



IHS Markit™

€STR-based forward-looking term rates

Presentation to the Working Group on Euro Risk-Free Rates

By IHS Markit

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About Us

IHS Markit is a world leader in critical information, analytics and expertise to forge solutions for the major industries and markets that drive economies worldwide.

We enable our clients to improve efficiency and make better decisions through next-generation information, analytics and solutions.



Relevant Expertise

Unique data, pricing, and infrastructure capabilities within established compliance framework

Valuation and Pricing

- Unique ability to provide asset valuations across the liquidity spectrum of Level 2 & 3 assets, with complementary services that help clients get the most from their data.
- More than 9mm valuations produced for OTC and cash positions per month, and more than 35,000 private asset valuations per year

Data

- Our FCA regulated trade confirmation platforms support the legally binding confirmation of derivative transactions across asset classes and regions, including all key trade economics.
- Capture trade flow 24/5 with more than 100 banks and 2,500 buy side users on the platform.

Indices

- Our tradable and benchmark indices allow investors to gain exposure to and track performance across multiple asset classes. Includes leading fixed income and credit indices across US, Europe, Asia and emerging markets
- More than USD135 billion+ in ETFs linked to iBoxx indices, and USD1.5 trillion+ OTC derivative notional traded monthly

Benchmark Administration

- FCA authorised Benchmark Administrator under the European Benchmark Regulation
- Established governance and oversight structure
- Significant experience and expertise in the administration of both proprietary and 3rd party benchmarks across all asset classes

IHS Markit Benchmark Administration

IHS Markit provides a full range of Benchmark Administration services in compliance with regulatory requirements

- IHS Markit Benchmark Administration Ltd. (“**IMBA**”) has been an FCA authorised Benchmark Administrator under the European Benchmark Regulation (“**EU BMR**”) since July 2018.
- IMBA administers more than 29,000 Benchmarks including both proprietary and third party indices, and across financial, economic and commodity markets.
- Established governance including Board, BOC, and relevant policies and procedures as required under EU BMR.
- All Benchmarks are administered as “Significant Benchmarks”. We do not make use of any opt outs permitted under the EU BMR’s proportionality principles.
- Preparing to administer €STR based term rates as Critical Benchmarks and by Administrator with EU27 authorisation / regulatory oversight

Why IHS Markit for Term Risk Free Rates?

Leveraging our unique capabilities to produce robust, fully transaction based TRFRs today

1. The Company – combining expertise and unique access to data

- Data and analytics expertise
- Industry leading OTC derivatives confirmation platform
- Index business across financial, economic and commodity indices
- Benchmark administration

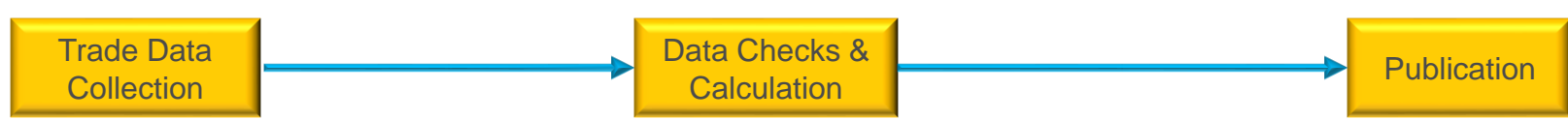
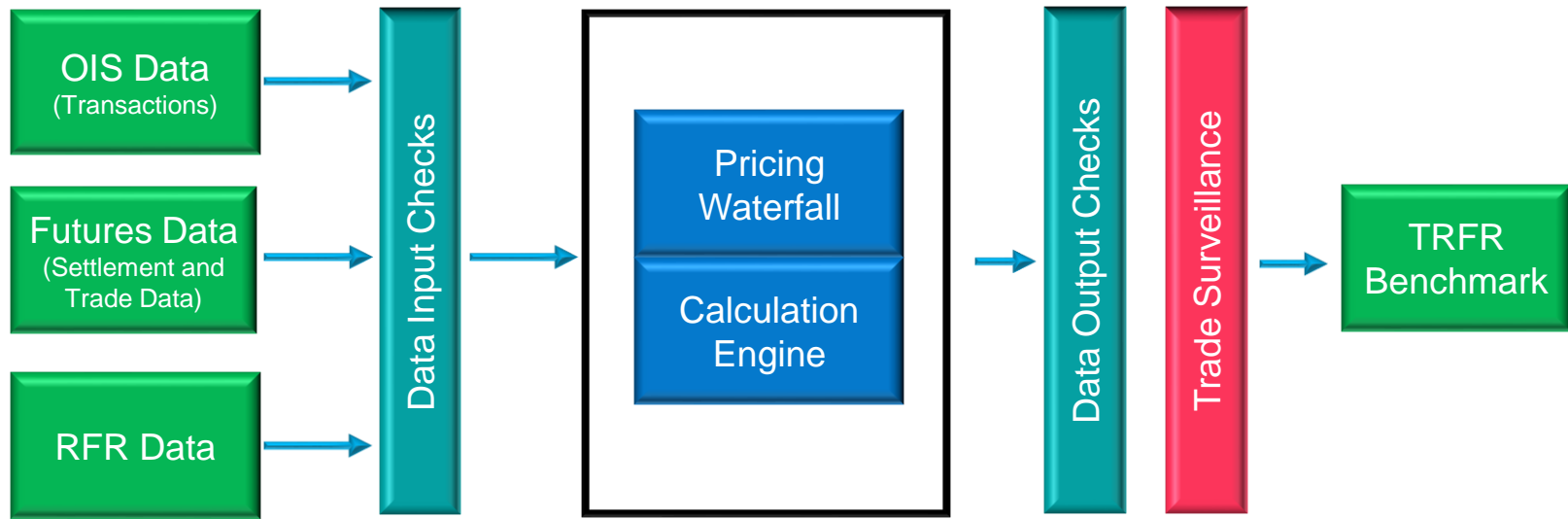
2. The Methodology

