

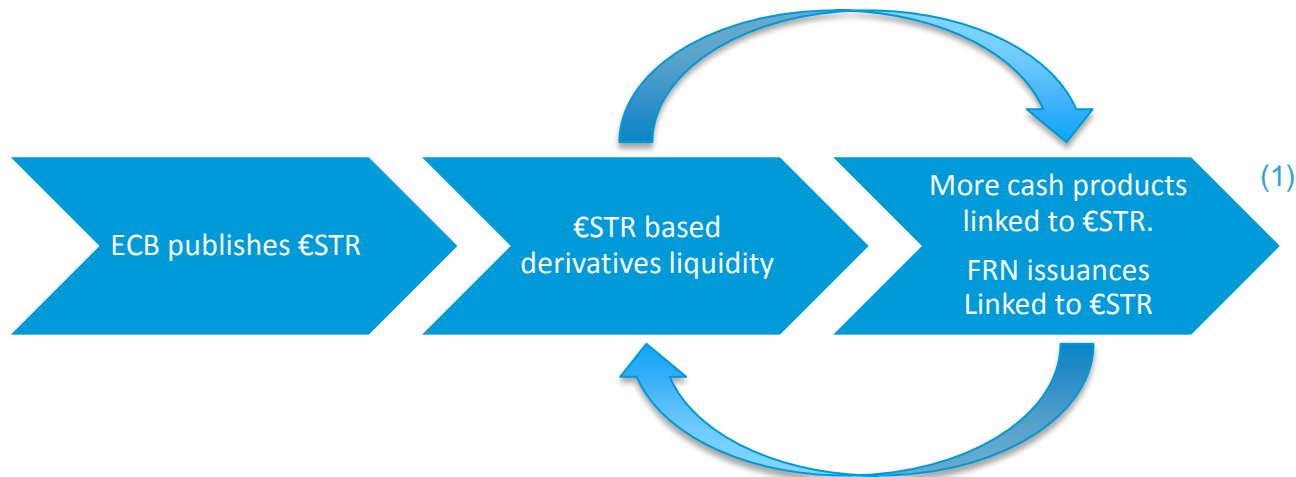
€STR Transition
Establishing a liquid €STR derivatives market

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.

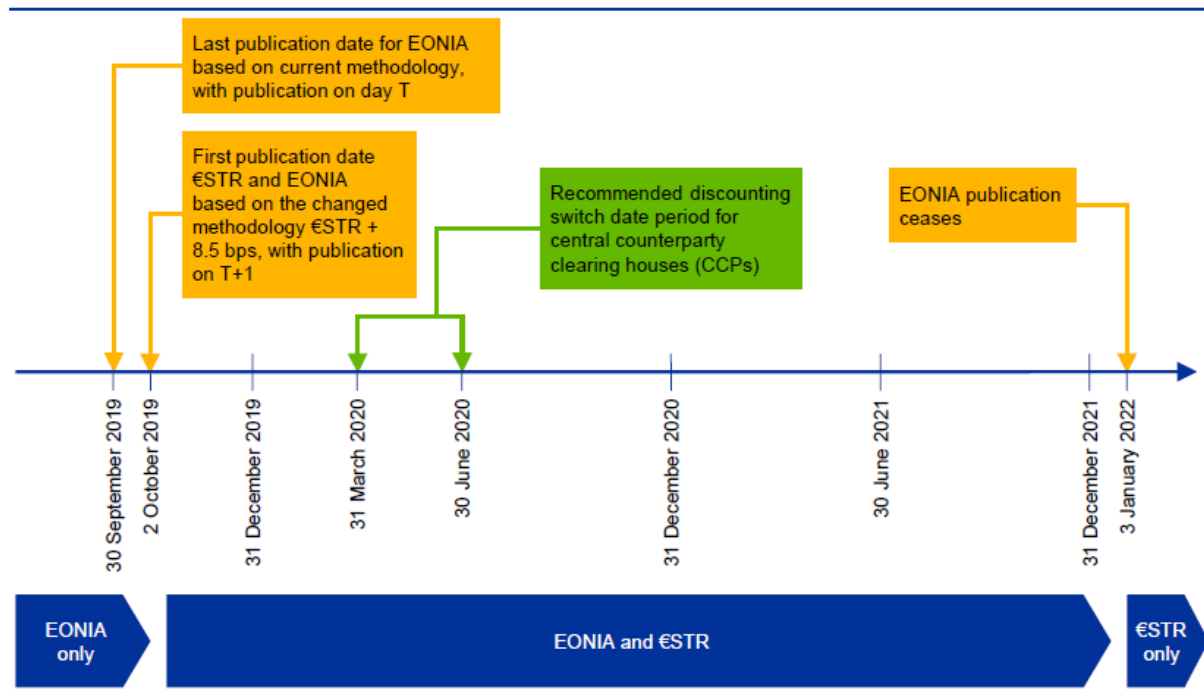
- ▶ **€STR:** close to SONIA transition? One of the main challenges will be to get clients to switch to €STR in the short term.
 - ▶ EURIBOR will survive, therefore creating less need to transition to a €STR or even a €STR term rate
 - ▶ The market agreed two-year transition period avoids the cliff edge 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

