LGIMI Top 5 Execution Venues

June 2020



LGIM International Limited Top 5 execution venues

This document sets out, for each class of financial instruments, information on the top five execution venues where LGIM International Limited ('LGIMI') executed or placed client orders in the preceding year, as required by the Markets in Financial Instruments Directive (MIFID) 2014/65/EU. This document applies only to clients classified by LGIMI as professional clients.

Regulatory Technical Standard 28 ("RTS 28") of the Commission Delegated Regulation supplementing MIFID requires investment firms that execute client orders to summarise and make public, on an annual basis and for each class of financial instrument, the top five execution venues (in terms of trading volumes) where client orders were executed in the preceding year, as well as information obtained on the quality of execution.

Additionally, Delegated Regulation Article 65(6) requires investment firms that select other firms to provide order execution services to summarise and make public, on an annual basis and for each class of financial instrument, the top five investment firms (in terms of trading volumes) where client orders were placed for execution with brokers in the preceding year, as well as information obtained on the quality of execution.

EXECUTION AND PLACEMENT

In its role of providing portfolio management services, LGIMI both executes client orders with execution venues and places client orders for execution with brokers. The following description differentiates the two.

'Execution' is where, as a member or participant in a regulated market, multi-lateral trading facility (MTF) or organised trading facility (OTF), LGIMI executes a client order directly on the execution venue. LGIMI may also execute orders with a systematic internaliser (SI), market maker or another liquidity provider on a request-for-quote basis. Where LGIMI matches liquidity internally without utilising an MTF or broker, this also constitutes executing a client order.

'Placement' is where LGIMI transmits an order to a broker for it to execute. In these circumstances the broker will choose the venue on which the order is ultimately filled or choose to execute it against its own book.

In both scenarios, LGIMI owes its clients best execution and takes all sufficient steps to consistently obtain the best possible result when executing or transmitting orders. For more detail about how we achieve this and a more extensive list of venues and brokers that we use, please refer to the LGIMI Best Execution Policy.

TOP 5 VENUE REPORTS

The reports detail the top five venues where, for each class of financial instruments, LGIMI has executed orders (under RTS 28) and transmitted or placed orders with a broker for execution (under Delegated Regulation Article 65(6)). The classes of financial instruments under MiFID are listed in Appendix 1. In addition, RTS 28 Article 3(2) states investment firms shall publish the top five execution venues in terms of trading volumes for all executed client orders in Securities Financing Transactions (SFTs).

LGIMI is also required to publish an assessment of execution quality on all execution venues. We have therefore provided, for each class of financial instruments, a summary of the analysis and conclusions we have drawn from monitoring the quality

of execution on the execution venues. RTS 28 specifies the content and format of information on the top five execution venues in terms of trading volumes where client orders were executed in the preceding year and on the quality of execution. As this is the third annual report, there have been some changes based on updated guidance and availability of data:

 We have now made available tables (in CSV-Excel format), identifying the top five execution venues to allow for better scrutiny of execution quality and order routing practices

INFORMATION TO CLIENTS

The reports include, for each class of financial instruments, a summary of the analysis and conclusions LGIMI has drawn from our detailed monitoring of the execution quality obtained on the execution venues where all client orders were executed in the previous year as required by Article 3(3) of RTS 28. The following information is standard to all classes of financial instruments:

USE OF AFFILIATES

The Firm does not make use of any affiliates.

COUNTERPARTY SELECTION PROCESS

As a large institution, we deal with most of the major broking houses, as well as specialist brokers in local markets. All counterparties must satisfy our credit, contractual and best execution standards to qualify for the list of approved brokers. Our counterparty oversight group is responsible for ensuring the list is monitored and reviewed at least bi-monthly. Greater frequency of the review is dependent on LGIMI's risk assessment of the counterparty. We do not have commission targets for brokers used. Broker selection is driven only by the quality and cost of execution. In the case of primary market transactions, counterparty selection will be limited to the broker who presents the opportunity.

COMMISSION SHARING ARRANGEMENTS

We do not utilise commission sharing accounts. All of our equity trading is executed at execution-only rates.

We do not receive any remuneration, discount or non-monetary benefit for routing client orders to a particular trading venue or execution venue which would infringe the requirements on conflicts of interest or inducements.

DEALING EFFECTIVENESS MONITORING

The LGIMI Best Execution Committee (the committee) has oversight of the Best Execution Policy.

We monitor the effectiveness of the best execution arrangements and policies to identify and, where appropriate, correct any deficiencies. In particular, we will regularly assess whether the execution venues included in the Best Execution Policy provide the best possible result for the client or whether we need to make changes to our execution arrangements.

