SG7 Communication and Education | June 2020

Working Group on €uro Risk-Free Rates

Preparing for the interest rate benchmark reforms and the new risk-free rates

Table of contents

1. Purpose and use of this pack
2. What is happening with regard to IBORs and risk-free rates
3. The role of the Working Group on euro RFR
4. Transition from EONIA to the €STR
5. Introducing fallbacks for Euribor
6. What market participants need to do
7. Timeline

Purpose and use of this pack

Create awareness and call for action to ensure a seamless transition

Purpose

- The purpose of this pack is to inform readers about the transition due to interest rate benchmark reforms, the use of risk-free rates, and the roles & responsibilities and recommendations of the Working Group on Euro Risk-free Rates
- To facilitate a smooth adoption with minimal market disruption by raising awareness among market participants of the upcoming change.

Uses

- This pack has been prepared by the Working Group on Euro Risk-free Rates to be used by its ambassadors when engaging with internal and external stakeholder on this topic.

Scope of this pack

- It covers the following areas
  - What is happening with regard to IBORs and the new risk free rates
  - The role of the Working Group on euro risk-free rates
  - Transition from EONIA to the €STR
  - Introducing fallbacks for Euribor
  - What do market participants need to do?
  - International developments and timeline

What is happening with regard to IBORs and risk-free rate use – Key messages

- In 2014, the Financial Stability Board (FSB) published its report "Reforming major interest rate benchmarks", which sets out a series of recommendations to strengthen existing benchmarks by underpinning them, to the greatest extent possible, with real transaction data and to develop alternative, nearly risk-free reference rates.
- IBORs (Interbank offered rates) play a central role in financial markets; they act as reference rates for a broad range of financial instruments and are therefore key to financial stability.
- Declining activity in the underlying markets and challenges to the sustainability of the panels contributing to these rates pose potentially serious risks to individual users of the rates and to the financial system more broadly.
- The alternative nearly risk-free rates (RFRs) selected as replacements or fallbacks to IBOR in various jurisdictions will be based on robust, liquid underlying markets.
- Global regulators and the public/private sector have established RFRs working groups to identify RFRs and plan their use, as appropriate

What is happening with regard to IBORs and risk-free rates

Why markets need alternative risk-free rates

FSB recommendations on reforming major interest rate benchmarks:

- Strengthen existing benchmarks by underpinning them with transaction data to the greatest extent possible
- Develop alternative nearly risk-free rates as many products are better suited to reference rates that are closer to risk-free

Need for change: IBOR reform driven by the following factors:

- A lack of robustness, due to shrinking underlying markets coupled with the large volume of financial transactions that reference these rates has resulted in systemic risk concerns and manipulation risks.
- Reluctance by EONIA, LIBOR and EURIBOR panel banks to submit quotes.

Regulatory background:

- The International Organization of Securities Commissions (IOSCO) principles on financial benchmarks (2013)
- EU Benchmarks Regulation (BMR, effective 01/01/2018)
- The BMR will be phased in fully as of 01/01/2022 for critical benchmarks and third-country benchmarks, and as of 01/01/2020 for all other benchmarks
- The continuity of the Libor will not be guaranteed after 2021; hence, it needs to be replaced by alternative nearly risk-free rates (RFRs)

BMR sets additional requirements for:

Administrators	Contributors	Users
▪ Effective governance and control framework to ensure the integrity and reliability of the benchmark (methodology) ▪ Apply for and obtain registration or authorization from NCA	▪ Effective governance and control framework to ensure the integrity and reliability of all contributions of input data to the administrator	▪ Robust plans if benchmark ceases to exist, including fallbacks in contracts Art 28.2 BMR ▪ Only registered or authorized benchmarks can be used

The role of the working group on euro risk-free rates

Context and deliverables

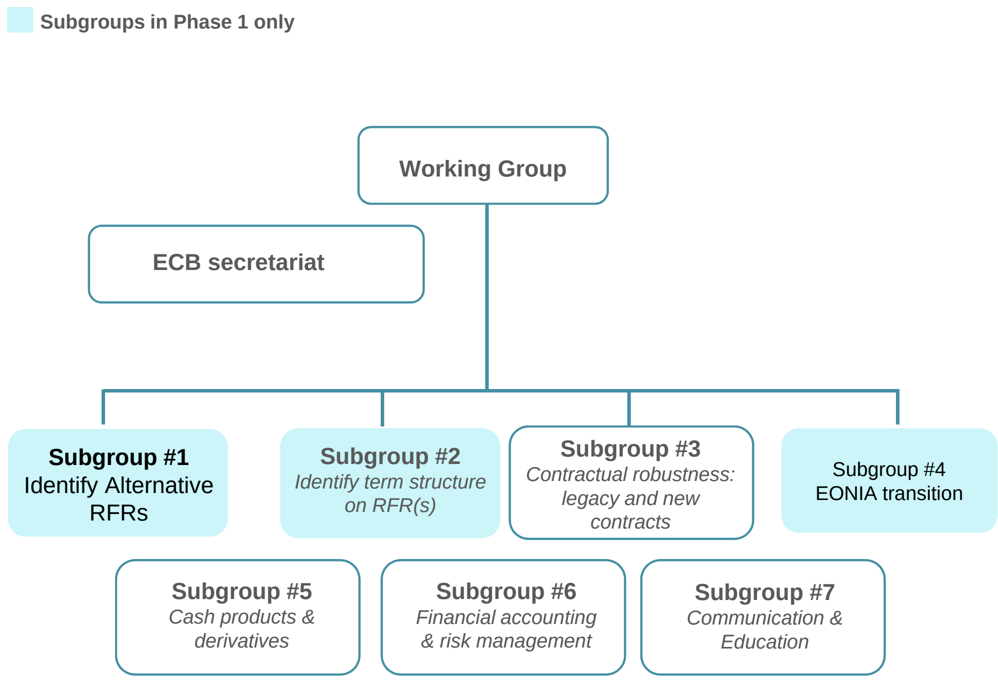
European Central Bank (ECB), the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission set up a private sector working group with the task to identify and recommend alternative euro risk-free rates.

General Mandate

See Terms of Reference

- To identify and recommend alternative euro risk-free rates. Such rates serve as a basis for an alternative to current benchmarks used in a variety of financial instruments and contracts in the euro area.
- To work on a market adoption plan to ensure a smooth transition to these alternative euro risk-free rates by all market participants.
- Working group (chaired by the private sector: ING Chief Risk Officer):
  - Voting members: 21 credit institutions
  - Observers: ECB, ESMA, FSMA, EC
  - Secretariat: ECB
  - Non-voting members: EMMI, market associations, EIB, 1 insurance company…
- For voting and decision-making, each member firm will have one vote. Observers will not be eligible to vote. Decisions and recommendations of the working group should be reached by consensus, if possible, or otherwise by a two-thirds majority where necessary.
- Decisions or recommendations by the working group are not binding. It is up to financial market participants to prepare themselves for changes in benchmark rates, and the working group's recommendations are meant to help financial market participants in the transition.