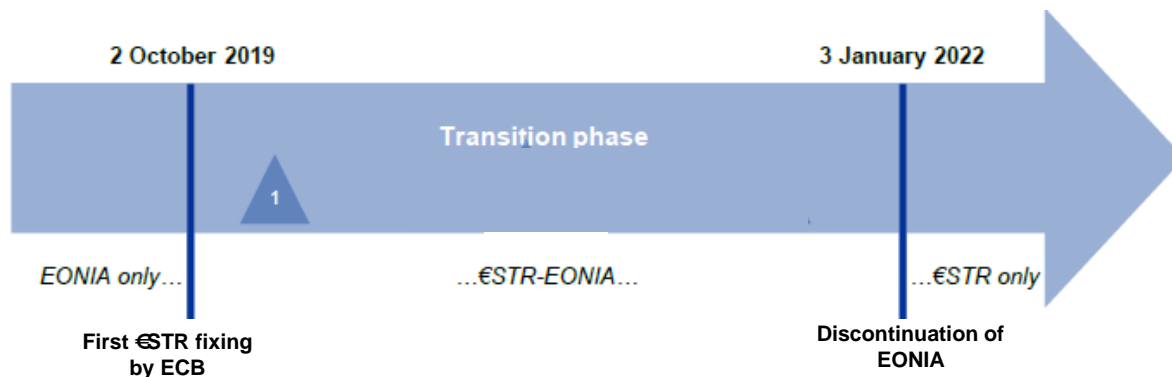
- ▶ SG5 has launched phase II, creating two drafting teams– one for derivatives and one for cash products-- to prepare a report on “measures to ensure establishment of a liquid €STR derivatives market”:
 - ▶ Report expected to be completed by the end of 2019
 - ▶ Focused on essential products, features and market standards required, and identifying and addressing driving factors for liquidity

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

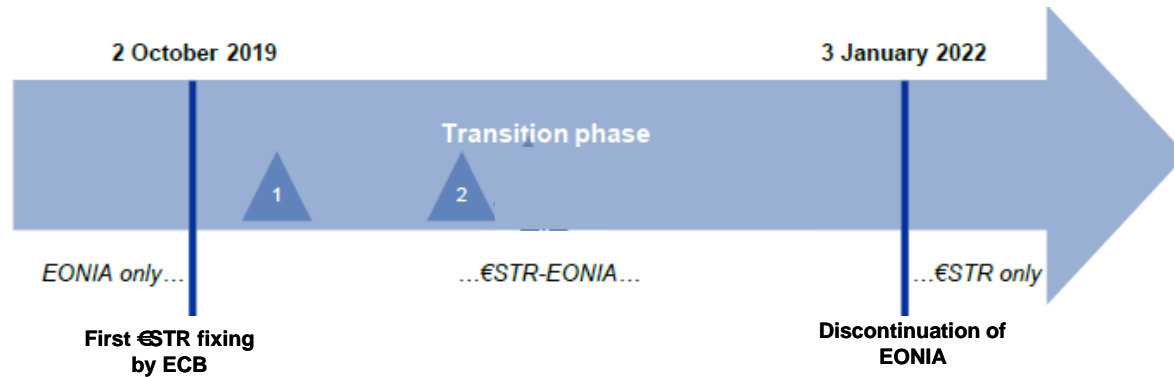
Milestones for transitioning to €STR



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)

