

William Blair

WILLIAM BLAIR INTERNATIONAL LIMITED

Best Execution Report

Analysis of execution between 1st January 2018 and 31st December 2018

1. INTRODUCTION

The second Markets in Financial Instruments Directive and delegated regulations (“MiFIDII/R”) necessitates that investment firms report on the quality of execution and the top five execution venues for each prescribed class of financial instrument traded on an annual basis. The contents of the report and the traded data provided are to be published in order to meet the requirements prescribed by Article 3(3) of the Regulatory Technical Standard 28 (“RTS 28”) of MiFID/R. In addition, investment firms when providing the service of reception and transmission of orders, shall comply with the requirements laid down in Art 65(6) of Commission Delegated Regulation 2398 of 25 April 2016 (adopted under Articles 24(1) and 24(4) of MiFID II); to act in accordance with the best interests of their clients when transmitting client orders to other entities in execution.

In line with these new regulations, William Blair International Limited (WBIL) will publish data annually in a machine-readable format and made available on our group website (www.williamblair.com). The raw data illustrates our top five execution venues across a range of in scope asset classes and client categories. Additionally, for each calendar year including this year, we will publish a more user-friendly summary of our data and our findings.

2. WHAT IS BEST EXECUTION?

Under the revised Markets in Financial Instruments Directive 2014/65/EU (MiFID), William Blair International Limited is required to take all sufficient steps to obtain the best possible result when either executing transaction on a client's behalf or using other affiliates or brokers to execute transactions on a client's behalf, taking into account the relevant factors and criteria. The MiFID requirements are implemented in the UK via the Conduct of Business Sourcebook (“COBS”) contained in the Handbook of the Financial Conduct Authority (the “FCA”). For further information, clients should reference the WBIL Client Order Execution Policy available on the Group website.

3. REPORT SCOPE AND STRUCTURE

William Blair International Limited (“WBIL”) is an FCA authorised firm. WBIL is a subsidiary of William Blair & Company, LLC (“WBC”), and has a participating affiliate William Blair Investment Management, LLC (“WBIM”). WBIM is a global investment firm that offers investment advisory services for a fee to clients and is registered as an investment adviser with the U.S. Securities and Exchange Commission (“SEC”). WBC is registered with the SEC as both an investment adviser and a securities broker-dealer. Neither WBC nor WBIM are subject to FCA or MiFID II rules and regulations.

Investment Management

WBIL operates under a Memorandum of Understanding (“MoU”) with WBIM. WBIL traders will execute trades as part of WBIM’s international trading desk, focusing on EMEA markets. Trades are executed and settled on behalf of WBIM and WBIL clients.

Institutional Sales

WBIL will transmit orders received from European clients to the U.S. based affiliate, William Blair & Company, LLC (WBC), for execution and settlement.

This report is structured such, that aside from the general disclosures below, our analysis of each of the RTS 28 reporting requirements set out above are considered for each prescribed class of financial securities by WBIL.

Legal Entity Identifiers

William Blair International Limited: 213800D836LM6FFK9U60

William Blair Investment Management LLC: 549300VQX7UK060A7X27

William Blair & Company LLC: 549300J0P7XYE8BMZ775

4. RTS 28 REPORTING REQUIREMENT

RTS 28 requires investment firms to provide the following information for each prescribed class of financial instrument traded on an annual basis:

- a) an explanation of the relative importance given to the execution factors of price, cost, speed, likelihood of execution, or to any other consideration including qualitative factors when assessing the quality of execution;
- b) a description of any close links, conflicts of interests, and common ownership with any execution venues and brokers used;
- c) a description of any specific arrangements with any execution venues and brokers regarding payments made or received discounts, rebates or non-monetary benefits received;
- d) an explanation of the factors that led to any change in the execution venues and brokers listed in the firm's execution policy, if any such change occurred;
- e) an explanation of how order execution differs according to client categorisation, if there is a difference;
- f) an explanation of whether other criteria were given precedence over immediate price and cost when executing retail client orders and how these helped deliver the best possible result in terms of the total consideration to the client;
- g) an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27 (now Delegated Regulation (EU) 2017/575); and
- h) an explanation of how the investment firm used output of a consolidated tape provided established under Article 65 of MiFID II.

5. EXECUTION FACTORS AND CRITERIA

WBIL's primary objective in handling client's orders is to deliver the highest quality executions reasonably available under the circumstances and within the context of applicable markets, seeking to balance often-conflicting considerations with a view to providing clients with the best possible result on a consistent basis.

In the absence of specific client instructions, when managing client orders through to execution or upon facilitating the receipt and transmission of an order, WBIL will take all sufficient steps to achieve the best possible result for clients in a comprehensive and consistent way. The Firm will take into consideration, a combination of the following execution factors:

- a) Price (the price a financial instrument is executed at);
- b) Costs (including implicit costs such as possible market impact and explicit external costs such as venue, clearing and settlement fees);
- c) Speed;
- d) Likelihood of execution and settlement;
- e) Size (the size of the transaction executed for a client, accounting for the market impact);
- f) Nature of the transaction and market for the financial instrument; and
- g) Any other consideration relevant to the execution of the transaction.

