EXECUTION QUALITY

SERVICE DESCRIPTION
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<th>Report Title</th>
<th>Page</th>
</tr>
</thead>
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<td>Named RSP Counterparty Ranking Report</td>
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<td>3.9.2</td>
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<td>27</td>
</tr>
</tbody>
</table>
1 Introduction

1.1 Purpose and scope of document

The purpose of this document is to provide the reader with a detailed understanding of the way Execution Quality benchmarks and reports are calculated.
2 Report Definition

Selection Criteria define the parameters to select the data set which the Execution Quality parameters will be applied to.

Benchmarks define the standard against which a member firm’s execution quality can be measured.

Summary statistics summarise data about the selected data set(s).

Outliers report provides trade by trade analysis of trades which lie outside spread for the user’s member firm.

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>Benchmarks (at product level from summary data)</th>
<th>Summary Statistics (at product level from summary data)</th>
<th>Outliers Report (trade by trade basis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business category (Principal or Agency)</td>
<td>Average value of price improvement per trade (£)</td>
<td>Number of outliers</td>
<td>Value of price improvement</td>
</tr>
<tr>
<td>Product/ User defined portfolio</td>
<td>Total value of price improvement (£)</td>
<td>Total number of trades</td>
<td>Basis points price improvement</td>
</tr>
<tr>
<td>Time period</td>
<td>Average basis points price improvement</td>
<td>Total value of trades</td>
<td>Actual price improvement</td>
</tr>
<tr>
<td>Value of trades band</td>
<td>Percentage of trades at best price</td>
<td>Number of tradable instruments</td>
<td>Basis points from mid price high</td>
</tr>
<tr>
<td>On/Off order book (on/off)</td>
<td>Percentage of trades within spread</td>
<td>Average trade size</td>
<td>Basis points from mid price low</td>
</tr>
<tr>
<td>Buy/Sell indicator (buy/sell or both)</td>
<td>Percentage of trades outside of spread</td>
<td>Average percentage of NMS</td>
<td>Basis points from trade high</td>
</tr>
<tr>
<td></td>
<td>Average basis points from trade high</td>
<td></td>
<td>Basis points from trade low</td>
</tr>
<tr>
<td></td>
<td>Average basis points from trade low</td>
<td></td>
<td>Settlement period</td>
</tr>
<tr>
<td></td>
<td>Average basis points from mid price high</td>
<td></td>
<td>Buy/Sell indicator</td>
</tr>
<tr>
<td></td>
<td>Average basis points from mid price low</td>
<td></td>
<td>Percentage of NMS</td>
</tr>
<tr>
<td></td>
<td>Best bid price</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Best offer price</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade code</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade date</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade time</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market segment code</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tradable instrument code</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Country of register</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Currency code</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade size</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade price</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.1 Report Criteria

The following criteria can be selected in order to customise the data sets to be compared.

- Business category
- Product / User defined portfolio
- Time period
- Value of trades band (5 bands)
- On/Off order book trades (on/off)
- Buy/Sell indicator (buy/sell/both)

All criteria can be selected for all report types.

There is no facility to select different criteria for the initial data set and comparative data sets, with the exception of the My Execution Quality comparison report.

2.1.1 Business Category

Execution quality analysis is split into the following business categories:

<table>
<thead>
<tr>
<th>Category Number</th>
<th>Category Name</th>
<th>Category Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agency business</td>
<td>Where a Member Firm acts in an Agency capacity and transacts with another Member Firm (who could be acting as an Agent or as a Principal.)</td>
</tr>
<tr>
<td>3</td>
<td>Principal business with Agency Member Firm</td>
<td>Where a Member Firm transacts as principal with another member firm who is acting as an Agent.</td>
</tr>
</tbody>
</table>

Users can choose to filter on either Agency or Principal Business categories but cannot query on both.

A trade is eligible for inclusion in Execution Quality data where either the buyer or the seller belongs to one of these business categories; however calculations which filter on buy/sell will only use a trade where the filtered data is in the correct business category.

2.1.2 Product

Users can select a product per report to define the instruments which will be included in the Execution Quality calculations. Users can only select products which they have a valid current licence for.

