

Quality of Execution Report

Equity Derivatives – Options and Futures admitted to trading on a trading venue

Period covering 1 January 2020 – 31 December 2020

Investment Service - Portfolio Management/Reception and Transmission Professional Clients

Class of Instrument							Equity Derivatives - Options and Futures 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			
CITIGROUP GLOBAL MARKETS INC. - MNUM2BPBDO7JBLYG310		100.00		100.00		100.00		0.00		0.00			

Notes:

- The reporting period covered is from 1 January 2020 to 31 December 2020
- Class of Instrument (Equity Derivatives - Options and Futures admitted to trading on a trading venue) contains futures on equity indices, bond indices and single indices
- 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 2020. 'N' indicates 'No' there was more than 1 trade on average per business day
- If the Percentage of Aggressive orders is 100%, the trades were executed through a broker who is a systematic internalizer (SI). Any Broker acting as an SI are considered an execution venue

Investment Service - Order Execution Professional Clients

Class of Instrument	Equity Derivatives - Options and Futures 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	100.00	0.00	0.00	

- Notes:

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Portfolio Management / Reception and Transmission

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 2020.

The following qualitative information is a summary analysis based on NBEL, and relevant Neuberger Berman group affiliates, detailed ongoing monitoring of execution quality for **Equity Derivatives** including **Options and Futures 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 or execution or any other consideration including qualitative factors when assessing the quality of execution;	<p>NBEL's central focus is to achieve a best execution outcome for all its clients. The considerations which NBEL will take account of when trading equity derivatives on venue are a combination of the following:</p> <ul style="list-style-type: none">▪ Price – Various costs can include, but are not limited to; commissions, holdings costs and financing costs associated with this asset class. 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. <p>The relative importance of the execution factors above are 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) speed and size are usually the most considered factors when setting our execution strategy. NBEL's goal is always to treat all its clients fairly in achieving the best possible execution outcome.</p>

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Requirement	
<p>B. description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;</p>	<p>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.</p>
<p>C. a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or nonmonetary benefits received;</p>	<p>NBEL and/or any other Neuberger Berman group affiliates will not receive payments, discounts or rebates in its equity derivative trading arrangements managed by NBEL. Certain non-monetary benefits may be given and/or received by NBEL employees, but in all cases will comply with internal policies which deal with gifts/entertainment, and potential conflict of interest scenarios that may arise as a result.</p>
<p>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;</p>	<p>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 with the existing infrastructure in order to minimize operational risks and other factors.</p> <p>The majority of the trading activity in this asset class is completed via an execution venue. Bloomberg remains the top execution venue in 2020 similar to trading activity in 2019.</p>
<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>	<p>All NBEL clients are treated the same, however the efficiency of NBEL's process can be constrained for certain clients by:</p> <ul style="list-style-type: none"> ▪ The availability of counterparties due to limited legal arrangements in place (i.e. ISDA Master Agreements), 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.

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Requirement	
<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>Trading data is used by NBEL in its assessment of execution quality. This includes reviewing best prices available at time of execution and evaluation of competitive quotes. Where limitations have been imposed either through limited Legal Agreements in place, or through client restriction, then this may have an impact on the quality of execution obtained. 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. RTS27 reports are not used in any analysis to establish the quality of execution.</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>

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