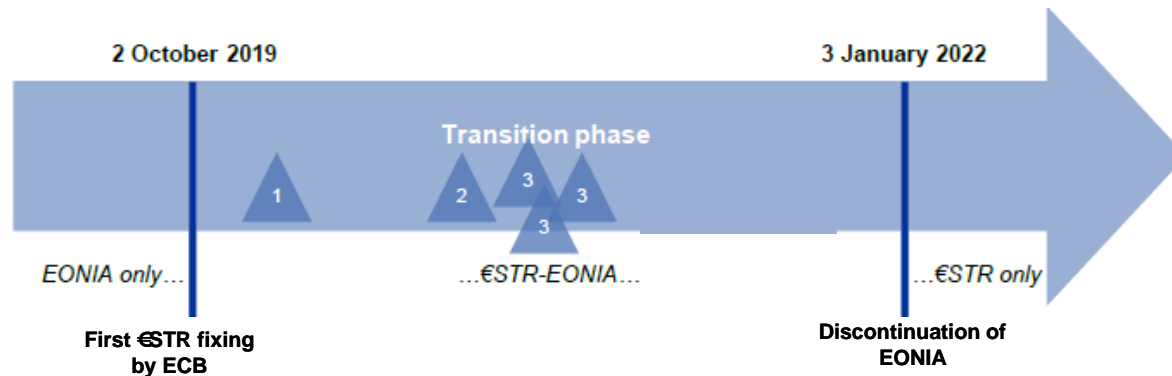
Milestones for transitioning to €STR



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.

