

Quality of Execution Report

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

Period covering 1 January 2018 – 31 December 2018

Investment Service - Portfolio Management/Reception and Transmission Professional Clients

Class of Instrument	Commodities derivatives and emission allowances 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	
GOLDMAN SACHS & CO - FOR8UP27PHTHYVLBNG30	100.00	100.00	100.00	0.00	0.00	

Note:

- The reporting period covered is from 1 January 2018 to 31 December 2018
- Class of Instrument (Commodities Derivatives - Futures and Options admitted to trading on a trading venue) contains options on equities
- 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 'No' there was more than 1 trade on average per business day

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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 2018.

The following qualitative information is a summary analysis based on NBEL, and relevant Neuberger Berman group affiliates, detailed ongoing monitoring of execution quality for **Commodities Derivatives** including **Futures and Options admitted to trading on a trading venue**.

Please note that this is a new asset class reported and that trading for the 2018 period was limited to only the month of December 2018.

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 NBEL clients. The considerations which NBEL will take account of when trading commodity derivatives/futures and options are a combination of the following execution factors:</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.▪ Credit risk and counterparty limits (where applicable) – the counterparty credit rating assessment and adherence to counterparty concentration limits which may be in place. <p>The relative importance of the execution factors above are variable, depending on market conditions and other</p>

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Requirement	
	<p>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>
<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 derivative trading arrangements. 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>Having been initially approved, a counterparty will remain on NBEL's approved list of execution brokers and be subject to an ongoing monitoring process. This includes, but is not limited to, an assessment of creditworthiness and financial stability, a review of the execution services provided, and the counterparty's ability to trade effectively on our client's behalf. Each counterparty we use are dependent on their execution capabilities fitting the needs of a specific order, such as liquidity, market impact and certainty of execution. Counterparties will be removed from our list where they are found to be consistently delivering poor execution.</p> <p>As this is a new report for 2018, there are no 2017 comparisons or changes to note.</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.

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Requirement	
	<ul style="list-style-type: none"> ▪ 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 on certain venues or with certain 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 particular 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 execute 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 in this asset class has only started during December 2018, and as such limited to one counterparty initially used. As a result, the use of existing internal data points and tools to assess execution quality were limited.</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 providing this data.</p>

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