



EUROPEAN CENTRAL BANK

EUROSYSTEM

ECB Public

# €STR and the euro benchmark reform

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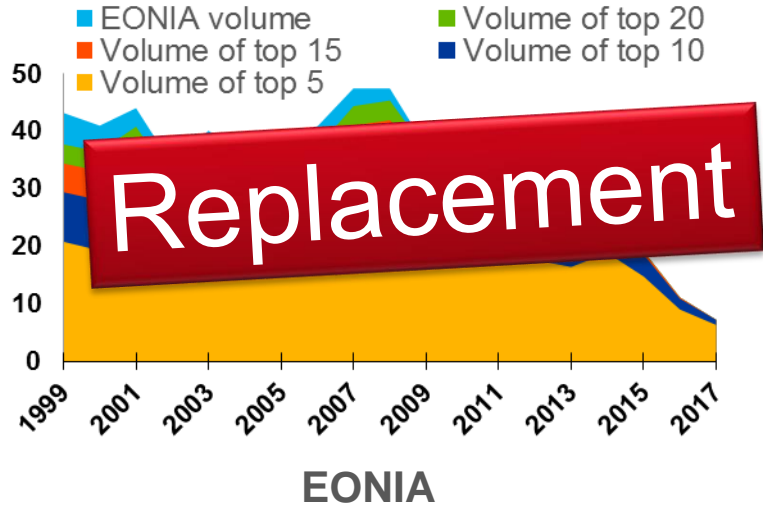
Riksbankens  
Forum for RFR

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# Background: euro area critical benchmarks



EONIA

## Methodology – not compliant with BMR

Market activity underpinning EONIA was very low and the volume was concentrated in a limited number of panel banks

The panel of contributing banks currently consists of 18 CONTRIBUTORS.

<b>Belgium</b>	<b>Netherlands</b>
Belfius	ING Bank
<b>France</b>	<b>Portugal</b>
BNP-Paribas - HSBC France - Natixis - Crédit Agricole	Caixa Geral De Depositos (CGD)
<b>Italy</b>	<b>Other EU Banks</b>
Ir	Barclays
<b>Luxembourg</b>	
Banque et Caisse d'Épargne de l'État	

## Fallbacks

EURIBOR

## Reformed methodology

Challenges in terms of panel stability, limited underlying transactions  
 Fallbacks as a regulatory requirement

# Background: ECB's involvement

- Owing to substantial risks related to the euro area critical benchmarks , [in September 2017 the ECB announced:](#)

## Euro short-term rate

- ECB to develop a daily euro unsecured overnight interest rate
- Based on data already available to the Eurosystem through the ECB's MMSR
- Reflects wholesale borrowing costs of the euro area financial institutions

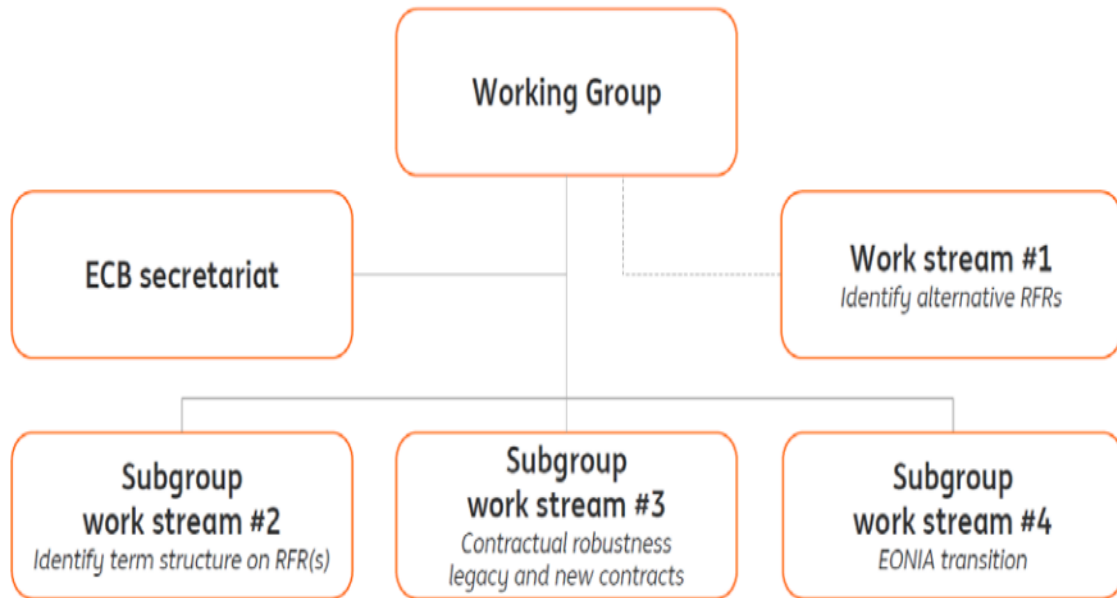
## WG on euro risk-free rates (RFR)

