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PRE-LIVE VERIFICATION PROGRAM

OUTCOME AND WAY FORWARD

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European Money Markets Institute

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*The **European Money Markets Institute** (**EMMI**, formerly known as Euribor-EBF) is an international non-profit making association under Belgian law founded in 1999 with the launch of the euro and based in Brussels (56, Avenue des Arts, 1000 Brussels.*

As per EMMI's statutes, EMMI is a non-profit organization. Its purpose is twofold:

I. *The development and support of activities related to the money and interbank markets. To that end, the association shall have the task of making an evaluation of fluctuations in the interest rates in the money and interbank markets of the euro area and of providing the results of its research to the monetary authorities and interested parties who are active in these markets.*

II. *In ancillary, the association shall also serve to support other practical initiatives fostering the integration of the European financial market such as but not limited to the improvement of the liquidity, safety and transparency of the European short term debt market by means of a harmonized framework for short-term European paper 'STEP'.*

EMMI currently provides the following two indexes: Euribor®, the money market reference rate for the euro and Eonia®, the effective overnight reference rate for the euro.

EMMI is continuously working to enhance its governance framework and to improve the quality, integrity, and transparency of its benchmarks. Moreover, EMMI strives to develop suitable benchmarks adapted to the latest regulatory requirements.

KEY POINTS

- EMMI conducted a six-month pre-live verification exercise (PLV Program) to assess the feasibility of evolving the current quote-based methodology towards a fully transaction-based methodology through a seamless transition path. The Program, which also aimed to test the transaction-based methodology under the current market conditions, ran from September 2016 to February 2017.

- The PLV Program has allowed EMMI to have an in-depth view of the market underpinning Euribor. It confirmed that market activity has changed as a result of current regulatory requirements, other sources of liquidity available to market participants, and other external factors. It also shows a shift in funding patterns from interbank to wholesale.

- Through the PLV Program EMMI concludes that the current market conditions do not allow for a fully transaction-based methodology for Euribor via a seamless transition.

- On the basis of this analysis and of guidance received from the Belgian Financial Services and Markets Authority (FSMA)[1], the EMMI Board of Directors and General Assembly have decided to proceed with the continuation of the current quote-based Euribor methodology while developing a hybrid methodology supported by transactions whenever available, and relying on other pricing sources when necessary, in line with the EU Benchmarks Regulation.

- A hybrid methodology will cater for sufficient flexibility to enable the Euribor benchmark to fully adapt to a variety of market conditions, being therefore reflective of the underpinning market and fit-for-purpose.

- EMMI remains committed to reforming the Euribor methodology to ensure that it better reflects the underlying interest it intends to measure and that, to the extent possible, is anchored in transactions. EMMI continues to approach this transition as an inclusive process and thus, will continue to consult and reach out to the FSMA and other public authorities, panel banks, market participants and the broad stakeholder community to ensure their engagement and support with the methodological reforms to be implemented.

[1] EMMI's National Competent Authority.

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1 BACKGROUND

1.1 Importance of benchmarks

Reference rates based on unsecured interbank short-term lending and borrowing were introduced in the late 1960s and are now dominant in financial systems. They serve as benchmarks, used to measure the relative performance of investment returns or funding costs, or as reference rates upon which financial instruments are contracted to establish terms of agreement. Over the past years, benchmarks have become an essential tool in our economy as these indices are used to determine the level of payment in a financial contract, whereby neither party to the contract has any control over their setting. Given their importance it is key that benchmarks are robust, reliable and transparent failing which confidence in contractual relationships referencing a benchmark will be seriously undermined.

With the start of the euro in January 1999, the Euribor index was created and replaced domestic reference rates across the Eurozone. Euribor is nowadays a major euro interest reference rate, administered by the European Money Markes Institute (EMMI, formerly known as Euribor-EBF).

In light of its wide use in the global financial system as a benchmark for a large volume and broad range of financial products and contracts, in August 2016 Euribor was designated as a critical benchmark, a qualification indicative of its systemic importance for financial stability.

1.2 Regulatory context

During 2012, highlighted vulnerabilities of benchmarks raised concerns about the appropriateness of the processes and methodologies used in determining reference rates. As a result, initiatives in a number of fora were established to analyse how the increasing loss of confidence could be improved, including the UK Treasury Wheatley Review of Libor (September 2012), the EBA/ESMA Principles for Benchmark-Setting Processes in the EU (June 2013), and the IOSCO Principles for Financial Benchmarks (July 2013).

On 22 July 2014, the Financial Stability Board (FSB) published its report *Reforming Major Interest Rate Benchmarks.* In line with the IOSCO *Principles for Financial Benchmarks*, the FSB report recommends to strengthen "IBORs and other potential reference rates based on unsecured funding costs by underpinning them to the greatest extent possible with transactions data (IBOR+)"[2]. To this end, the report acknowledges that "the administrators may have to consider a wide set of methodological changes to or clarification of what the benchmark is intended to represent." (See [FSB14, page 2].)