Organisational Structure



The role of the working group on euro risk-free rates

Context and deliverables

As part of its mandate, the working group published a set of recommendations and reports to provide guidance for:

- A transition from EONIA to the euro risk-free rate (€STR); and
- Fallbacks for the euro risk-free rate and EURIBOR.

2019 **Reports and recommendations published by the working group**

March	Recommendations on the Transition path from EONIA to the €STR and on a €STR-based forward-looking term structure methodology
July	Recommendations on EONIA to €STR legal action plan
September	Report on the impact of the transition from EONIA to the €STR on cash and derivatives products
October	Report on risk management implications of the transition from EONIA to the €STR and the introduction of €STR-based fallbacks for EURIBOR
November	Report on Financial accounting implications of the transition from EONIA to the €STR and the introduction of €STR-based fallbacks for EURIBOR
	Report on Fallback provisions in contracts for cash products and derivatives transactions referencing EURIBOR
	Report on €STR fallback arrangements
December	Communication toolkit

2020 **Reports and recommendations to be published by the working group**

February	Report on the transfer of EONIA's cash and derivatives markets liquidity to the €STR
April	Summary of responses to the public consultation on swaptions impacted by the CCP discount from EONIA to €STR
2021	Recommendations SG 3 (EURIBOR specific fallbacks by product)
	Recommendations SG 5 (Term structure methodology)

Transition from EONIA to €STR

What was the problem with EONIA?

- EONIA in its previous form was going to become incompliant with the EU Benchmark regulation, given the lack of underlying transactions and high concentration of volumes among a small number of contributors. Therefore, its administrator, EMMI, announced that it would stop publishing it on 3 January 2022 and participants have to make sure that they do not engage in contracts with maturity beyond this date.
- As a result, after a public consultation, the working group on euro risk-free rates recommended the €STR as its replacement.

What is the EONIA - €STR transition?

- In order to maintain EONIA for a transitional period and until its discontinuation in 2022, its methodology has been changed.
- Since 2 October 2019, the current EONIA methodology has been modified to become €STR plus a fixed spread of 8.5 basis points. This spread is a simple average of the EONIA - pre-€STR spread between 17 April 2018 and 16 April 2019, with a 15% trimming mechanism.
- The recalibration of the EONIA methodology has taken place on the first day of the daily publication of the €STR, on 2 October 2019. The publication of EONIA moved from the timing every evening at “T” (by 7pm) to “T+1” (9.15 am), to be aligned with €STR publication (T+1 at 8:00 CET).
- NB: This methodology was suggested by the working group on euro risk-free rates to EMMI after a public consultation.

What is the €STR?

The €STR reflects the wholesale euro unsecured overnight borrowing costs of euro area banks.

The rate is published (first date of publication: 2 October 2019 at 8:00 CET) for each TARGET2 business day based on transactions conducted and settled on the previous day (reporting date T) with a maturity date of T+1.

The €STR is based exclusively on borrowing transactions in euro conducted with financial counterparties that banks report to the ECB in accordance with the MMSR Regulation. The €STR is calculated using overnight unsecured fixed-rate deposit transactions over € 1 million.

The ECB is publishing €STR data at the end of every maintenance period at this link:

https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/euro_short-term_rate/html/index.en.html

Transition from EONIA to the €STR - Impact on derivatives and cash products

Impact on derivatives and cash products

1 Derivatives

- EONIA is being used as Floating Rate reference ("Floating Rate Option"); accordingly, the WG recommends an active transition approach until the end of 2021 (when EONIA will be discontinued).
- The working group considers that rebalancing the economic value changes using cash compensation may have advantages in terms of operational simplicity compared to other methods.
- EONIA is used as the collateral remuneration rate for derivatives portfolios. This influences the valuation of all CSA relevant derivatives, the calculation of derivative exposure and the settlement of margin requirements. The working group recommends single-counterparty clean discounting using €STR flat as soon as possible. It encourages CCP's to co-ordinate a big-bang approach and the market to migrate their remaining (non-cleared) derivatives portfolios in a phased approach (mainly for operational reasons).
- It also discuss specific implications for physically settled and collateralised cash price swaptions and explain why caution is required as the option is affected by the discounting change, triggering re-evaluation and compensation.

2 Secured Cash Products

- Interbank market participants will stop using floating rate Repo/Reverse Repos.
- For non-interbank transactions, the working group followed the ICMA ERCC recommendation to use the same-day rate to calculate and settle interest payments without delay.
- Disadvantaged parties can claim the difference (thresholds may apply).

Transition from EONIA to the €STR - Impact on derivatives and cash products

Impact on derivatives and cash products

3 Securities referencing EONIA

- These refer to NEUCP, NEUMTN, CD and rarely ECP. The settlement process will be impacted by the publication shift from T to T+1 but it is not perceived as a cause of concern by front/back offices, issuing and payment agents (IPA) or depositaries as the procedure is already being run with the T-1 value.
- However, market participants should adapt their valuation, pricing and accounting systems accordingly, taking into account the shorter time lag available to perform all necessary evaluations. Some potential issues may arise in the secondary market depending when the accrued interest needs to be calculated, i.e. whether the related transaction occurs before 9:15 CET (before the front office systems are updated with the new rate, i.e. still based on T-2) or after 9:15 CET (based on the just-published T-1 value).
- It was concluded that the settlement of deals mainly relies on bilateral agreements (agreed payment instructions, reference rate value to be used) and, for that reason, the transition should be manageable. However, a specific analysis of market conventions may be required in the future to provide market participants with guidance on how the conventions used for EONIA referencing securities may evolve due to the transition from EONIA to the €STR and the development of a new market.

4 Unsecured Cash Products

- Given that current accounts and savings accounts are mass products and clients' knowledge of the EONIA-€STR transition differs widely from country to country, a systematic outreach strategy is essential. Institutions will need to provide timely and precise information to all clients whose contracts are linked to products affected by the €STR transition.
- For swingline loans, when referencing the €STR directly in new contracts, market participants should consider whether any compensation mechanism is required.

NEUCP (Negotiable European Commercial Paper); NEUMTN (Negotiable European Medium-Term Note); CD (Certificate of deposit); ECP(Euro Commercial Paper

Transition from EONIA to the €STR - Models

Models

Models (funds transfer pricing models, discounted cash flow models) are not expected to be impacted now that the €STR has begun to be published but their input parameters will vary with the performance of the yield curves. So, we expect to see a gradual transition between 2020-2021.

Until the €STR swap curve becomes directly observable, the fixed spread relation between EONIA and €STR fixings can be applied to derive a full-term structure for the €STR from EONIA linked overnight index swaps. Market participants should be aware that the changes in the models may impact not only derivatives but also other assets and liabilities (e.g. loans, bonds, commercial paper) that are valued at "fair value" and require the EONIA OIS discounting curve as a pricing input. Moreover, because of the change in the discounting curve, EURIBOR par swap rates will also be affected.