- Set-up of an industry working group together with the European Commission, ESMA and the FSMA
- Chaired by ING (Deutsche Bank since May 2021)
- Initial membership centred around credit institutions, also included associations, benchmarks providers. Composition is now broader with representation of the buy-side.
- The ECB provided Secretariat until May 2021 (ESMA thereafter).

- Mandate of the WG on euro RFR: (i) Identifying alternative euro RFRs, (ii) identifying best practices for contract robustness, (iii) developing an adoption plan and, if necessary, (iv) creating a transition plan for legacy contracts referencing existing benchmarks.

# Governance: example of the initial organisation of the WG on euro RFR

## Organisation chart working group euro risk-free rates – phase 1



January 2018 to March 2019:

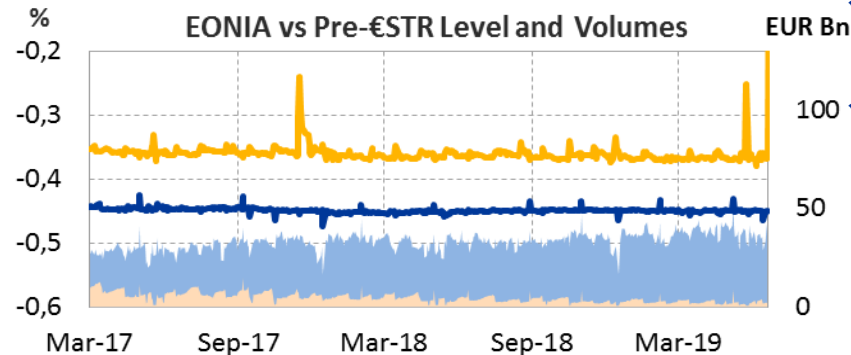
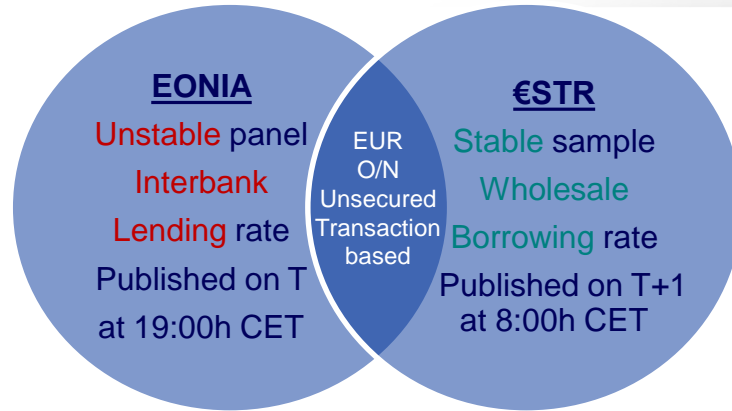
- Workstream 1: Selection of €STR as Euro RFR;
- Subgroup 2: consultation on a €STR term structure;
- Subgroup 3: legal issues, EONIA legal action plan;
- Subgroup 4: consultation and recommendation on an EONIA “transition path”

Decision-making: consensus-building approach; importance of the transparency in the decision-making process; importance of competition law framework; formal decisions made by a vote.