It is our normal practice to carry out post-trade analysis to monitor the quality of execution. Depending on the market this may involve systematic comparisons of execution prices with respect to trading benchmarks, opening/closing prices, or periodic high/low prices as appropriate. Along with our in-house Trading Research and Analysis team, we utilise a number of third party providers to monitor our TCA such as Portware, ITG Analytics, Bloomberg, Tradeweb and MarketAxess.

In addition, we regularly monitor the persistency of the execution quality by analysing the time series of trade execution data broken down by market, counterparty, trade type and size. This enables us to identify, in a timely manner, deterioration in the quality of execution in any particular area.

We will be analysing the data required by RTS 27 (Delegated Regulation (EU) 2017/575) from our execution venues and Article 65 output from consolidated tape providers. Where available, this will be used as part of our dealing effectiveness monitoring.

The committee receives dealing effectiveness monitoring reports and reviews whether enhancements to the policies and/or execution arrangements are required.

Equities – Shares and depositary receipts

This document sets out the top five execution venues where LGIM International Limited (LGIMI) executed or placed client orders in the preceding year in relation to dealings in equities – shares and depositary receipts. It is an appendix to the overarching LGIMI Top 5 Execution Venue summary.

LGIMI takes all sufficient steps to consistently obtain the best possible result for its clients, taking into account a range of execution factors. An explanation of the relative importance LGIMI gives to the execution factors of price, costs, speed, likelihood of execution and any other consideration including qualitative factors when assessing the quality of execution are detailed in the LGIMI Best Execution Policy, here.

Execution quality is a key driver in our counterparty selection. In order to measure the efficacy of our counterparties, LGIMI uses both in house and third-party analysis tools. Much of the analysis is conducted at the parent level throughout the lifecycle of a trade (i.e. pre, intra and post trade). The Global Trading team analyses the post trade returns versus the explicit trading benchmark set by the portfolio manager, as well as multiple other benchmarks to ensure the outcome is of a high standard.

Analysis is conducted daily, and then on a quarterly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There were four changes to the list of execution venues listed in the execution policy for the preceding year.

The figures for 'Internal Cross' are representative of internal inter fund transfers between the same legal entity. Market crosses will be reflected under the placement table.

| Class of Instrument | Equities – Shares and depositary receipts - Tick size liquidity bands 5 and 6 (from 2000 trades per day) | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 34% | 26% |
| Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653 | 27.5% | 24.3% |
| Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48 | 10.5% | 9.8% |
| Credit Suisse Securities Europe Ltd LEI: DL6FFRRLF74S01HE2M14 | 8% | 4.9% |
| Exane SA LEI: 969500UP76J52A9OXU27 | 5.8% | 9.7% |

TOP 5 VENUES (EXECUTION)

| Class of Instrument | Equities – Shares and depositary receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day) | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Morgan Stanley & Co LLC LEI: 9R7GPTSO7KV3UQJZQ078 | 20.8% | 7.8% |
| Merrill Lynch Pierce Fenner & Smith Inc LEI: 8NAV47T0Y26Q87Y0QP81 | 15.8% | 8.4% |
| JP Morgan Securities LLC LEI: ZBUT11V806EZRVTWT807 | 14.8% | 8.1% |
| Goldman Sachs & Co LLC LEI: FOR8UP27PHTHYVLBNG30 | 13.5% | 12% |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 11.5% | 17% |

TOP 5 VENUES (EXECUTION)

| Class of Instrument | Equities – Shares and depositary receipts - Tick size liquidity band 1 and 2 (from 0 to 79 trades per day) | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Goldman Sachs & Co LLC LEI: FOR8UP27PHTHYVLBNG30 | 15.5% | 14.5% |
| JP Morgan Securities LLC LEI: ZBUT11V806EZRVTWT807 | 13.5% | 10.1% |
| Morgan Stanley & Co LLC LEI: 9R7GPTSO7KV3UQJZQ078 | 12.8% | 8.8% |
| Merrill Lynch Pierce Fenner & Smith Inc LEI: 8NAV47T0Y26Q87Y0QP81 | 11.3% | 9.5% |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 11% | 11.1% |

TOP 5 VENUES (EXECUTION)

| Class of Instrument | Equities – Shares and depositary receipts - Tick size liquidity band 1 and 2 (from 0 to 79 trades per day) | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Internal Cross | 0% | 0% |

Currency derivatives – Swaps, forwards, and other currency derivatives

This document sets out the top five execution venues where LGIM International Limited (LGIMI) executed or placed client orders in the preceding year in relation to dealings in currency derivatives – swaps, forwards, and other currency derivatives. It is an appendix to the overarching LGIMI Top 5 Execution Venue summary.

