

Global Technical Committee

MiFID II RTS 28 Gap Analysis

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Document History

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| 0.1 | July 18, 2017 | Hanno Klein  Deutsche Börse Group  Charu Mittal itiviti | Initial draft based on BestExecutionReporting guidelines and ESMA RTS 28 specified requirements. |
| 0.2 | August 10, 2017 | Charu Mittal  Itiviti AB | Changes based on the GTC feedback after submission on July 20th, 2017 |
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|  | September 22, 2017 | Charu Mittal, Itiviti AB | Updates based on the comments received during the public review period, including updates to Table D.3 in Appendix D. |
|  | September 29, 2017 | GTC PMO | Added Appendix E to capture Public Comment disposition and resolution. |
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# Introduction

The purpose of this document is to provide FIX gap analysis for MIFID II RTS 28 specified reporting requirements. The document is to be used in conjunction with Best Execution reporting guidelines document.

The following documents are used as references and input to this gap analysis document:

1. ESMA RTS documents reference via this link:

<http://ec.europa.eu/finance/docs/level-2-measures/mifid-rts-28_en.pdf>

1. ESMA RTS 28 Annex

<http://ec.europa.eu/finance/docs/level-2-measures/mifid-rts-28-annex_en.pdf>

1. Recommended Practices for Best Execution Reporting – <http://www.fixtradingcommunity.org/pg/file/fplpo/read/3965459/fix-mifid-recommended-practices_best-execution-reporting_draft>
2. RTS 28 Mapping spreadsheet - MIFID\_II\_RTS28\_FIXMappings v4

## Summary of Changes

Below is a summary list of all the proposed extensions:

Components:

Addition of existing component <NestedParties> to component <MDStatisticParameters> in MarketDataStatisticReport(35=DP) to publish MICs for execution venues.

Fields:

Addition of existing field CustOrderCapacity(582) to MarketDataStatisticReport(35=DP) to distinguish between the client types (retail vs professional).

Addition of existing field AnnualTradingBusinessDays(2584) to component <MDStatisticParameters> to provide the number of business days used in the calculation of the statistic value.

Valid values:

* New valid value for field InstrAttribType(871) to describe if an instrument is available for trading at a venue.
* New valid value for PartySubIDType(803) to support LEI for a trading firm.
* New valid value for MDStatisticScope(2457) to support trade volume as a basis for statistics
* New valid values for MDStatisticSubScope(2458) to support new sub-scope values (Executed, Aggressive, and Directed)
* New valid values for MDStatisticRatioType(2472) to support new types of ratios (Trade volume to total trade volume, Orders to total number of orders)
* New valid value for SecurityType(167) to support depository receipts.

# Business Requirements

The table below describes the regulatory requirements driving the extensions along with the proposed solution:

**Table 1: Summary of proposed solution**

| **#** | **Subject** | **Reference** | **Regulatory Text**  **(from source RTS)** | **Proposed Solution** |
| --- | --- | --- | --- | --- |
| 1 | Best Exec Reporting – Retail vs Professional clients | RTS 28, Article 3 (1) | *Article 3 (1):*  *“Information regarding retail clients shall be published in the format set out in Table 1 of Annex II and information regarding professional clients shall be published in the format set out in Table 2 of Annex II”* | Client order capacity is currently supported over FIX through an existing field CustOrderCapacity(582).  In order to distinguish between the client types per report, it is proposed to add **CustOrderCapacity(582**) in MarketDataStatisticReport(35=DP) message. |
| 2 | Best Exec Reporting – Trade Volume | RTS 28, Article 3 (1) (c) | *Article 3 (1)(c):*  *“volume of client orders executed on that execution venue expressed as a percentage of total executed volume”* | MDStatisticType(2456):  5=Ratio  MDStatisticScope (2457):  **36=Trade volume**  MDStatisticRatioType(2472):  **11=Trade volume to total trade volume** |
| 3 | Best Exec Reporting – Executed orders | RTS 28, Article 3 (1) (d) | *Article 3 (1)(d)*  *“number of client orders executed on that execution venue expressed as a percentage of total executed orders”* | MDStatisticType(2456):  5=Ratio  MDStatisticScope (2457):  5=Orders  MDStatisticSubScope (2458):  **12 = Executed**  **[Also identified in RTS 27 GA]**  MDStatisticRatioType(2472):  **12=Orders to total number of orders** |
| 4 | Best Exec Reporting –Aggressive orders | RTS 28, Article 3 (1) (e) | *Article 3(1)(e)*  *“percentage of the executed orders referred to in point (d) that were passive and aggressive orders”* | MDStatisticType(2456):  5=Ratio  MDStatisticScope (2457):  5=Orders  MDStatisticSubScope (2458):  5=Passive  **32 = Aggressive**  MDStatisticRatioType(2472):  **12=Orders to total number of orders** |
| 5 | Best Exec Reporting – Directed orders | RTS 28, Article 3 (1)(f) | *Article 3(1)(f)*  *“percentage of orders referred to in point (d) that were directed orders”* | MDStatisticType(2456):  5=Ratio  MDStatisticScope (2457):  5=Orders  MDStatisticSubScope (2458):  **33 = Directed**  MDStatisticRatioType(2472):  **12=Orders to total number of orders** |
| 6 | Best Exec Reporting – Trade per business day | RTS 28,  Article 3 (1)(g) | *Article 3(1)(g)*  *“confirmation of whether it has executed an average of less than one trade per business day in the previous year in that class of financial instruments”* | MDStatisticType(2456):  1=Count  MDStatisticScope (2457):  8=Trades  In order to specify the number of business days in a year, it is proposed to add  **AnnualTradingBusinessDays(2584)** within the component  **<MDStatisticParameters>** |
| 7 | Best Exec Reporting – Execution venues | RTS 28,  Article 3 (1) | *Article 3(1)*  *“Investment firms shall publish the top five execution venues in terms of trading volumes for all executed client orders per class of financial instruments referred to in Annex I”* | It is being proposed to add existing component **<NestedParties>** within the component **<MDStatisticParameters>** in order to specify the top 5 execution venues as a filter criteria for the reported statistical value. |
| 8 | Best Exec Reporting – Generic | RTS 28 | *Ability to define if the instrument is available for trading at a venue.* | InstrAttribType(871):  **39=Admitted to trading on a trading venue**  InstrAttribValue(872):  Yes/No |
| 9 | Best Exec Reporting – Class of financial instruments | RTS 28, Annex 1 | *(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 EN 3 EN*  *(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* | Equities:  ProductComplex(1227):  Equities – Shares and Depository receipts  *(optional*)SecurityType(167):  CS=Common Stock  **DR=Depository Receipts**  SecurityGroup(1151):  Tick size liquidity bands 5 and 6  Tick size liquidity bands 3 and 4  Tick size liquidity bands 1 and 2  Debt Instruments:  ProductComplex(1227):  Debt  SecurityGroup(1151):  Bonds  Money market instruments  Interest rate derivatives:  ProductComplex(1227):  Interest rate derivatives  SecurityGroup(1151):  Futures and options admitted to trading on a trading venue  Swaps, forwards, and other interest rate derivatives  Credit derivatives:  ProductComplex(1227):  Credit derivatives  SecurityGroup(1151):  Futures and options admitted to trading on a trading venue  Other credit derivatives  Currency derivatives:  ProductComplex(1227):  Currency derivatives  SecurityGroup(1151):  Futures and options admitted to trading on a trading venue  Swaps, forwards, and other currency derivatives  Structured finance instruments:  ProductComplex(1227):  Structured finance instrument  Equity Derivatives:  ProductComplex(1227):  Equity derivatives  SecurityGroup(1151):  Futures and options admitted to trading on a trading venue  Swaps, forwards, and other currency derivatives  Securitized Derivatives:  ProductComplex(1227):  Securitized derivatives  SecurityGroup(1151):  Warrants and certificates derivatives  Other securitized derivatives  Commodities Derivatives:  ProductComplex(1227):  Commodities derivatives and emission allowances derivatives  SecurityGroup(1151):  Futures and options admitted to trading on a trading venue  Swaps, forwards, and other currency derivatives  Contracts for Difference:  ProductComplex(1227):  Contract for Differences  *(optional*)SecurityType(167):  CFD=Contract for Differences  Exchange traded products:  ProductComplex(1227):  Exchange traded products (exchange traded funds, exchange traded commodities)  Emission Allowances:  ProductComplex(1227):  Emission Allowances  Other:  ProductComplex(1227):  Other instruments |

