EUREX Architects of trusted markets



The IBOR Reform at ECAG

RFR transition in 2021 and beyond

June 2021

Agenda



Key Information for EU and beyond

The benchmark reform – Update on the new rates

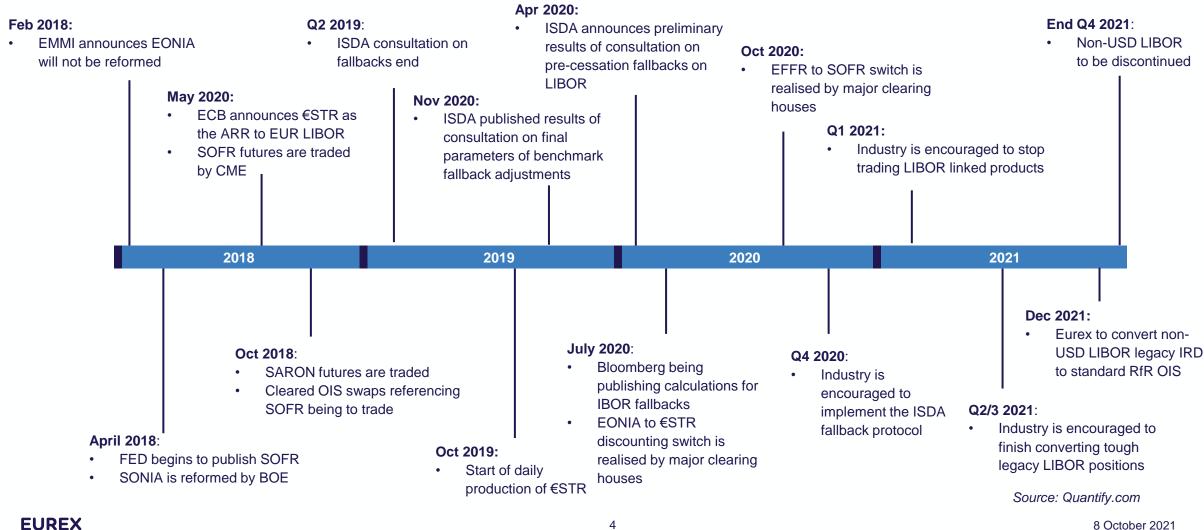
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- €STR rate and its development in 2020
- Eurex Clearing action plan in regards to the RFRs

3 Eurex unique position to support the €STR transitions



Key Information

The IBOR-transition process will soon be finished, as we are nearing the end of the timeline and LIBOR is to be discontinued after December 2021



Global Reform Process – the alternative Risk-Free Rates (RFRs)

	Alternative Risk-Free Rate	First Publication	Administrator	Type of rate	Calculation Method	Main focus for 2021
**** **** ****	Euro Short Term Rate (€STR)	2 October 2019	European Central Bank	Unsecured Overnight	Based on actual unsecured transactions in Euro in the inter-bank lending market	 Establish liquid €STR OIS market before discontinuation of EONIA at the end of 2021 Conversion of legacy EONIA products to €STR in mid-October 2021
	Swiss Average Overnight Rate (SARON)	August 2009	SIX Swiss Exchange	Secured Overnight	Based on transactions and trade quotes concluded against assets which are eligible for SNB GC and posted on the SIX Repo trading platform.	 Establishment of a liquid SARON cash and derivatives market Increase the issued amount of SARON-linked cash products Eurex plans to execute the conversion trades referencing CHF LIBOR over the weekend of December 3, 2021
	Reformed Sterling Overnight Index Average (SONIA)	23 April 2018 (Reformed)	Bank of England	Unsecured Overnight	Weighted average rate of unsecured overnight sterling transactions brokered by Wholesale Markets Brokers Association members	 Agreement on the calculation of term rates for the 1, 3, 6, 12M tenors Eurex plans to execute the conversion trades referencing GBP LIBOR over the weekend of December 17, 2021
	Secured Overnight Financing Rate (SOFR)	3 April 2018	Federal Reserve Bank of New York	Secured Overnight	Volume-weighted median of Tri-party repo, FICC GCF repo and FICC bilateral treasury repo	The CFTC's IR Benchmark Reform committee recommended that on July 26, 201 and thereafter, IDBs replace trading of LIBOR linear swaps with trading of SOFR linear swaps

5

Global Reform Process – the alternative Risk-Free Rates (RFRs)

