evaluate to introduce a bank specific Volume threshold test trying to align with the Panel bank's specific business model and jurisdiction. While this possibility was evaluated by EMMI, it was not retained in order to maintain the proposed methodology's agility. However, the Volume Threshold test will undergo an annual review as an integral component of the methodology evaluation.

One last point highlighted by a respondent is the option to exclude Level 2.3 contributions whose calculation is based on excessively dated inputs. EMMI chose not to incorporate this feature into the proposed methodology to allow for the calculation of Panel Banks' Level 2.3 contributions in all circumstances. Moreover, the Market Adjustment Factor proved to be highly effective in updating dated contribution rates.

2.6. Efterm as input data for the interest rate change component

Do you agree that Efterm is an adequate rate for the interest rate change component for the reviewed MAF in Level 2.3?

As explained in Section 2.3.1, EMMI received broad support on its proposal to use Efterm as input data to compute the interest rate change component. Market participants consider Efterm as an adequate instrument to measure the expected average evolution of wholesale euro unsecured overnight borrowing costs of euro area banks over defined tenor periods.

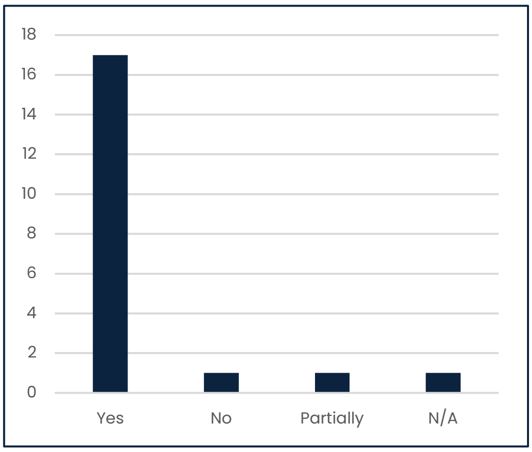

Figure 9: Respondents' answers to question 6

As shown in *Figure 9*, seventeen (17) respondents concurred with EMMI's proposal to use Efterm as input data for calculating the interest rate change component. However, one (1) market participant emphasised that, given Efterm's determination based on data selected within the time window from 8:30 am to 10:30 am, events not priced-in by the market and occurring after this designated time frame would be incorporated into the Euribor fixing one day later. In the case of unforeseen events, this scenario could manifest in tenors which are primarily composed of Level 2.3, notably the longer Euribor tenors. However, the potential delayed impact of the interest rate change component on longer Euribor tenors would be minimal due to their inherent nature of rates reflecting longer Panel banks' cost of funding expectations.

2.7. Euribor versus Efterm spread as input data for the credit risk change component

Do you consider that EMMI's proposal to base the change in the credit risk component on the Euribor versus Efterm spread is adequate?

EMMI received broad support on its proposal to use the Euribor versus Efterm spread to compute the credit risk change component. The large majority of market participants consider it as an adequate way to measure the evolution of the perceived credit risk in the economy.

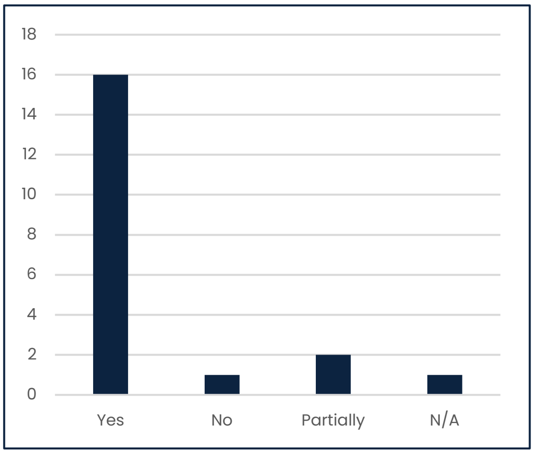

Figure 10: Respondents' answers to question 7

Sixteen (16) respondents endorsed EMMI's suggestion to utilise the Euribor versus Efterm spread for calculating the credit risk change component. Two (2) market participants disagreed with EMMI's proposal, citing reasons previously elucidated in previous sections. Firstly, they raised concerns about the potential delayed response of the credit risk change component during severe market stress, as highlighted in section 2.3.2. Second, they pointed at the design oversight which led to a marginal revision of the proposed Level 2.3 methodology.

Additionally, one (1) respondent queried whether the credit risk change component should be applied if a Panel Bank contribution rate falls below its corresponding Efterm tenor. Although, in theory, Efterm might be considered as a floor for its corresponding Euribor tenor, certain market conditions might challenge this assumption. Consequently, EMMI opted not to introduce any discretionary rules or interpretations regarding the application of the credit risk change component to the Level 2.3 algorithm, and therefore to reflect the prevailing market conditions. Instead, EMMI committed to consistently applying the same empirical rule.

2.8. Enhancements to the Market Adjustment Factor

Do you agree that the enhancements introduced in the MAF are adequate to capture both interest rate and perceived risk developments in the underlying market?

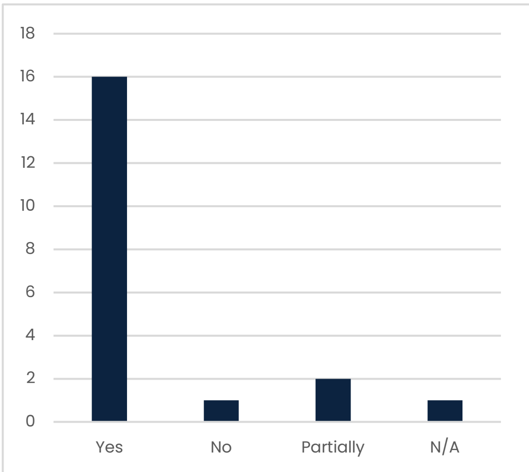

Figure 11: Respondents' answers to question 8

EMMI received extensive approval on its proposal to redefine the Level 2.3's Market Adjustment Factor. Market participants commended its capacity to accurately depict market liquidity and credit risk through an agile and effective methodology.