Subject to any specific instructions, taking into account the criteria above, we will generally give the highest priority to net price. Net price is the total price paid by the client, net of client commissions and fees, and takes into account our own commissions and fees. The remaining execution factors are generally given equal ranking.

The execution factors indicate the importance of being able to exercise appropriate judgement on the best interests of the client given the differing needs and requirements of each client transaction and the broader market. WBIL will exercise commercial judgement and market expertise in considering the relative importance of the execution factors measured against the following order criteria:

- a) the characteristics of the client;
- b) the characteristics of the transaction;
- c) the characteristics of the financial instruments that are the subject of the transaction; and
- d) the characteristics of the executions venues to which the order can be directed.

The affiliated US entity, WBIM, has adopted the Equity Brokerage, Research and Commission Policy to establish a mechanism to monitor the quality of execution received for portfolio transactions and monitor utilisation commissions for the purchase of research (otherwise known as “soft dollars”). WBIL and WBIM select brokers based on a variety of factors, including their execution capability, trading expertise, capital strength, stability, integrity, responsiveness and confidentiality. The selection of brokers is a primary responsibility of the equity traders who also determine the overall reasonableness of the brokerage commissions or other transaction costs on client transactions based on their trading experience. Our equity traders take into account such factors as current market conditions, size and timing of the order, depth of the market, per share price, difficulty of execution and the ability and willingness of the broker to commit capital by taking positions in order to effect executions.

The Brokerage Committee also reviews and approves brokers who execute trades on behalf of WBIM clients. Initial and annual review of all approved brokers is conducted by WBIM Trading

and WBIM Compliance. The review includes, among other factors, review of the financial stability of the broker, as well any past regulatory issues.

6. GENERAL DISCLOSURES

The following table sets out WBIL's response to the general disclosures of RTS 28, Article 3(3) reporting requirements:

Article 3(3) WBIL Responses
Provide an explanation of the relative importance given to the execution factors of price, costs, speed, likelihood of execution, or to any other consideration including qualitative factors when assessing the quality of execution.
Execution Factors <i>a) Price (the price a financial instrument is executed at); b) Costs (including implicit costs such as possible market impact and explicit external costs such as venue, clearing and settlement fees); c) Speed; d) Likelihood of execution and settlement; e) Size (the size of the transaction executed for a client, accounting for the market impact); f) Nature of the transaction and market for the financial instrument; and g) Any other consideration relevant to the execution of the transaction.</i> <i>The trading profile for this asset class is as varied, as it is global in nature and varies across all market capitalisations. This requires the ability to be able to trade in various time zones and with various liquidity providers. Our range of trading partners available allows us to trade in all types of securities.</i> <i>The importance of the various execution factors stipulated by MiFID II will vary depending on the circumstances and context of the order. However, the execution factor that is commonly the most important in the achievement of best execution by WBIL is price. Business is allocated to brokers on the basis of their ability to execute transactions at competitive prices but also for acceptable volumes. Speed and likelihood of execution are perceived to be similar concepts and both will have an impact on the price achievable. Speed may also correlate to size. Depending on the circumstances prevailing at the time, WBIL may wish to build or sell a position over a period of time to limit market impact as opposed to executing a large single bargain.</i>
Provide an explanation of the factors that led to any change in the execution venues and brokers listed in the firm's execution policy if any such changes occurred.
<i>No change has occurred to the list of execution venues and brokers during the course of 2018. Brokerage firms remain on our list of execution venues subject to an authorisation and ongoing monitoring process.</i>
Provide a description of any close links, conflicts of interests, and common ownership with respect to any execution venues used to execute orders.
<i>There are no close links or common ownerships with respect to any execution venues (brokers) used to execute our orders.</i>

Provide a description of any specific arrangements with any execution venues and brokers regarding payments made or received discounts, rebates or non-monetary benefits received.
<i>WBIL does not make or receive any payments, discounts, or rebates to or from our brokers. WBIL may receive minor non-monetary benefits from our brokers where this is consistent with WBIL's Policy on Inducements and Conflicts of Interest. Minor non-monetary benefits must be of a scale and nature that could not be judged to impair WBIL compliance with its duty to act honestly, fairly and professionally in the best interests of the client.</i>
Provide an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements.
<i>WBIL only works with clients classified as Professional Clients. All clients are treated the same, in accordance with the Client Order Execution Policy. Please see section 5 and 7 of this document for further information.</i>
Provide 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.
<i>WBIL does not maintain a permission to service clients categorised as retail clients. Therefore, WBIL does not execute retail client orders.</i>
Provide an explanation of how the investment firm has used any data tools relating to the quality of execution including any data published under RTS 27.
<i>William Blair regularly monitors the quality of execution obtained from brokers and venues used to execute client orders. William Blair Investment Management (WBIM), WBIL's associate, reviews all investment management trading, including those traders based in London. WBIM uses data from ITG and Abel Noser to compare execution results obtained by William Blair to peer data.</i>
Provide an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of MiFID II.
<i>As at the date of this publication of this report we have not considered any data analysis from consolidated tape providers (CTPs) as there are no CTPs registered from which we place reliance.</i>

7. NOTES OF THE DATA REPORTS

Passive Order is defined in RTS 28 as *an order entered into the order book that provides liquidity*. **Aggressive Order** is defined in RTS 28 as *an order entered into the order book that took liquidity*.