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Tokyo Overnight Average Rate (TONA(R))	July 1985	Bank of Japan	Unsecured Overnight	Fully transaction-based benchmark for the uncollateralized overnight call rate market, calculated as a volume-weighted average by the BOJ, using information provided by money market brokers (Tanshi)	- Japan is implementing a multi-rate approach with TONAR being promoted by the JPY RFR WG where appropriate, while recognizing that the JBATA- implemented TIBOR reforms should ensure that TIBOR can continue - Eurex plans to execute the conversion trades referencing JPY LIBOR over the weekend of December 3, 2021
Hungarian Forint Overnight Index Average (HUFONIA)	1 September 2010	Central Bank of Hungary (MNB)	Unsecured Overnight	Effective overnight rate computed as the weighted average of unsecured forint overnight transactions in the interbank market, derived from daily reports by credit institutions	Both the O/N HUFONIA and the term BUBOR are expected to continue without reform; MNB has suggested recent reforms led to acceptable HUF reference rates
Czech Overnight Index Average (CZEONIA)	1 January 2002	Czech National Bank	Unsecured Overnight	Weighted average of interest rates on all unsecured O/N deposits placed by banks and foreign bank branches on the interbank market, including deposits placed in the CNB's deposit facility)	Both the O/N CZEONIA and the term PRIBOR are expected to continue without reform; CZK WG stated the discontinuation of rates would have an adverse affect on financial stability of the Czech Republic, as there are very few appropriate substitutes available

Global Reform Process – the alternative Risk-Free Rates (RFRs)

Alternative Risk-Free Rate	First Publication	Administrator	Type of rate	Calculation Method	Main focus for 2021
Reformed Norwegian Overnight Weighted Average (NOWA)	1 January 2020	Norges Bank	Unsecured Overnight	 Calculated as a volume-weighted average of the interest rate on daily transactions reported on Norges Bank's RPD (money market data reporting) form. Based on unsecured loans between banks that report data on a daily basis to Norges Bank made on banking day T, with maturity T+1 	The NOK WG on ARR set a target launch date for NOK OIS of Q4 2021
TBD	2022 (?)	Swedish Riksbank	Unsecured Overnight	The Swedish working group for alternative reference rates (AGAR) recommended on June 11, 2019 that any new ARR should be based on unsecured transactions that the reporting bank makes with the Swedish National Debt Office, banks, and financial institutions	The Swedish Riksbank is planning to initiate a test period when it will publish a preliminary rate and then begin publishing the final reference rate in the near future
Denmark Short Term Rate (DESTR)	2022	Danmarks Nationalbank	Unsecured Overnight	Calculated as a 12.5% trimmed volume-weighted mean of overnight borrowing transactions deposited at the ten most active banks in the DKK money market	Test data for the reference rate (pre- DESTR) is available until end of April 2021; rate is scheduled to go into production in 2022

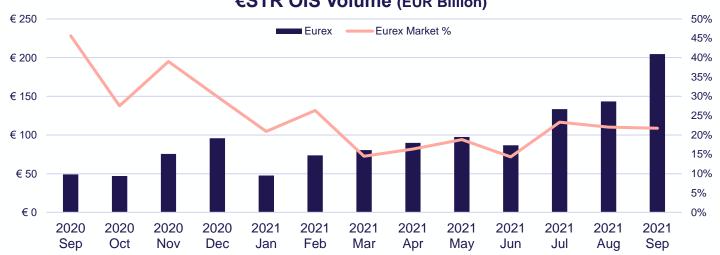




- €STR rate and its development in 2020
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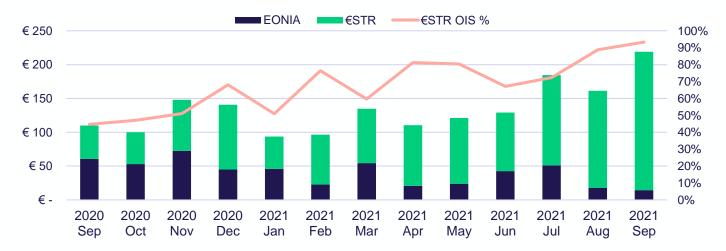


EUR OIS Volume Tracking (I)



€STR OIS Volume (EUR Billion)

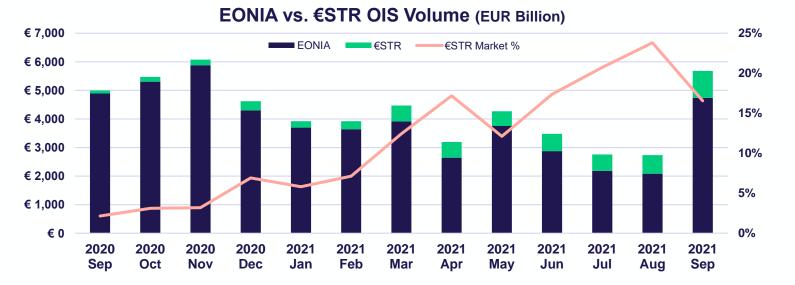
ECAG EUR OIS (EUR Billion)



