

# Introduction of euro risk-free rates: operational implications from a back-office perspective

ECB OMCG Meeting March 6th  
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## 01. BACKGROUND

Since 2009 regulators and public authorities investigated in several jurisdictions the misconduct related to LIBOR, EURIBOR and TIBOR.

There were a great number of concerns regarding the integrity and reliability of financial markets benchmarks, interest rate and FX.

The G-20 held on 2013 at Saint Petersburg, asked Financial Stability Board (FSB) to undertake a review of major interest rate benchmarks (IRB) and coordinate proposals to reform the IRB in a robust way and an appropriate use of them by market participants.



## Several initiatives:

- “[Wheatley Review of LIBOR](#)”, Financial Service Authority (FSA) [Sept. 2012](#). Public consultation by European Commission, and principles for the determination process of benchmarks published by EBA-ESMA and by IOSCO.
- FSB published “Reforming Major Interest Rate Benchmarks” July 2014 and “Final Report on Foreign Exchange Benchmarks” Sept. 2014, both supported the “[Principles for Financial Benchmarks](#)” [Sept. 2013](#) published by IOSCO.
- On [June 29<sup>th</sup> 2016](#) European Parliament and the Council of European Union published [Regulation EU 2016/2011 \(BMR\)](#).



## 02. MAIN FEATURES BMR

### Definitions Art 3

- ‘index’ is any figure that is published or made available to the public and is regularly determined.
- ‘administrator’ means a natural or legal person that has control over the provision of a benchmark.

### Input data Art 11

The input data shall be sufficient to represent accurately and reliably the market or economic reality that the benchmark is intended to measure. The input data shall be transaction data, if available and appropriate. If transaction data is not sufficient or is not appropriate to accurately and reliably represent the market or economic reality that the benchmark is intended to measure, input data which is not transaction data may be used, including estimated prices, quotes and committed quotes, or other values.

## Methodology Art 12

An administrator shall use a methodology for determining a benchmark that is robust and reliable; that has clear rules identifying how and when discretion may be exercised in the determination of that benchmark; that is rigorous, continuous and capable of validation including, where appropriate, back-testing against available transaction data; that is resilient and ensures that the benchmark can be calculated in the widest set of possible circumstances, without compromising its integrity and that is traceable and verifiable.

## Categories Art 20, 24 and 26

BMR establishes the requirements for different categories of benchmarks



CRITICAL (20)	SIGNIFICANT (24)	NON-SIGNIFICANT (26)
<p>When the benchmark is used as a reference for financial instrument or contracts or measuring the performance of funds with a value of at least 500 Billion €.</p> <p>Also if the value is at least 400 Billion € and the benchmark has no or very few substitutes, and problems on the calculation may cause significant and adverse impacts on market integrity, financial stability, consumers, the real economy, or the financing of households and businesses in one or more Member States.</p>	<p>When the benchmark is used as a reference for financial instrument or contracts or measuring the performance of funds with a value of at least 50 Billion € and are not included as critical. Also below this threshold if the benchmark has no or few substitutes.</p>	<p>The benchmark not included in the previous categories</p>
<p>The administrator of a critical benchmark is supervised by the college. The college shall comprise the competent authority of the administrator, ESMA, the competent authorities of supervised contributors, competent authorities of other Member States shall have the right to be members of the college when proving the criticality of the benchmark in their State.</p>	<p>The administrator shall be registered at ESMA, and they may not apply all the provisions of a critical index when these were disproportionate (Art25).</p>	<p>The administrator shall be registered at ESMA.</p>

