# €STR Transition

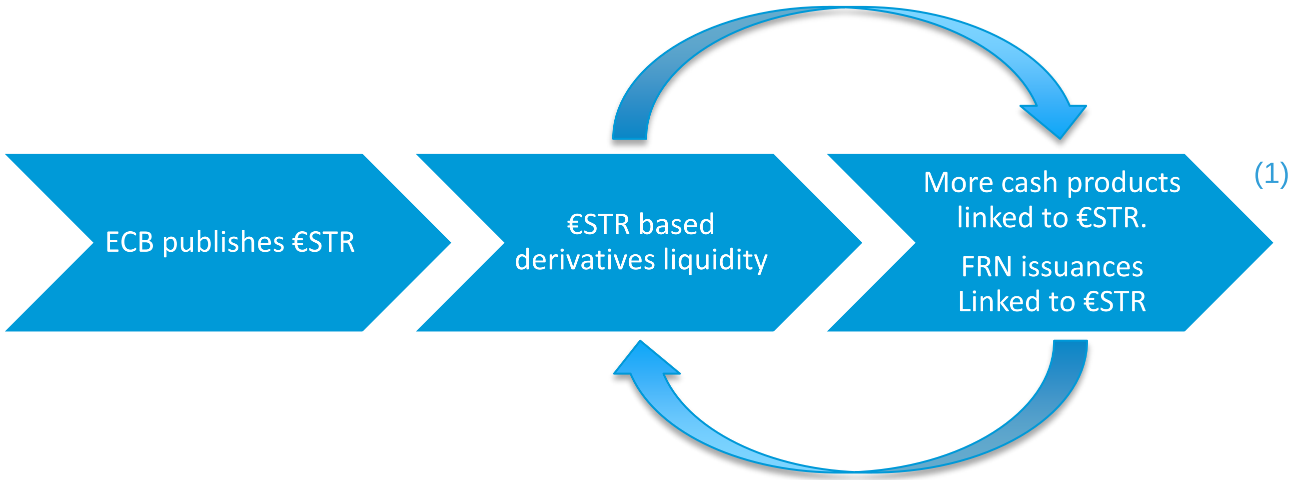
## *Establishing a liquid €STR derivatives market*

ECB Money Market Contact Group Meeting, 24th Sep 2019, Frankfurt

## 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?

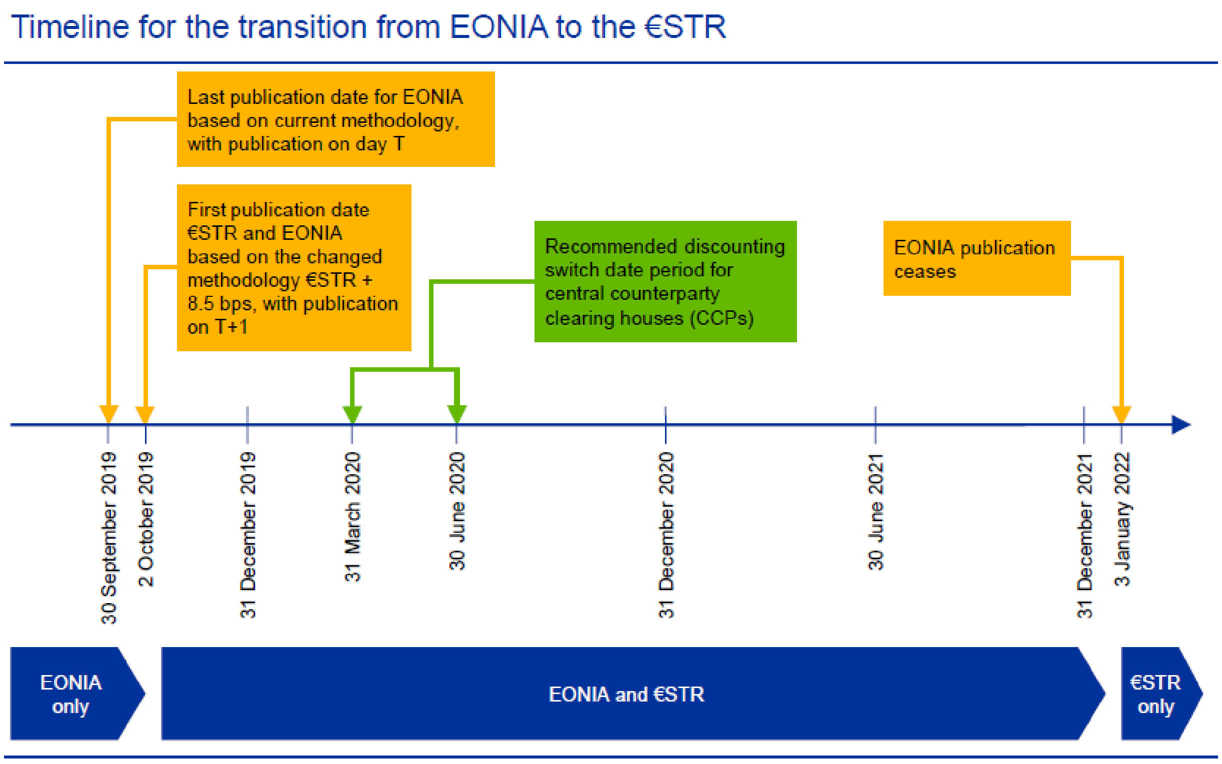
- **The key difference**: because EONIA will become a tracker of €STR in October, the market risk of the existing EONIA products will move into €STR.
  - All EUR OIS liquidity could soon be €STR-based.