€STR readiness

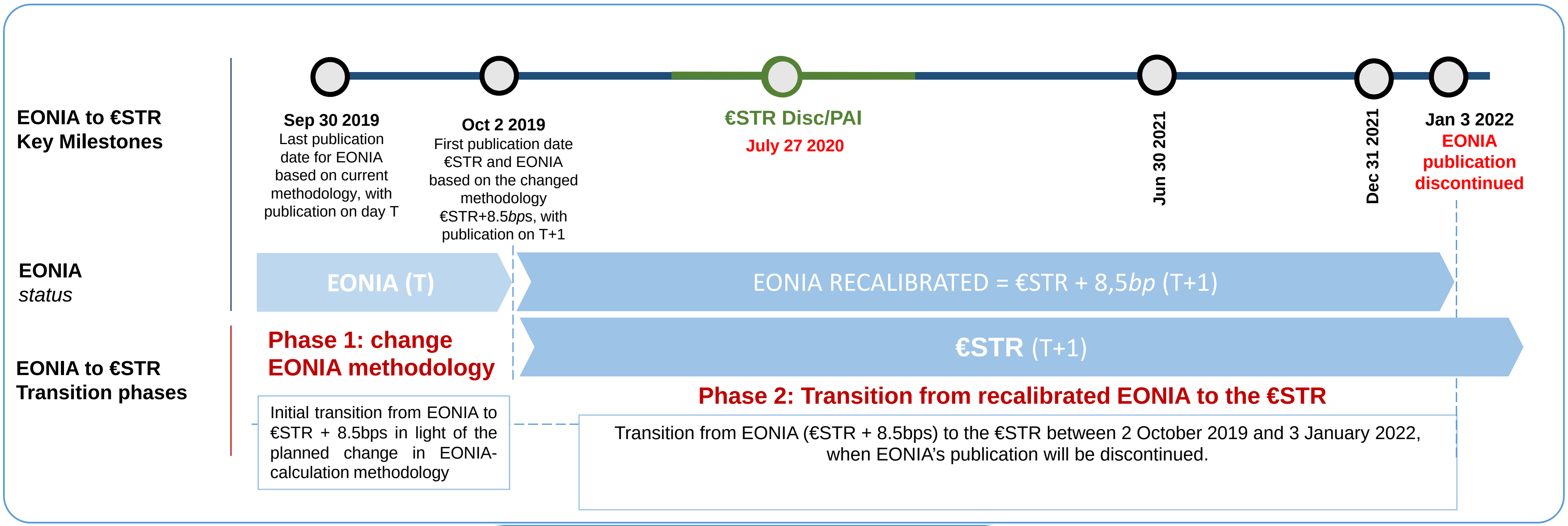
Regarding the transition to the new rate, market participants are strongly encouraged to introduce all necessary modifications in order to be able to issue, buy, trade and manage new contracts indexed to the €STR and avoid issuing new contracts indexed to EONIA with maturities going beyond the transition period.

For funds using EONIA as a benchmark or a hurdle rate (e.g. money market funds, liquid strategies and total return/absolute strategies funds), the transition from EONIA to the €STR will require amendments to the calculation formulas, operational procedures and adjustments to the corresponding systems of the fund administrators.

Communication

The communication strategy towards internal stakeholders and external clients to ensure awareness of pending changes is very important.

Transition from EONIA to the €STR - Timeline



WG euro RFR recommendations

WG euro RFR publishes recommendations for market participants to understand the EONIA to €STR transition issues from a **legal, products, accounting and risk management perspective** and encourage to **share best practices**

Transition from EONIA to the €STR

Market participants should gradually replace EONIA with the €STR as a reference rate for all products and contracts and make all necessary adjustments so as to use the €STR as their standard benchmark

To ensure a smooth transition, the switch from EONIA to the €STR takes place in two steps.

- First, the methodology for EONIA has been recalibrated to become ''dependent'' on the €STR, now that the €STR is available; this means that since 02/10/2019 (the date of the first €STR publication), the EONIA methodology has changed from being based on the contributions of a panel of banks, to become equal to €STR plus a fixed spread of 8.5 basis points.
- Second, the market will transition from this "€STR-dependent EONIA'' to the €STR, knowing that EONIA discontinuation will take place on 3 January 2022

Until 3 Jan 2022, both rates will coexist so that users have time to move all their contracts, systems and valuation rules to the euro short-term rate. This transitional period should be used by market participants to transit to the €STR, its replacement.

This 'two-deadline' approach entails challenges that should be addressed by market participants and are being analysed by the WG euro RFR. Regarding the EONIA-€STR transition, the main milestones of the euro working group since February 2018 are:

- The choice of the €STR as the euro risk-free rate
- The choice of a transition path from EONIA to the €STR
- The publication of recommendations and guidance for market participants, covering:
    1. Legal changes to legacy and new contracts referencing EONIA (EONIA legal action plan);
    2. Practical implementation of the switch from EONIA to the €STR for cash and derivative products (IT impact, settlement issues, change in discounting regime, possible compensation mechanism…)
    3. Risk management and accounting implications of the transition to the €STR

The change in the benchmark requires market participants to prepare extensively, including adaptation of IT systems to a new publication time as of 2 October 2019, and a review of current documentation, processes and procedures

Recommendations of the Working Group on Euro RFR on Eonia-€STR transition and €STR-based term structure

EONIA to €STR transition path

The working group recommended the **Recalibration approach:**

- Modify the current EONIA methodology to become €STR plus a fixed spread, for a limited period
- Recalibrated EONIA to be published on T+1 instead of T
- EMMI will submit recalibrated EONIA to FSMA for authorization
- EONIA to be discontinued on 3 January 2022.

link

EONIA to €STR Legal Action plan

- Working group recommended, whenever feasible and appropriate, no longer entering into new contracts referencing EONIA as from 2 October 2019.
- In existing contracts referencing EONIA and maturing after December 2021, market participants should replace EONIA as the primary rate as soon as possible or embed robust fallback clauses.
- For new contracts that still reference EONIA and mature after December 2021, or fall under the EU Benchmarks Regulation (BMR), robust fallback provisions should be included.
- The working group welcomes the work already done by market associations and encourages them to continue updating their standard documentation and recommends that market participants consider using the standard market documentation and/or protocols for their contractual arrangements on a voluntary basis.

link

EONIA to €STR transition impact on cash & derivatives products

- The working group has investigated the transition from an operational and valuation standpoint, taking into account the impact of
  - (1) The initial change in EONIA methodology to €STR + 8.5bps in October 2019
  - (2) the transition from EONIA, as €STR + 8.5bps, to €STR flat in view of the EONIA discontinuation after 2021
- For cleared trades, the working group notably recommends that central counterparties (CCPs) align their discounting switch dates as much as possible to transition from an EONIA discounting regime to a €STR discounting regime, which would represent a “big bang” approach for cleared markets. In addition, CCPs are recommended to set the discounting switch date as early as possible, preferably towards the end of the second quarter of 2020.

