€STR Transition
Establishing a liquid €STR derivatives market

ECB Money Market Contact Group Meeting, 24th Sep 2019, Frankfurt
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How will €STR transition?

The feedback loop between cash and derivatives depends on the EURIBOR transition: As EURIBOR will survive fewer cash products will switch to €STR.

SONIA and SOFR are set to replace LIBOR in the UK and US, but the €STR term structure is being developed just as a fallback.

How relevant are the SONIA (UK) and SOFR (US) transitions for €STR?

(1) €STR path following Financial Stability Board (FSB) guidelines on the future roles for overnight RFRs and term rates
How relevant are the SONIA (UK) and SOFR (US) transitions for €STR?

**US:** the SOFR market has been developing slowly as the effective Fed funds rate and LIBOR continue to exist and SOFR was a newly created rate without derivatives market in place.

- SOFR futures are growing, but volumes are still a fraction of Eurodollar futures
- One important milestone on USD transition is using SOFR as a discounting curve. This is expected by second half of next year. 2 years after the launch of SOFR.

**The GBP market** is transitioning fast to SONIA. The key reason being that SONIA was already in place.

- Liquidity and open interest in SONIA futures is robust, but still significantly below GBP LIBOR
- In LCH-cleared derivatives, SONIA/OIS notional exceeded the Libor/IRS in January-April 2019.
- In Q1 2019, for the first time the GBP-denominated volume using the SONIA benchmark for floating-rate note tranches surpassed the volume of those using Libor.

Looking at the slow transition for SOFR: Is EONIA-€STR transition period until end-2021 long enough to establish a liquid €STR derivatives market?

**The key difference:** because EONIA will become a tracker of €STR in October, the market risk of the existing EONIA products will move into €STR.

- All EUR OIS liquidity could soon be €STR-based.

**€STR:** close to SONIA transition? One of the main challenges will be to get clients to switch to €STR in the short term.

- EURIBOR will survive, therefore creating less need to transition to a €STR or even a €STR term rate
- The market agreed two-year transition period avoids the cliff edge effect, but does not create any urgency to start switching to €STR derivatives.

- First €STR linked note was announced last week: EIB 3YR €STR linked FRN
SG5 has launched phase II, creating two drafting teams— one for derivatives and one for cash products— to prepare a report on “measures to ensure establishment of a liquid €STR derivatives market”:

- Report expected to be completed by the end of 2019
- Focused on essential products, features and market standards required, and identifying and addressing driving factors for liquidity

Timeline for the transition from EONIA to the €STR

Source: Report by the WG on RFR, On the impact of the transition from EONIA to €STR on cash and derivative products, August 2019
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Milestones for transitioning to €STR

1: Creation of a new market based on €STR-linked derivatives
   • New €STR-linked market instruments and their pricing models

   ▶ LCH starts clearing €STR linked swaps on Oct 21 (up to 51 years). Frankfurt-based Eurex on Nov 18\textsuperscript{th} (up to 50 years)

   ▶ BME announced on Sept 19\textsuperscript{th} that it will start clearing €STR-linked products on Nov 29\textsuperscript{th} (OIS fixed-floating €STR and Basis Swap floating €STR–floating EURIBOR),

   ▶ ICE: Oct 2019 onwards: one month euro overnight index futures based on €STR (announced 19-jul-2019)

   ▶ Knowing already the date CCPs are able to clear €STR should help the market transition to risk-free rates

   ▶ Main dealers are planning to quote and even stream prices very soon after €STR starts to be published, probably at some point in October

   ▶ Could regulators give some capital relief in the transition process? (increased derivative nationals to be transitioned could create some challenges)

Source: Report by the WG on RFR, On the impact of the transition from EONIA to €STR on cash and derivative products, August 2019

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Milestones for transitioning to €STR

2 October 2019

2: PAI and discounting regime switch performed by CCPs

- €STR discounting framework

▶ Large CCPs expected transition in some point of 2020. WG recommendation 1H.