Out of the twenty (20) participants, only two (2) expressed partial agreement with EMMI's proposal, citing critiques outlined in sections 2.6 and 2.7, while one participant disagreed without specific feedback.

2.9. The enhancements to the Level 2.3 pave the way for the discontinuation of the Level 3

Do you agree with EMMI's assessment that the proposed enhancements to Level 2.3 endow Euribor's hybrid methodology with enough mechanisms to allow for the discontinuation of Level 3?

EMMI garnered widespread support for its proposal to reformulate Level 2.3 of the Euribor hybrid methodology with enough mechanisms to allow for the discontinuation of Level 3.

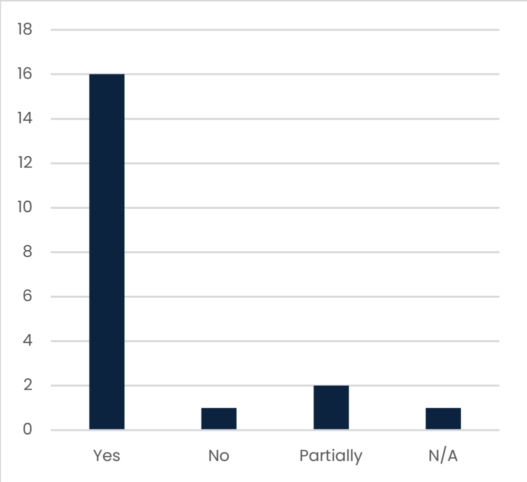

Figure 12: Respondents' answers to question 9

Sixteen (16) respondents endorsed EMMI's assessment that confirms the possibility to discontinue Level 3 as a result of the reformulation of Level 2.3. However, two (2) market participants expressed partial agreement with EMMI's conclusion, citing concerns outlined in the preceding sections. These concerns include the potential delayed response of the credit risk change component during severe market events, the different time-windows of the Euribor's and Efterm's snapshots and the Level 2.3 design oversight addressed in Section 3.

3. Next Step: the phase-in

EMMI conducted a thorough assessment to determine the most suitable approach for implementing the proposed methodology changes and concluded as follows:

- The phase-in will follow a gradual approach. Euribor Panel Banks will be gradually phased-in from the current hybrid methodology to the one incorporating the enhancements following an approach determined by EMMI.

- The starting of the phase-in is scheduled for May 2024, with the process expected to conclude after approximately six months.

- Euribor's transparency indicators will continue to be published on EMMI's website as usual. The figure illustrating the use of Level 2.3 will be adapted, aggregating the uses of Level 2.3 and Level 3 under a sole "Level 2.3*" category.

4. List of respondents

The European Money Markets Institute (EMMI) thanks all consultation respondents for their feedback on EMMI's proposal to reformulate Level 2.3 and discontinue Level 3. One (1) out of the twenty (20) organisations that responded to the consultation requested anonymity. In accordance with EMMI's Consultation Policy, their names are not included in the list below.

Organisation
ACI France and FBF
Assiom Forex
Barclays
Gruppo Banco BPM
Banco Bilbao Vizcaya Argentaria
BNP Paribas
Groupe BPCE and Natixis
Banco Santander
Crédit Agricole
Caixa Geral de Depósitos
Caixa Bank
CME Group
HSBC
ING
Banca Intesa Sanpaolo
Kreditanstalt für Wiederaufbau (KFW)
Nordea Bank
SITA
Société Générale

5. Annex

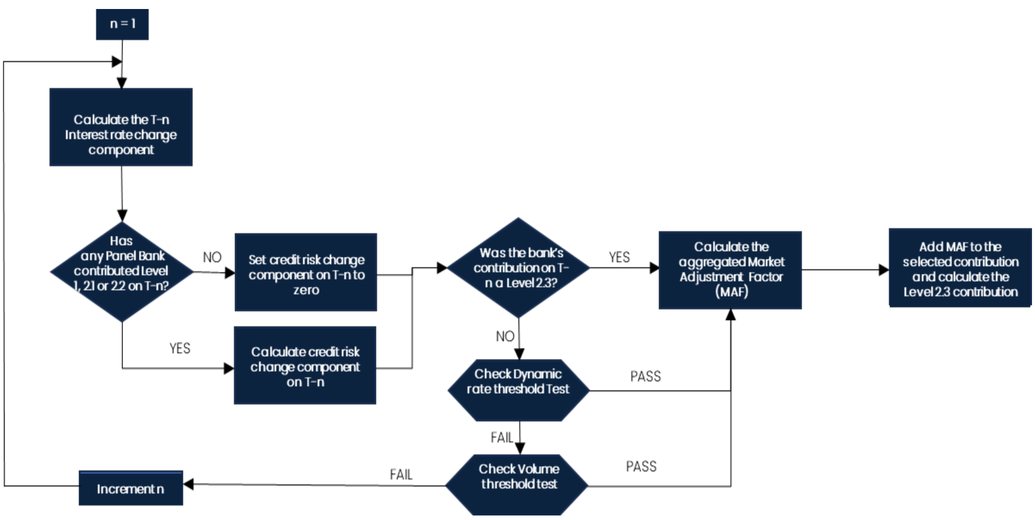

Figure 13: Euribor Level 2.3 flow chart for a specific Tenor, Target date and Panel Bank