- **€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

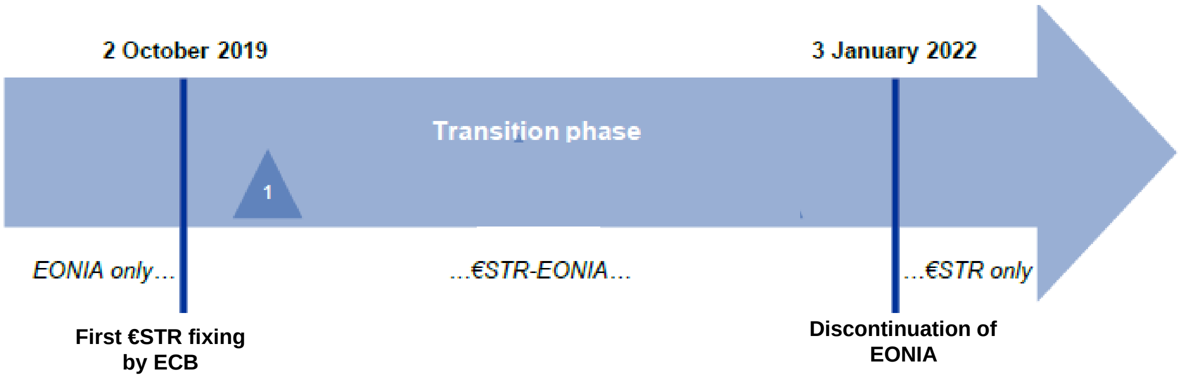
# €STR transition

- 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




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

## 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 18th (up to 50 years)

▸ BME announced on Sept 19th that it will start clearing €STR-linked products on Nov 29th (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)

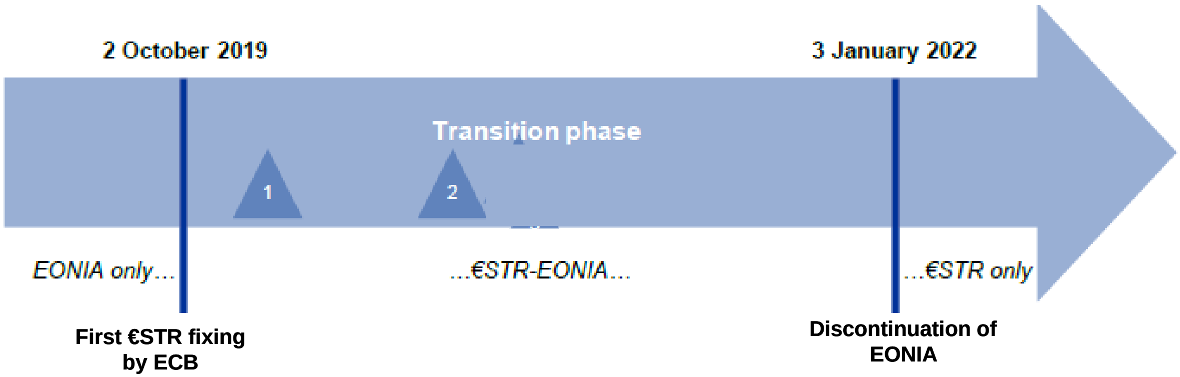
▸ Knowing already the date CCPs are able to clear €STR should help the market transition to risk-free rates