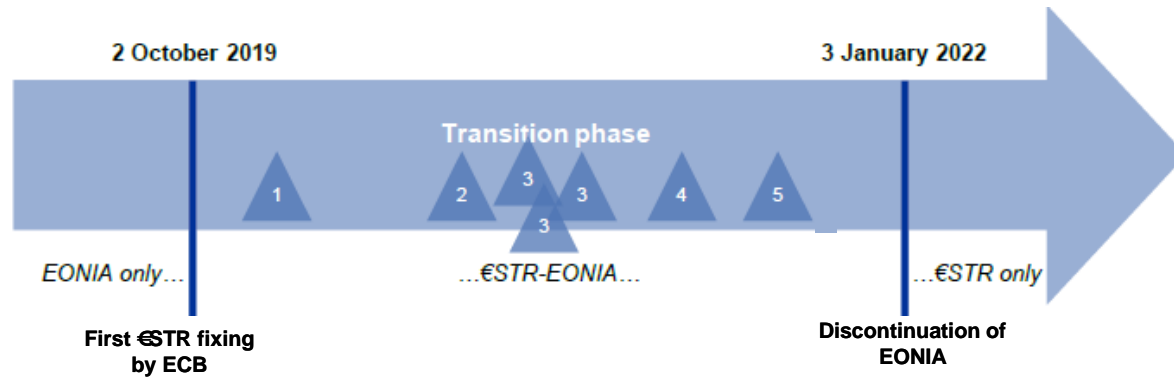
Milestones for transitioning to €STR



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

Milestones for transitioning to €STR



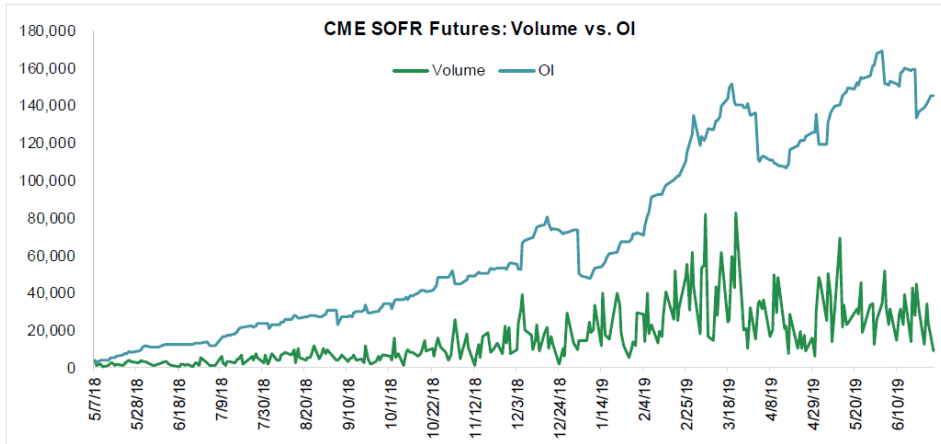
- 4: Decision by market makers and brokers on how to quote non-linear/volatility/correlation derivatives**
- Pricing model calibrations using the new €STR interest rate curve

- 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

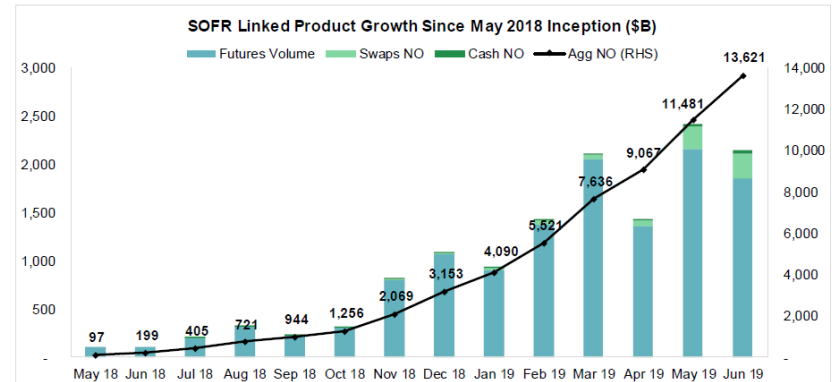
annexes

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

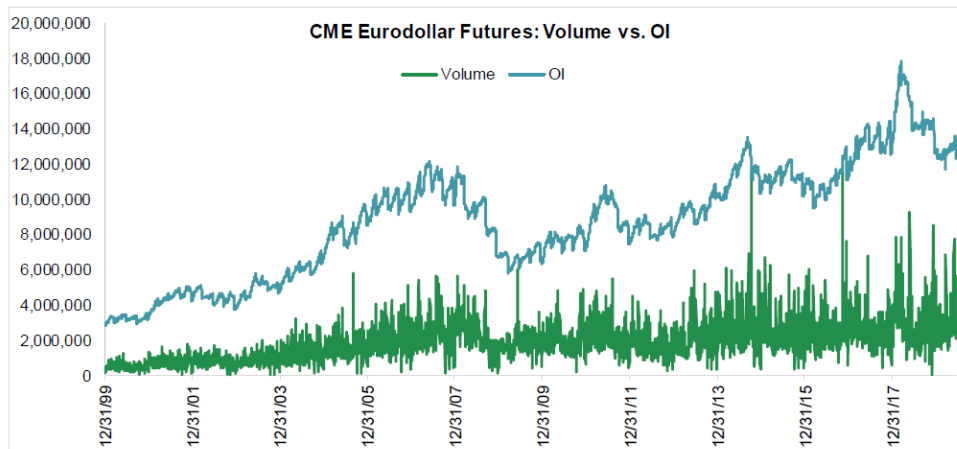
► SOFR futures are growing, but volumes are still a fraction of Eurodollar futures



