

Quality of Execution Report

Interest rate derivatives - Futures and options admitted to trading on a trading venue

Period covering 1 January 2017 – 31 December 2017

Investment Service - Portfolio Management/Reception and Transmission Professional Clients

Class of Instrument Interest rates derivatives - Futures and options admitted to trading on a trading venue						
Notification if < 1 average trade per business day in the previous year Y						
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders	
GOLDMAN SACHS & CO - FOR8UP27PHTHYVLBNG30	67.44	30.77	0.00	0.00	0.00	
UBS AG LUXEMBERG - BFM8T61CT2L1QCEMIK50	17.97	37.50	0.00	0.00	0.00	
JP MORGAN SECURITIES LLC - ZBUT11V806EZRVTWT807	14.59	31.73	0.00	0.00	0.00	

Note:

- The reporting period covered is from 1 January 2017 – 31 December 2017.
- Class of Instrument (Interest rate derivatives – Futures and options admitted to trading on a trading venue) contains futures on the following asset types: bonds, interest rates and currencies.
- Notification of < 1 average trade per business day in the previous year is indicated with 'Y' for Yes where there was less than 1 trade on average per business day in 2017. 'N' indicates there was more than 1 trade on average per business day.

Investment Service - Order Execution Professional Clients

Class of Instrument	Interest rates derivatives - Futures and options admitted to trading on a trading venue					
Notification if < 1 average trade per business day in the previous year	N					
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders	
BMTF - BLOOMBERG TRADING FACILITY LIMITED	100.00	100.00	0.00	0.00	0.00	

Note:

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Quality of Execution Report, period covering 1 January 2017 – 31 December 2017

Portfolio Management / Reception and Transmission and Order Execution

Neuberger Berman Europe Limited (NBEL) has published for each class of financial instrument, that it has either traded in or placed with a counterparty for execution, a summary of its analysis and the conclusions drawn from detailed monitoring of the quality of execution obtained for all client orders during 2017.

The following qualitative information is a summary analysis based on NBEL, and relevant Neuberger Berman group affiliates, detailed ongoing monitoring of execution quality for **interest rate derivatives** including **futures and options admitted to trading on a trading venue**.

Requirement

(a) an explanation of the relative importance NBEL and its group affiliates gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution;

NBEL's central focus is the best execution for all NBEL clients. The considerations which NBEL will take account of when trading interest rate derivatives (futures and options on venue) are a combination of the following execution factors:

- Price – Various costs can include, but are not limited to; commissions, holdings costs and financing costs associated with swaps. NBEL is continually engaged in price discovery with available counterparties.
 - Speed of execution – the speed with which counterparties show an executable price. When timing of execution and defined market levels are prioritized by the portfolio managers, the first available price may be taken, as long as it is within expected tolerance limits.
 - Market impact – the ability of the counterparty to absorb the trade without impacting the wider market through information leakage.
 - Consistency – in respect of pricing, speed of execution, reliability (robustness of electronic systems and ability to show competitive prices during times of high market volatility) and the operational aspects of order execution – interaction with middle-office, system and settlement issues, as well as connectivity.
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Requirement

The relative importance of the execution factors above is variable, depending on market conditions and other considerations. That said, the particular combination of total consideration (price of the instrument and costs of execution, both implicit and explicit) and size are usually the most considered factors when setting our execution strategy. Our goal will always be to treat all of our clients fairly in achieving the best possible execution outcome.

- (b) a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

NBEL and/or any other Neuberger Berman group affiliates do not trade with or have any close links or common ownership with any execution venues or counterparties used to execute orders.

- (c) a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

NBEL and/or any other Neuberger Berman group affiliates will not receive payments, discounts or rebates in its interest rate derivative trading arrangements managed by NBEL.

Certain non-monetary benefits are given and received by NBEL, but will comply with internal policies which deal with gift and entertainment scenarios, as well as the creation of potential conflicts of interest that may arise.

- (d) an explanation of the factors that led to a change in the list of execution venues listed in NBEL's execution policy, if such a change occurred;

NBEL will assess on an on-going basis whether execution venues are continuing to enable NBEL to consistently meet its best execution obligations. NBEL reviews the criteria applied when originally approving an execution venue and evaluates whether changing market conditions and operational factors have impacted that choice. The monitoring includes access to market liquidity, stability of the company, ability to integrate into the existing infrastructure in order to minimise operational risks and other factors.

In 2017 we have not changed execution venues as the existing ones are considered appropriate for the business undertaken.

Requirement

All NBEL clients are treated the same. However, the efficiency of NBEL's process can be constrained for certain clients by:

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| <p>(e) an explanation of how order execution differs according to client categorisation, where NBEL treats categories of clients differently and where it may affect the order execution arrangements;</p> | <ul style="list-style-type: none"> • The availability of counterparties due to limited legal arrangements in place (i.e. ISDA Master Agreements and CSA), which may impact the ability to trade efficiently in block trades on behalf of several accounts. • Counterparty risk limits – where clients require counterparty risk exposure controls, trading could be constrained and mean less flexibility to trade. In some cases, certain trades may be split among several different counterparties in order to limit concentration risk, but this may not provide for best execution. • Limited venue and/or counterparty availability – certain clients may limit the ability to transact to certain venues or counterparties. In such cases, any decision to execute or place an order with a particular counterparty or venue will be made from the available set of counterparties/venues for that client. |
| <p>(f) an explanation of whether other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client;</p> | <p>This is not applicable, as NBEL does not trade retail client orders.</p> |
| <p>(g) an explanation of how NBEL has used any data or tools relating to the quality of execution, including any data published under Delegated Regulation (EU) 2017/575 – RTS27;</p> | <p>NBEL has hired an independent TCA (transaction costs analysis) provider to help with detailed monitoring of the quality of execution obtained across the counterparties where we execute and/or place client orders for execution.</p> <p>Data published in line with the Delegated Regulation/RTS27 is not yet available for the period under review, so cannot be considered at this time.</p> |
| <p>(h) where applicable, an explanation of how NBEL has used output of a consolidated tape provider.</p> | <p>This is not applicable, as there are currently no consolidated tape providers in Europe.</p> |