LGIMI takes all sufficient steps to consistently obtain the best possible result for its clients taking into account a range of execution factors. An explanation of the relative importance LGIMI gives to the execution factors of price, costs, speed, likelihood of execution and any other consideration including qualitative factors when assessing the quality of execution are detailed in the LGIMI Best Execution Policy, here.

Execution quality and risk provision are key drivers in our counterparty selection. In order to measure the efficacy of our counterparties, LGIMI uses both in house and third-party analysis tools. The Global Trading team analyses execution quality against a number of parameters and benchmarks if relevant to that particular asset class.

Where we transact using an RFQ protocol, we will utilise Portware and/or FX-all.

Analysis is conducted daily, and then on a quarterly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There were two changes to the list of execution venues listed in the execution policy for the preceding year.

There were no trades transmitted to brokers to execute for the preceding year.

TOP 5 VENUES (EXECUTION)

| TOI 5 VENUES (EXECUTION) | | |
|---|--|--|
| Class of Instrument | Currency derivatives – Swaps, forwards, and other currency derivatives | |
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Goldman Sachs International LEI: W22LROWP2IHZNBB6K528 | 33.5% | 8.7% |
| HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54 | 20.5% | 15.8% |
| JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32 | 13.5% | 14.8% |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 12.5% | 10.8% |
| Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48 | 5% | 17.8% |

Equity derivatives – Options and futures admitted to trading on a trading venue

This document sets out the top five execution venues where LGIM International Limited (LGIMI) executed or placed client orders in the preceding year in relation to dealings in equity derivatives – options and futures admitted to trading on a trading venue. It is an appendix to the overarching LGIMI Top 5 Execution Venue summary.

LGIMI takes all sufficient steps to consistently obtain the best possible result for its clients, taking into account a range of execution factors. An explanation of the relative importance LGIMI gives to the execution factors of price, costs, speed, likelihood of execution and any other consideration including qualitative factors when assessing the quality of execution are detailed in the LGIMI Best Execution Policy, here.

Where LGIMI transacts on an agency basis, execution quality is a key driver in our counterparty selection. In order to measure the efficacy of our counterparties, LGIMI uses both in house and third-party analysis tools. The Global Trading team analyses the post trade returns versus the explicit trading benchmark set by the portfolio manager, as well as multiple other benchmarks to ensure the outcome is of a high standard.

Where we transact using an RFQ protocol, counterparty selection will be determined using inputs such as historical data and real time positioning. This enables LGIMI to construct the most appropriate panel from which to select the best price available.

Where we transact using an RFQ protocol, we will utilise RFQ-hub.

Trading analysis is conducted daily, and then on a quarterly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There were four changes to the list of execution venues listed in the execution policy for the preceding year.

| 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 | No | |
| | | |
| 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 |
| Goldman Sachs International LEI: W22LROWP2IHZNBB6K528 | 26% | 20% |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 16.5% | 12.5% |
| Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48 | 15.5% | 14% |
| JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32 | 10.1% | 17.5% |
| Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653 | 9.5% | 11.8% |

TOP 5 VENUES (EXECUTION)

Equity derivatives – Swaps and other equity derivatives

This document sets out the top five execution venues where LGIM International Limited (LGIMI) executed or placed client orders in the preceding year in relation to dealings in equity derivatives – swaps and other equity derivatives. It is an appendix to the overarching LGIMI Top 5 Execution Venue summary.

LGIMI takes all sufficient steps to consistently obtain the best possible result for its clients, taking into account a range of execution factors. An explanation of the relative importance LGIMI gives to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution are detailed in the LGIM Best Execution Policy, here.

Where we transact using an RFQ protocol, counterparty selection will be determined using inputs such as historical data and real time positioning. This enables LGIMI to construct the most appropriate panel from which to select the best price available.

Where we transact using an RFQ protocol, we will utilise RFQ-hub.

Trading analysis is conducted daily, and then on a quarterly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There were four changes to the list of execution venues listed in the execution policy for the preceding year.

There were no trades transmitted to brokers to execute for the preceding year.

TOP 5 VENUES (EXECUTION)

| Class of Instrument | Equity derivatives – Swaps and other equity derivatives | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | Yes | |
| | | |
| 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 |
| Natwest Markets Plc LEI: RR3QWICWWIPCS8A4S074 | 100% | 100% |

Other instruments – Non-EU equities

This document sets out the top five execution venues where Legal and General Investment Management Ltd (LGIM) executed or placed client orders in the preceding year in relation to dealings in other instruments. It is an appendix to the overarching LGIM Top 5 Execution Venue summary.