link

Recommendations of the Working Group on Euro RFR on Eonia-€STR transition and €STR-based term structure

Risk Management implications

- As the €STR will be published on the following day, with EONIA following this practice from 2 October 2019 onwards, market participants should consider
  - potential effects on short-term liquidity risk.
  - potential effects on settlement risks from changes in the publication schedule and their impact on fixing and payment processes and systems.
- In order to assess the impact of the EONIA to €STR transition, each institution should conduct an appropriate quantitative impact assessment on key market risk figures including 1) an impact test on VaR and sensitivity limits and 2) impact test on internal models for regulatory capital charges for market risk. New products referencing the €STR and €STR risk factors, €STR scenarios have to be integrated into the calculations of: VaR, Stressed VaR, sensitivities and stress testing
- Whilst compensation mechanisms when transitioning from EONIA to the €STR are anticipated, financial institutions should consider the risk of price and valuation changes throughout this transition and the effects on financial accounting.
- For institutions for which EONIA is a relevant risk factor, the calculation of internal model-based market risk figures has to be adjusted. For institutions using internal model approaches for the calculation of own funds requirements, the quantification of changes in market risk figures is mandatory. For other institutions using standardised approach it is recommended.
- To fulfill regulatory requirements a €STR time series is required that should ideally cover at least a full economic cycle (including financial stress periods) in order to run stress tests and calculate risk metrics (e.g. VaR). Since the €STR started to be published on October 2nd with a pre-€STR going back to 2016, an approximation of the €STR time series is necessary. Given the high correlation between EONIA and pre-€STR and the fact that since October 2019, EONIA has been firmly linked to the €STR plus a fixed spread of 8.5 basis points, it seems reasonable to use a proxy based on past EONIA data.

link

Recommendations of the Working Group on Euro RFR on Eonia-€STR transition and €STR-based term structure

Risk Management implications

- Regarding risk reporting and limit systems, each institution must ensure that market risks arising from the new €STR based products and €STR risk factors are limited. To meet this requirement, additional limits, for example for €STR sensitivities, might be necessary.
- The working group recommends that market participants carefully assess potential impacts on their IT system landscape and processes corresponding to risk management implications, including an analysis of the technical capabilities, to be able to switch from one valuation curve to another, when required.
- For insurance companies under the Solvency II framework, implications for liability valuation and the reported capital position will arise if the market in the €STR becomes sufficiently liquid, compared to EURIBOR, and the regulatory risk-free curve shifts to the €STR. However, a decision from EIOPA and a change to the regulations is required to shift to the €STR.
- Given their exposure to various benchmark rates (e.g. fund holdings directly linked to benchmark rates), asset managers also need transition plans, including an impact assessment of affected areas (e.g. contracts, valuation, risk models) and a definition of mitigating actions. In addition, asset managers have exposure at portfolio level as risk and performance benchmarks can be linked to benchmark rates, with consequences for the calculation of performance fees.
- Issues specific to asset management, such as outsourcing to third parties, investment guidelines and client communication, need to be taken into account for both the transition to the €STR and the introduction of new fallbacks.

link

Recommendations of the Working Group on Euro RFR on Eonia-€STR transition and €STR-based term structure

Accounting implications

- From an accounting and financial reporting perspective, the implications of the transition from EONIA to the €STR are wide-ranging, especially for the valuation of financial assets and liabilities.
- The transition from EONIA to the €STR may therefore impact cash flows and net present values, which could lead to undesired accounting volatility and not provide useful relevant information on institutions' performance.
- In addition to hedge accounting implications (IFRS 9/IAS 39), potential non-hedge related implications, which should be considered as part of the transition, comprise: further IFRS 9 considerations (e.g. modification and/or derecognition of financial instruments), fair value measurement (IFRS 13) and discount rates used in other IFRS (e.g. IAS 19, IAS 36, IAS 37).
- Critical areas of accounting that could be affected by the transition from EONIA to the €STR and the introduction of new fallback clauses comprise especially:
    - Modification of contracts
    - Derecognition of hedged item or hedging instrument
    - Replacement of hedging instrument
    - Documentation of hedging relationships
    - Ineffectiveness of hedging relationships

The working group addressed these critical accounting issues in a letter to the IASB stressing the urgency of the matter. The WG recommends that the IASB address the issue of contract amendments and the potential risk of derecognition due to the IBOR reform, and provide financial statement preparers with specific guidance on how to treat contract amendments driven by the mandatory reforms. Furthermore, for hedge accounting, the working group requests that the IASB provide further clarifications and assurance that the transition from EONIA to the €STR should not trigger discontinuation of a hedge relationship that is not otherwise amended.

This would be appropriate when changes of hedging relationships (e.g. modification of hedging instrument, hedged item and/or hedge documentation) only take place in response to the market-wide developments driven by the EU Benchmarks Regulation.

link

Recommendations of the Working Group on Euro RFR on Eonia-€STR transition and €STR-based term structure

€STR-based term structure as fallback to Euribor

The working group is also looking at identifying fallbacks for EURIBOR based on the €STR. Both backward- and forward-looking options are being considered.

As part of its work on forward-looking options, in March 2019 the working group recommended a methodology based on (tradeable) OIS quotes for calculating a €STR-based forward-looking term structure and is now inviting benchmark administrators to express their interest in producing such a term structure.

The working group is also analyzing backward-looking methodologies, as well as credit spreads to be embedded in the fallback.

link

Introducing fallbacks for Euribor - Euro benchmarks reform

EURIBOR is a BMR-compliant index and is not scheduled to be discontinued.

- The FSMA announced on 2 July 2019 that it has granted authorization to EMMI for EURIBOR. This follows the implementation by EMMI of a new ‘’hybrid methodology’’ to better anchor the Euribor methodology in real transactions.
- This authorisation confirms that EMMI and the EURIBOR hybrid methodology meet the requirements contained in the BMR and that EURIBOR can continue to be used in new and legacy contracts, which allows market participants to continue using EURIBOR for the foreseeable future.
- On 28th November 2019 – The European Money Markets Institute (EMMI), administrator of the EURIBOR® benchmark, confirmed that it had successfully completed the phase-in of all Panel Banks to the EURIBOR® hybrid methodology.

The situation for EURIBOR is different from EONIA,

- As a consequence, contracts and financial instruments referencing EURIBOR do not need to transition to a new rate, but need to incorporate new or improved fallback provisions. This would reduce potential uncertainties in the event of the potential EURIBOR cessation.
- For supervised entities and financial instruments and contracts that fall within the scope of the BMR, introducing robust fallbacks would also contribute to meeting the requirements laid down in the BMR. Market participants may also assess whether €STR could be used as an alternative benchmark for new financial instruments and contracts for certain asset classes.

Euribor context with regard to the introduction of fallback clauses
Why are fallbacks necessary?