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



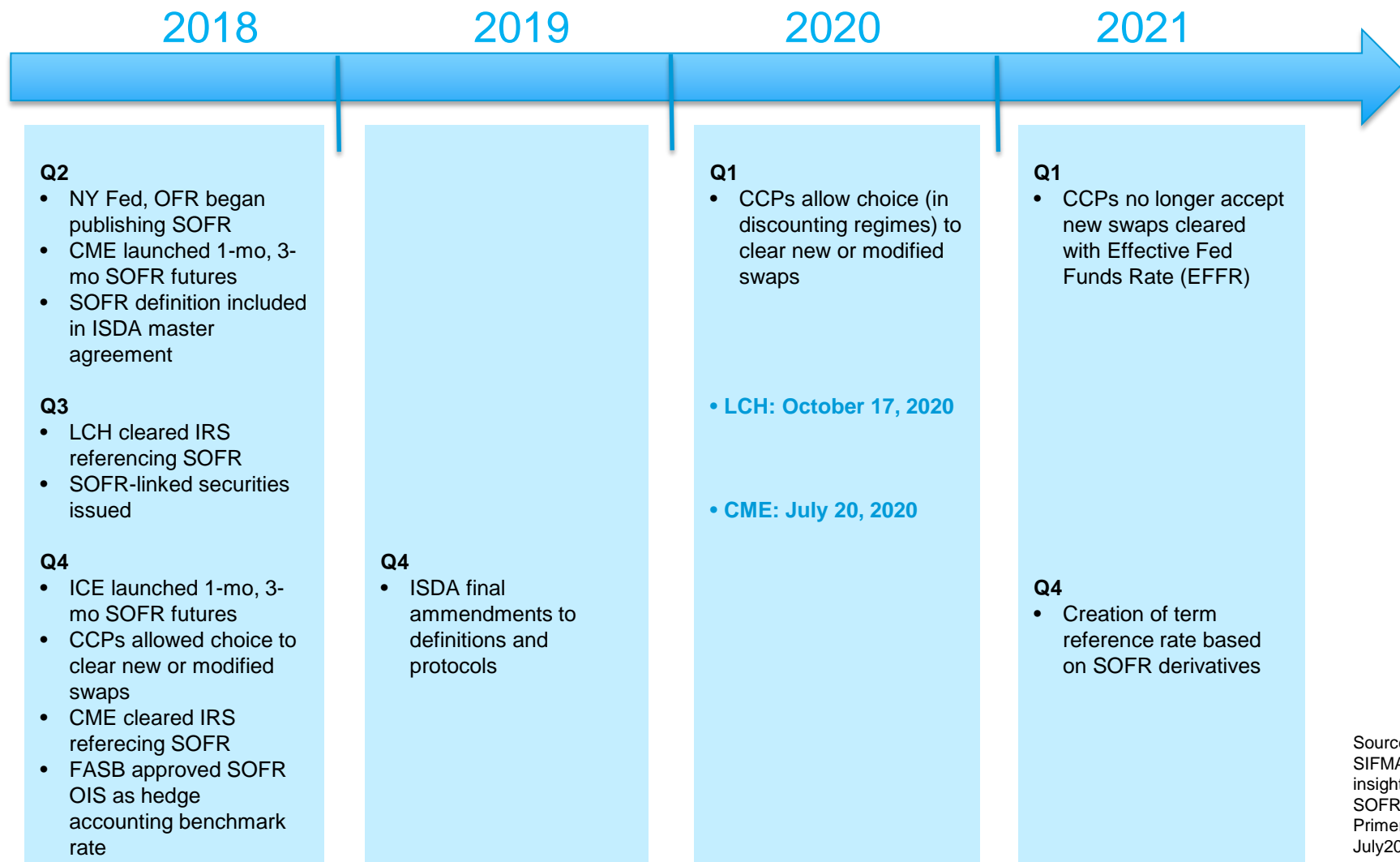
Source: ARRC, CME Group, ICE, LCH, SIFMA estimates (as of end June 2019)
Note: CME trading in May '18, ICE Oct '18. LCH clearing in Jul '18, CME Oct '18. NO = notional outstanding. Cash = issuance. Agg = aggregate



Source: SIFMA insights, SOFR Primer, July 2019

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.



Source:
SIFMA
insights,
SOFR
Primer,
July 2019

€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	<i>Change since last month</i>	Number of contracts outstanding (Open Interest)	<i>Change since last month</i>
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	<i>Change since last month</i>	Notional outstanding as of end-June	<i>Outstanding change since last month</i>
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