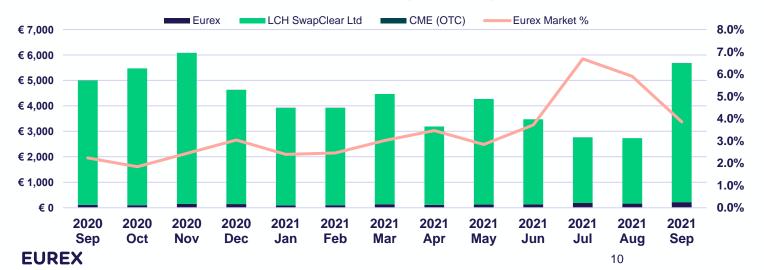
- €STR OIS monthly volumes climbed to their highest levels since launch at Eurex with €204.6 billion in September 2021 (€143.4 billion in August)
 - €STR OIS monthly volume at ECAG first crossed the €100 billion mark in July 2021
 - Eurex had a market share of 21.8% in September 2021 for €STR OIS, and a 19.7% market share over the previous six months
- Overall EUR OIS at Eurex also reached a record high with €219 billion in September 2021, down from the record €161.4 billion in August 2021
 - €STR OIS made up 93.4% of the EUR OIS at Eurex in September 2021 (88.8% in August 2021)

9

EUR OIS Volume Tracking (II)



EUR OIS Volume (EUR Billion)



€STR OIS market share sat at 16.6% for September 2021 (vs. EONIA OIS at all CCPs), down from an all time high of 23.8% in August

- All EONIA legacy OIS will be converted to €STR on October 15, 2021
- Eurex' EUR OIS (EONIA + €STR) market % went down to 3.9% in September 2021 due to a doubling of EONIA volume at LCH prior to the close out of EONIA legacy OIS in October

IBOR reform at Eurex Clearing – 2021



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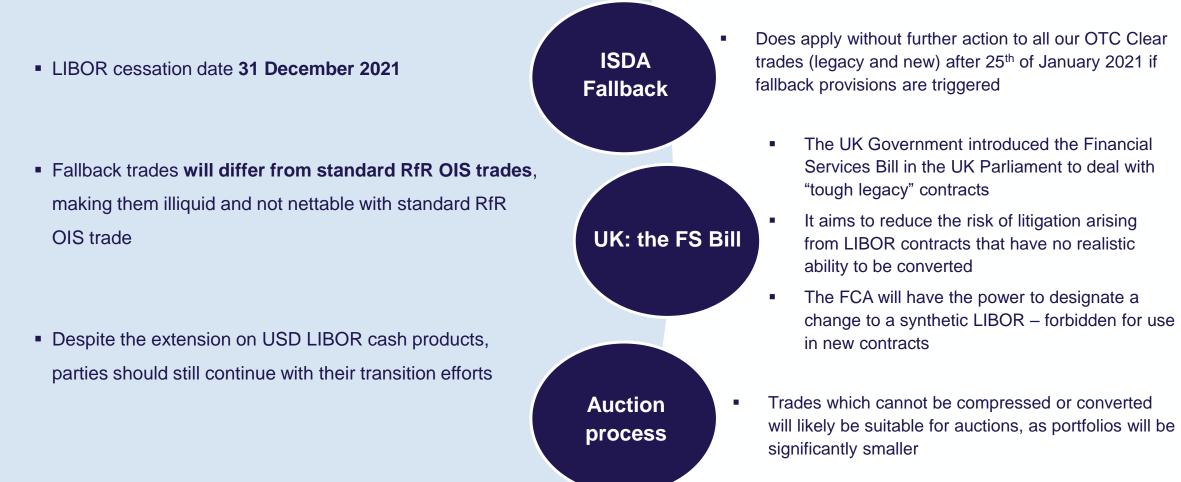
Internal







Adoption of fallbacks provisions and alternatives after the cessation deadline will ensure the orderly processing of late conversion to RfR



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Internal

CCPs are key to smooth the transition the new risk free rates – Eurex as a centralized market venue to trade and clear the Euro yield curve

The role of CCP in supporting the adaption of RfR

- Central clearing for most of these contracts is key to maintain financial market stability
- Mitigation of default risk CCPs demand collateral deposits from the counterparties of a contract (e.g. Initial margins)
- The discounting switch is important to drive liquidity in RFR products, which is a first step for the actual switchover of contracts IBOR-referencing rates to new alternatives

Transition to alternative RfR

- Eurex switched PAI/PAA on all EUR-denominated interest rate swap products from EONIA to the Euro Short-Term Rate (€STR) on the 27th of July 2020, and to the SOFR rate on the 20th of October
- CCP facilitates the conversion to new RfRs
- The discounting switch affected the valuation and risk changes for cleared EUR or USD-denominated interest rate swap products.
- Compensation mechanism were put in place to account for valuation gains or losses on EUR and USD- denominated contracts after the conversion to the new RFRs
 - CCPs ensured to remain cash flow neutral through the process, hence it is currently not possible to convert a LIBOR trade into a new benchmark index trade

14

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