# Issues and Discussion Points.

| **#** | **Subject** | **Reference** | **Change Request** | **Issue / Resolution** |
| --- | --- | --- | --- | --- |
| 1 | Client type – Retail vs professional | RTS 28 (9) | Ability to distinguish different client types i.e. retail vs professional required in RTS 28 (9) which says “*information on the top five execution venues be provided separately for retail clients and for professional clients respectively, permitting a qualitative assessment to be made of the order flow to such venues*”  This can be covered by adding an existing field CustOrderCapacity(582) at the root level of the MarketDataStatisticReport(35=DP) message. The existing enumeration “5=Retail customer” will specify retail client type but an enumeration specifying professional client is also needed.    Options include to re-use an existing enumeration “1=Member trading for their own account” or issue a new value for professional customer. | Open.  Enumeration for professional client still needs to be decided. |
| 2 | SFT | RTS 28 (10) | Ability to identify SFTs (Securities financing transactions) required by RTS 28 to be published as a separate report “*appropriate that investment firms summarize and make public the top five execution venues in terms of trading* *volumes where they executed SFTs in a separate report so that that a qualitative assessment can be made of the order flow to such venues.”*  One option is to include TrdType(828)= 47 (Financing transaction) in the MarketDataStatisticReport(35=DP) message. | Open. |
| 3 | Classes of financial instruments | RTS 28, Annex I | Ability to identify class of financial instruments required by RTS 28, Annex 1.  It is suggested to use both SecurityType(167) and risk taxonomy tags – AssetClass(1938) and AssetSubClass(1939) to specify the class of the instrument. | Closed.  It is suggested to use ProductComplex(1227) and SecurityGroup(1151) to define the class of financial instruments.  SecurityType(167) can be used optionally. |

# Proposed Message Flow

Three separate reports identifying retail clients, professional clients, and Securities financing transactions (SFTs) will be published annually per instrument class. The reports will specify statistics regarding different types of order flow executed for top five execution venues.

# FIX Message Tables

## FIX Message – MarketDataStatisticsReport

|  |  |  |
| --- | --- | --- |
| To be completed at the time of the proposal – all information provided will be stored in the repository | | |
| Message Name | | MarketDataStatisticsReport |
| Message Abbreviated Name (for FIXML) | | MDStatsRpt |
| Category | | MarketData |
| Action | |  |
| Message Synopsis | The MarketDataStatisticsReport(35=DP) is used to provide unsolicited statistical information or in response to a specific request. Each report contains a set of statistics for a single entity which could be a market, a market segment, a security list or an instrument. | |
| Message Elaboration | \_\_New \_X Change | |
| To be finalized by FPL Technical Office | | |
| (MsgType(tag 35) Enumeration | |  |
| Repository Component ID | |  |

| *Tag* | *Field Name* | *Req’d* | *FIX Spec Usage Comments* | *Action* | *Gap Analysis Comments* |
| --- | --- | --- | --- | --- | --- |
|  | *<****StandardHeader****>* | Y | MsgType = DP |  |  |
|  | *<****ApplicationSequenceControl****>* | N | The ApplicationSequenceControl is used for application sequencing and recovery. |  |  |
| *(…truncated…)* | |  |  |  |  |
|  | *<****Parties****>* | N | Specifies information related to the reporting entity and its trading platforms. |  |  |
| 582 | CustOrderCapacity | N |  | **ADD** | Describes capacity of the client placing the order. In the context of ESMA RTS 28, differentiates between retail vs professional clients. |
| 75 | TradeDate | N | Indicates date of trading day. Absence of this field indicates current day (expressed in local time at place of trade). |  |  |
| *(…truncated…)* | |  |  |  |  |
|  | *<****Instrument****>* | N | The Instrument component block contains all the fields commonly used to describe a security or instrument. |  |  |
| *(…truncated…)* | |  |  |  |  |
|  | *<****MDStatisticRptGrp****>* | Y | Specifies the resulting statistics information and corresponding statistical parameters. |  |  |
| 60 | TransactTime | N |  |  |  |
| 58 | Text | N |  |  |  |
| 354 | EncodedTextLen | N | Must be set if EncodedText(355) field is specified and must immediately precede it. |  |  |
| 355 | EncodedText | N | Encoded (non-ASCII characters) representation of the Text(58) field in the encoded format specified via the MessageEncoding(347) field. |  |  |
|  | *<****StandardTrailer****>* | Y | The standard FIX message trailer |  |  |