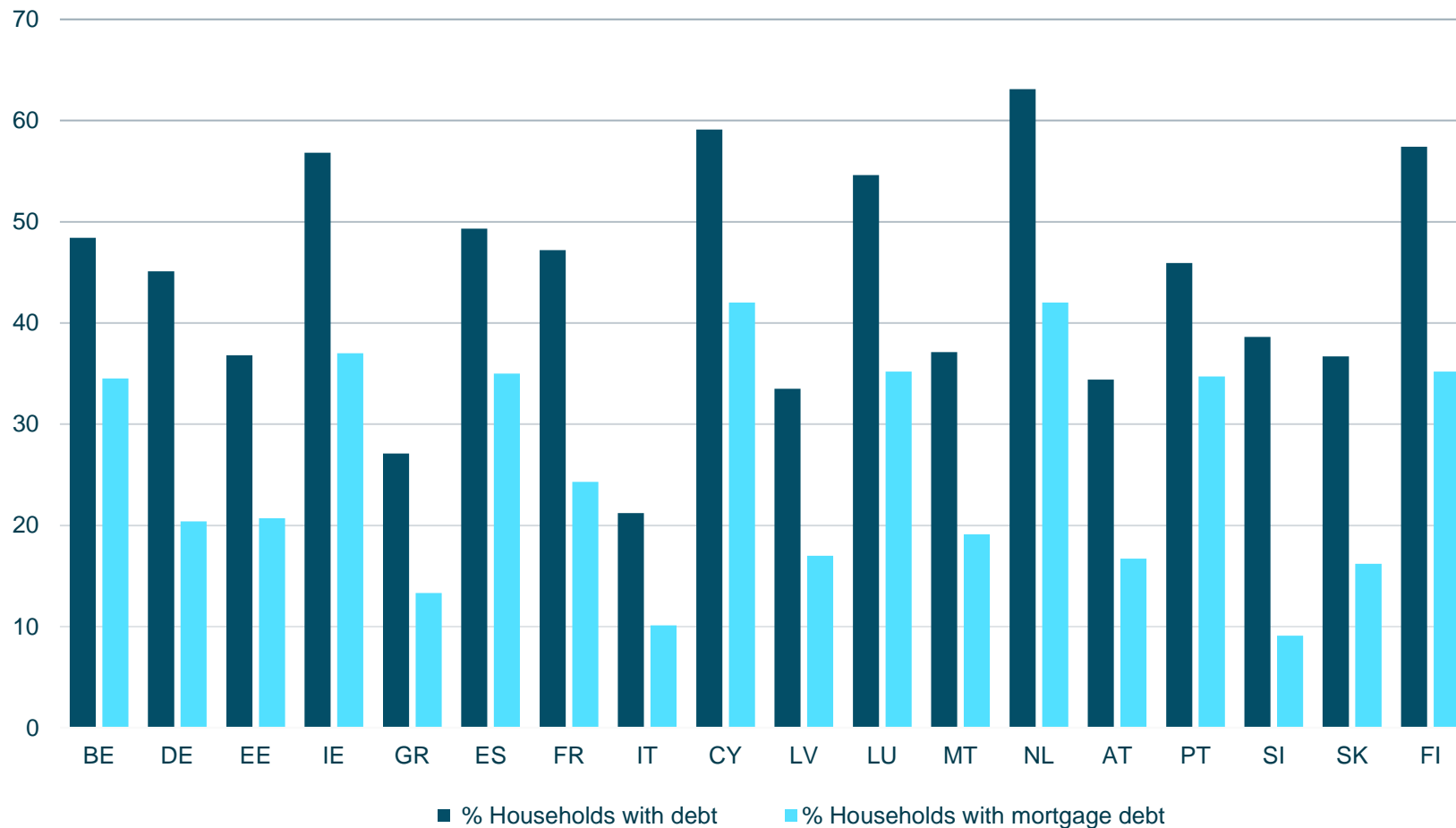
### 03. EURIBOR CRITICALITY

OUTSTANDING EURIBOR LINKED FINANCIAL TRANSACTIONS €		
	Current	January 2020
Loans (Dec 17)	<b>9,7 trillion</b>	<b>2,9 trillion</b>
Debt securities (Mar 18)	<b>1,62 trillion</b>	<b>1,3 trillion</b>
Interest rate derivatives (Oct 17)	<b>108,7 trillion</b>	<b>58,4 trillion</b>

Sources: European Mortgage Federation and European Central Bank



## % Household Debt in Eurozone



LOANS FOR PURCHASE OF HOME EUROZONE				
	Type of benchmark	Benchmark for floating rate	% floating mortgage	Outstanding Billion
BE	FIX	GOV.BOND (1-10Y)	10	104
DE	FIX	Long term int rate	15	1378
EE			6	7
IE	FLOAT	MRO Euribor 3M	67	84
GR	FLOAT	MRO Euribor 3M	28	58
ES	FLOAT	Euribor 12M	91	497
FR	FIX	Euribor 12M	15	954
IT	FLOAT	Euribor 3M	47	375
CY	FLOAT	Euribor 3M	NA	11
LV				4
LU	FLOAT	MRO	90	30
MT	FLOAT	MRO	85	4
NL	FIX	Long term int rate	18	672
AT	FLOAT	Euribor 3M	61	104
PT	FLOAT	Euribor 6M	99	94
SI	FLOAT	Euribor 6M	80	5
SK				25
FI	FLOAT	Euribor 3M	95,2	96