As a fund manager WBIL is not a liquidity provider or taker, hence our reports to do breakdown trading according to these definitions. Therefore, this column will display a zero sum.

Directed Order is defined in RTS 28 as *an order where the client specified a specific execution venue prior to the execution of the order.*

As WBIL acts a discretionary investment manager, clients are unable to provide directed trades; therefore, this column will display a zero sum.

WBIL only trades on behalf of '**professional clients**' therefore all reports have been produced in accordance with 'Table 2' requirements under RTS 28.

8. EXECUTION VENUES: EQUITY – SHARES AND DEPOSITORY RECEIPTS

(i) Tick size liquidity bands 5 and 6 (from 2000 trades per day) Jan 1 2018 – Dec 31 2018

Notification if <1 average trade per business day in the previous year (Y/N)	N	
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
Credit Suisse International LEI: E58DKGMJYYYJLN8C3868	10.9%	13.2%
Liquidnet, Inc LEI: 213800HSKBB01GCVRG79	9.7%	33.6%
UBS Securities LLC LEI: T6FIZBDPKLYJKFCRVK44	8.0%	13.0%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	7.7%	8.3%
Jefferies International Limited LEI: S5THZMDUJCTQZBTRVI98	6.7%	8.9%

(ii) Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day) Jan 1 2018 – Dec 31 2018

Notification if <1 average trade per business day in the previous year (Y/N)	N	
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
Liquidnet, Inc LEI: 213800HSKBB01GCVRG79	27.9%	56.0%
ITG Inc LEI: 549300S41SMIODVIT266	7.3%	28.8%
BTIG Limited LEI: 213800YZXS7U4QZP6441	6.3%	9.4%
UBS Securities LLC LEI: T6FIZBDPKLYJKFCRVK44	5.8%	17.1%
Exane Inc LEI: 6SDWK6FV8H98XAGSYS75	4.0%	4.7%

(iii) Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day) Jan 1 2018 – Dec 31 2018

Notification if <1 average trade per business day in the previous year (Y/N)		N
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
Morgan Stanley & Co. LLC LEI: 9R7GPTSO7KV3UQJZQ078	14.6%	16.7%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	12.0%	17.6%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	10.6%	6.2%
ICBC Standard Bank PLC LEI: F01VVKN4DRF2NWKGQ283	8.3%	9.9%
Citigroup Global Markets Limited LEI: XKZZ2JZF41MRHTR1V493	8.1%	5.8%

9. EXECUTION VENUES: EXCHANGE TRADED PRODUCTS (EXCHANGE TRADED FUNDS EXCHANGE TRADED NOTES AND EXCHANGE TRADED COMMODITIES)

Notification if <1 average trade per business day in the previous year (Y/N)		Y
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
UBS Securities LLC LEI: T6FIZBDPKLYJKFCRVK44	100.0%	100.0%

10. EXECUTION VENUES: SECURITISED DERIVATIVES

Notification if <1 average trade per business day in the previous year (Y/N)		Y
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
BTIG Limited LEI: 213800YZXS7U4QZP6441	99.5%	96.6%
Morgan Stanley & Co. LLC LEI: 9R7GPTSO7KV3UQJZQ078	0.5%	3.4%

11. EXECUTION VENUES: OTHER

Notification if <1 average trade per business day in the previous year (Y/N)		Y
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
Carnegie Investment Bank AB LEI: 529900BR5NZNQZEVQ417	19.3%	24.9%
Financial Brokerage Group LEI: 558600U9YMGSR4KAHP73	11.0%	5.2%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	8.0%	5.6%
Liquidnet, Inc LEI: 213800HSKBB01GCVRG79	7.9%	21.2%
Jefferies International Limited LEI: S5THZMDUJCTQZBTRVI98	7.1%	16.3%

12. RECEPTION AND TRANSMISSION OF ORDERS: EQUITY – SHARES AND DEPOSITORY RECEIPTS

(iii) Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day) Jan 1 2018 – Dec 31 2018

Notification if <1 average trade per business day in the previous year (Y/N)		N
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded as Percentage of Total in that Class	Proportion of Orders Executed as Percentage of Total in that Class
William Blair & Company LLC LEI: 549300JOP7XYE8BMZ775	100.0%	100.0%

*For further information on execution and settlement by William Blair & Company LLC, please contact your client representative.