- Before BMR, the market practice did not generally contemplate the permanent cessation of a benchmark

EURIBOR fallback provisions are not new

However past practice generally only contemplated the temporary unavailability of EURIBOR

Permanent Cessation Scenarios and replacement of EURIBOR were not contemplated

The use of current (historical) legacy fallback language may not produce a commercially fair result, as it may affect the pricing and performance of the product in the event of permanent cessation of EURIBOR.

WG euro RFR activities on fallbacks: Guiding Principles

- **The Working Group on Euro Risk-Free Rates is engaged in activities to identify and recommend EURIBOR fallback provisions.**

In January 2019, the working group outlined guiding principles for fallback provisions that all market participants should be aware of.

- Amongst other aspects, a set of principles for new fallback language were defined:
  - New fallback provisions should include a permanent cessation trigger event.
  - Market participants should seek to use €STR as the primary basis for a fallback rate, where this is considered appropriate and feasible.
  - The introduction of an adjustment spread should be considered.
  - Parties could also consider including provisions in agreements which may make it easier to make amendments to the benchmark rate in the future

WG euro RFR activities on fallbacks: Legal – contract robustness
High level recommendations on EURIBOR fallback provisions (1/4)

Topic	*Working Group high level recommendations*
1. New contracts	• **The working group recommends** that **market participants should consider incorporating fallback provisions in all new financial instruments and contracts** referencing EURIBOR, regardless of whether they fall within the scope of BMR.
2. Legacy Contracts	• **Legacy financial instruments and contracts referencing EURIBOR that were entered into after 1 January 2018 should be covered by the “robust written plans”** prepared by supervised entities in accordance with art. 28(2) of BMR. • For legacy contracts which do not contain fallback provisions or which do not contain appropriately worded fallback provisions, to the extent practicable, market participants should consider including EURIBOR fallback provisions, or enhancing existing provisions, when such financial instruments and contracts are amended or during any scheduled future update.

WG euro RFR activities on fallbacks: Legal – contract robustness
High level recommendations on EURIBOR fallback provisions (2/4)

Topic	*Working Group high level recommendations*
3. Fallback expected characteristics	• **EURIBOR fallback provision should cover both permanent and temporary cessation trigger events.** They should be objective, should define the circumstances in which they occur, and should specify the date from which the fallback rate will apply after one or more of the trigger events has occurred. • EURIBOR fallback provisions **should comply with the BMR, where applicable, and with any other applicable national or European law.** • **The Working Group will conduct analysis and propose recommendations on the most appropriate EURIBOR fallback rates** for specific asset classes and/or financial product types**.** • **EURIBOR fallback provisions should contemplate adjustments** to address differences between the value of EURIBOR and the value of the fallback rate. The fallback rate may differ economically from that used for EURIBOR and an adjustment would therefore be necessary to address potential differences between EURIBOR and the fallback rate.

WG euro RFR activities on fallbacks: Legal – contract robustness
High level recommendations on EURIBOR fallback provisions (3/4)

Topic	*Working Group recommendations*
4. Generic fallback provisions	• While market participants await recommendations for specific fallback provisions, **a generic fallback provision, as per below, may be considered for inclusion in contracts**: *"Unless otherwise agreed by the parties, the EURIBOR replacement rate will be the rate (inclusive of any spreads or adjustments) formally recommended by* *(i) the working group on euro risk-free rates established by the European Central Bank (ECB), the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission, or* *(ii) the European Money Market Institute, as the administrator of EURIBOR, or* *(iii) the competent authority responsible under Regulation (EU) 2016/1011 for supervising the European Money Market Institute, as the administrator of the EURIBOR, or* *(iv) the national competent authority designated by each Member State under Regulation (EU) 2016/1011, or* *(v) the European Central Bank."* • **The selection of a replacement benchmark rate by a nominating body should, to the extent feasible, be objective and clearly defined**. This would reduce the risk of any potential legal challenge.

WG euro RFR activities on fallbacks: Legal – contract robustness
High level recommendations on EURIBOR fallback provisions (4/4)

Topic	*Working Group recommendations*
5. Flexibility in contracts	• Where possible and applicable, **new contracts should include flexible provisions to facilitate the application of new fallback provisions** and/or should amend the consent levels required for future amendments to the agreements.
6. Specific considerations	• When introducing fallback provisions into contracts referencing EURIBOR, **entities should also consider**: **i. whether they wish or need to apply consistency across products and/or currencies** **ii. the consistency between the definition of triggers and their timing** when two contracts are linked (eg: a hedged item and its hedging instrument) **iii. consumer protection issues and requirements**, including the need for customers to be informed and educated, where possible in a timely manner, by private and public institutions
7. Voluntary nature of recommendations	• The extent to which market participants adopt and use any of the high level recommendations discussed in this paper is left to their discretion. Each market participant will need to make their own independent decision about whether and, if so, to what extent any recommendations are adopted and used in their financial instruments and contracts.

Risk management and accounting considerations

- The Working Group highlights that users and supervised entities should consider risk management and accounting implications when they incorporate fallback language for different assets and currencies. (*)

Risk and accounting considerations on hedging and inconsistencies in fallback provisions

- Inconsistencies could arise in relation to:
    1. Fallback rate definition
    2. Triggers –timing of fallback transition
- Timing inconsistency can add to the discrepancy between different fallback rate definitions, increasing potential risks to hedging, hedge accounting and asset and liability management.

Market participants are recommended to reduce variability in fallbacks between different product classes *(including derivatives) to a minimum as this would reduce technical implementation challenges as well as risk management and accounting complexity.*

* For further implications and background information see WG euro RFR reports on risk management and accounting

Accounting considerations (1/2)

Accounting implications

- The impact of €STR-based fallbacks for EURIBOR on accounting is twofold:

First, inserting fallback clauses to existing contracts could affect the relevant IFRS modification requirements.

- This mainly affects legacy contract.
- If this modification were considered substantial, it would probably result in derecognition and re-recognition of the modified financial instrument.

Second, triggering existing fallbacks could cause valuation shifts that have a potentially greater impact on hedge accounting.

- This could cause issues for both legacy contracts and new contracts
- The triggering of an existing contractual fallback clause should not be considered a contractual modification, as the original contract already anticipated that a replacement could occur. Nevertheless, in some situations, applying such a contractual clause could imply a change in the instrument's value as a result of the shift from the old benchmark to the new one.

- The working group believes that owing to the general goal of equivalence when (i) introducing a fallback rate in an existing contract, or (ii) shifting from a benchmark rate to its fallback rate, this change should be considered a substantial modification only when such equivalence is not fulfilled. However, this view would have to be supported by the IASB.