# FIX Component Blocks

## Component - MDStatisticParameters

|  |  |  |
| --- | --- | --- |
| To be completed at the time of the proposal – all information provided will be included in the repository | | |
| Component Name | | MDStatisticParameters |
| Component Abbreviated Name (for FIXML) | | StatsPrm |
| Component Type | | \_\_\_ Block Repeating \_X\_\_ Block |
| Category | | (no change) |
| Action | | \_\_New \_X\_Change |
| Component Synopsis  Required, short, one or two paragraph description of the component. | This component block comprises all parameters that can be used to describe the market data statistics. These can be part of the request as well as the response. All parameters defined on the MarketDataStatisticsRequest(35=DO) message should be echoed in the MarketDataStatisticsReport(35=DP) message as the latter could also be sent unsolicited.  The general category and the entities involved in the statistics are defined by MDStatisticType(2456), MDStatisticScope(2458), and MDStatisticIntervalType(2464) and must always be specified. The remaining fields are optional and restrict the data range in one way or another. The time range for the data can either be specified in terms of an interval for which the statistics are typically calculated on a regular basis or in terms of an absolute date and/or time range. | |
| Component Elaboration  Optional longer description of the component usage. | (no change) | |
| To be finalized by FPL Technical Office | | |
| Repository Component ID | |  |

| *Tag* | *Field Name* | *Req’d* | *FIX Spec Usage Comments* | *Action* | *Gap Analysis Comments* |
| --- | --- | --- | --- | --- | --- |
| 2456 | MDStatisticType | Y |  |  |  |
| 2457 | MDStatisticScope | Y |  |  |  |
| 2458 | MDStatisticSubScope | N |  |  |  |
| 2459 | MDStatisticScopeType | N |  |  |  |
| 2454 | MDStatisticName | N |  |  |  |
| 2455 | MDStatisticDesc | N |  |  | Describes the statistic reported in the component. |
| *(…truncated…)* | |  |  |  |  |
| 2460 | MDStatisticFrequencyPeriod | N | Conditionally required when MDStatisticFrequencyUnit(2461) is specified. Omission represents a one-time dissemination. |  |  |
| 2461 | MDStatisticFrequencyUnit | N | Conditionally required when MDStatisticFrequencyPeriod(2460) is specified. |  |  |
| 2462 | MDStatisticDelayPeriod | N | Conditionally required when MDStatisticDelayUnit(2463) is specified. |  |  |
| 2463 | MDStatisticDelayUnit | N | Conditionally required when MDStatisticDelayPeriod(2462) is specified. |  |  |
| 2464 | MDStatisticIntervalType | Y |  |  |  |
| 2465 | MDStatisticIntervalTypeUnit | N | Conditionally required when MDStatisticIntervalType (2464) = 5(Current time unit), 6(Previous time unit) or 8(Maximum range up to previous time unit). |  |  |
| 2466 | MDStatisticIntervalPeriod | N | Conditionally required if/when MDStatisticIntervalUnit(2467) is specified.  Conditionally required when MDStatisticIntervalType(2464) = 1 (Sliding window) or 2 (Sliding window peak). |  |  |
| 2467 | MDStatisticIntervalUnit | N | Conditionally required when MDStatisticIntervalPeriod(2466) is specified. |  |  |
| 2468 | MDStatisticStartDate | N | Can be used to define a date range for a sliding window peak other than the current day. Omission represents a date range starting with the first available day. |  | Start date of the reporting period. |
| 2469 | MDStatisticEndDate | N | Can be used to define a date range for a sliding window peak other than the current day. Omission represents a date range including the current day. |  | End date of the reporting period. |
| 2470 | MDStatisticStartTime | N | Can be used to define a time range for a sliding window peak other than the complete day. Omission represents a time range starting at midnight. |  | Start time is the first timestamp inside of the range. |
| 2471 | MDStatisticEndTime | N | Can be used to define a time range for a sliding window peak other than the complete day. Omission represents a time range ending with the time of dissemination of the statistical data. |  | End time is the first timestamp outside of the range. |
| 2472 | MDStatisticRatioType | N | Conditionally required when MDStatisticType(2456) = 5(Ratio). |  |  |
|  | ***<NestedParties>*** | N |  | **ADD** | May be used to specify nested parties acting as a filter criteria for reported statistical value. |
| 2584 | AnnualTradingBusinessDays | N |  | **ADD** | Number of trading business days in a year. |
| *(…truncated…)* | |  |  |  |  |
| 336 | TradingSessionID | N |  |  |  |
| 625 | TradingSessionSubID | N |  |  |  |

