

LGIM Top 5 Execution Venues

April 2018

Legal and General Investment Management Ltd Top 5 execution venues

This document sets out, for each class of financial instruments, information on the top five execution venues where Legal and General Investment Management Ltd ('LGIM') 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 LGIM as professional clients.

Regulatory Technical Standard 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, LGIM 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), LGIM executes a client order directly on the execution venue. LGIM may also execute orders with a systematic internaliser (SI), market maker or another liquidity provider on a request-for-quote basis. Where LGIM matches liquidity internally without utilising an MTF or broker, this also constitutes executing a client order.

'Placement' is where LGIM 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, LGIM 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 LGIM Best Execution Policy [here](#).

TOP 5 VENUE REPORTS

The reports detail the top five venues where, for each class of financial instruments, LGIM 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 RTS28 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).

LGIM 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 first annual report, some data may not be available or may not apply at all:

- All equities, including non-EU equities, have been aggregated in one table given the lack of data on the MiFID II tick size regime
- LGIM does not have information on the proportion of passive and aggressive orders executed on execution venues, as this detailed information has not been collected under our existing MiFID best execution obligations
- LGIM does not include any information on directed orders as the choice of execution venue is at the discretion of LGIM as set out under our best execution policy

INFORMATION TO CLIENTS

The reports include, for each class of financial instruments, a summary of the analysis and conclusions LGIM 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

We have dealing services arrangements in place with affiliated asset management companies in the US and Asia to route orders to local broker/dealers for securities where the primary liquidity is in those regions. No commission is charged to clients with the arrangement operating on a cost recovery basis between the firms. Oversight of these arrangements is exercised through the LGIM Best Execution Committee.

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 LGIM'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 LGIM 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. The analysis is carried out on a trade-by-trade basis where feasible. For equities and FX we use ITG's transaction cost analysis (TCA) services, and for bonds we use TradeWeb's TCA services. Post-trade analysis is not applicable to principal programme trades as the basis for the execution price and total transaction costs are established before the trade is carried out. Commissions paid on such trades normally reflect total transaction costs excluding any taxes/stamp duties.

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. We expect RTS 27 data to be available and able to be analysed from June 2018 although there are currently no consolidated tape providers in Europe. 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 Legal and General Investment Management Ltd (LGIM) 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 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 monthly basis when the Best Execution Committee meets to review and scrutinise the aggregate execution quality, and also to review any outliers.

There was no change in 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.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Equities – Shares and depositary receipts	
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	18%	18%
Credit Suisse Securities Europe Ltd LEI: DL6FFRRL74S01HE2M14	10%	9%
Deutsche Bank AG LEI: 7LTFZYICNSX8D621K86	10%	7%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	7%	5%
Credit Suisse Securities USA LLC LEI: 1V8Y6QCX6YMJ2OELI46	7%	6%

TOP 5 VENUES (EXECUTION)

Class of Instrument	Equities – Shares and depositary receipts	
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	1%	1%

Debt instruments – Bonds

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

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

There was no change in 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.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Debt instruments - Bonds	
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
Barclays Bank PLC` LEI: G5GSEF7VJP5I7OUK5573	5%	4%
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653	3%	3%
HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54	3%	3%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	3%	3%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	3%	2%

TOP 5 VENUES (EXECUTION)

Class of Instrument	Debt instruments - Bonds	
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
Tradeweb Europe Limited MIC: TREU	54%	40%
MarketAxess Europe Ltd MIC: MAEL	3%	13%
Internal Cross	2%	7%

Debt instruments – Money market instruments

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 debt instruments – money market 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 and risk provision are key drivers in our counterparty selection. In order to measure the efficacy of our counterparties the Global Trading team analyses execution quality against a number of parameters and benchmarks if relevant to that particular asset class.

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Debt instruments - Money market instruments	
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
Tullett Prebon Securities Ltd LEI: 549300BMVW85YF9FGN67	9%	8%
Bank of America Merrill Lynch International Ltd LEI: EYKN6V0ZCB8VD9IULB80	8%	11%
ING Bank NV LEI: 3TK20IVIUJ8J3ZU0QE75	8%	7%
Martin Brokers UK Ltd LEI: 213800TT73MOS2XORJ44	8%	8%
TP ICAP PLC LEI: 5493009UWRK48KKUD358	8%	7%

TOP 5 VENUES (EXECUTION)

Class of Instrument	Debt instruments - Money market instruments	
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	0.3%	0.7%

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

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 interest rate derivatives – futures and options admitted to trading on a trading venue. 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](#).

Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Interest rate derivatives – Futures and options 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
UBS AG LEI: BFM8T61CT2L1QCEMIK50	40%	48%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	19%	7%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	19%	18%
Nomura International PLC LEI: DGQCSV2PHVF7I2743539	11%	24%
RBC Europe Ltd LEI: TXDSU46SXBWIGJ8G8E98	10%	1%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Interest rate derivatives – Swaps, forwards, and other interest rates derivatives

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 interest rate derivatives – swaps, forwards, and other interest rates derivatives. 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 and risk provision are key drivers in our counterparty selection. In order to measure the efficacy of our counterparties, LGIM 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.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Interest rate derivatives – Swaps, forwards, and other interest rates 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
HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54	26%	12%
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653	19%	16%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	8%	10%
Royal Bank of Scotland PLC/The LEI: RR3QWICWWIPCS8A4S074	8%	11%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	8%	11%

It should be noted that due to the availability of data the Top 5 Venue report based on placement for the preceding year also includes trades executed on Tradeweb.

TOP 5 VENUES (EXECUTION)

Trades executed on venue with Tradeweb are reflected under the Top 5 venue for placement. The proportion of volume and orders executed on Tradeweb was 2% and 4% respectively.

Credit derivatives – Futures and options admitted to trading on a trading venue

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 credit derivatives – futures and options admitted to trading on a trading venue. 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](#).

Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Credit derivatives – Futures and options 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
Nomura International PLC LEI: DGQCSV2PHVF7I2743539	32%	21%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	21%	32%
UBS AG LEI: BFM8T61CT2L1QCEMIK50	21%	21%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	11%	16%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	7%	3%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Credit derivatives – Other credit derivatives

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 credit derivatives – other credit derivatives. It is an appendix to the overarching LGIM Top 5 Execution Venue summary.

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

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Credit derivatives – Other credit 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	23%	16%
Barclays Bank PLC LEI: G5GSEF7VJP5I7OUK5573	17%	22%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	14%	12%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	12%	11%
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653	10%	9%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Currency derivatives – Futures and options admitted to trading on a trading venue

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 currency derivatives – futures and options admitted to trading on a trading venue. It is an appendix to the overarching LGIM Top 5 Execution Venue summary.

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Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Currency derivatives – Futures and options 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
UBS AG LEI: BFM8T61CT2L1QCEMIK50	51%	39%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	49%	61%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	0.19%	0.4%
Nomura International PLC LEI: DGQCSV2PHVF7I2743539	0.01%	0.04%
JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32	0.003%	0.04%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Currency derivatives – Swaps, forwards, and other currency derivatives

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 currency derivatives – swaps, forwards, and other currency derivatives. It is an appendix to the overarching LGIM Top 5 Execution Venue summary.

LGIM takes all sufficient steps to consistently obtain on 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 and risk provision are key drivers in our counterparty selection. In order to measure the efficacy of our counterparties, LGIM 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.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

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
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	4%	0.2%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	4%	0.3%
HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54	3%	1%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	3%	1%
Royal Bank of Scotland PLC/The LEI: RR3QWICWWIPCS8A4S074	3%	0.2%

TOP 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
FXall MIC: TRAL	65%	95%

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

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 equity derivatives – options and futures admitted to trading on a trading venue. 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](#).

Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

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	30%	27%
Deutsche Bank AG LEI: 7LTWFZYICNSX8D621K86	18%	13%
Credit Suisse Securities Europe Ltd LEI: DL6FFRRL74S01HE2M14	11%	26%
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653	10%	12%
JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32	7%	4%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Equity derivatives – Swaps and other equity derivatives

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 equity derivatives – swaps and other equity derivatives. It is an appendix to the overarching LGIM Top 5 Execution Venue summary.

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

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

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
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	38%	24%
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPFGFNF3BB653	30%	9%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	9%	15%
Barclays Bank PLC LEI: G5GSEF7VJP5I7OUK5573	7%	16%
Royal Bank of Scotland PLC/The LEI: RR3QWICWWIPCS8A4S074	6%	2%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Securitized derivatives – Warrants and certificate derivatives

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 securitized derivatives – warrants and certificate derivatives. 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](#).

Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Securitized derivatives – Warrants and certificate 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
JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32	98.7%	50%
Deutsche Bank AG 7LTWFZYICNSX8D621K86	0.6%	12.5%
UBS AG LEI: BFM8T61CT2L1QCEMIK50	0.3%	12.5%
Credit Suisse Securities Europe Ltd LEI: DL6FFRRL74S01HE2M14	0.3%	12.5%
Instinet LLC LEI: 549300MGMN3RKMU8FT57	0.04%	12.5%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Commodities derivatives and emission allowances derivatives – other commodities derivatives and emission allowances derivatives

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 commodities derivatives and emission allowances derivatives –other commodities derivatives and emission allowances derivatives. 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](#).

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

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Commodities derivatives and emission allowances derivatives - Other commodities derivatives and emission allowances 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
JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32	47%	18%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	41%	42%
SG Americas Securities LLC LEI: 549300F35UE0BOM1WJ55	5%	6%
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	4%	12%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	2%	15%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities)

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 exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities). 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](#).

Where LGIM transacts on an agency basis, 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. 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 LGIM to construct the most appropriate panel from which to select the best price available.

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

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	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	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
JP Morgan Securities PLC LEI: K6Q0W1PS1L1O4IQL9C32	65%	32%
Goldman Sachs International LEI: W22LROWP2IHZNBB6K528	8%	1%
Credit Suisse Securities USA LLC LEI: 1V8Y6QCX6YMJ2OELI46	8%	0.4%
HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54	6%	6%
Credit Suisse Securities Europe Ltd LEI: DL6FFRRLF74S01HE2M14	6%	4%

TOP 5 VENUES (EXECUTION)

There were no trades executed on venue for the preceding year.

Other instruments – Private Credit

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.

LGIM Private Credit transactions in 2017 were, with one exception, primary issuances where LGIM deals directly with the issuer. In these circumstances LGIM does not trade on a venue or select a firm to provide order execution services.

The Best Execution Policy was consistently carried out in 2017 and we achieved the best price for our clients consistently throughout the year. For this asset class the “best price” is a factor of credit rating, structure, duration and investment value premium and each of these is considered when making the investment decision. Executing under our policy enabled us to commit £6.9bn on behalf of client funds whilst retaining a steady average credit rating on the aggregate portfolio of BBB+. Where, in our opinion, the best price was not achievable we did not proceed with the investment. While we completed 34 investments in 2017 we rejected a multiple of this number on the grounds of price, credit and structure evidencing our search for best execution

We consider the Best Execution Policy to be appropriate and will continue to review it as the business grows and matures.

TOP 5 VENUES (PLACEMENT)

There were no trades transmitted to a broker for it to execute for the preceding year.

TOP 5 VENUES (EXECUTION)

Class of Instrument	Other instruments – Private credit	
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
Morgan Stanley & Co International PLC LEI: 4PQUHN3JPF GFNF3BB653	1.5%	4%

Securities Financing Transactions (SFTs)

This document sets out the top five execution venues where Legal and General Investment Management Ltd (LGIM) executed client orders in the preceding year in relation to dealings in securities financing transactions (SFTs). 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 and risk provision are key drivers in our counterparty selection. In order to measure the efficacy of our counterparties the Global Trading team analyses execution quality against a number of parameters and benchmarks if relevant to that particular asset class.

There was no change in the list of execution venues listed in the execution policy for the preceding year.

TOP 5 VENUES (PLACEMENT)

Class of Instrument	Securities Financing Transactions (SFTs)	
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
Merrill Lynch International LEI: GGDZP1UYGU9STUHRDP48	25%	29%
HSBC Bank PLC LEI: MP6I5ZYZBEU3UXPYFY54	21%	7%
Scotiabank Europe PLC LEI: 5G6NVP4WADOI32VUUB17	18%	18%
BNP Paribas SA LEI: R0MUWSFPU8MPRO8K5P83	13%	4%
Citigroup Global Markets Ltd LEI: XKZZ2JZF41MRHTR1V493	11%	11%

TOP 5 VENUES (PLACEMENT)

There were no trades executed on venue for the preceding year.

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
- (j) Contracts for difference
- (k) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)
- (l) Emission allowances
- (m) Other instruments

LGIM executed or placed trades in the preceding year for all of the above instruments except for structured finance instruments, other securitized derivatives, commodities derivatives and emission allowances derivatives (options and futures admitted to trading on a trading venue), contracts for difference and emission allowances.

Important Information

The top 5 execution venues information contained in this document (the “**Information**”) has been prepared by Legal & General Investment Management Limited (‘**LGIM**’). 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 LGIM 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.

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