- For further implications and background information see WG euro RFR reports on risk management and accounting
- See structure of the accounting recommendations report

Accounting considerations (2/2)

Accounting implications

The WG recommends to analyse hedging implications following these actions.

a) *Analyse whether there might be fallback scenarios under which hedge relationships would need to be discontinued.*

b) *Consider incorporating a provision for replacing benchmark interest rates in their hedge documentations for new contracts. Consequently, the risk of hedge de-designations resulting from documentation adjustments could be reduced for new business.*

c) *Consider the risk of inconsistency when developing fallback provision triggers when amending or setting up new contracts.*

d) *To consider the risk of hedge ineffectiveness and potential discontinuation of hedge relationships in the event of:*
- *having timing inconsistencies in fallback provision triggers,*
- *incorporating different fallback trigger language for hedged items and hedging instruments.*

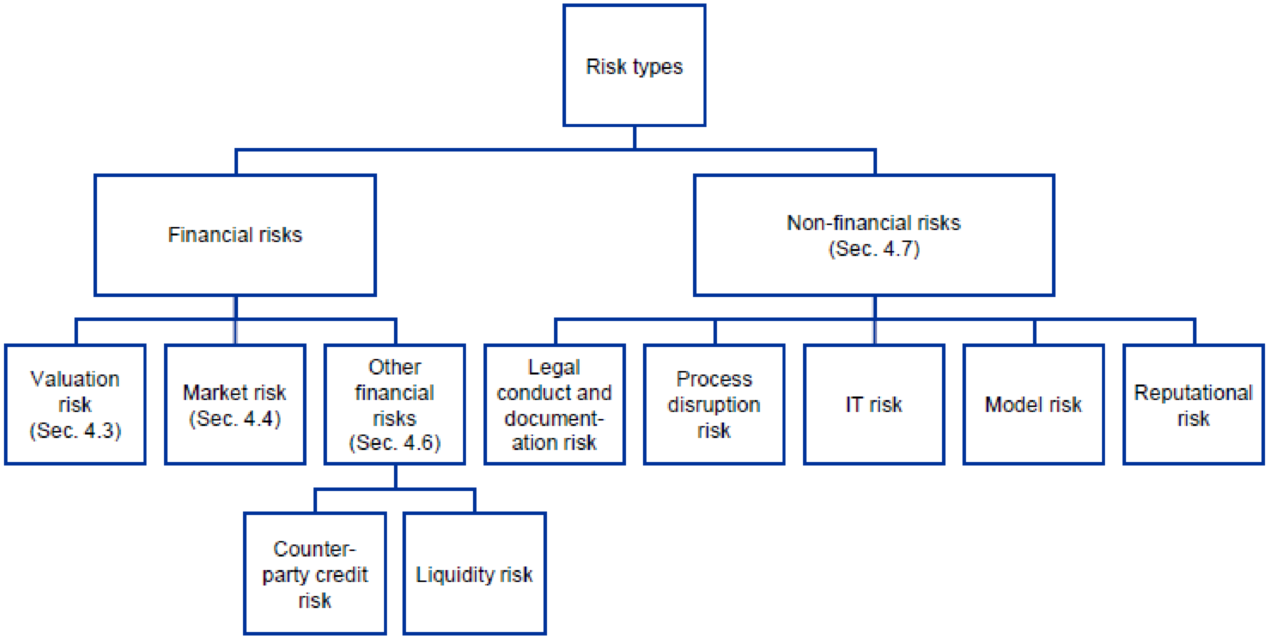
***Working group recommends that preparers of financial statements closely monitor the IASB project on IBOR reforms** and any amendments or clarifications to the standards resulting from it.*

* For further implications and background information see WG euro RFR reports on risk management and accounting

Risk considerations (1/3)

Major risk types that the working group has identified as affected by the introduction of risk-free rates resulting from the benchmark reform

- Valuation and market risk are expected to be the most affected. While the risk types mentioned serve as first guidance on possible areas of focus for financial institutions and their assessment
- The WG highlights that the severity of individual impacts strongly depends on the individual business and technical circumstances.



For more detail, see section 4.3. to 4.7 of the WG euro RFR on risk management

* For further implications and background information see WG euro RFR reports on risk management and accounting

Risk considerations (2/3)

Risk management implications on fallbacks

The working group recommends that market participants:

- (i) gain an **overview of** the **quantity of basis risk exposure from fallbacks in their current EURIBOR-indexed** contracts by assessing the exposure amount and estimating the magnitude and volatility range of the spread;
- (ii) gain an overview of **and develop a clear plan for current and future hedging instruments and strategies for the relevant basis risks, including associated costs**;
- (iii) **set up corresponding market observations and possible warning indicators** for market liquidity in the relevant hedging instruments.

- Market participants should consider establishing a governance framework involving front office and risk functions to monitor the benchmark and contractual fallback exposures at a sufficiently differentiated level on an ongoing basis
- With respect to fallback data, it would be particularly useful to have a consistent source for the publication of fallback rate values, including the respective spread adjustments, i.e. a vendor could publish it ensuring compliance with BMR and IOSCO principles.

* For further implications and background information see WG euro RFR reports on risk management and accounting

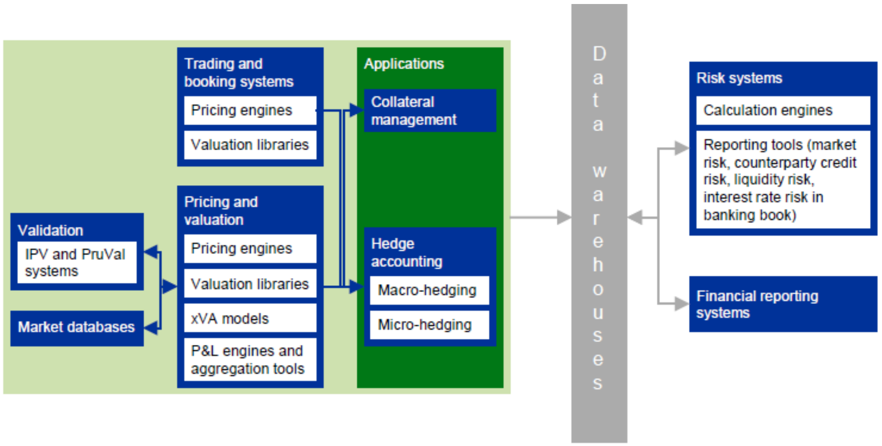
Risk considerations (3/3)

Technical Implications

Impact on the full front-to-back IT system landscape: Products

- **Models**
- **Market data systems**
- **Valuation infrastructure: pricing engines and valuation libraries, VA models and P&L engines.**
- **Processes.**

Overview of affected risk management IT systems



Implications for data

- **Market data set-up**: New interest rate curves need to be introduced as part of the market data, including data quality processes and the calculation of new projection and yield curves.
- **Historical data:** The calibration of internal models to measure market and counterparty credit risk, requires time series of historical market data, including historical stress periods.

The working group recommends that market participants carefully assess potential impacts on their IT system landscape and processes related to risk management implications, including an analysis of the technical ability to switch from one valuation curve to another when required.

* For further implications and background information see WG euro RFR reports on risk management and accounting

Market associations' work on fallbacks

- Several market associations are working on fallback provisions.
- Below is **a non exhaustive list** of some major market associations involved in this work.
- Please **review the annex 1 for a brief detail of their work.**
- **Market participants are advised to check the relevant websites** for more and regularly updated details on this work.