Sources: European Mortgage Federation and European Central Bank  
MRO: ECB main refinancing rate

- The European commission published in the Official Journal of the European Union the “**COMMISSION IMPLEMENTING REGULATION (EU) 2016/1368**” declaring Euribor as a critical benchmark on August 12th,2016

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2016:217:FULL&from=EN>

- Euribor is a critical benchmark administrated by the European Money Market Institute (EMMI), Belgium.
- The quote-based methodology used nowadays for the calculation of Euribor is not Benchmark regulation compliant as the determination of the submissions is at the discretion of contributors.

The data is calculated based on the contribution of 19 panel banks:

<b>Belgium</b>	<b>Luxembourg</b>
Belfius	Banque et Caisse d'Épargne de l'État
<b>France</b>	<b>Netherlands</b>
BNP-Paribas - HSBC France - Natixis - Crédit Agricole S.A. - Société Générale	ING Bank
<b>Germany</b>	<b>Portugal</b>
Deutsche Bank - DZ Bank	Caixa Geral De Depósitos (CGD)
<b>Greece</b>	<b>Spain</b>
National Bank of Greece	Banco Bilbao Vizcaya Argentaria - Banco Santander - CECABANK - CaixaBank S.A.
<b>Italy</b>	<b>Other EU Banks</b>
Intesa Sanpaolo - UniCredit	Barclays

## 04. EURIBOR REFORM

A benchmark specification consists of two components:

- **Underlying Interest**, which defines the economic variable that a benchmark seeks to measure.
- Determination **Methodology**, which is applied to make a practical measurement of the Underlying Interest.
- In order to provide the market with a more transparent, robust, and representative index, EMMI worked on the evolution of the current quote-based calculation to a fully transaction-based methodology.
- During 2016/17 EMMI carried out the pre-live verification program. The outcome was that a seamless transition to a fully transaction based methodology was not feasible.

## UNDERLYING REFORM

According to EMMI the Underlying Interest for Euribor:

### AT PRESENT

Euribor® is the rate at which euro **interbank** term deposits are **being offered** within the EU and EFTA countries by one **prime bank** to another at **11.00 a.m.** Brussels time. It is quoted for spot value (two Target days) and on actual / 360 day basis.

### FUTURE

*“The rate at which **wholesale** funds in euro could **be obtained by credit institutions** in the EU and EFTA countries in the unsecured money market.”*

## METHODOLOGY REFORM

### AT PRESENT

The methodology used currently for the provision of the benchmark is based on quotes contributed by Panel Banks and expert judgement.

### FUTURE

Hybrid technology based on market transactions and supported with market data and formulaic calculation techniques specified by EMMI.

There are five “*Tenors*” for Euribor, being 1 week, 1, 3, 6 and 12 months (Dec 18). Previously there were eight “*Tenors*” 1 and 2 weeks and 1, 2, 3, 6, 9 and 12 months (Oct 13), and before there were fifteen “*Tenors*”: 1, 2 and 3 weeks and 1 to 12 months.

## HYBRID METHODOLOGY

The EURIBOR Determination Methodology follows a hierarchical approach consisting of three levels. Every day, each individual Panel Bank's contribution per tenor, will be determined on the basis of one of the methodology levels:

Level 1. Contribution based solely on transactions in the Underlying Interest at the defined tenor from the prior TARGET day, using a formulaic approach specified by EMMI.

Level 2. Contribution based on transactions in the Underlying Interest across the money market maturity spectrum and from recent TARGET days, using a defined range of formulaic calculation techniques specified by EMMI.