# EONIA transition impact

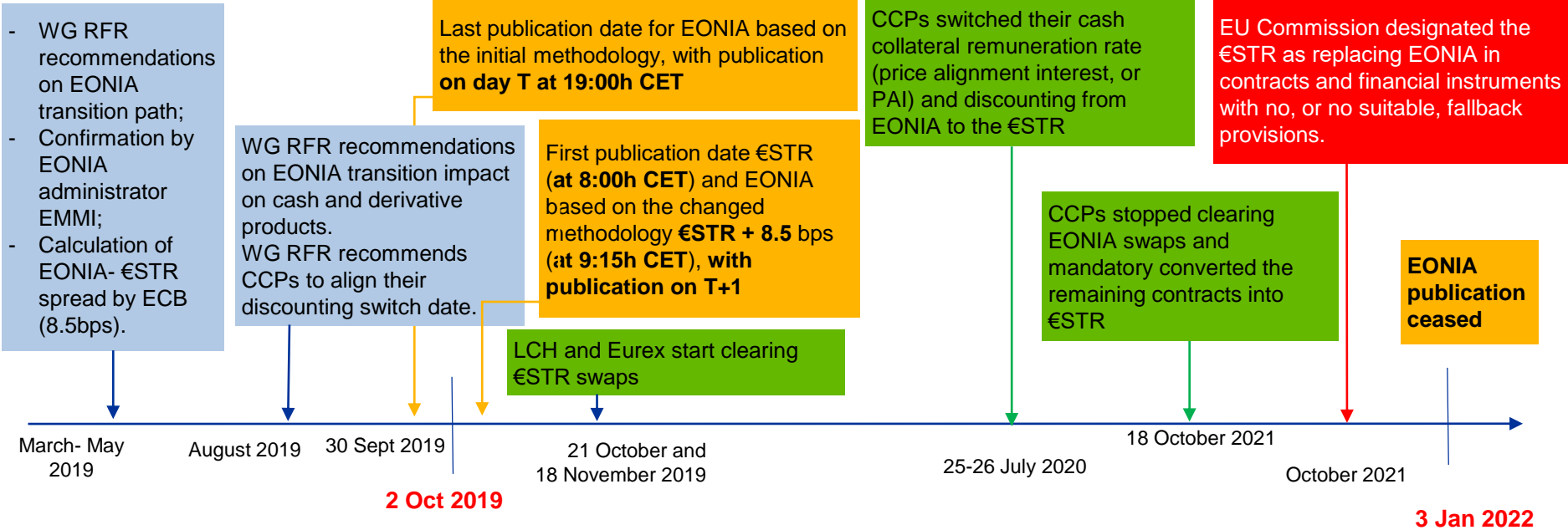
- EONIA was widely used as:
  - Reference rate in financial contracts
  - Remuneration rate for cash collateral held with CCPs
  - Cash flow discounting rate for contracts referencing EONIA and EURIBOR
- €STR recommended as the euro risk-free rate in September 2018
- WG on euro RFR (industry group) supported the transition:
  - ✓ By identifying a “transition path” from EONIA to the €STR
  - ✓ By identifying how to transition from EONIA to the €STR: T to T+1 move, impact on EONIA legacy contracts, impact on current risk management practices, impact on financial accounting, establishment of a liquid €STR market, etc.

# Transition from EONIA to €STR through a temporary change in EONIA methodology



- On 13 September 2018 the WG recommended the €STR as euro-risk free rate (after a public consultation, and preferable to EUR repo indices).
- On 14 March 2019: the WG [recommends a transition path](#) between EONIA and €STR : EONIA methodology to be “recalibrated” and indexed on €STR for 2 years until its discontinuation, including a fixed historical spread.
- On 31 May 2019:
  - [EMMI \(administrator\) confirms EONIA’s change of methodology](#).
  - The ECB publishes the [one-off computation of the fixed spread between €STR and EONIA](#) (8.5 bp, calculated on the past 12 months historical data with a 15% trimming methodology).