List of main market associations:

- AEB
- AFME
- BDB
- EBF
- FBF
- ICMA
- ISDA
- LMA
- Others

Market associations are working on fallback languages and provisions in order to update their reference contracts and master agreements, which helps to improve terminology and standardization among users.

What market participants need to do

UNDERSTAND EXPOSURES AND RISKS

- Quantify IBOR exposures (ongoing monitoring of products, contracts and processes)
- Risk assessment (valuation, model and risk management)
- Consider risk mitigants in a range of scenarios
- Consider regulatory obligations
- Put in place contingency arrangements
- Future-proof documentation

ACTIVELY REDUCE RELIANCE ON EONIA & IBORs to be ceased

- Get ahead of the problem and plan for transition now
- Provide information on impacted product offerings to clients, or request information from your advisors
- Use the €STR where possible
- Reduce EONIA legacy exposure
- Define scenarios and implementation roadmap for transition of legacy products
- Consider need to transition when transacting products with maturity beyond 2021

ENGAGE WITH TRANSITION EFFORTS

- Consider the adoption of euro RFR WG recommendations for measures to ensure a smooth transition for financial institutions
- Tap into market-led transition initiatives
- Respond to consultations
- Express interest in participating in subgroups to RFR Secretariat (EuroRFR@ecb.europa.eu)
- Raise awareness internally and externally
- Set up internal governance transition programme
- Identify senior accountable executive

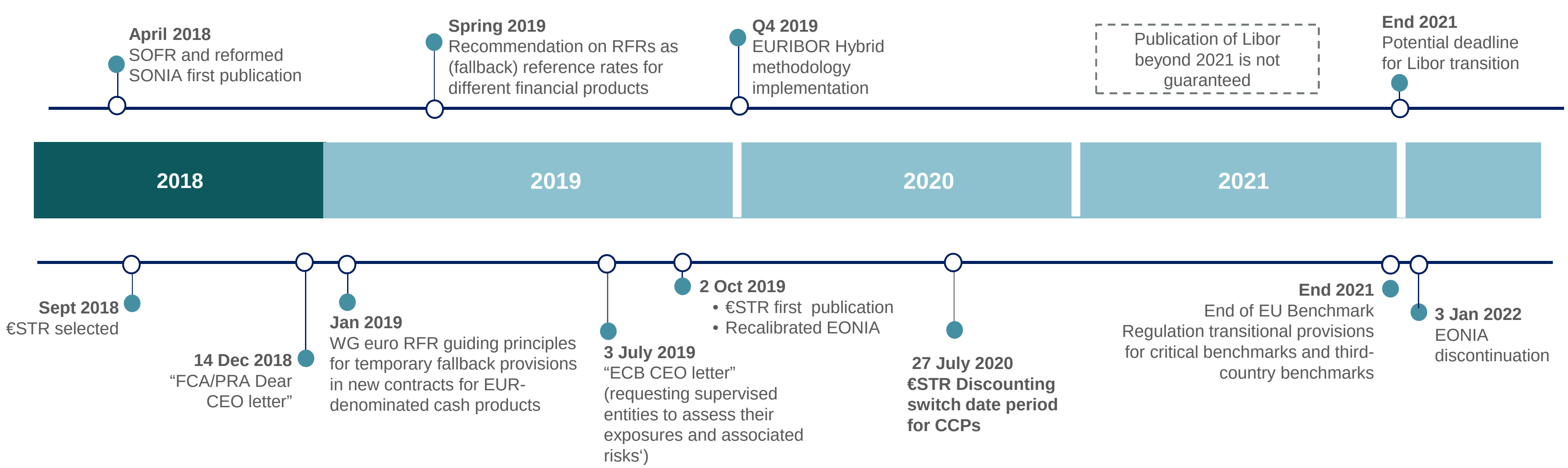
International developments

Working groups in key jurisdictions outside the euro area have already recommended risk-free rates and, in some cases, have identified strategies to create liquidity in the newly introduced risk-free rates.

IBORs	USD LIBOR	EURIBOR, EUR LIBOR, EONIA	GBP LIBOR	CHF LIBOR	JPY LIBOR
Working Group	Alternative Reference Rates Committee	Working Group on Euro Risk-Free Rates	Working Group on Sterling Risk-Free Rates	National Working Group on Swiss franc Reference Rate	The Study Group on Risk-Free Reference Rates
Alternative RFR	**Secured Overnight Finance Rate (SOFR)** Selected in June 2017	**Euro Short-Term Rate (€STR)** Selected in Sept 2018	**Reformed Sterling Overnight Index Average (SONIA)** Selected in Apr 2017	**Swiss Average Rate Overnight (SARON)** Selected in Oct 2017	**Tokyo Overnight Average Rate (TONAR)** Selected in Dec 2016
RFR Publisher	Federal Reserve Bank of NY	ECB	Bank of England	SIX exchange	Bank of Japan
RFR Rate type	Secured	Unsecured	Unsecured	Secured	Unsecured
RFR Rate description	Secured rate that covers multiple overnight repo market segments	Unsecured rate that captures overnight wholesale deposit transactions	Unsecured rate that covers overnight wholesale deposit transactions	Secured rate that reflects interest paid on interbank overnight repo	Unsecured rate that captures overnight call rate market

Transition timeline

Transition timeline



Useful links

Website

ECB [ECB Website]

Terms of reference for the Working Group on Euro Risk-Free Rates

Meetings of the Working Group on Euro Risk-Free Rates

Link to other jurisdictions

FSB progress report

WG Recommendations

1. Report by the WG on EONIA to €STR transition
2. Recommendations of the WG on the EONIA to €STR legal action plan
3. Report by the WG on the impact of the transition from EONIA to the €STR on cash and derivatives products
4. Report by the WG on the risk management implications of the transition from EONIA to the €STR and the introduction of €STR-based fallbacks for EURIBOR
5. Report by the WG on the financial accounting implications of the transition from EONIA to the €STR and the introduction of €STR-based fallbacks for EURIBOR
6. Report on Fallback provisions in contracts for cash products and derivatives transactions referencing EURIBOR
7. Report on €STR fallback arrangements

Disclaimer

This presentation has been prepared for information and education purposes only, it has been prepared for this specific purpose and must not be used for any other. *The authors recommend to read the applicable rules and regulation, Q&As and the consultations and reports published by the Working Group.*

It is not intended to provide and should not be construed, or relied on in any manner, as legal, regulatory or other advice. The information (of a legal, factual or any other nature) included in the presentation has not been independently verified and such information is not comprehensive and may be subject to change. The authors disclaim any obligation or undertaking to release any update of, correct, keep current or otherwise revise the content of this paper.

This presentations discusses a variety of options to address the cessation of a benchmark. Each recipient of this paper is responsible for performing their own assessment as to the suitability of the various options discussed herein. Each recipient must continue to operate in an independent and competitive manner and they shall not use the content of this paper to coordinate their activities, either with respect to the commercially sensitive terms of each recipient's business or with regard to any other independent business.

