

RepoFunds Rate

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Business Manager Benchmarks

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NEX Group: What we offer our customers

NEX MARKETS	NEX OPTIMISATION	NEX OPPORTUNITIES	NEX EXCHANGE
ACCESS LIQUIDITY	SIMPLIFY COMPLEXITY	CHALLENGE CONVENTION	REACH INVESTORS
Through our robust electronic trading platforms.	Throughout the transaction lifecycle with services that mitigate risk, streamline workflow and optimise resources.	By investing in pioneering financial technology firms who will change the way the markets work for good.	By providing an exchange where a wider community of entrepreneurs can raise capital, develop ideas and grow.
EBS	TriOptima	Euclid	NEX Exchange
BrokerTec	Traiana	Opportunities	
NEX Treasury	Reset		
	ENSO Financial		
	Abide Financial NEX Data		
	NLA Data		



NEX Data: Overview

- >NEX Data Services provides data solutions and benchmarks focused on **FX**, **fixed income** and **money markets**.
- >Capitalising on NEX Group's wealth of electronic transaction-based data for the construction of its products giving us the following advantages:
 - >Transparency
 - > Electronic transaction based or executable-quote backed data
- > NEX Data Services has adopted the **IOSCO Principles for Financial Benchmarks**.
- >NEX Data was approved on 2nd February 2018 as a Benchmark Administrator under the **EU Benchmarks Regulation (BMR).**



NEX Data: Index Products & Activities Overview

Products

> FX: Fixings and Benchmarks: EBS FX Benchmarks

EBS CNH Benchmark

EBS JPY Benchmark

> Money Markets: Benchmarks and Indices: RepoFunds Rate (RFR)

Sterling Repo Index Rate (£RIR)

BrokerTec 10am Repo Average

> Fixed Income: Fixings and Indices: NEX US Treasury Index

BrokerTec US Treasury Benchmarks

NEX Bond Correlated Call UST Index (BCC)

RepoFunds Rate (RFR) Overview

- > RepoFunds Rate ("RFR") created in 2014, is a series of daily euro repo indices comprising RFR Euro, RFR Germany, RFR France, RFR Italy, RFR Spain, RFR Netherlands and RFR Belgium.
- > RFR represents the effective cost of funding for the majority of one-day repo trades in each of the relevant sovereign bond markets and includes both general collateral and specific collateral trades.
- > The indices are calculated from eligible repo trades that use sovereign government bonds as collateral executed on the regulated platforms of BrokerTec and MTS.
- > RepoFunds Rate can be viewed as a secured, trade-backed one-day interest rate index.
- > All eligible repo trades (over night, tom next, spot next) are centrally cleared.
- > Same day publication at 1935 CET.
- > RepoFunds rate is a registered EU Benchmark and under EU BMR is classified as a Regulated Data Non-Significant Benchmark.

EXData RepoFunds Rate (RFR) Methodology & Data

- > Data sources: BrokerTec and MTS centrally cleared transactions (EU BMR Regulated Data)
- > RFR uses a back tested filtering algorithm to remove 25% of specific collateral repo trades that are trading away from typical market levels as the benchmark intends to measure general secured interest rates.
- > VWAP on remaining trades to create the index level and volume.
- > Same day Publication at 1935 CET as French repo trades as a spread to EONIA so can only be included in the calculation once EONIA published.
- > **History** for RFR Euro goes back to 3rd January 2006.

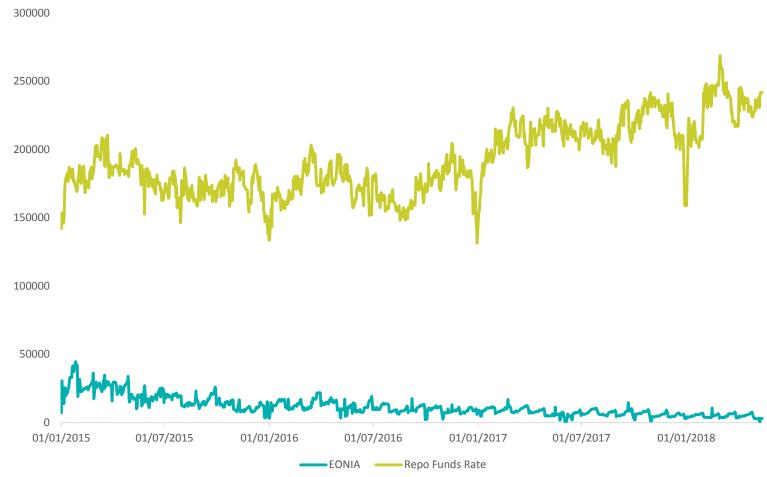
RepoFunds Rate B	RepoFunds Rate Breakdown & Data			
	Initial Volume (millions)	Index Volume (millions)	Trade count	% of RFR Euro
RFR Italy	95,459.0	78,560.5	2935	33%
RFR Germany	76,271.0	57,776.0	2034	25%
RFR France	53,766.5	43,039.5	1569	18%
RFR Spain	31,044.0	24,253.0	954	10%
RFR Belgium	12,846.0	10,639.0	442	5%
RFR Netherlands	12,705.0	10,152.0	421	4%
RFR Austria**	5,207.0	4,041.0	239	2%
RFR Portugal**	4,300.0	3,171.0	224	1%
RFR Finland**	4,058.5	3,291.5	172	1%
RFR Euro	295657	234923.5	8990	
Averages (ytd)	257737	196304	7897	

