



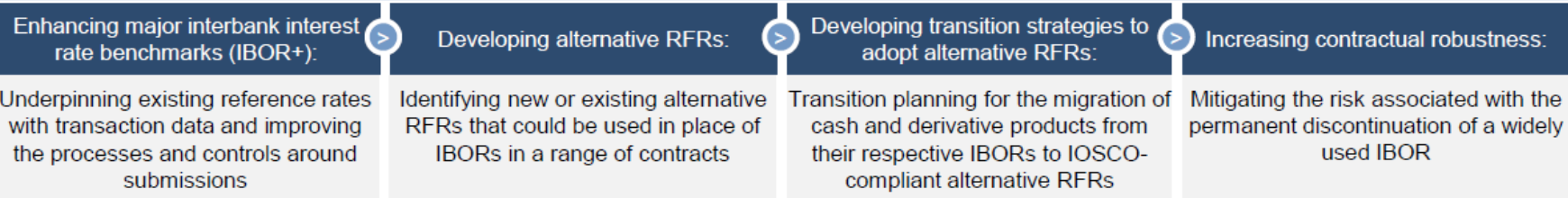


# Global Rates Benchmark Reform Overview

Section 4 depicts the key global initiatives driving the review and reform of major IBORs to meet the recommendations set forth by the FSB.

- 2009**
  - The global regulatory community began leading IBOR reform to reinstate confidence in the reliability and robustness of benchmark rates. The effort to reform IBORs is driven by the following factors:
    -  **Systemic risk:** uncertainty surrounding the durability of IBORs represents a source of vulnerability
    -  **Liquidity:** the price discovery process in short-term interbank unsecured funding markets has been undermined by minimal activity in the market
    -  **LIBOR and EURIBOR panel bank reluctance:** reluctance to submit quotes in the absence of active underlying transactions due to perceived litigation risk
    -  **Charges of misconduct:** charges of attempted manipulation and false reporting for profit by multiple financial institutions prompted The Wheatley Review of LIBOR, which recommended, among other things, governance and methodology reforms
- 2013**
  - The number of IBOR currencies and tenors was significantly reduced following the 2012 Wheatley Review. LIBOR is now published for 5 currencies in 7 maturities (instead of 10 currencies in 15 maturities). Similar choices have been made for EURIBOR and TIBOR and, as a result, EURIBOR is now published for 8 (instead of 15) maturities, and TIBOR is now published for 6 maturities (will also discontinue 2-month)
  - In February 2013, the G20 asked the FSB to review and reform major interest rate benchmarks
  - In July 2013, IOSCO published its *Final Report on Principles for Financial Benchmarks*, which sets out 19 Principles for sound benchmarks and was endorsed by the G20 and the FSB as good practice for robust reference rates
  - The OSSG was established by the FSB to monitor and oversee the efforts to implement the benchmark reforms
  - The MPG was established by the FSB OSSG to propose alternatives to existing IBOR benchmarks and analyze potential transition issues
- 2014**
  - In July 2014, the FSB OSSG published a report recommending a “multiple-rate” approach with reformed and more robust reference rates that contain a bank credit risk component (IBOR+) and alternative RFRs for products that do not require a rate which includes bank credit risk
- 2017**
  - In July 2017, Andrew Bailey said that all the current panel banks had been spoken to about agreeing voluntarily to sustain LIBOR until end-2021 but that after that point “the survival of LIBOR on the current basis... could not and would not be guaranteed”
- End-2021**

Based on the key official sector milestones and guidance, the industry has divided work into four components:



Sep 2012

Wheatley review of LIBOR

Feb 2013

G20 commissioned the FSB to review and reform major interest rate benchmarks

Jul 2014

MPG published *Final Report on Reforming Interest Rate Benchmarks*

Nov 2014

ARRC convened in the US to identify the preferred USD alternative RFR

Mar 2015

The Working Group on Sterling RFRs was established in the UK to identify the preferred GBP alternative RFR

Jun 2017

Secured Overnight Financing Rate (SOFR) was selected as the preferred alternative RFR for USD

Nov 2017

The FCA issued a statement saying "All 20 panel banks have provided their support until the end of 2021"

Jun 2013

OSSG was established

Jul 2014

FSB OSSG published report *Reforming Major Interest Rate Benchmarks*

Apr 2015

The Study Group was established in Japan to identify the preferred JPY alternative RFR

Apr 2017

Reformed Sterling Overnight Index Average (SONIA)<sup>1</sup> was selected as the preferred alternative RFR for GBP

Oct 2017

SARON was selected as the preferred alternative RFR for CHF

Jul 2013

IOSCO Principles for Financial Benchmarks were published

May 2016

The ARRC published an interim final report containing the first iteration of its paced transition plan

Dec 2016

Tokyo Overnight Average Rate (TONA) was selected as the preferred alternative RFR for JPY

Jul 2017

Andrew Bailey said that he and his colleagues had spoken to all the current panel banks about agreeing voluntarily to sustain LIBOR until end-2021 but did not think markets could rely on LIBOR continuing to be available indefinitely

Sep 2017

Working Group was established in Europe<sup>2</sup> to identify the preferred EUR alternative RFR

2013

The National Working Group on CHF Reference Rates was established to understand and enhance the two short-term fixed reference rates in Switzerland: Tomorrow/Next Indexed Swaps (TOIS) fixing and Swiss Average Rate Overnight (SARON)

Jun 2016

The BMR was published in the Official Journal

Summary publications on subsequent slides

<sup>1</sup> Unless otherwise specified, references in this document to SONIA refer to SONIA or reformed SONIA as the context requires.