# Timeline of the transition from EONIA to €STR

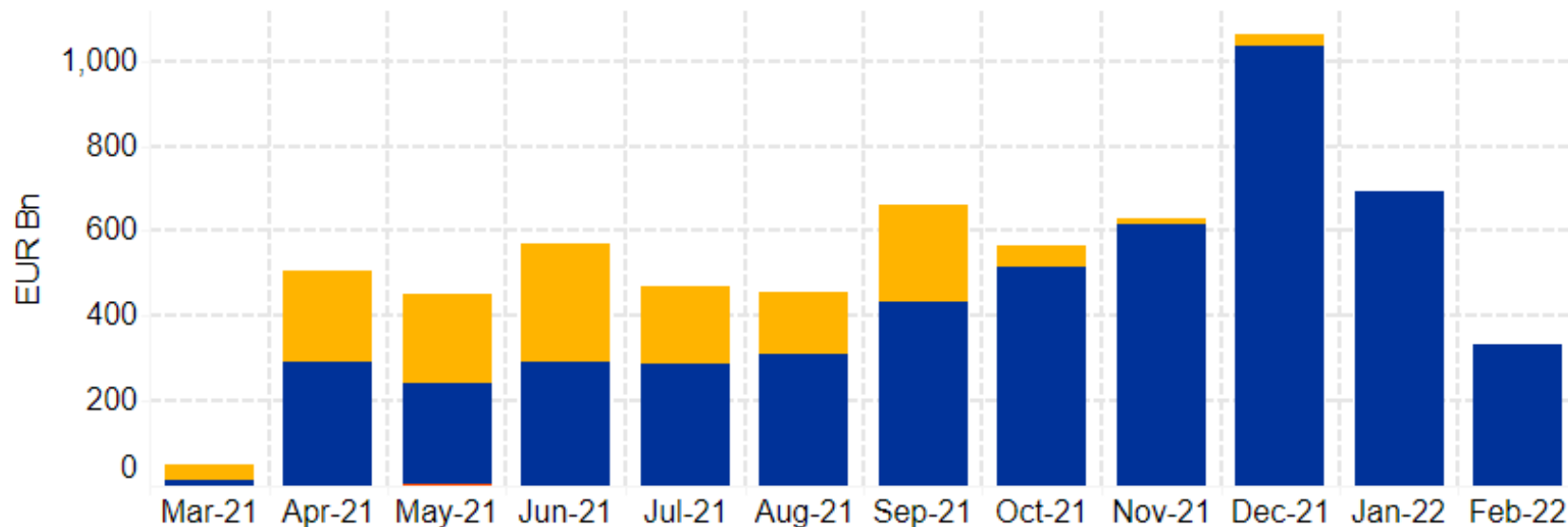


EONIA only  
(T)

EONIA recalibrated = €STR +8.5bp (T+1) ❌

€STR (T+1)

## Monthly Volume, by Flagged Implied Underlying Rate



Flagged rate Test

■ EONIA

■ €STR

Source: LCH

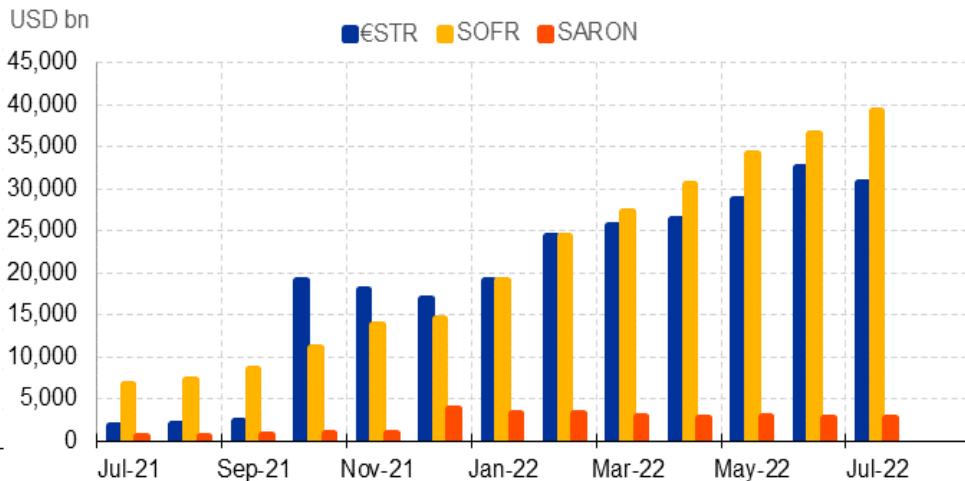
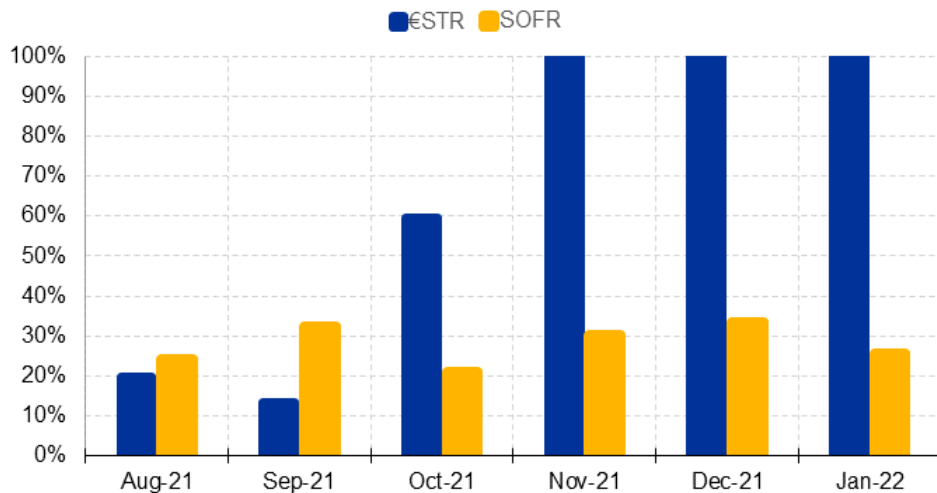