Over the past three years EMMI has implemented wide-ranging reforms related to its benchmark administration activities. These reforms aim to ensure EMMI has established and is operating a best-in-class governance, oversight, and control framework that is in alignment with the ESMA-EBA Principles and the IOSCO

[2] The FSB recommends "strengthening existing IBORs and other potential reference rates based on unsecured bank funding costs by underpinning them to the greatest extent possible with transactions data" (these enhanced rates are addressed as "IBOR+"). See [FSB14, page 2].

Principles for Financial Benchmarks, as well as with the EU Regulation on indices used as benchmarks in financial instruments and financial contracts, adopted on 30 June 2016.

While EMMI has made significant progress in enhancing the transparency as well as the governance and control framework of the Euribor benchmark rate-setting process, the current Euribor methodology remains based on collecting quotes from contributing banks and the use of expert judgment. All the above-mentioned regulatory requirements and recommendations established that a benchmark should be "anchored in transactions, to the extent possible".

In this context, EMMI started to work on the development and evaluation of a fully transaction-based benchmark methodology for Euribor, guided by the FSB's criteria to ensure reference rates command widespread private and official sector support [FSB14, pages 3f]:

(1) The benchmark rates should minimize the opportunities for market manipulation;

(2) The benchmark rates should be anchored in observable transactions wherever feasible;

(3) The benchmark rates should be robust in the face of market dislocation and should command confidence that they remain resilient in times of stress.

1.3 Fully transaction-based Euribor

Phase 1: Methodology development

The first phase of the project on the evolution of Euribor from a quote-based to a fully transaction-based methodology focused on the formulation of a robust and reliable methodology. This was achieved by using transactional data gathered through two extensive data collection exercises performed in 2013 with the collaboration of over 50 banks and with the technical support of the European Central Bank (ECB). The initial development and design work was conducted with the guidance of a dedicated task force and involved analyses of these data, formulation of the new transaction-based methodology, and a series of stakeholder outreach exercises.

The October 2015 EMMI Consultative[3] Paper on the Evolution of Euribor included a preliminary assessment of the rate level and volatility characteristics of Euribor determined using the proposed transaction-based methodology. However, the data for this assessment covered the period 2012/13 and, as such, it was acknowledged that these estimates are most likely not reflective of current market conditions.

Market conditions in the euro area during that period were noticeably different from those prevailing in the current environment. Credit conditions have eased substantially compared to 2012/13 levels – both in the financial and non-financial sectors; long-term liquidity has increased significantly as a result of the ECB's expanded asset purchase programmes and the targeted long-term refinancing operations (TLTROs); and interest rates have moved into negative territory.

[3] EMMI's October 2015 Consultative Position Paper on the evolution of Euribor

Phase 2: Pre-Live Verification Program

After undertaking an in-depth stakeholder consultation, EMMI launched a six-month Euribor Pre-Live Verification Program[4] prior to the planned switch-over to the new transaction-based determination methodology, to have a complete understanding of the market underpinning Euribor and assess whether it would be appropriate to proceed with the implementation of a fully transaction-based methodology *via* a seamless transition path under the current market conditions.

This would require that the rate level and the volatility of the reformed benchmark should remain similar after the changes in the methodology are made or implemented, as detailed on the 2015 EMMI Consultative Position Paper on the Evolution of Euribor.

[4] The Euribor Pre-Live Verification Program run from September 2016 to February 2017. EMMI announces that the PLV Program is well on track (see press release on EMMI's webpage here)

2 PRE-LIVE VERIFICATION PROGRAM: DATA ANALYSIS

In the context of the Pre-Live Verification Program (PLV Program), EMMI has been collecting data from **31 banks representing 12 countries across Europe**.

Banks participating in the PLV Program have reported their transactions covering a **six-month period from 1st September 2016 to 28th February 2017**.

This data collection has been subsequently followed by an exhaustive data analysis exercise conducted by the EMMI Secretariat in consultation with the Belgian FSMA as its National Competent Authority, in order to inform the decision to be taken by EMMI's Board of Directors and General Assembly with regards to the feasibility of evolving the current quote-based Euribor methodology to a fully transaction-based methodology.

The analysis contained in this report was performed with the full sample as described above as well as with a smaller subsample, containing the banks which are currently part of the Euribor Panel, representing 10 different countries in Europe.

When assessing the feasibility of evolving the current quote-based Euribor methodology to a fully transaction-based methodology *via* a seamless transition, EMMI has based its decision on the two key indicators below, which have been applied against both samples of banks and for all tenors proposed in the position paper (1 week, 1 month, 3 months, 6 months, 12 months).

1. **Rate levels and volatility**

As indicated above, the implementation of a fully transaction-based Euribor following a seamless transition path would require that the levels of the rates and volatility under the current quote-based methodology and the proposed transaction-based methodology are sufficiently similar.

EMMI has closely monitored the **rate and volatility levels under both methodologies (i.e. current quote-based vs. transaction-based) and considered that these are not sufficiently similar**. Hence, a seamless transition is not feasible under the current market conditions.