Product configuration will be assumed to be the current configuration at the end of the period selected therefore the instruments within a product are constant for any single query.

A user cannot select a product if they have already selected a portfolio.
2.1.3 User-Defined Portfolios

Users can create a unique portfolio per report to define the instruments which will be included in the Execution Quality calculations.

A user can save a portfolio for reuse at a later date. Portfolios can be manually deleted by a user but will not be archived or deleted automatically.

A user cannot select a portfolio if they have already selected a product.

2.1.4 Time Period

Users can specify a time period for an Execution Quality query as part of the definition of the data set.

The available intraday time periods for Execution Quality are defined as technical reference data as follows:

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00:00</td>
<td>08:59:59</td>
</tr>
<tr>
<td>09:00:00</td>
<td>09:59:59</td>
</tr>
<tr>
<td>10:00:00</td>
<td>10:59:59</td>
</tr>
<tr>
<td>11:00:00</td>
<td>11:59:59</td>
</tr>
<tr>
<td>12:00:00</td>
<td>12:59:59</td>
</tr>
<tr>
<td>13:00:00</td>
<td>13:59:59</td>
</tr>
<tr>
<td>14:00:00</td>
<td>14:59:59</td>
</tr>
<tr>
<td>15:00:00</td>
<td>15:59:59</td>
</tr>
<tr>
<td>16:00:00</td>
<td>16:29:59</td>
</tr>
</tbody>
</table>

A month is defined as the trading days within a calendar month.

The minimum time period for which a user can view their execution quality is in hourly increments on the hour. Where a user selects 16:00:00 as the start time of the period, that hourly period will only include data for the 30 minute period described above.

Users cannot query data across time periods which do not match the summarised data as follows:

- For time periods < 1 day each hour will receive an outliers report for each hour; summary stats and benchmarks will be displayed in hourly increments.

- For time periods > 1 day and < 1 month, will receive an outliers report for each day; summary stats and benchmarks will be displayed in daily increments. Specified time periods can only include whole days up to a maximum of 25 days.

- For time periods > 1 month, will receive an outliers report for each month (subject to performance evaluation); summary stats and benchmarks will be displayed in monthly increments. Specified time periods can only include whole months up to a maximum of 12 months.

Trades are summarised into time periods based upon the trade timestamp received in the Trade Report message (5IT). Where a trade is executed with a timestamp exactly on the hour (i.e. 16:00:00) the trade will be considered as part of the next hour. (16:00:00 – 16:29:59).
2.1.5 Value of trades band

In order to refine a search and limit the size of a query that a user can perform, trades are divided up into value of trades bands. A trade is assigned a value of trades band according to its consideration (trade price x trade size).

The following bands will be used:

<table>
<thead>
<tr>
<th>Value of trades bands</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0 – 2,500</td>
</tr>
<tr>
<td>B</td>
<td>&gt;2,500 – 5,000</td>
</tr>
<tr>
<td>C</td>
<td>&gt;5,000 –10,000</td>
</tr>
<tr>
<td>D</td>
<td>&gt;10,000 – 25,000</td>
</tr>
<tr>
<td>E</td>
<td>&gt; 25,000</td>
</tr>
</tbody>
</table>

For products which contain multiple instruments, all trades belonging to the selected product that fall into that value of trades band would be queried.

2.1.6 On/ Off Order Book Trades

Defines on a per trade basis as to whether the trade took place on or off the order book.
It is not possible to compare on order book trades to off order book trades in any report.

The following trade type indicators are currently defined as on order book:

- AT
- UT
- CT

All other trade type indicators will be considered as off order book.

2.1.7 Buy/Sell indicator

Users can select whether to choose to filter on trades where they were specifically the buyer or the seller or choose all trades regardless of whether they were the buyer or seller.

A user will be defined as belonging to a specific member firm. A participant BIC is defined as belonging to a specific member firm. Users are mapped to participants via member firms. The CAST ID maps member firms to BICs.
Where one of the member firm’s BIC codes matches the participant code in the ‘Participant Code – Buyer’ field the buy/sell indicator will be set to ‘Buy’.