# International comparison in the OIS markets

**LCH data: full transition done in €STR, steady progress in the US markets as SOFR outstanding amounts now match those of €STR**

Percentage of OIS volumes linked to new risk free rate

OIS outstanding amounts linked to new risk-free rates



Source: LCH

**=> For EUR markets, the transition to €STR in OIS markets is complete; the issue remains regarding the usage of €STR in other product types**

# WG recommendations: EONIA to €STR(1/2)

## Main legal recommendations (2019)

- New contracts:
  - **Avoiding entering into new contracts referencing EONIA**, in particular those **maturing after 31 December 2021**
  - Where new contracts still reference EONIA and mature after December 2021, market participants should include **robust fallback provisions**
- Legacy contracts:
  - **Replacing EONIA as a primary rate as soon as possible**, especially for those contracts maturing after December 2021. Alternatively contracts **should embed robust fallback clauses**
  - Considering using **standard market documentation**
- **EONIA fallback rate: €STR + 8.5 bps**
- **Acknowledgement:** considering including a clarification on EONIA's change in methodology

# WG recommendations: EONIA to €STR(2/2)

- Recommendations from an operational and valuation standpoint to address the impact on IT systems, market conventions and documentation used in:

Products	Processes	Models
<ul style="list-style-type: none"> <li>• Derivatives</li> <li>• Cash products (Securities, secured and unsecured cash products, investment funds, other products)</li> </ul>	<ul style="list-style-type: none"> <li>• Calculation of prices, coupons, interest or collateral remuneration</li> <li>• Involving contractual settlement dates</li> </ul>	<ul style="list-style-type: none"> <li>• Funds transfer pricing</li> <li>• Interest rate curve construction</li> <li>• Interest rate term structure</li> <li>• Discounted cash flow, derivatives pricing, derivatives value adjustment</li> </ul>

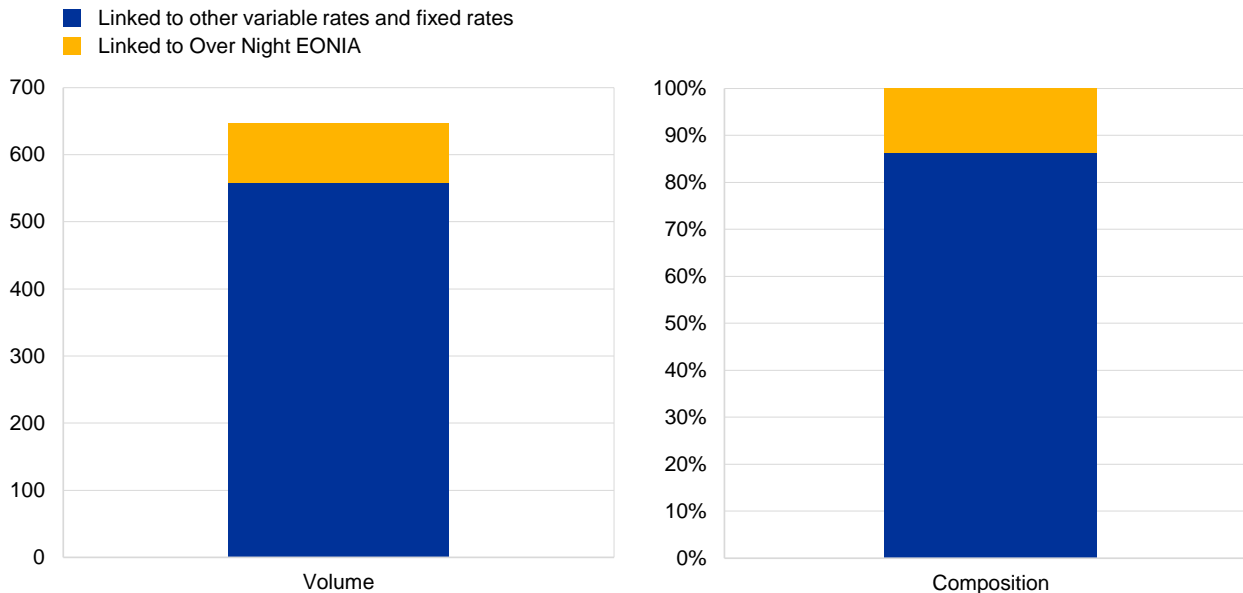
- Recommendations from a risk management perspective to smooth the impact of the transition
- Recommendations from a financial accounting perspective.