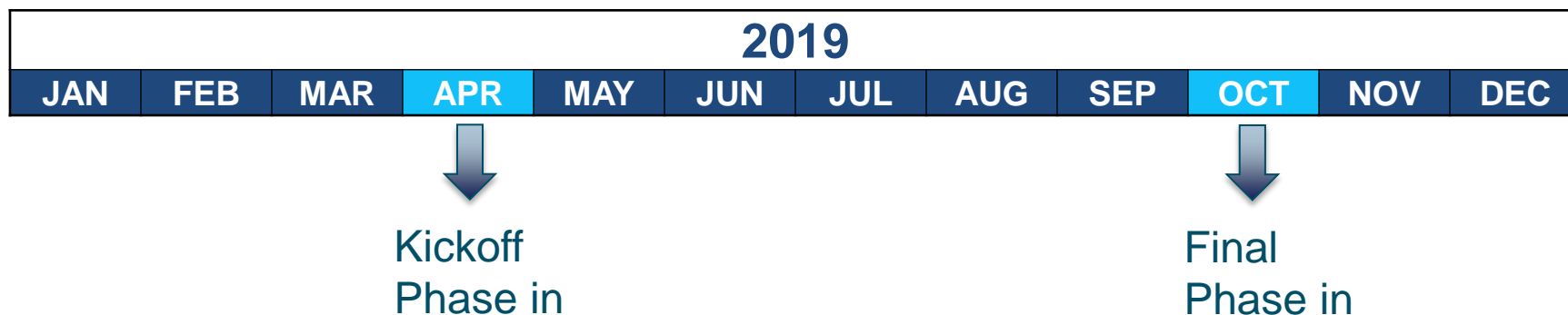
Level 3. Contribution based on transactions in the Underlying Interest and/or other data from a range of markets closely related to the unsecured euro money market, using a combination of modeling techniques and/or the Panel Bank's judgment, following the guidelines provided by EMMI.



## PHASE-IN TRANSITION

Smooth transition from quote-based to hybrid methodology not a big-bang transition.

Only FSMA and EMMI knows the order in which the banks are transitioned.



## 05. MAIN IMPACTS

### EURIBOR WILL BE EURIBOR

- The hybrid methodology is a robust evolution of the current quote-based methodology. EMMI has reformulated the EURIBOR specification, separating the Underlying Interest from the Benchmark Methodology, in order to clarify the benchmark.
- With the EURIBOR reform, EMMI does not change EURIBOR's Underlying Interest, which has always been seeking to measure banks' costs of borrowing in unsecured money markets. Subsequently, this reform is a clarification of the existing Underlying Interest of EURIBOR, combined with adapting a robust and BMR compliant methodology.
- EMMI has assessed the legal grounds for the proposed reforms, analyzing the compliance of the proposed reforms with the BMR.

Euribor Questions and Answers #18

<https://www.emmi-benchmarks.eu/assets/files/D0062A-2019%20-%20EURIBOR%20Questions%20and%20Answers.pdf>