Where one of the member firm’s BIC codes matches the participant code in the ‘Participant Code – Seller’ field the buy/sell indicator will be set to ‘Sell’.

Where a user’s participant code matches the participant code in the ‘Participant Code – Seller’ field and matches the participant code in the ‘Participant Code – Buyer’ field, the trade will be included once where the report is filtered for buy OR sell and twice where the report criteria is buy AND sell.

2.2 Report Benchmarks

Report benchmarks are shown per data set for each report. At least one benchmark must be selected for any report type. Benchmarks are calculated for hourly, daily and monthly intervals.

The following benchmarks will not be calculated where the On/Off order book indicator is set to ‘On’ for either the initial or comparative data sets.

- Average value of price improvement per trade (£)
- Total value of price improvement (£)
- Average basis points price improvement
- Percentage of trades at best price
- Percentage of trades within spread
- Percentage of trades outside of spread

All Price Improvement and Best Price benchmarks are calculated by mapping trades to best prices based on the trade date and trade time stamp received in the Trade Report message (5IT).

Execution Quality benchmarks are based on reports submitted to the Exchange by Member Firms pursuant to the Exchange’s trade reporting rules and guidance.

There may be some erroneous outliers (trades that are identified as executing outside of the best price) that will have an impact on the quality of the benchmark calculations. For example:

- A difference between the time stamp on the trade report and the time of the actual trade due to the lag between trade time and report time.
Where an RSP has provided a price following a quote request and the underlying share price moves during the 20–60 second acceptance window provided by the RSP. The trade price is mapped to the best price at the time of execution and not the best price at the time the quote was offered.

2.2.1 Total Value of Price Improvement

Total value of price improvement is the total consideration of the price improvement across all trades selected.

Where a user has filtered on specifically buy or sell trades, only these values will be included in the statistics. Where a user has not filtered on buy or sell trades, each trade will have two calculations performed – once for the buy half and once for the sell half.

Worked Example:

RSP = Principal
Retail broker = Agent

Bid = 100
Offer = 105

Example 1 – Agent Buys, Principal Sells

Agent buys @ 103
Principal sells @ 103

Price improvement for agent = 105 – 103 = 2 pence
Price improvement provided by principal = 103 – 105 = - 2 pence

Example 2 – Principal Buys, Agent Sells

Principal buys @ 102
Agent sells @ 102

Price improvement for agent = 102 – 100 = 2 pence
Price improvement provided by principal = 100 – 102 = - 2 pence

Example 3 – Agent Buys, Agent Sells

Agent1 buys @ 102
Agent2 sells @ 102

Price improvement for agent1 = 105 – 102 = 3 pence
Price improvement for agent2 = 102 – 100 = 2 pence

Note that Principal – Principal transactions are excluded from EQ calculations

Therefore the value of the price improvement on a per stock traded basis is calculated as follows:
The value of price improvement on a per trade basis is calculated as follows:

<table>
<thead>
<tr>
<th>Business Category Number</th>
<th>Business Category</th>
<th>Buy/Sell</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agency</td>
<td>Buy</td>
<td>Best Price Offer – Trade Price</td>
</tr>
<tr>
<td>3</td>
<td>Principal</td>
<td>Sell</td>
<td>Trade Price – Best Price Offer</td>
</tr>
<tr>
<td>1</td>
<td>Agency</td>
<td>Sell</td>
<td>Trade Price – Best Price Bid</td>
</tr>
<tr>
<td>3</td>
<td>Principal</td>
<td>Buy</td>
<td>Best Price Bid – Trade Price</td>
</tr>
</tbody>
</table>

The total value of the price improvement for the entire data set is the sum of the value of price improvement across all trades selected.