- Globally consistent framework across G10 currencies to deliver transaction-based benchmarks
- Reflecting differences in market structure and in-built flexibility to evolve with future liquidity
- Maximize amount of useable transaction data by including futures and OIS, both spot & forward starting, over a 24h observation period

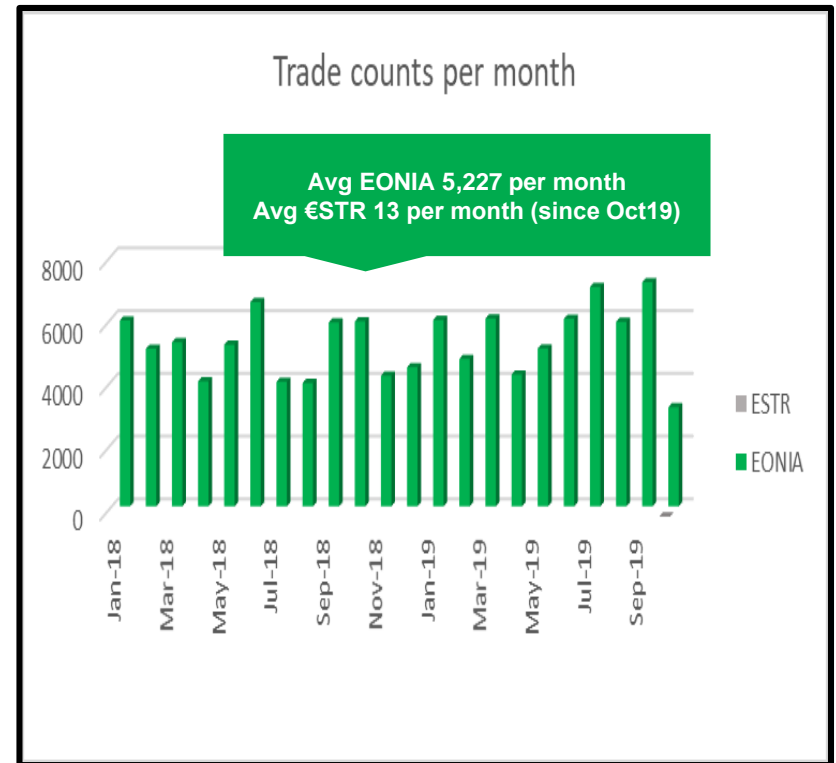
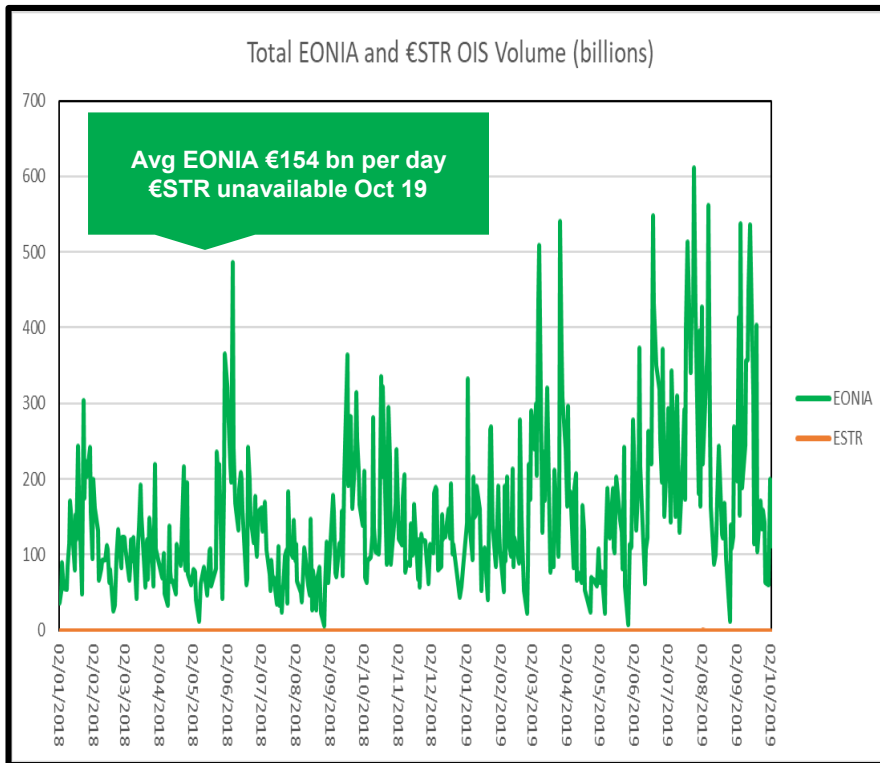
3. Robustness of the benchmark