▸ 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

## Milestones for transitioning to €STR



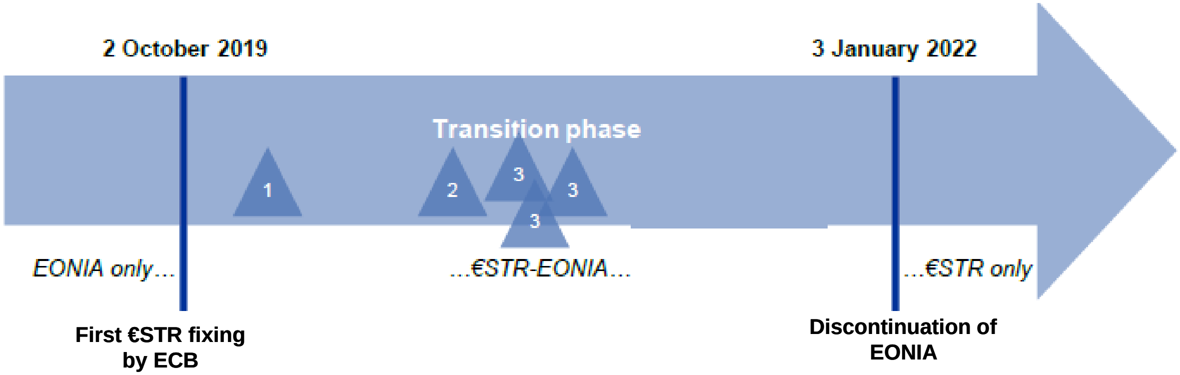

**2: PAI and discounting regime switch performed by CCPs**

- €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

# Milestones for transitioning to €STR

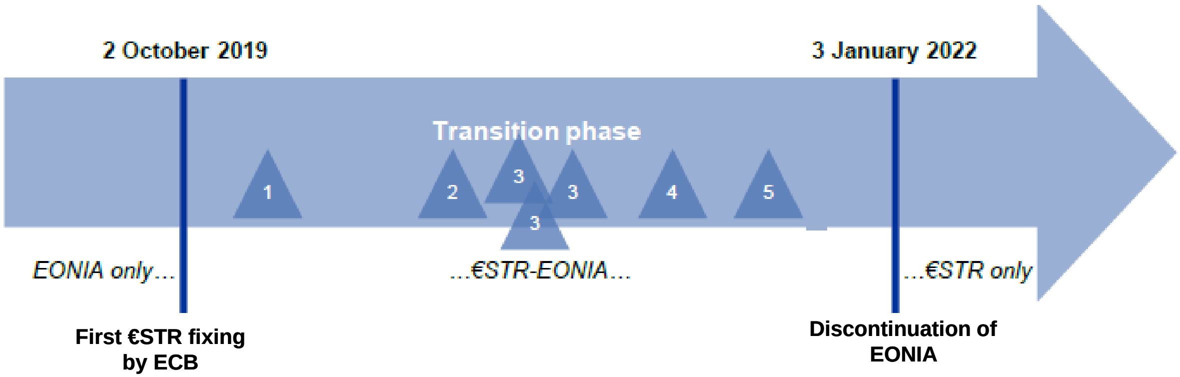



**3: PAI and discounting regime switch performed by counterparties with respect to their derivatives positions under bilateral CSAs**

- €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

## Milestones for transitioning to €STR




**4: Decision by market makers and brokers on how to quote non-linear/volatilty/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**

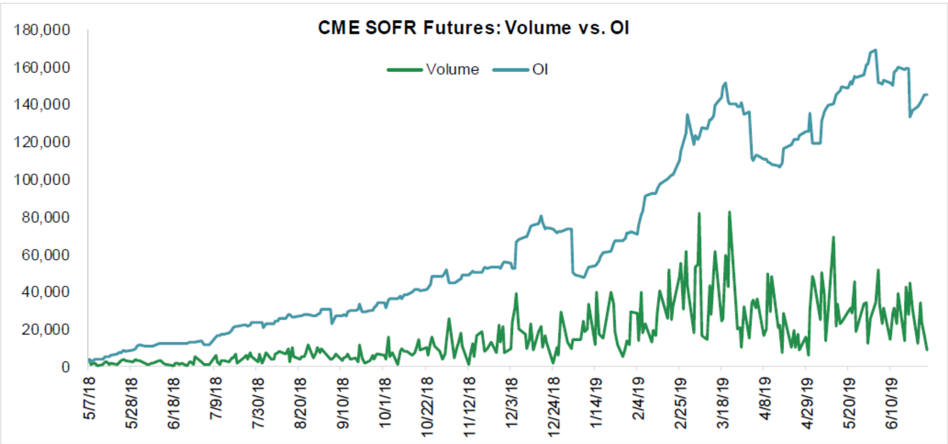
- Valuation model adjustments for uncollateralized derivatives