# Appendix A - Data Dictionary

| **Tag** | **FieldName** | **Action** | **Datatype** | **Description** | **FIXML Abbreviation** | **Add to / Deprecate from Message type or Component block** |
| --- | --- | --- | --- | --- | --- | --- |
| 582 | CustOrderCapacity | ADD | int | Capacity of customer placing the order. | @CustCpcty | Add to:  MarketDataStatisticReport (35=DP) |
| 2584 | AnnualTradingBusinessDays | ADD | int | Number of trading business days in a year | @AnnlTrdgBizDays | Add to:  MDStatisticParameters |
| 871 | InstrAttribType | Change | int | Code to represent the type of instrument attribute.  Valid values:  1 = Flat  2 = Zero Coupon  ….  39 = Admitted to trading on a trading venue |  |  |
| 167 | SecurityType | Change | int | Indicates type of security.  Valid values:  Equity  CS = Common Stock  PS = Preferred Stock  …  DR = Depository Receipts |  |  |
| 2457 | MDStatisticScope | Change | int | Entities used as basis for the statistics.  Valid values:  1 = Bid prices  2 = Offer prices  …  36 = Trade volume  [Elaboration: Quantity traded] |  |  |
| 2458 | MDStatisticSubScope | Change | int | Sub-scope of the statistics to further reduce the entities used as basis for the statistics.  Valid Values:  1 = Visible  2 = Hidden  …  32=Aggressive  [Elaboration: Order or Quote entered into the order book that took liquidity]  33=Directed  [Elaboration: An order where execution venue is specified by the client] |  |  |
| 2472 | MDStatisticRatioType | Change | int | Ratios between various entities.  Valid values:  1 = Buyers to sellers  2 = Upticks to downticks  …  11 = Trade volume to total traded volume  [Elaboration: Total value of failed trades over total traded value]  12=Orders to total number of orders  [Elaboration: Orders pertaining to a type over total number of orders] |  |  |

# Appendix B - Glossary Entries

|  |  |  |
| --- | --- | --- |
| **Term** | **Definition** | **Field where used** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Appendix C - Abbreviations

|  |  |  |
| --- | --- | --- |
| **Term** | **Proposed Abbreviation** | **Proposed Messages, Components, Fields where used** |
|  |  |  |
|  |  |  |
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# Appendix D - Usage Examples

The following tables show excerpts from a reference mapping between ESMA and FIX for the reporting requirements defined in RTS 28. Further details are available in the spreadsheet (Excel file) referenced in Item 4 in Chapter 1 “Introduction”. The separate spreadsheet file will be updated with the actual tag numbers and valid values once they have been assigned as part of the standard FIX implementation process for Extension Packs.

