

Transition from EONIA to €STR

RepoClear

LCH The Markets'
Partner



The impact of Benchmark Reform in Euros in LCH's RepoClear Service:

LCH Group ("LCH") strongly supports the ongoing industry-wide efforts to reform many of the benchmarks used in repo markets globally. Given the impact of these reforms on one of the two major benchmarks currently in use in euro markets, EONIA, and given the imminent introduction of €STR as its recommended alternative, we wish to summarise RepoClear's plan of action for our users. This circular aims to explain the RepoClear service functionality and products that currently rely on EONIA, and the measures being taken to address the impact of the changes.

Both the ECB¹ and EMMI² have issued materials to summarise the roles they respectively play in the reforms, their nature and progress towards their objectives. We recommend that our members familiarise themselves with the salient points and note the proposed recalibration date.

EONIA at a glance:

EONIA (Euro Overnight Index Average) is the benchmark 1-day interbank interest rate for the Euro zone. It is produced by the European Money Markets Institute. The definition and calculation methodology for EONIA, has been reviewed to comply with EU benchmark regulations.

The first publication of EONIA under its new methodology (a fixed 8.5bp spread to €STR) was 2 October 2019 (referencing business conducted on 1 October 2019). EONIA will continue to be published until start of Jan 2022.

The ECB recommends that market participants gradually replace EONIA with the €STR for all products and contracts, making the €STR their standard reference rate.

Introduction of €STR (Euro Short Term Rate):

€STR is a new overnight benchmark rate for the Euro zone that is compliant with EU regulations. €STR is being published by the ECB since 2 October 2019 reflecting the trading activity of 1 October 2019.

¹ https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk_free_rates/html/index.en.html

² <https://www.emmi-benchmarks.eu/euribor-eonia-org/about-eonia.html>

The ECB is publishing €STR with three decimal places no later than 08:00 CET on the next TARGET2 business day ('T+1'). If errors are detected following standard publication that affect the published €STR by more than 2 basis points, €STR is revised and republished on the same day, no later than 09:00 CET.

Main differences between EONIA and €STR:

EONIA is administered by EMMI, and reflects the rate at which credit institutions in the EU lend overnight funds to each other in the unsecured money market in euro.

The EONIA methodology has temporarily been redefined as €STR plus a spread, calculated as the difference between the underlying interests of EONIA and the pre-€STR. The ECB has calculated this spread as 0.085% (8.5 bp).

The €STR will be administered by the ECB and will reflect the wholesale euro unsecured overnight borrowing costs of euro area banks and will complement existing benchmark rates produced by the private sector.

The €STR calculation will be based entirely on actual individual transactions in euro that are reported by banks in accordance with the ECB's money market statistical reporting (MMSR).

	EONIA	€STR
Economic interest of index	Interbank unsecured lending rate	Wholesale unsecured borrowing rate
Number of reporting agents or bank participants	28 panel banks	52 reporting agents
Average Daily Volume	€7,7 bn	€29,8 bn
Lowest Daily Volume	€0,8 bn	€6,8 bn
Publication day	Same day by 19:00 CET	Next day by 9:15 CET
Nature of Administrator	European Money Market Institute (EMMI)	European Central Bank (ECB)

Data from ECB (review period 01/08/2016 -15/01/2018)

RepoClear Variable Rate Repo:

RepoClear currently clears Variable Rate Repo (VRR) referencing EONIA. As of 29 October 2019, LCH offers clearing in VRR referencing €STR. LCH will continue to offer clearing in VRR referencing EONIA until end of 2021 or until otherwise notified.

Any VRR trades submitted to LCH for clearing that reference EONIA and have a maturity date beyond end 2021 will not be accepted for clearing. Fixed rate repo will continue to be offered in all markets.

Due to the timing of the publication of €STR (and by definition, EONIA) the correct final valuation of an EONIA-referencing repo trade will not be known until after publication of the rate on the following morning at 08:00 CET. If errors are detected following standard publication that affect the published €STR by more than 2 basis points, there is also a provision to amend the rate until 09:00 CET. This delay will affect the creation of next day settlement instructions for the end-legs.