Trading Participants		
Country	Total	
Belgium	5	
Germany	9	
Denmark	1	
France	7	
Italy	11	
The Netherlands	3	
Sweden	1	
Spain	5	
UK	34	
Total	80	

^{*}Data as of 27th April 2018 **Currently not made available to the public

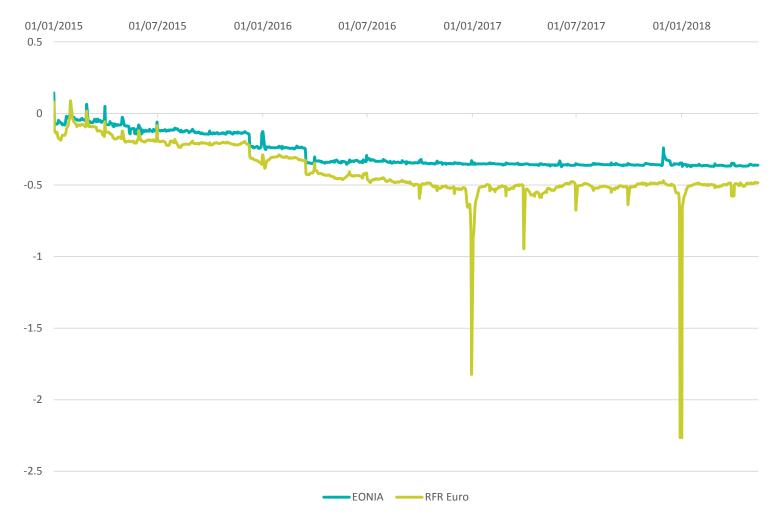


RepoFunds Rate (RFR) Data Volumes (millions)





RepoFunds Rate (RFR) Data **Historical rates**



RepoFunds Rate (RFR) Users

- > NEX Data Services Ltd, makes the benchmark available on a **fair, reasonable and non-discriminatory** basis, including via major vendor platforms and in a delayed format via the RFR website.
- > RepoFunds Rate is **distributed globally** via vendor platforms and on www.repofundsrate.com.
- > Currently over 650 registered RFR users in 121 firms across 24 countries.

No. of users per country				
Australia	2	India	2	
Belgium	9	Ireland	3	
Switzerland	10	Japan	39	
Canada	7	Luxembourg	7	
Germany	110	Latvia	1	
Denmark	7	Norway	1	
Spain	12	Netherlands	17	
England	280	Portugal	6	
France	38	Spain	1	
Hong Kong	2	slovenia	6	
Hungary	4	Singapore	2	
Italy	32	USA	53	

User Type Breakdown		
Bank	323	
Buyside	178	
Central Bank	126	
Clearing House	5	
MTF	6	
News	1	
Other	10	
Broker	1	
Academic	1	

> Discussions initiated on RFR being used in OTC products and custom client indices.



RepoFunds Rate (RFR) Governance & Controls

- > RepoFunds Rate ("RFR") is registered with the FCA as a **non-significant regulated data** benchmark and operates a high level of governance post IOSCO, and now, EU BMR implementation.
- > RFR runs through **3 operational pre-checks** prior to publication by the operations team, 1530, 1745 and 1830 GMT.
- > RFR operates a full oversight committee as the benchmark's oversight function with independent non-executive directors and periodic meetings.
- > It has recently subjected to an Internal Audit by KPMG with an overall satisfactory rating, conducted this April 2018.
- > NEX Data Services Ltd, makes the benchmark available on a **fair, reasonable and non-discriminatory** basis, including via major vendor platforms and in a delayed format via the RFR website.

Data

QUESTIONS... THANK YOU

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