- Use of a 6+ level waterfall to ensure functioning even in times of market distress
- Committed quotes only used as a fallback, and compound RFR as ultimate fallback
- Comprehensive input data validation and surveillance
- Resulting TRFRs are **fully transaction-based** in most cases

Term Risk Free Rates (TRFR) – Global Methodology



EONIA & €STR OIS – Liquidity Analysis



Term Risk Free Rates – IHS Markit Approach

General approach to global Term Rate development

- Consistent global methodology
- Transaction-based TRFRs with EU BMR compliant methodology and administration
- Maximize use of transaction data:
 - OIS transactions – both spot and forward starting
 - Interest Rate futures transactions
 - 24 hour trade capture/observation period
- Volume weighted calculation method using futures & OIS transactions
- 6-tier pricing waterfall to be react to shifts in liquidity and market disruptions
- Ultimate fallback compound Risk Free Rate

€STR Based Term Rates – IHS Markit Approach

Approach for €STR based term rates

- Objective: provision of robust, transaction-based €STR based term rates today
- Initial transitional period: use EONIA futures to construct the base curve; maximise use of observable OIS transactions by including both EONIA and €STR OIS (with 8.5bps adjustment)
- To facilitate a smooth transition from EONIA to €STR we would use the following waterfall
 - **Priority 1** – Hybrid approach using both EONIA and €STR OIS trades and EONIA futures
 - **Priority 2-6** – Fallbacks to quotes, inter- or extrapolation, and ultimate fallback to compound €STR
 - EONIA Futures and OIS used only until €STR Futures and OIS gain sufficient liquidity

€STR Based Term Rates – OIS data validation

Jan 18 – Oct 19 – Percentage of days when Priority 1 Calculation (Hybrid OIS/Futures transaction data) is used

Notional Volume	1 month	2 month	3 month	4 month	5 month	6 month
>200 mm	100%	100%	100%	100%	100%	100%
>500 mm	100%	100%	100%	100%	100%	100%
>1,000 mm	100%	100%	100%	100%	100%	100%

Qualifying EUR OIS Transactions

Trade Type	New cleared trades only
Cleared at CCP	Any CCP, must be a cleared trade
Minimum notional (per trade)	EUR 10 Million
Minimum notional (daily total, per tenor)	EUR 500 Million
Maximum spread from mid (per trade)	10 basis points
OIS trade start date	< 1 year from calculation date + 1 business day (modified following)
OIS counterparties	Bank on at least one side
Observation window	24hrs
Clearing %	> 95%

€STR based term rates – Output

- End of day closing snap with publication next morning
- €STR based term rates provided for 1, 2, 3, 4, 5 and 6 month tenors
- Clear identification of which tier of the waterfall is used for each published day/tenor
- Monthly reports on OIS transaction volumes for market participants and regulators
- Preparing for administration as Critical Benchmark
- Provided by entity that is authorised / subject to regulatory oversight in the EU27
- Drive global consistency to the extent possible, with TRFR launches across various currencies

IHS Markit Solution Summary

Benchmark Feature	Rationale
Transaction-based	Focus on transactions as input data as required by EU Benchmark Regulation and IOSCO Principles.
Globally consistent methodology	Providing a consistent approach to aid transition away from IBORs and ensure comparability across currencies
EU BMR compliant administration	FCA authorised Administrator / Administrator with EU27 authorisation
Maximizing use of transaction data, including OIS and futures transactions over a 24 hour trade capture period	Our approach allows the Term Rates to reflect the overall liquidity in the interest rates market, whether transactions flow through the exchange (Futures) or OTC (OIS) markets. Flexibility in the methodology is important to protect the benchmark from future shifts in liquidity of the underlying markets or temporary market disruption.
OIS transactions (both spot and forward starting)	The vast majority of OIS transactions are forward-stating in most currencies. Forward starting OIS hence provide valid and important observations for the construction of a term structure.
Volume-weighted calculation method	Used to reflect relatively liquidity in both significant interest rate markets (i.e. exchange and OTC)
6-tier pricing waterfall, with RFR ultimate fall back	Fallbacks embedded in the methodology to ensure robust benchmark is provided even at times of elevated market volatility, stress or market disruption

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