2.2.2 Average basis points price improvement

The basis points price improvement on a per trade basis is calculated as follows:

<table>
<thead>
<tr>
<th>Business Category Number</th>
<th>Business Category</th>
<th>Buy/Sell</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agency</td>
<td>Buy</td>
<td>((\text{Best Price Offer} – \text{Trade Price}) / \text{Best Price Offer} \times 10000)</td>
</tr>
<tr>
<td>3</td>
<td>Principal</td>
<td>Sell</td>
<td>((\text{Trade Price} – \text{Best Price Offer}) / \text{Best Price Offer} \times 10000)</td>
</tr>
<tr>
<td>1</td>
<td>Agency</td>
<td>Sell</td>
<td>((\text{Trade Price} – \text{Best Price Bid}) / \text{Best Bid} \times 10000)</td>
</tr>
<tr>
<td>3</td>
<td>Principal</td>
<td>Buy</td>
<td>((\text{Best Price Bid} – \text{Trade Price}) / \text{Best Price Bid} \times 10000)</td>
</tr>
</tbody>
</table>

The average basis points price improvement for a data set is calculated as follows:

Where Buy/Sell Indicator = Buy

\((\sum \text{Basis points Price Improvement per Buy}) / \text{Number of buy trades}\)

Where Buy/Sell Indicator = Sell

\((\sum \text{Basis points Price Improvement per Sell}) / \text{Number of sell trades}\)

Where Buy/Sell Indicator = Buy and Sell, number of trades must count each half of a trade where the business category is as selected, as

\([(\sum \text{Basis points Price Improvement per Sell}) + (\sum \text{Basis points Price Improvement per Buy})] / (\text{Number of buy and sell trades})\)

2.2.3 Average Value of Price Improvement per trade
The average value of price improvement is calculated as follows:

\[
\left( \sum \text{Value of Price Improvement per Trade} \right) \div \text{Number of trades}
\]

**Price improvement benchmarks will not be calculated for on order book trades, regardless of the filter option chosen.**

### 2.2.4 Percentage of Trades at Best Price

The spread is the difference between best bid price and best offer price for a specific tradable instrument.

Where the bid price equals the offer price (choice spreads), and trade price is also the same as the bid and offer, it is assumed that this will be included in calculations for **in spread**.

The following diagrams illustrate the definitions of trades at best price, within the spread and outside of the spread for buy and sell trades.

#### Buys

```
<table>
<thead>
<tr>
<th>Best Price Bid</th>
<th>Best Price Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread</td>
<td></td>
</tr>
<tr>
<td>OUTSIDE SPREAD</td>
<td>IN SPREAD</td>
</tr>
<tr>
<td>OUTSIDE SPREAD</td>
<td></td>
</tr>
</tbody>
</table>
```

**Positive Spread**

Where the spread is positive (Best Bid < Best Offer) the benchmarks are defined as follows:

**In Spread:**

\[
\text{Trade Price} \geq \text{Best Bid and Trade Price} < \text{Best Offer}
\]

**Outside Spread:**

\[
\text{Trade Price} > \text{Best Offer or Trade Price} < \text{Best Bid}
\]

**At Best:**

\[
\text{Trade Price} = \text{Best Offer}
\]

**Negative Spread**

Where the spread is negative (Best Offer < Best Bid) the benchmarks are defined as follows:

**In Spread:**
Trade Price > Best Offer and Trade Price <= Best Bid

Outside Spread:
Trade Price > Best Bid or Trade Price < Best Offer

At Best:
Trade Price = Best Offer

Sells

<table>
<thead>
<tr>
<th>Best Price Bid</th>
<th>Best Price Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTSIDE SPREAD</td>
<td>IN SPREAD</td>
</tr>
</tbody>
</table>

Trade at Best Price

Positive Spread
Where the spread is positive (Best Bid < Best Offer) the benchmarks are defined as follows:

In Spread:
Trade Price > Best Bid and Trade Price <= Best Offer

Outside Spread:
Trade Price > Best Offer or Trade Price < Best Bid

At Best:
Trade Price = Best Bid

Negative Spread
Where the spread is negative (Best Offer < Best Bid) the benchmarks are defined as follows:

In Spread:
Trade Price >= Best Offer and Trade Price < Best Bid

Outside Spread:
Trade Price > Best Bid or Trade Price < Best Offer
At Best:

Trade Price = Best Bid

The percentage of trades at best price is calculated as follows for buys:

**Calculation A**

\[
\left( \sum \text{(Trades where trade price = Best price offer)} \div \text{Number of buy trades} \right) \times 100
\]