2. **Daily activity: number of parties reporting transactions and aggregate volume**

The PLV Program has given EMMI an opportunity to have an extensive view of the market underpinning Euribor. It shows that market activity has changed.

The current regulatory environment and monetary policy, including negative interest rates, and other sources of liquidity available to market participants (which has reduced the need for financial institutions to obtain market-based funding), are factors that have led to such changes in the activity in the unsecured money market.

In the light of this **decrease of the aggregate unsecured borrowing transacted volumes and on the number of parties reporting transactions on a daily basis**, the gap-filling techniques described on the position paper are not effective in reducing the volatility levels.

The decrease in the daily market activity under the current market conditions, does not allow for a methodology which is fully based on transactions, as this would not yield a sufficiently sound and robust benchmark.

As part of its analysis, EMMI has also assessed the following elements:

a) Activity in the interbank market and activity in the wholesale market (inclusion/exclusion of non-financial corporates)

   The findings highlight the shift in funding patterns from interbank to wholesale markets. This analysis brings further evidence to the arguments expressed in the October 2015 Consultative Paper on the Evolution of Euribor, in which EMMI explained that bank-to-bank was a predominant source of bank funding during the 1980s and 1990s, but the last decade had witnessed a steady decline of interbank activity and an increased reliance on broader wholesale funding.

b) Market activity for all current tenors in the Euribor curve (1-week, 2-weeks, 1-month, 2-months, 3-months, 6-months, 9-months, 12-months)

   EMMI analysed the market activity for all the current tenors in the Euribor curve. The findings show that market activity is higher on the tenors proposed on the position paper (1-week, 1-month, 3-months, 6-months and 12-months) than on the 2-months and 9-months tenors.

3 CONSULTATION WITH EMMI'S NATIONAL COMPETENT AUTHORITY: THE BELGIAN FSMA

EMMI and the FSMA have been in regular contact concerning all aspects of the Euribor Reform. EMMI has given weekly updates to the FSMA on the PLV Program and informed the FSMA on all steps of the transition process.

Accordingly, once **EMMI's analyses of the PLV Program were completed, EMMI sought for the FSMA's guidance** on the feasibility of various transition scenarios.

The **Belgian FSMA has conducted its own analyses, based on a broader dataset, with results that corroborate EMMI's findings on the basis of the PLV Program data**.

Moreover, the FSMA has found that the sample of 31 banks participating in the PLV Program faithfully portrays the reality of the market underpinning Euribor and that the same goes for the current Euribor panel.

4 WAY FORWARD

After discussions with the FSMA as its National Competent Authority, the EMMI Board of Directors and General Assembly have decided to pursue a hybrid methodology anchored in transactions to the extent possible.

EMMI as an administrator of a critical benchmark sees that one of its **major obligations is to choose a determination methodology that faithfully portrays the Underlying Interest, being mindful of the market's structure and dynamics.** Administrators should ensure methodologies which prove robust enough in the face of market dislocation and remain resilient in periods of market stress.

The Pre-Live Verification data analysis has enabled EMMI to have an in-depth knowledge of the market underpinning Euribor which shows changes in the market conditions given regulatory requirements, other sources of liquidity available to market participants, among other external factors.

In this context, EMMI acknowledges that the current market conditions do not allow for a methodology which relies exclusively on transactions. However, **EMMI remains committed to reforming the Euribor methodology to ensure that it better reflects the underlying interest it intends to measure**. Accordingly, it will **continue working on a methodology anchored in transactions whenever available, in line with the EU Benchmarks Regulation and other regulatory requirements.**

Therefore, on the basis of such outcome, **EMMI will continue with the current quote-based Euribor methodology while developing a hybrid methodology supported by transactions whenever available, and relying on other prices when necessary.**

A hybrid methodology caters for different levels of market activity: it can be applied in periods with buoyant market activity, as well as in periods where there would be as good as no activity at all. Hence, this model will provide for sufficient flexibility to enable the Euribor benchmark methodology to fully adapt to the prevailing market conditions, being therefore fit-for-purpose.

EMMI will convene a Task Force to develop this hybrid methodology. **EMMI continues to see this transition as an inclusive process and thus, further stakeholder consultations on the methodological adaptations to be implemented, will follow**. To this end, EMMI will continue collaborating with the FSMA and other public authorities, panel banks, market participants and the broad stakeholder community to ensure their engagement and support with the forthcoming methodological reforms.

Finally, EMMI wishes to stress that there will be no immediate changes to the Euribor methodology and that the current quote-based Euribor will be continued for the period necessary to develop an alternative methodology.

5 TENTATIVE TIMELINE

Q2 2017	**EMMI announces the outcome of the Euribor PLV Program**
H2 2017	**Development of hybrid methodology for Euribor**
H1 2018	**Impact assessment of hybrid methodology for Euribor**
H2 2018	**Stakeholder consultation on the hybrid methodology prior to its implementation**