<sup>2</sup> References in this document to Europe as a jurisdiction refer to the scope of the Eurozone, which excludes the UK.

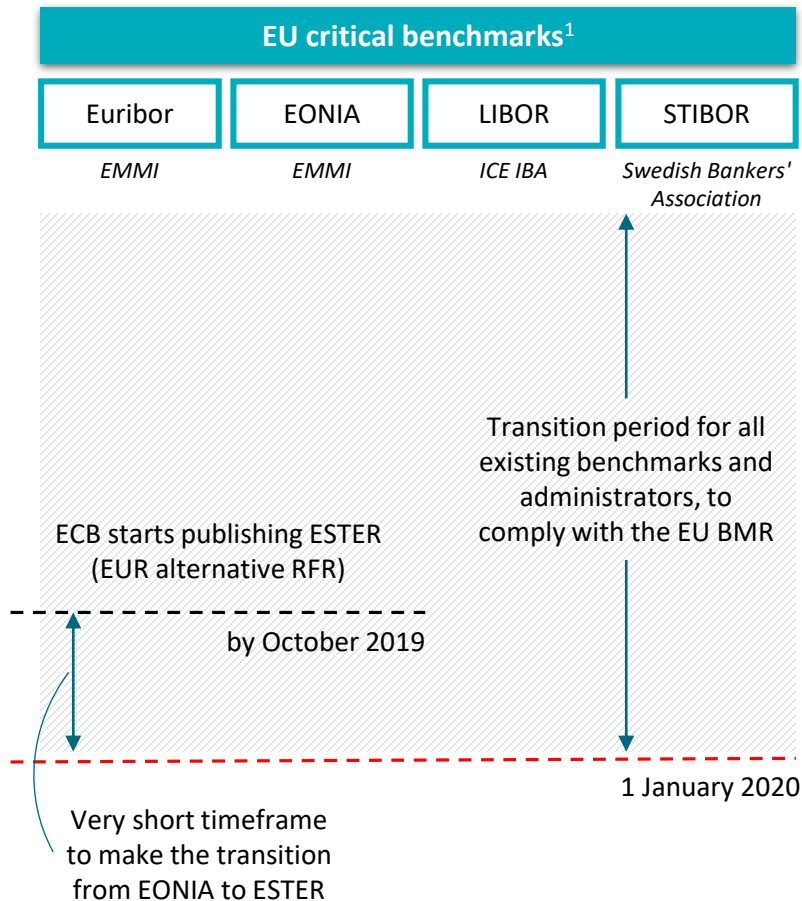
# Rates Benchmark Reform: Status Update

- Alongside the statements from the Official Sector, the industry has been taking tangible strides towards an RFR-based Fixed Income market on both the cash and derivatives side
- Progress varies by currency:

Reference Rate Reform: Process Step	GBP	CHF	JPY	USD	EUR
Has the alternative Risk-free Rate (RFR) been selected?	✓	✓	✓	✓	✓
What is the selection?	SONIA	SARON	TONA	SOFR	ESTER
What tenor does this RFR have?	Overnight				
Is the RFR currently produced?	✓	✓	✓	✓ (Apr'18)	✗ (Oct'19)
Are RFR swaps currently traded and cleared?	✓	✓	✓	✓ (Jul'18)	✗ (Oct'19)
Is the RFR currently used for PAI & discounting?	✓	✓	✓	✗ (2H2020)	✗ (TBD)
Has the *IBOR conversion process been mapped?	In progress	In progress	In progress	✓	Consultation

- A number of changes to market function that were driven by benchmark reform are already behind us:
  - Successful transition in Swiss market PAI/discounting from TOIS to SARON
  - Successful adaptation in Sterling market to SONIA reforms (T+1 publication, revised ISDA Definition)
  - Successful launch of SOFR clearing capability (strong start to 2019)
- Several are planned or required in 2019:
  - Launch of ESTER swaps, both on a bilateral and cleared basis
  - Adoption of new, more robust fallback definitions once available from ISDA - ahead of being triggered
  - System capability to enact fallback arrangements *if* triggered
- A number of initiatives are in flight for delivery beyond 2019, including SOFR transition and ESTER transition