In order to ensure the instruction of VRR end-legs for settlement continues to occur on a timely basis, and also that the calculated interest payment is accurate, LCH is adopting the following process ('**Delta Cash Adjustment**')

- Settlement instructions for VRR end-legs will be instructed in T2S, as normal, on the day prior to settlement using the latest known €STR/EONIA rate. The end-leg of trades will settle in T2S based on this cash value
- Once €STR/EONIA is published on settlement date (T), LCH will calculate the relevant delta to the instructed cash values and will, for each member, create a cash debit/credit instruction for the differential amount. This amount will settle on the following day through the usual margin process payable via Target2 account (T+1).
- Details of all cash adjustments related to VRR transactions will be made available via LCH SA's member reporting service.

Communication from LCH SA:

LCH has consulted its members, on the transition to €STR.

LCH also participates in various associations. LCH has shared its proposed approach alongside general information regarding the transition to €STR on its website and via direct communication to its membership.

Testing phase:

LCH has been keen to adapt to the variety of levels of readiness and approaches of its membership by accepting both the recalibrated EONIA rate until it is decommissioning and the new €STR rate as early as possible.

LCH has offered its membership two testing periods to ensure a successful and smooth transition from EONIA to the €STR based Variable Rate Repo.

The testing is being introduced in a phased manner:

Since **9 September 2019**, Members have been able to test:

- the switch to 'T+1' publication of EONIA at 09:15 am CET
- the 'delta cash adjustment' included in the usual margin process payable via Target2 account

Since **23 September 2019**, Members have been able to test:

- Variable Rate Repo trades indexed on a simulated €STR rate on 'T+1'
- the 'delta cash adjustment' included in the usual margin process payable via Target2 account

The launch of the production environment will follow the testing periods mentioned above.

LCH will accept VRR trades indexed on €STR in production on **29 October 2019** (in addition to VRR trades referencing EONIA that LCH SA will continue to accept until further notice).

Focus on Collateral:

Regarding collateral management, LCH is continuing to use the re-calibrated EONIA rate (incorporating the T+1 methodology) since 1 October 2019. Cash collateral balances are remunerated based on the new rate available on 2 October 2019.

Frequently asked questions:

1/ How will the “delta cash adjustment” be settled on member accounts? Will this be a separate amount or included into another amount?

The debit/credit difference is folded into the overnight margin call at EOD on VRR end date so effectively it won't be paid/received until the following morning (i.e. VRR end date + 1).

2/ The “delta cash adjustment” will be included in the daily margin process, but will members receive a report regarding the composition of this amount?

Yes, members will be notified of the cash adjustments via existing member reports (which breakdown on different levels):

KOND report – adjustment amount per transaction

REGU report – adjustment amount per ISIN, per clearing member/compartment

SFEU report – aggregated payment for all adjustments per clearing member/compartment (section AC102)

The process is the same as what would occur in the case of an adjustment to the Eonia.

3/ If a member needs a report that provides the trade level detail for the adjustment, what report should we look at?

The KOND report Section 8.

4/ Could LCH please let members know when exactly during the day this payment/debit will be done? Will LCH do that on trade basis (trade by trade)?

Settlement instructions for VRR end-legs will be instructed in T2S on T-1, as normal, on the day prior to settlement using the latest known €STR/EONIA rate. The end-leg of trades will settle in T2S based on this cash value. Once €STR/EONIA is published on T, LCH will calculate the relevant delta to the instructed cash values and will, for each member, include the global amount in the following day initial margin call (T+1 @ 8:30 am CET) through TARGET2.