The percentage of trades at best price is calculated as follows for sells:

**Calculation B**

\[
\left( \sum \text{(Trades where trade price = Best price bid)} \div \text{Number of sell trades} \right) \times 100
\]

The percentage of trades at best price is calculated as follows for buys and sells:

\[
\frac{\text{(Calculation A + Calculation B)}}{2}
\]

2.2.5 Percentage of trades within spread

For buys, within the spread is defined as trade price at the best bid price or between best bid price and best offer price, i.e. best bid \(\leq\) trade price < best offer

For sells, within the spread is defined as trade price at the best offer price or between best bid price and best offer price, i.e. best bid < trade price \(\leq\) best offer

For buys or sells, the percentage of trades within the spread will be calculated as follows:

\[
\frac{\text{Number of trades in spread} \times 100}{\text{Total number of trades}}
\]

For buys and sells, the percentage of trades within the spread will be calculated as follows:

\[
\frac{\text{(Percentage of buys within spread + percentage of sells within spread)}}{2}
\]

2.2.6 Percentage of trades outside of spread

Where the trade price does not lie between or at the best bid price and best offer price, the trade will be considered to be outside the spread.

The percentage of trades outside the spread will be calculated as follows for buys or sells:

\[
\frac{\text{Number of trades outside of spread} \times 100}{\text{Total number of trades}}
\]
The percentage of trades outside the spread will be calculated as follows for buys and sells:

\[
\frac{\text{Percentage of buys outside of spread} + \text{Percentage of sells outside of spread}}{2}
\]

Best price related benchmarks will not be calculated for on order book trades, regardless of the filter option chosen.

2.2.7 Average basis points from trade low

Trade low is the lowest trade price for an instrument for that period. Basis points from trade low will only be calculated for buy trades.

For each trade, the basis points from trade low will be calculated as follows:

\[
\frac{\text{Trade price} - \text{trade low}}{\text{Trade low}} \times 10000
\]

The average basis points from trade low (for all tradable instruments) will be calculated as follows:

\[
\frac{\sum \text{Basis points from trade low}}{\text{Number of trades}}
\]

2.2.8 Average basis points from trade high

Trade low is the lowest trade price for an instrument for that period. Basis points from trade low will only be calculated for sell trades.

For each trade, the basis points from trade high will be calculated as follows:

\[
\frac{\text{Trade high} - \text{trade price}}{\text{Trade high}} \times 10000
\]

The average basis points from trade high (for all tradable instruments) will be calculated as follows:

\[
\frac{\sum \text{Basis points from trade high}}{\text{Number of trades}}
\]

2.2.9 Average basis points from mid price low

Price low is the lowest best mid price for an instrument for that period. Basis points from mid price low will only be calculated for buy trades.

For each trade, the basis points from mid price low will be calculated as follows:

\[
\frac{\text{Trade price} - \text{price low}}{\text{Price low}} \times 10000
\]
The average basis points from mid price low (for all tradable instruments) will be calculated as follows:

\[
\frac{\sum \text{Basis points from price low}}{\text{Number of trades}}
\]

2.2.10 Average basis points from mid price high

Price high is the highest best mid price for an instrument for that period. Basis points from mid price high will only be calculated for sell trades.

For each trade, the basis points from mid price high will be calculated as follows:

\[
\frac{(\text{Price high} - \text{trade price}) \times 10000}{\text{Price high}}
\]

The average basis points from mid price high (for all tradable instruments) will be calculated as follows:

\[
\frac{\sum \text{Basis points from price high}}{\text{Number of trades}}
\]
2.3 Summary Statistics

The following input criteria values will be displayed per report:

- Business category
- Product / User defined portfolio
- Time period
- Value of trades band
- On/Off order book indicator
- Buy/Sell indicator

The following summary statistics are calculated per data set (group of tradable instruments) for each report.

2.3.1 Average trade size

The average trade size is calculated as follows:

\[
\frac{\sum \text{Trade Size}}{\text{Number of Trades}}
\]

2.3.2 Number of outliers

The number of outliers is a count of the number of trades for the specified data set which are outside of the spread.