# Annexes: EONIA exposures in 2018 main features of the €STR

- **Amount outstanding:**
- EUR 647 billion of deposits (excluding call accounts) plus short-term securities, o.w. EUR 89 billion (14%) linked to EONIA.
- EUR 56.1 billion of call accounts, o.w. EUR 18.8 billion (33%) linked to EONIA

**Amount of unsecured deposits and short-term securities outstanding**

(17 Apr. 2018; LHS: EUR billion; RHS: percentages)



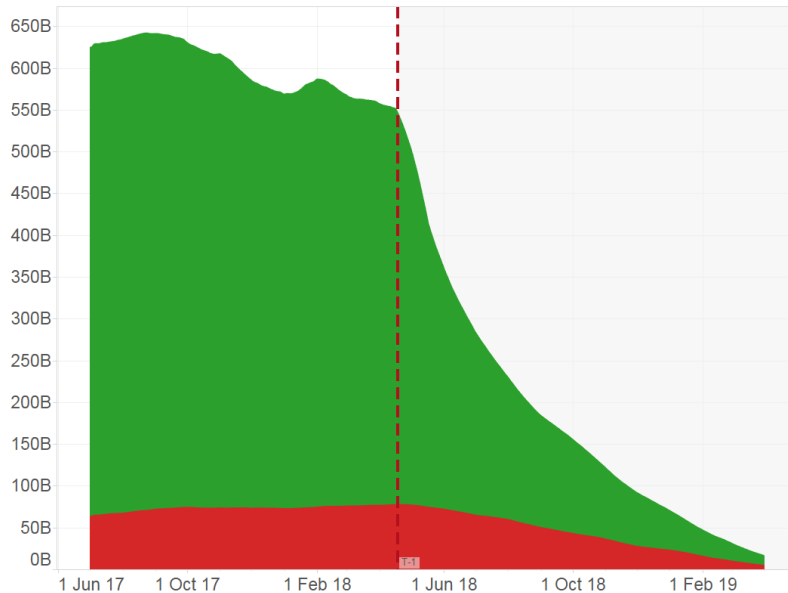
Source: ECB MMSR.

Note: Call accounts are excluded on this chart.

- **Residual maturity:** By construction the stock of transactions linked to EONIA would take approximately 1 year to mature.

**Amount outstanding of EUR denominated unsecured deposits and short-term securities**  
(1 Jun. 2017 - 31 Mar. 2019; EUR billion)