Please see below examples:

In the **REGU report**, the adjustment amount is reported per ISIN as per the below example:

;INT;XX;M;SKGB;SK4120007204;-161.24;-160.89;-0.35;Debit;EUR;

;INT;XX;M;SKGB;SK4120007543;-394.82;-394.12;-0.70;Debit;EUR;

In the SFEU report (section AC0102), the adjustment is visible in the VARIABLE RATE record:

```

11 CODE ETAT : AC0102E  BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS
2     BANQUE CENTRALE DE COMPENSATION DITE LCH SA - 18 RUE DU QUATRE SEPTEMBRE 75002 PARIS    PAGE  1
3
4     |
5     |          DOCUMENT APPEL DE FONDS FIXED INCOME EN EUR - INITIAL          |
6     |          FIXED INCOME CASH CALL DOCUMENT IN EUR - INITIAL          |
7     |
8     |-----|
9 ADHERENT / MEMBER      :          DATE DE VALEUR/VALUE DATE      : 11/09/2019
0 CODE MEMBRE / MEMBER CODE : XXXXX          DATE DE BOURSE/TRADING DATE      : 10/09/2019
1
2           S/Cpte M      S/Cpte T      S/Cpte C      TOTAL
3           House S-Acc  Market Maker S-Acc  Client S-Acc  TOTAL
4 (D) ---> FLUX DIVERS / VARIOUS FLOW
5 -----
6 PENALITE / PENALTY          0,00C      0,00C      0,00C      0,00C
7 TVA PENALITE / PENALTY VAT      0,00C      0,00C      0,00C      0,00C
8 DETACHEMENT DE COUPON / INCOME COUPON DETACH  338.492,63C      0,00C      0,00C      338.492,63C
9 TAUX VARIABLES / VARIABLE RATE      1,05D      0,00C      0,00C      1,05D
0 REGULATION LCP / DVP BALANCE      0,00C      0,00C      0,00C      0,00C
1 -----
2           338.491,58C      0,00C      0,00C | 338.491,58C| (D)
3 -----

```

5 / Will there be multiple cash adjustments per day or will it be an aggregated amount?

There will be a global amount for all daily repo cash adjustments.

6/ What happens to EONIA/€STR interest adjustments in the event that netted settlement instructions related to VRR transactions fail?

The interest adjustment will be posted regardless of whether instructions related to VRR transactions settle or fail. This is because the interest adjustment is calculated and posted independently of the securities settlement.

7/ Will LCH be providing members with information regarding the testing phase that has started on 9 September?

In order to perform testing, members need to send trades to LCH SA via trading venues. Alternatively, LCH can inject some trades on members’ behalf (subject to the relevant data to agreed). LCH and members can then start the testing phase with the corresponding results and reporting.

LCH operations will be able to help members with testing of the following processes:

- Partial Settlement
- Failed Settlement

- Coupon payments

Please contact ops_client_support_sa@lch.com for follow-up or/and any questions.

8/ Will there be a test environment available post 29 October?

The testing platform has been open since 9 September to test EONIA and since 23 September to test €STR. It will remain open after the 29 October 2019. There will be no closing date for testing.

9/ Is LCH going to continue to use EONIA for EUR cash collateral remuneration?

For collateral management, LCH is continuing to use the re-calibrated EONIA rate (incorporating the T+1 new methodology).

Cash collateral balances will be remunerated based on the new rate available on 2 October 2019.

Please contact Treasury.Ops.FR@lch.com with any further questions related to collateral.

10/ What is the date that LCH SA will start clearing €STR repos? Is it the 29 October 2019?

LCH will start clearing €STR repos on 29 October 2019.

11/ Will LCH SA will continue to clear Variable Repos rates indexed on EONIA?

EONIA will continue to be published until start of Jan 2022.

Hence, LCH will continue to offer VRR referencing EONIA until this time (unless instructed otherwise).

For further information:

- ❖ Fixed income Operations: Fixedincome.Ops.SA@lch.com
- ❖ Fixed Income testing Operations: ops_client_support_sa@lch.com
- ❖ Collateral Operations: Treasury.Ops.FR@lch.com
- ❖ Relationship Management: repocleargroupsales@lch.com