## BMR COMPLAINT

### OBLIGATIONS FOR ADMINISTRATORS, CONTRIBUTORS AND USERS.

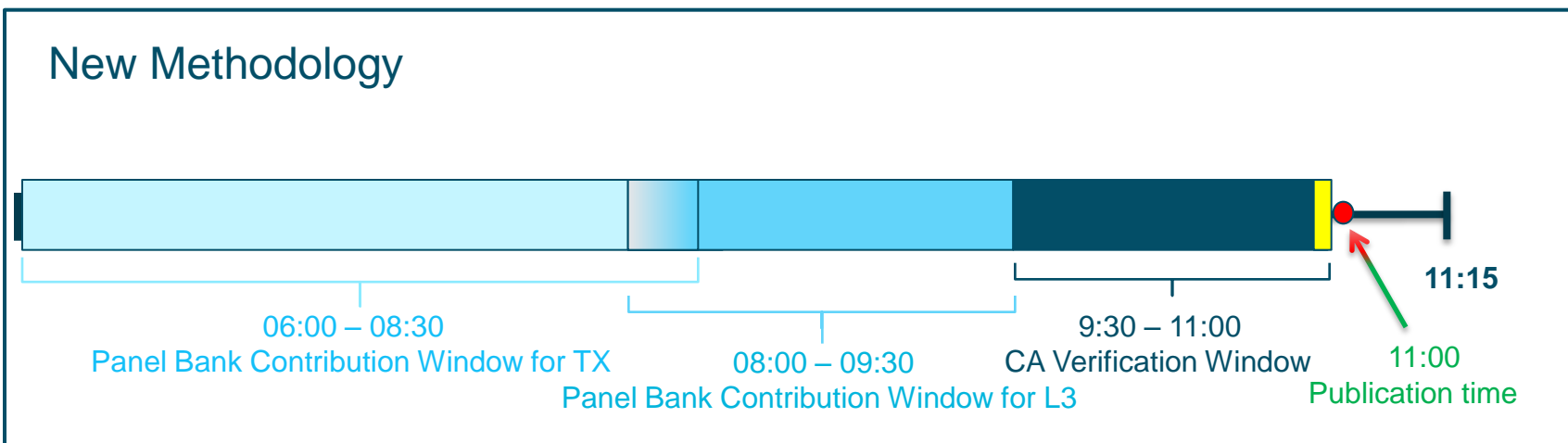
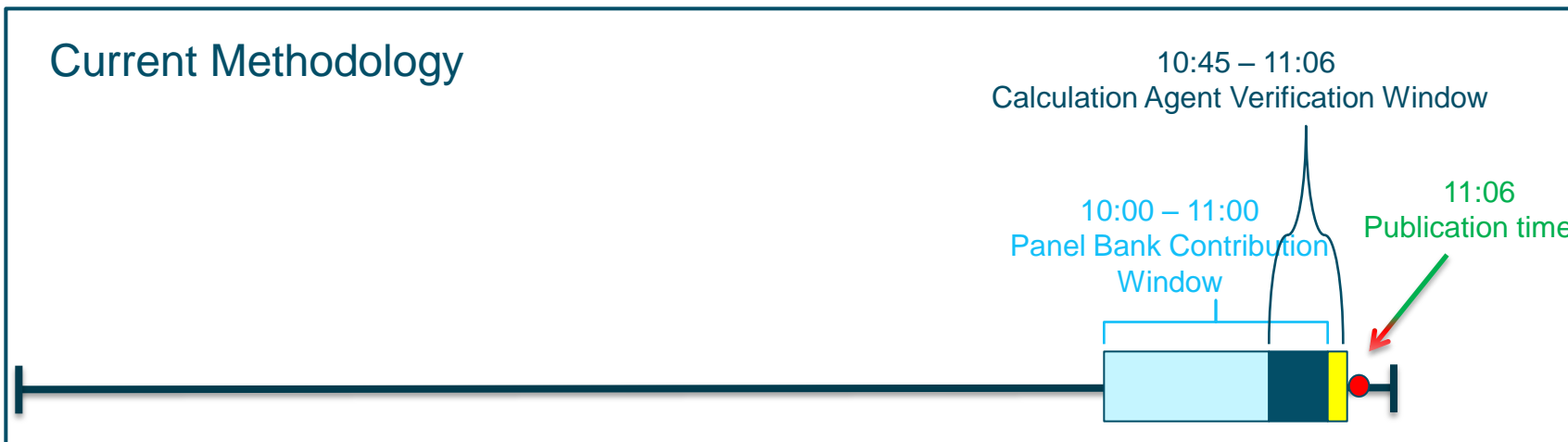
- Administrators impact:
  - ✓ Art. 4 to 10. Governance and control by administrator.
  - ✓ Art. 12 to 14. Input data, methodology and reporting of infringements.
- Contributors impact:
  - ✓ Art. 15 and 16. Code of conduct and requirements for contributors.
  - ✓ Code of Obligation of Panel Banks (COPB).
- User impact:

Supervised entities other than an administrator that use a benchmark shall produce and maintain robust written plans setting out the actions that they would take in the event that a benchmark materially changes or ceases to be provided (Art. 28).

Where feasible and appropriate, such plans shall nominate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided, indicating why such benchmarks would be suitable alternatives.

The supervised entities shall, upon request, provide the relevant competent authority with those plans and any updates and shall reflect them in the contractual relationship with clients.

## CONTRIBUTION TIME TABLE



## PRODUCTS AFFECTED

Euribor is a benchmark rate used commonly in the following products: OTC derivatives, debt securities, loans. The range of counterparties related to these type of transactions varies from retail customer to financial institutions.

All the products based on Euribor on any of the existing tenors will be impacted.

## COMMUNICATION

All entities will have to communicate and explain these changes to all their counterparties/clients affected in order to:

- Educate stakeholders on the transition of Euribor.
- Clarify the evolution of Euribor.
- Show transparency on the evolution and use of Euribor.
- Diminish legal and reputational risk.