2.3.3 Total number of trades

For a product containing multiple market instruments, the total number of trades is the sum of the number of trades per market instrument.

Calculations are based on trade date time and make no allowances for contra’s or cancellations.

2.3.4 Total value of trades (value requiring currency conversion)

The total value of the trades during a specific period is calculated as follows:

\[
\text{Total trade value} = \sum \text{Tradeprice} \times \text{Tradesize per instrument}
\]

3.4.5 Total number of tradable instruments

The total number of tradable instruments for a data set can be derived from a count of unique instances of the four way key (TI Code, Currency Code, Country of Register, Market Segment).

3.4.6 Average Percentage of NMS

To calculate the percentage of NMS the following calculation will be used on a per trade basis:
\[(\text{Volume of trades}) \times 100 = \% \text{ of NMS} \]

\[\frac{\% \text{ of NMS}}{\text{NMS}}\]

The average percentage of NMS is calculated as follows:

\[\sum \% \text{ of NMS} / \text{Number of trades} \times 100\]
2.4 Outliers Report Data

The statistics contained within the outliers report are calculated on a per trade basis for the selected member firm. The data set for the outliers report contains the trades for the specified criteria where the trades are outside of the spread. The outliers report only contains data relating to the initial data set, not the comparative data set.

In addition to the calculated values described below, the outliers report will also contain the following data derived from the Trade Report message (5IT).

- Trade code
- Trade date
- Trade time
- Market segment code
- Tradable instrument code
- Country of register
- Currency code
- Trade size
- Trade price

2.4.1 Basis points from Mid High (for Sells)

The price high is the highest Mid Price for a selected market instrument for the hour which the trade falls within (based on trade timestamp and hourly summary statistics on the hour).

The basis points from the mid high is calculated as follows:

\[
\frac{(\text{Mid high} - \text{price of trade} \times 10000)}{\text{Mid high}} = \text{basis points from mid high}
\]

Please note this could produce a negative number.

2.4.2 Basis points from Mid Low (for Buys)

The price low is the lowest Mid Price for a selected market instrument for the hour which the trade falls within (based on trade timestamp and hourly summary statistics on the hour).

The basis points from the price low is calculated as follows:

\[
\frac{(\text{Price of trade} - \text{mid low} \times 10000)}{\text{Mid low}} = \text{basis points from mid low}
\]

Please note this could produce a negative number.

2.4.3 Basis points from Trade High (for Sells)

Trade high for a market instrument is the highest trade price for a market instrument during the hour which the trade falls within (based on trade timestamp and hourly summary statistics on the hour) regardless of participant.

The basis points from the trade high is calculated as follows:
(Trade high - price of trade x 10000) = basis points from trade high
Trade high

Please note this could produce a negative number.

2.4.4 Basis points from Trade Low (for Buys)

Trade low for a market instrument is the lowest trade price for a market instrument during the hour
which the trade falls within (based on trade timestamp and hourly summary statistics on the hour)
regardless of participant.

The basis points from the trade low is calculated as follows:

(Price of trade – trade low x 10000) = basis points from trade low
Trade low

Please note this could produce a negative number.

2.4.5 Actual Price Improvement (value requiring currency conversion)

Actual price improvement is calculated as described in section 2.2.1

2.4.6 Value of price improvement (value requiring currency conversion)

Value of price improvement for the individual trade is calculated as described in section 2.2.1.

2.4.7 Basis points price improvement

Basis points price improvement is calculated as described in section 2.2.2

2.4.8 Settlement period

The settlement period is the difference in business days between the settlement due date and the
trade date as received in the Trade Report message (5IT). Business days are defined as London
market trading days.

2.4.9 Buy/Sell Indicator

Derived from Trade Report message (5IT) as follows:

Where the user’s participant code matches the participant code in the Participant Code – Buyer the
buy/sell indicator will be set to ‘Buy’.