LGIM takes all sufficient steps to consistently obtain the best possible result for its clients, taking into account a range of execution factors. An explanation of the relative importance LGIM gives to the execution factors of price, costs, speed, likelihood of execution and any other consideration including qualitative factors when assessing the quality of execution are detailed in the LGIM Best Execution Policy, here.

Execution quality is a key driver in our counterparty selection. In order to measure the efficacy of our counterparties, LGIM uses both in house and third-party analysis tools. Much of the analysis is conducted at the parent level throughout the lifecycle of a trade (i.e. pre, intra and post trade). The Global Trading team analyses the post trade returns versus the explicit trading benchmark set by the portfolio manager, as well as multiple other benchmarks to ensure the outcome is of a high standard.

Analysis is conducted daily, and then on a quarterly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There were four changes to the list of execution venues listed in the execution policy for the preceding year.

The figures for 'Internal Cross' are representative of internal inter fund transfers between the same legal entity. Market crosses will be reflected under the placement table.

| Class of Instrument | Other Instruments – Non-EU Equities | |
|---|--|--|
| Notification if <1 average trade per business day in the previous year | No | |
| | | |
| 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 |
| Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493 | 10.8% | 10.4% |
| JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32 | 10.3% | 9.6% |
| Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48 | 9.2% | 8.7% |
| Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653 | 7.9% | 6.8% |
| Goldman Sachs International LEI: W22LROWP2IHZNBB6K528 | 7.3% | 6.2% |

TOP 5 VENUES (EXECUTION)

Appendix 1: classes of financial instruments

- (a) Equities Shares & Depositary Receipts
 - (i) Tick size liquidity bands 5 and 6 (from 2000 trades per day)
 - (ii) Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)
 - iii) Tick size liquidity band 1 and 2 (from 0 to 79 trades per day)
- (b) Debt instruments
 - (i) Bonds
 - (ii) Money markets instruments
- (c) Interest rates derivatives
 - (i) Futures and options admitted to trading on a trading venue
 - (ii) Swaps, forwards, and other interest rates derivatives
- (d) Credit derivatives
 - (i) Futures and options admitted to trading on a trading venue
 - (ii) Other credit derivatives
- (e) Currency derivatives
 - (i) Futures and options admitted to trading on a trading venue
 - (ii) Swaps, forwards, and other currency derivatives
- (f) Structured finance instruments
- (g) Equity Derivatives
 - (i) Options and Futures admitted to trading on a trading venue
 - (ii) Swaps and other equity derivatives
- (h) Securitized Derivatives

- (i) Warrants and Certificate Derivatives
- (ii) Other securitized derivatives
- (i) Commodities derivatives and emission allowances Derivatives
 - (i) Options and Futures admitted to trading on a trading venue
 - (ii) Other commodities derivatives and emission allowances derivatives
- (i) Contracts for difference
- (k) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)
- (I) Emission allowances
- (m) Other instruments

LGIMI only executed or placed trades in the preceding year for equities (shares & depositary receipts), currency derivatives (swaps, forwards, and other currency derivatives), equity derivatives (options and futures admitted to trading on a trading venue), equity derivatives (swaps and other equity derivatives) and other instruments.

Important Information

The top 5 execution venues information contained in this document (the "Information") has been prepared by LGIM International Limited ('LGIMI'). It has been prepared based on our understanding of the second Markets in Financial Instruments Directive ('MiFID II'), along with the Regulatory Technical Standards ('RTS') drafted by the European Securities and Markets Authority ('ESMA'). The basis of the report will be subject to change if the RTS is updated by ESMA, it is important to note that such amendments could take place without pre-notification or consultation with either LGIMI or the recipients of this report.

The disclosure is produced in good faith using reasonable endeavours and is based on what we believe is objective data.

LGIMI is committed to providing this disclosure to both prospective and existing clients, where there is a regulatory requirement to do so. LGIMI does reserve the right to refrain from making this disclosure available where there is no explicit regulatory requirement to do so but will act in good faith to provide the disclosure on an elective basis where there is sufficient client demand. The provision of the information on an elective basis does not constitute an on-going contractual obligation on LGIMI.

Third party data:

Where this document contains third party data ("Third Party Data"), we cannot guarantee the accuracy, completeness or reliability of such Third-Party Data and accept no responsibility or liability whatsoever in respect of such Third-Party Data.

Publication, amendments and updates:

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To ensure quality of service and for the protection of all parties, telephone calls may be recorded

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