The authors or any of their respective directors, officers, advisers, affiliates or representatives, shall not be deemed to have made any representation, warranty or undertaking, express or implied, as to, and no reliance should be placed on, the truthfulness, fairness, accuracy, completeness or correctness of the information and opinions contained in this document. The authors or any of their respective directors, officers, advisers, affiliates or representatives, expressly disclaim any and all liability, whether direct or indirect, express or implied, contractual, tortious, statutory or otherwise, in connection with the accuracy, completeness or correctness of the information, for any of the opinions or factual information contained herein, any errors, omissions or misstatements contained in this document or otherwise for any direct, indirect or consequential loss, damages, costs or prejudices whatsoever arising from the use of this document.

The authors of this presentation may provide to any third party (including, but not limited to, authorities, clients, associations or counterparties) opinions or advice that may differ from the content of this document.

Annex

Euribor Fallbacks

Annex 1: Brief description of market association work on EURIBOR Fallbacks

Association	*Description*
1. AEB	• The Spanish Banking Association (AEB) together with the Savings Bank Association (CECA), both sponsors of the Spanish Master Agreement for Financial Transactions (CMOF), started last year the necessary work to adapt the Spanish documentation to the European Benchmark Regulation, specifically to facilitate the transition from the EONIA to the €STR and to include the necessary fallbacks for the interest rate and currency benchmarks used. This work is expected to be completed by spring 2020 (https://www.aebanca.es/contrato-marco-de-operaciones-financieras/)
2. AFME	• The Association for Financial Markets in Europe (AFME) published model wording for new issues of securitization bonds to help facilitate the transition from IBORs to new risk-free rates. The model wording provides an easier mechanism for the transition to an alternative rate when EURIBOR would not longer be available. It does not identify a new rate but makes the procedure for moving to such a rate (once identified) easier, by avoiding the need to undertake a consent solicitation.
3. BDB	• The Association of German Banks/Bundesverband deutscher Banken e.V. (BdB) have already developed some templates addressing certain benchmark/RFR related aspects: 1. Incorporated into the new German Master Agreement for Derivatives Transactions 2018 (DRV 2018): A general fallback provision in Clause 5 (2) addressing the case that a benchmark may no longer be available or may no longer used – the fallback provision is described in more detail in the (English language) background paper: https://bankenverband.de/media/files/drv_2018_annotated_version_04_09_2018.pdf 2. A proposed wording (which the parties to a German master agreement can include as a special provision) for an agreement for the avoidance of doubt regarding changes to EONIA methodology and time of publication (no material change)

Annex 1: Brief description of market association work on EURIBOR Fallbacks

Association	***Description***
3. BDB (continues)	3. A proposed wording regarding Clause 5 (2) of the DRV 2018 (which the parties to a DRV 2018 can include as a special provision) with a clarification regarding immaterial changes and additional provisions establishing a procedure for raising objections. BdB is currently developing a supplemental agreement for German Master Agreements addressing the replacement of the EONIA and related issues, including specific EONIA fallback provisions (which in the case of the DRV 2018 would take precedence over the general fallback-provision in Clause 5 (2)). In a next step IBOR-related issues will be addressed. Please refer to the following link: bankenverband
4. EBF	• The European Banking Federation (EBF) is very much engaged in ensuring the awareness on the reform of EURIBOR and the transition from EONIA to €STR is a smooth process, providing the required legal certainty for banks and their clients in order to avoid any possible disruption threatening the European financial stability and proper functioning of key EU markets while safeguarding the continuity of contracts. Having conveyed the message to relevant European authorities about the need to ensure such legal certainty, the EBF released a public statement on 30 September 2019, with supporting statements from the European Commission and ESMA, to aid institutions in understanding how to prepare for the forthcoming migrations. • The EBF will continue working to ensure no disruption in the transition takes place affecting markets and consumers.
5. FBF	• The French Banking Federation is currently updating the FBF master agreements for derivatives to be compliant with the European Benchmarks Regulation. The master agreement should be finalized beginning of 2020. Work to update the interest rates' definition and fallback will be launched in 2020. This task is expected to be achieved in 2020 and will be made available to the members of the FBF on its extranet site (https://extranet.fbf.fr).

Annex 1: Brief description of market association work on EURIBOR Fallbacks

Association	Description
6. ICMA	• ICMA has taken steps to raise awareness of the need to consider fallbacks to IBORs among its members, and vanilla bond market participants have developed alternative fallbacks which are now included in most bond documentation. This document summarises the position: Fallbacks for LIBOR floating rate notes. There is no ICMA "standard language" for vanilla bond fallbacks.
7. ISDA	• At the request of the Financial Stability Board's Official Sector Steering Group, the International Swaps and Derivatives Association, Inc. (ISDA) is developing fallbacks for derivatives referencing LIBOR, EURIBOR and other key interest rate benchmarks (the ISDA IBOR fallbacks) to address the event of permanent cessation. In addition, ISDA has published the ISDA Benchmarks Supplement which market participants may incorporate into their documentation to provide primary fallbacks for derivatives in the event of the cessation of an index, which the working group considers a convenient way to include fallback provisions. A supplementary consultation on fallbacks for EURIBOR was launched in December 2019, and a further consultation on pre-cessation trigger events will be held by ISDA in the coming months.
8. LMA	• Since November 2014, LMA facility documentation has included an optional "replacement of screen rate" clause, which can be helpful in terms of any discontinuation of EURIBOR. This clause qualifies the "All Lender matters" clause by providing that if a Screen Rate is unavailable any amendment replacing that Screen Rate may be made with Majority Lender and Obligor consent. In order to facilitate further flexibility than the November 2014 clause allows, the LMA published a Revised Replacement of Screen Rate Clause in May 2018 which permits amendments to be made to documents with Majority Lender and Obligor consent in a wider range of circumstances than the November 2014 clause (i.e. not just in the case of an unavailability of a Screen Rate).

Structure of the report and specific accounting standards affected by the Benchmarks Regulation

EU BMR

Chapter 3 / 5

Transition from EONIA to €STR

Chapter 4

Fallbacks to EURIBOR

Affected IFRS accounting standards

IFRS 9 / IAS 39

- Modification of contracts and possible de-recognition
- Hedge documentation and possible de-designation
- Hedge accounting and possible ineffectiveness
- …

Chapter 3 / 4

IFRS 13

- Requirements for measuring financial assets and liabilities at fair value through profit or loss
- Assessment whether reclassification in fair value hierarchy would be necessary due to limited liquidity
- …

Chapter 5

IAS 19, IAS 36, IAS 37, …

- Accounting standards where discount rates play a role:
  - Employee benefits
  - Impairment of assets
  - Provisions
  - …

Chapter 5

For more detail please see the WG euro RFR report on financial accounting implications of the transition from EONIA to the €STR and the introduction of €STR-based fallbacks for EURIBOR