■ Linked to other rates + Fixed  
■ Linked to Over Night EONIA

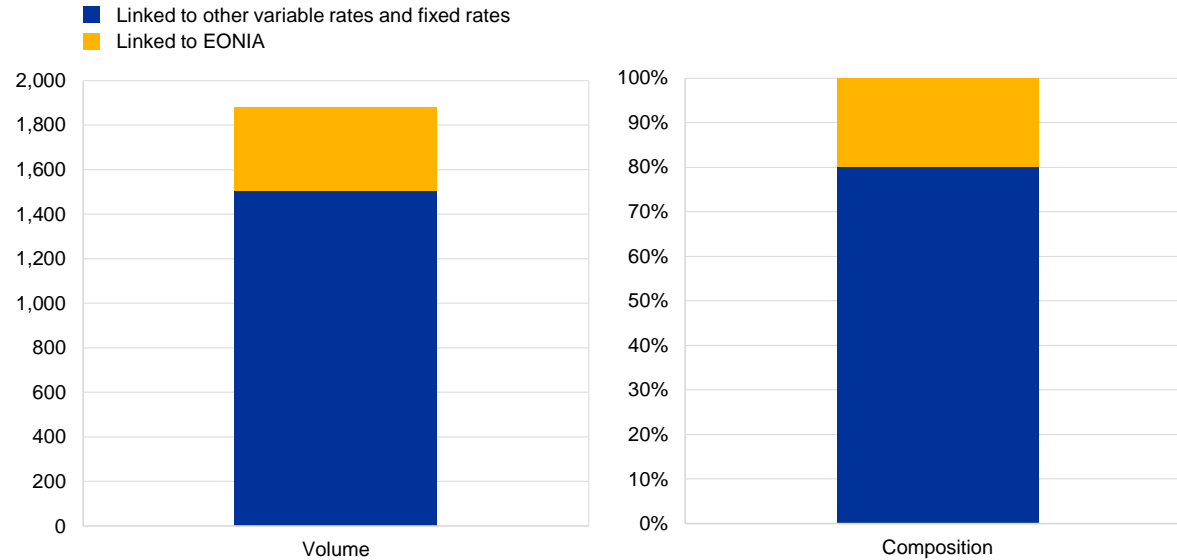


Source: ECB MMSR.

Note: Call accounts are excluded on this chart.

- **Amount outstanding:** EUR 1.9 trillion, o.w. EUR 0.4 trillion linked to EONIA.
- **Residual maturity:** below 1 year.

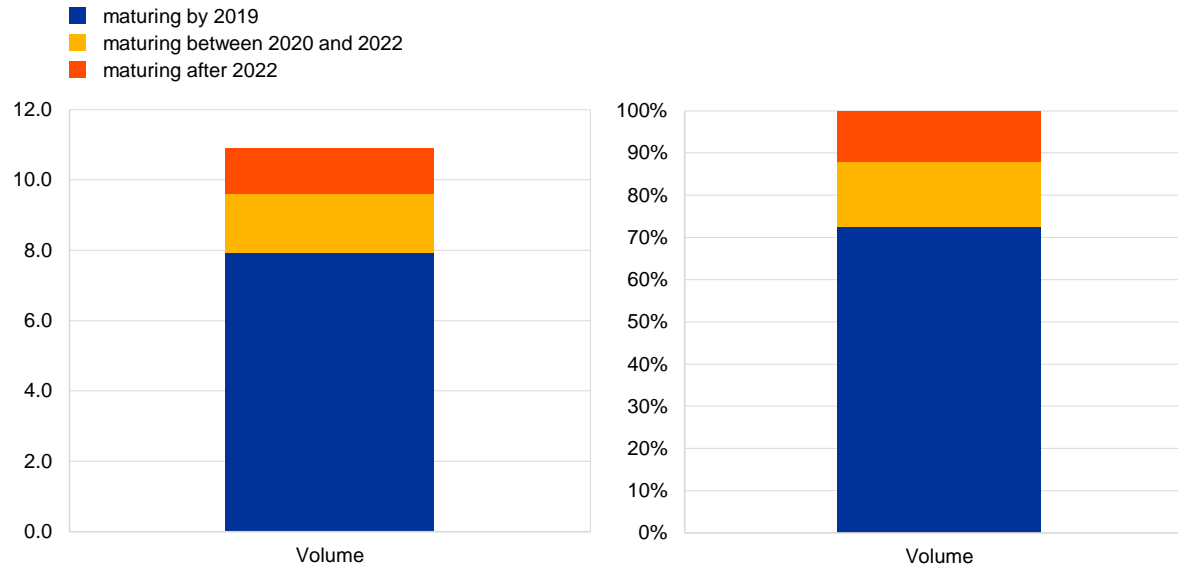
**Amounts of secured transactions outstanding**  
(17 Apr. 2018; LHS: EUR billion; RHS: percentages)



Source: ECB MMSR.

- **Amount outstanding:** EUR 10.9 trillion linked to EONIA.
- **Residual maturity:** 73% of these transactions to mature by end 2019.

**Amounts of OIS transactions outstanding and percentage**  
(17 Apr. 2018; EUR trillion)



Source: ECB MMSR.