Where the user’s participant code the matches the participant code in the Participant Code – Seller
the buy/sell indicator will be set to ‘Sell’.
2.4.10 Percentage of Normal Market Share (NMS)

To calculate the percentage of NMS which your trades for the specified data set accounts for, the following calculation will be used:

\[
\text{Trade size} \times 100 = \% \text{ of NMS}
\]

NMS for TI

2.4.11 Best bid price

The best bid price at the time of the trade is derived from a previous Best Price message received with closest timestamp to the trade timestamp for the configured Best Price Indicator.

2.4.12 Best offer price

The best offer price at the time of the trade is derived from a previous Best Price message received with closest timestamp to the trade timestamp for the configured Best Price Indicator.

2.4.13 Bargain Conditions

A code indicating the conditions agreed between two participants at the time of trading. Derived from the trade report. Where multiple bargain conditions are entered they will be displayed as a concatenated list within a single field.
2.5 Currency Conversion

For all calculations related to monetary amount (e.g. trade value or price, best price), any values are converted to standard currency which is GBX (pence), using end of day currency conversions.

The following values should always be shown as GBP (pounds):

- Benchmarks
  - Total Value of Price Improvement
  - Average Value of Price Improvement per trade

- Summary Statistics
  - Total Value of Trades

- Outliers Report
  - Value of Price Improvement

The following values should always be shown as GBX (pence):

- Outliers Report
  - Actual Price Improvement
  - Best Bid Price
  - Best Offer Price
2.6 Outliers Report

The outliers report will be available to download from the web site in CSV format.

Outliers reports may contain a maximum of one day’s trade data in all instruments for a single member firm. Where a user has requested a report for a period greater than a day, a detailed outliers report will be generated for each business day within the period.
2.7 Standard Reports

For all reports, a maximum of two data sets can be queried in any one report. All reports only contain data which has already been published via LMIL. Data is available for Execution Quality reports on the next London trading day.

For all reports, internal users can view reports on behalf of a single member firm, by selecting a member firm prior to report selection.

2.7.1 My Execution Quality

The ‘My Execution Quality’ report uses the initial criteria selected via the screens to query trade data where the participant code belongs to the same member firm as the user. There is no comparative data set, therefore results will only display the execution quality statistics for that member firm. Summary statistics and benchmarks are displayed for a single data set.

Benchmarks which compare the member firm’s trades to a market value will use values relating to the entire market for the initial criteria, not the data set filtered on participant.

All criteria and benchmarks can be selected for the ‘My Execution Quality’ report. There is no ranking facility for this report.

2.7.2 My Execution Quality Comparison Report

The My Execution Quality comparison report uses the initial criteria selected via the screens to query two data sets to allow comparison of summary statistics and benchmarks against different criteria. The user can select all criteria twice, with the exception of business category which must be the same for both data sets. The benchmarks may only be selected once and are the same for both data sets.

Both data sets are for trade data where the participant code belongs to the same member firm as the user. Where a trade meets the criteria for both data sets, it will be included in the calculations for both data sets.

Summary statistics and benchmarks are displayed for both data sets. Benchmarks which compare the member firm’s trades to a market value will use values relating to the entire market for the initial criteria, not the data set filtered on participant.

All criteria and benchmarks can be selected for the My Execution Quality comparison report. There is no ranking facility for this report.

2.7.3 My Execution Quality compared to the Market

The My Execution Quality compared to the Market report uses the initial criteria selected via the screens to query two data sets to allow comparison of summary statistics and benchmarks against the same criteria. There is no facility to select different criteria for the different data sets.
Comparisons can be made to a specific FTSE index or FTSE industrial classification or market segment by selecting the relevant product from the product model. The product model also enables users to select a security or a portfolio of securities.

The initial data set is for trade data where the participant code belongs to the same member firm as the user.

Summary statistics and benchmarks are displayed for both data sets.

Benchmarks which compare the member firm’s trades to a market value will use values relating to the entire market for the initial criteria, not the data set filtered on participant.

Summary statistics and benchmarks for the entire market will be filtered on the same criteria as the initial data set, and will include all published trades within the London market. The member firm’s trades which comprise the initial data set will also form part of the entire market's data set.

All criteria and benchmarks can be selected for the My Execution Quality compared to the Market report. There is no ranking facility for this report.