▶ In Q2 2020 BME will start accepting €STR for discounting and PAI.

▶ Compensation mechanism will smooth discounting transition: Cash payment to mitigate the value transfer (P/L impact), when changing the PAI and discounting regime.

Source: Report by the WG on RFR, On the impact of the transition from EONIA to €STR on cash and derivative products, August 2019
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Milestones for transitioning to €STR

- First €STR fixing by ECB
- Discontinuation of EONIA

3: PAI and discounting regime switch performed by counterparties with respect to their derivatives positions under bilateral CSAs

- €STR discounting framework for derivatives under bilateral CSAs
  - Replacing EONIA with €STR as a basis for collateral interest for both legacy and new trades with each of its counterparties.
  - CCP transition could help as example
  - EONIA – €STR transition protocol. A standard documentation protocol that helps coordinating transition of legacy contracts from EONIA to €STR
  - “Clean discounting” applies at counterparty level. This means that for each counterparty only one curve will be used.
  - Standard compensation payment.
    - a standard procedure that determines parameters to compute a compensation payment such as valuation dates and times, settlement dates, zero coupon methodology, spreads …
    - identification of standard data sources as the inputs to the computation methodology
    - determination of a high-level standard formula with some high level examples

Source: Report by the WG on RFR, On the impact of the transition from EONIA to €STR on cash and derivative products, August 2019

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4: Decision by market makers and brokers on how to quote non-linear/volatility/correlation derivatives
   • Pricing model calibrations using the new €STR interest rate curve

5: Decision by market participants to revise risk-free net present values and xVAs pricing models or to perform new valuation adjustments
   • Valuation model adjustments for uncollateralized derivatives

Source: Report by the WG on RFR, On the impact of the transition from EONIA to €STR on cash and derivative products, August 2019
SOFR futures are growing, but volumes are still a fraction of Eurodollar futures.
One important milestone on USD transition is using SOFR as a discounting curve. This is expected by second half of next year, 2 years after the launch of SOFR.

**Q2**
- NY Fed, OFR began publishing SOFR
- CME launched 1-mo, 3-mo SOFR futures
- SOFR definition included in ISDA master agreement

**Q3**
- LCH cleared IRS referencing SOFR
- SOFR-linked securities issued

**Q4**
- ICE launched 1-mo, 3-mo SOFR futures
- CCPs allowed choice to clear new or modified swaps
- CME cleared IRS referencing SOFR
- FASB approved SOFR OIS as hedge accounting benchmark rate

**Q1**
- CCPs allow choice (in discounting regimes) to clear new or modified swaps
  - LCH: October 17, 2020
  - CME: July 20, 2020

**Q4**
- Creation of term reference rate based on SOFR derivatives

Source:
SIFMA insights, SOFR Primer, July 2019
**Establishing a liquid €STR derivatives market**

### €STR’s path: closer to SONIA than SOFR?

- Liquidity and open interest in SONIA futures is robust, but still significantly below GBP LIBOR
- Share of swaps traded using SONIA is already broadly equivalent to that linked to LIBOR

#### Listed Futures (data provided by futures exchanges)

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<thead>
<tr>
<th></th>
<th>Aggregated across all products as at end-July</th>
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<tbody>
<tr>
<td></td>
<td>Monthly traded volume</td>
</tr>
<tr>
<td>GBP LIBOR</td>
<td>14,249,857</td>
</tr>
<tr>
<td>SONIA</td>
<td>863,199</td>
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</tbody>
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**LCH Swaps Statistics (from LCH website)**

<table>
<thead>
<tr>
<th></th>
<th>As at end-July (£billions)</th>
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<tbody>
<tr>
<td></td>
<td>Notional traded June</td>
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<tr>
<td>GBP LIBOR (incl. FRAs)</td>
<td>4,003</td>
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<tr>
<td>SONIA</td>
<td>4,222</td>
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</tbody>
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Source: WG on Sterling RFR: Newsletter, August 2019