# Focus on European market benchmarks



## Status update

- There are €22 trillion of EONIA-linked derivatives contracts outstanding and €109 trillion linked to EURIBOR
- **EONIA:** EMMI has announced that **EONIA** will not meet the EU BMR requirements. Transitional relief is due to expire 1 Jan '20
- **EURIBOR:** EMMI has consulted on reforms to **EURIBOR** methodology; this hybrid approach is likely to make it compliant with EU BMR
- **ESTER:** Euro RFR Working Group has recommended **ESTER** as the alternative € RFR and replacement for EONIA. The WG aims to identify and recommend an EONIA → ESTER transition path by end 2019
- ECB will start publishing ESTER by October 2019 and sooner if possible

## Extending the transition period

- Industry has requested a longer transition period and the EU authorities are considering the options and implications
- There is no separate legislative proposal on prolonging the transition period. Rather, amendments have been put forward via 2 open files:
  1. ESAs review - critical benchmarks transition until 1Jan22
  2. **Low carbon benchmarks - all benchmarks transition until 1Jan'22** (EP text: if "its discontinuation would affect financial stability")
- Both files are still in negotiation and there is a possibility that they are not finalized within the current EP mandate
- The EC may decide to adopt other measures, and is keen to support "as smooth a transition as possible"

<sup>1</sup> Commission Implementing Regulation (EU) 2018/1557 amending Implementing Regulation (EU) 2016/1368 establishing a list of critical benchmarks used in financial markets pursuant to Regulation (EU) 2016/1011 of the European Parliament and of the Council, October 2018

# Rates Benchmark Reform: Industry Priorities for 2019

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## **ESTER swap trading and clearing (Oct '19)\***

- ✓ ESTER is yet to be published – ECB has indicated “no later than October 2019” (Note: T+1 publication)
- ✓ Likely first eligible into a EONIA PAI & discounting environment of existing bilateral CSAs & CCP regimes
- ✓ We will aim to support a full product eligibility (per SOFR delivery and SONIA eligibility upgrade)

## **ISDA Supplementary Definition adoption**

- ✓ As and when ISDA’s new fallbacks are made available, LCH will adopt them both for new and for legacy trades
- (<https://www.lch.com/membership/ltd-membership/ltd-member-updates/lchs-position-respect-isdas-recommended-benchmark> )
- ✓ *Regardless of whether fallbacks are ever triggered, we must adjust our eligibility criteria and technology to accommodate the supplemented Definitions (e.g. sweep legacy portfolio onto them, as per SONIA sweep)*
- ✓ ISDA is providing various documentational mechanisms to enable adoption in bilateral legacy portfolios

## **Fallback capability (if triggered)**

- ✓ ISDA has completed the first phase of its consultation on fallback arrangements (GBP/CHF/JPY LIBOR, AUD Bills)
- ✓ Methodology chosen: “Compounded over interest period” (OIS-style) plus Historic Mean / Median Adjustment
- ( <https://www.isda.org/2018/12/20/isda-publishes-final-results-of-benchmark-fallback-consultation> )
- ✓ Full parametrization to follow, further \*IBORs to follow (USD LIBOR, CAD BAs)
- ✓ Pre-cessation trigger (to handle “zombie LIBOR” scenario) also possible for consultation
- ✓ System vendors and FMIs building the capability to operate under fallback arrangements *if and when triggered*

\*Subject to the launch of ESTER itself

# Rates Benchmark Reform: 2020+ Industry Priorities

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## Transition from EONIA to ESTER discounting for EUR swaps

- ✓ EONIA will not be EU BMR compliant, though probably only by Jan 2020 (see prior slide)
- ✓ ECB are consulting on a recommended transition approach: Recalibration / Clean Discounting / Time-limited
- ( [https://www.ecb.europa.eu/paym/pdf/cons/euro\\_risk-free\\_rates/ecb.eoniatransitionreport201812.en.pdf](https://www.ecb.europa.eu/paym/pdf/cons/euro_risk-free_rates/ecb.eoniatransitionreport201812.en.pdf) )
- ✓ “Recalibration” means changing the EONIA methodology to “ESTER + X”; EMMI to consult on this proposal

## Transition from EFFR to SOFR discounting for USD swaps

- ✓ USD products (cleared and bilateral) use EFFR for PAI rate and for discounting (VM calculation)
- ✓ ARRC’s Paced Transition Plan requires a transition to the use of SOFR in both cases for cleared swaps
- ✓ We consulted with our users in Q4 2018 over their preferences for our approach
- ✓ We have 3 key consultation results: (i) Single-step; (ii) Compensation; and (iii) target H2 2020
- ( [https://secure-area.lchclearnet.com/secure\\_area/secure/default.asp?folder=5383&view=list](https://secure-area.lchclearnet.com/secure_area/secure/default.asp?folder=5383&view=list) )
- ✓ Design of the compensation mechanism, potentially using compensating swaps, is underway

## \*IBOR Transition

**The Official Sector are keen for market participants to scale down and ultimately cease their new \*IBOR-based activity and to terminate or convert their legacy \*IBOR populations. This may involve bulk conversion cycles akin to the compression cycles**

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