# €STR – underlying data

## Money Market Statistical Reporting (MMSR)

- Reporting by the 50 largest euro area banks
- Collection started in July 2016
- MMSR covers four market segment:

### **-Unsecured market**

- Secured market
- FX swap
- OIS

More information under:  
[https://www.ecb.europa.eu/stats/financial\\_markets\\_and\\_interest\\_rates/money\\_market/html/index.en.html](https://www.ecb.europa.eu/stats/financial_markets_and_interest_rates/money_market/html/index.en.html)

# Euro short term rate: main features

## Scope:

unsecured overnight deposits to measure borrowing costs

## Calculation:

weighted average, trimming 25%

## Data sufficiency policy:

contingency triggers (20 banks, 75% top 5 banks' concentration ratio)

## Governance and processes:

€STR published at 08:00 am Frankfurt time

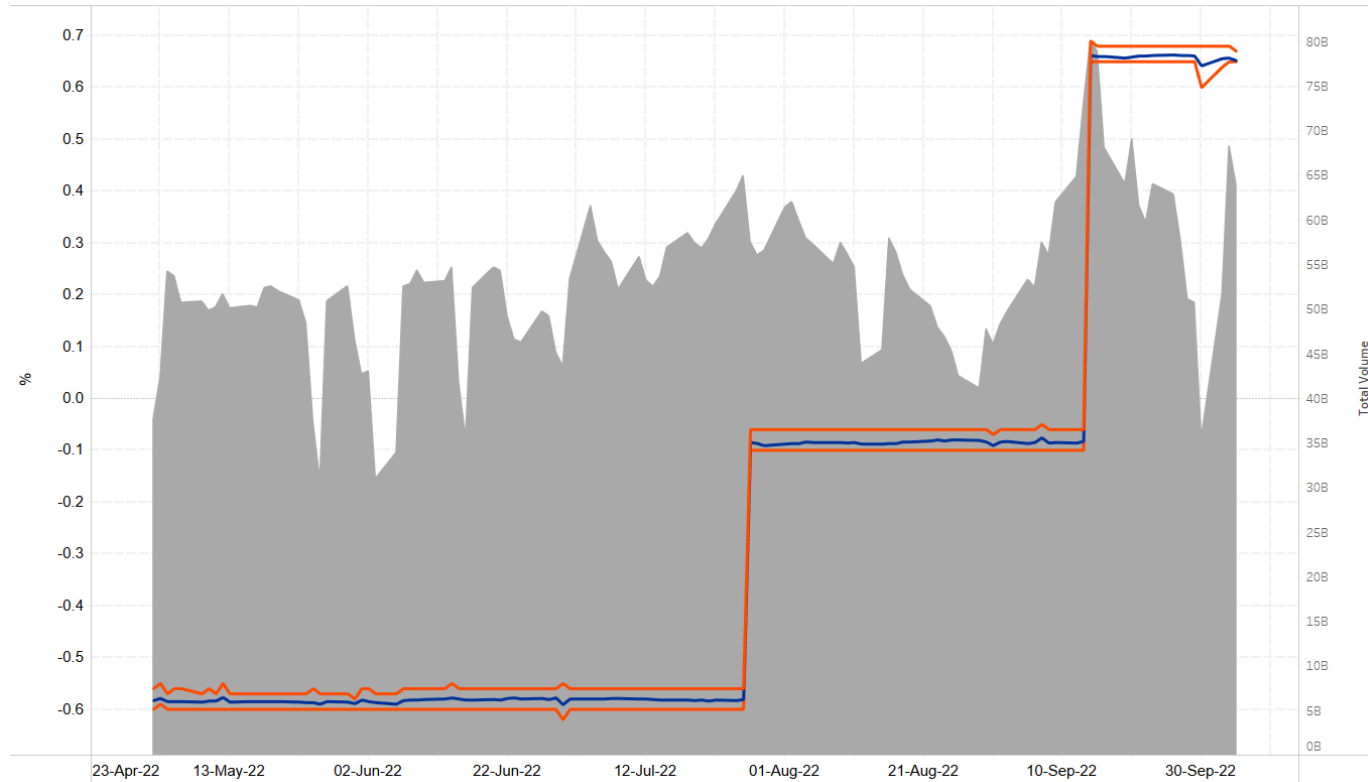
Publication policy and transparency on errors

Rate published daily from 2 October 2019  
Pre-€STR publications since 28 June 2018

Parameters more detailed in the [statement of methodology](#)

# €STR is quite stable, reacting to changes in the policy rate.

€STR rate and volume, with the 25<sup>th</sup> and 75<sup>th</sup> percentiles



Source: ECB