2.8 Ranking Reports

In order to generate ranking reports, a user must pre-select which of the benchmarks the ranking is to be based upon from the following:

- Average value of price improvement per trade (£)
- Total value of price improvement (£)
- Average basis points price improvement
- Percentage of trades at best price
- Percentage of trades within spread
- Percentage of trades outside of spread
- Average basis points from trade high
- Average basis points from trade low
- Average basis points from price high
- Average basis points from price low

Ranking applies to a single benchmark, no other benchmarks will be displayed on screen.

If a user wishes to view ranking against a different benchmark, the user must return to the input benchmarks screen and regenerate the report. It is not possible to rank against multiple benchmarks simultaneously.

Ranking reports can only be generated for one day or one month only.

2.8.1 Named RSP Counterparty Ranking Report

A user can compare the execution quality of their trades with different RSP counterparties.

- This report compares all my trades with different RSPs and can therefore only be selected where business category is ‘Agent’.
- This report can only be selected for off order book trades.
It is assumed that there is no requirement for RSPs to rank trades they have executed with other principals.

Specific RSPs cannot be selected for ranking. All RSPs within the technical base data which have relevant trades with the user’s member firm will be included in the report.

Where trades are off order book, the counterparty participant code is derived on a per trade basis where the participant buyer or seller code is not the same as the participant code.

The Named RSP counterparty ranking report uses the initial criteria selected via the screens to query trade data for each of the user’s configured RSP counterparties in the market. The data set which is queried selects all trades which the user’s member firm has executed for the selected criteria, then calculated benchmarks and summary statistics on a per configured RSP counterparty within that data set.

All criteria and benchmarks can be selected to filter the data set for the Named RSP Counterparty Ranking report.

Summary statistics and benchmarks are displayed for a single data set, which comprises the user’s member firm’s trades.

The benchmark which is being used for ranking purposes will be calculated for trades executed against each of the user’s RSP counterparties in the market.

Ranking will be based upon the initial ranking criteria selected, with all RSP counterparties identified.

Ranking for the Named RSP Counterparty Ranking report will be calculated according to the following rules:

**Average value of price improvement**

The highest value has the highest ranking.

**Total value of price improvement**

The highest value has the highest ranking.

**Average basis points price improvement**

The highest value has the highest ranking.

**Percentage of trades at best price**

The highest value has the highest ranking.

**Percentage of trades within spread**

The highest value has the highest ranking.

**Percentage of trades outside of spread**

The lowest value has the highest ranking.

**Average basis points from trade high – for sell trades**
The lowest value has the highest ranking.

**Average basis points from trade low - for buy trades**
The lowest value has the highest ranking.

**Average basis points from price high – for sell trades**
The lowest value has the highest ranking.

**Average basis points from price low - for buy trades**
The lowest value has the highest ranking.

### 3.9.2 Nameless Ranking Report

The Nameless Ranking Report is only available at daily and monthly intervals. Only a single day or month may be queried at any one time.

Each query must select data for each member firm (assumed to be 300) for the selected criteria. Benchmarks and summary statistics will be calculated on a per member firm basis, then ordered according to the ranking criteria selected.

On screen display, only the user’s member firm will be identified, all other member firms will be anonymous.

Ranking for the Nameless Ranking report will be calculated according to the following rules:

**Average value of price improvement**
Where business category = agent, the highest value has the highest ranking
Where business category = principal, the lowest value has the highest ranking.

**Total value of price improvement**
Where business category = agent, the highest value has the highest ranking.
Where business category = principal, the lowest value has the highest ranking.

**Average basis points price improvement**
Where business category = agent, the highest value has the highest ranking.
Where business category = principal, the lowest value has the highest ranking.

**Percentage of trades at best price**
The highest value has the highest ranking.

**Percentage of trades within spread**
The highest value has the highest ranking.

**Percentage of trades outside of spread**
The lowest value has the highest ranking.

**Average basis points from trade high – for sell trades**
The lowest value has the highest ranking.

**Average basis points from trade low - for buy trades**
The lowest value has the highest ranking.

**Average basis points from price high – for sell trades**
The lowest value has the highest ranking.

**Average basis points from price low - for buy trades**
The lowest value has the highest ranking.