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

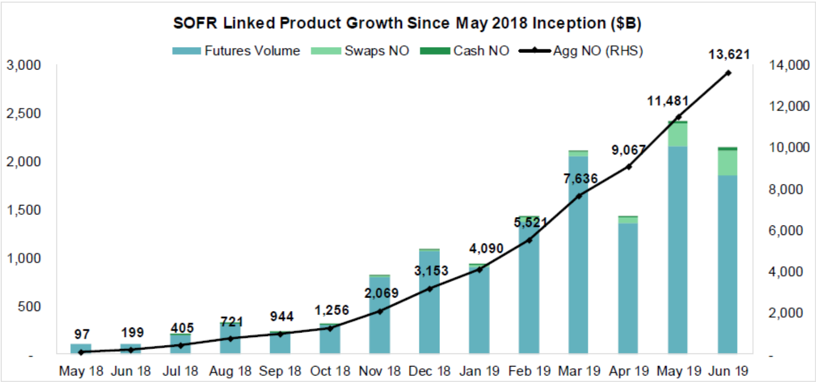
# *annexes*

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

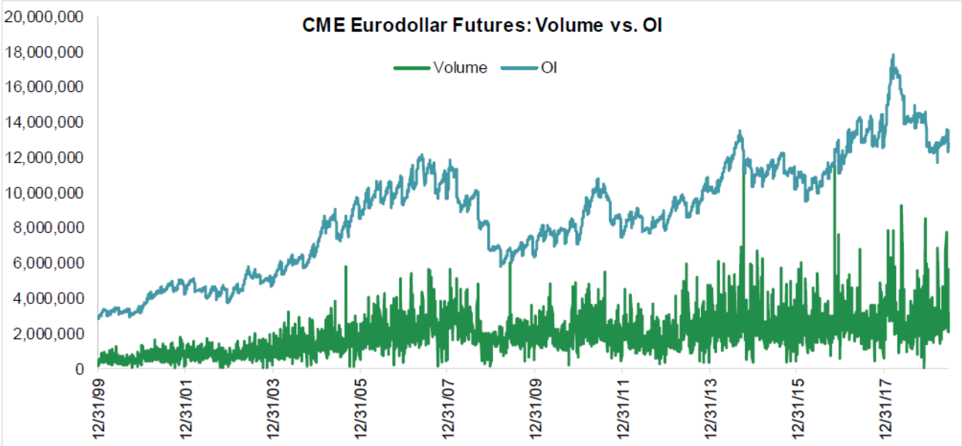
▶ SOFR futures are growing, but volumes are still a fraction of Eurodollar futures




Source: CME Group. Note: # contracts. Please see appendix for futures contracts methodology




Source: ARRC, CME Group, ICE, LCH, SIFMA estimates (as of end June 2019)
Note: CME trading in May '18, ICE Oct '18. LCH clearing in Jul '18, CME Oct '18. NO = notional outstanding. Cash = issuance. Agg = aggregate




Source: SIFMA insights, SOFR Primer, July2019

# SOFR: ARRC transition plan

- 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.

## 2018

**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 referecing SOFR
- FASB approved SOFR OIS as hedge accounting benchmark rate

## 2019

**Q4**
- ISDA final ammendments to definitions and protocols

## 2020

**Q1**
- CCPs allow choice (in discounting regimes) to clear new or modified swaps

- **LCH: October 17, 2020**
- **CME: July 20, 2020**

## 2021

**Q1**
- CCPs no longer accept new swaps cleared with Effective Fed Funds Rate (EFFR)

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

Source: SIFMA insights, SOFR Primer, July2019

# €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)

| | Aggregated across all products as at end- July | | | |
|---|---|---|---|---|
| | Monthly traded volume | *Change since last month* | Number of contracts outstanding (Open Interest) | *Change since last month* |
| **GBP LIBOR** | 14,249,857 | - 1,513,073 (-10%) | 4,540,298 | 355,019 (8%) |
| **SONIA** | 863,199 | 495,230 (135%) | 137,108 | 5,544 (4%) |

LCH Swaps Statistics (from LCH website)

| | As at end-July (£billions) | | | |
|---|---|---|---|---|
| | Notional traded June | *Change since last month* | Notional outstanding as of end-June | *Outstanding change since last month* |
| **GBP LIBOR (incl. FRAs)** | 4,003 | -714 (-15%) | 17,959 | 549 (3.2%) |
| **SONIA** | 4,222 | -472 (-10.1%) | 8811 | 606 (7.4%) |

Source: WG on Sterling RFR: Newsletter, August 2019