**D.1 Overview of RTS 28 Annex II and sample table**

| **FIX Tags** |  | **1** | **2** | **3** |
| --- | --- | --- | --- | --- |
| **Attibutes - >** | **Req'D** | **Average trades per business day in the previous year (1g)** | **Propotion of volume traded as a percentage of total (1c)** | **Propotion of orders executed as percentage of total (1d)** |
| **SecurityType(167)** | N |  |  |  |
| **ProductComplex(1227)** | Y |  |  |  |
| **SecurityGroup(1151)** | N |  |  |  |
| **InstrAttribType(871)** | Y | 39=Admitted to trading on a trading venue | 39=Admitted to trading on a trading venue | 39=Admitted to trading on a trading venue |
| **InstrAttribValue(872)** | Y | Y/N | Y/N | Y/N |
| **NoParties(453)** | Y | 1 | 1 | 1 |
| **> PartyID(448)** | Y | <LEI or MIC> | <LEI or MIC> | <LEI or MIC> |
| **> PartyIDSource(447)** | Y | G=MIC N=LEI | G=MIC N=LEI | G=MIC N=LEI |
| **> PartyRole(452)** | Y | 116=Reporting Entity | 116=Reporting Entity | 116=Reporting Entity |
| **> NoPartySubIDs(802)** | **Y** | 1 | 1 | 1 |
| **> > PartySubID(523)** | **Y** | <LEI> | <LEI> | <LEI> |
| **> > PartySubIDType(803)** | **Y** | 84=Legal Entity Identifier | 84=Legal Entity Identifier | 84=Legal Entity Identifier |
| **CustOrderCapacity(582)** | Y | 1=Member for their own trading account 5=Retail customer | 1=Member for their own trading account 5=Retail customer | 1=Member for their own trading account 5=Retail customer |
| **NoMDStatistics(2474)** | Y | 1 | 5 | 5 |
| **> MDStatisticType(2456)** | Y | 1=Count | 5=Ratio | 5=Ratio |
| **> MDStatisticScope(2457)** | Y | 8=Trades | 36=Trade volume | 5=Orders |
| **> MDStatisticSubScope(2458)** | N | N/A | N/A | 12=Executed |
| **> MDStatisticDesc(2455)** | Y | "Number of trades per business day" | “Propotion of volume traded on a venue as a percentage of total volume” | "Propotion of orders executed on a venue as a percentage of total" |
| **> MDStatisticIntervalType(2464)** | Y | 3=Fixed date range | 3=Fixed date range | 3=Fixed date range |
| **> MDStatisticStartDate(2468)** | Y | <1.1.YYYY> | <1.1.YYYY> | <1.1.YYYY> |
| **> MDStatisticEndDate(2469)** | Y | <31.12.YYYY> | <31.12.YYYY> | <31.12.YYYY> |
| **> MDStatisticFrequencyPeriod(2460)** | Y | 1 | 1 | 1 |
| **> MDStatisticFrequencyUnit(2461)** | Y | 15=Years | 15=Years | 15=Years |
| **> MDStatisticRatioType(2472)** | Y | N/A | 11>=Trade volume to total trade volume | 12=Orders to total number of orders |
| **>NoNestedPartyIDs(539)** |  | N/A | 1 | 1 |
| **>>NestedPartyID(524)** | N | N/A | <Venue MIC> | <Venue MIC> |
| **>>NestedPartyIDSource(525)** | N | N/A | G=MIC | G=MIC |
| **>>NestedPartyRole(538)** | N | N/A | 73=Execution Venue | 73=Execution Venue |
| **> AnnualTradingBusinessDays(2584)** | N | 250 | N/A | N/A |
| **> MDStatisticID(2475)** | N | T1g | T1c | T1d |
| **> MDStatisticValue(2478)** | Y | <Value> | <Value> | <Value> |
| **> MDStatisticValueType(2479)** | Y | 1=Absolute | 2=Percentage | 2=Percentage |
| **Comments** |  | Up to 1 statistic | Up to 5 statistic | Up to 5 statistic |
|  |  |  |  |  |

**D.2 Continuation of Annex II**

| **FIX Tags** |  | **4** | **5** | **6** |
| --- | --- | --- | --- | --- |
| **Attibutes - >** | **Req'D** | **Percentage of passive orders (1ei)** | **Percentage of aggressive orders (1eii)** | **Percentage of directed orders (1f)** |
| **SecurityType(167)** | N |  |  |  |
| **ProductComplex(1227)** | Y |  |  |  |
| **SecurityGroup(1151)** | N |  |  |  |
| **InstrAttribType(871)** | Y | 39=Admitted to trading on a trading venue | 39=Admitted to trading on a trading venue | 39=Admitted to trading on a trading venue |
| **InstrAttribValue(872)** | Y | Y/N | Y/N | Y/N |
| **NoParties(453)** | Y | 1 | 1 | 1 |
| **> PartyID(448)** | Y | <LEI or MIC> | <LEI or MIC> | <LEI or MIC> |
| **> PartyIDSource(447)** | Y | G=MIC N=LEI | G=MIC N=LEI | G=MIC N=LEI |
| **> PartyRole(452)** | Y | 116=Reporting Entity | 116=Reporting Entity | 116=Reporting Entity |
| **> NoPartySubIDs(802)** | **Y** | 1 | 1 | 1 |
| **> > PartySubID(523)** | **Y** | <LEI> | <LEI> | <LEI> |
| **> > PartySubIDType(803)** | **Y** | 84=Legal Entity Identifier | 84=Legal Entity Identifier | 84=Legal Entity Identifier |
| **CustOrderCapacity(582)** | Y | 1=Member for their own trading account 5=Retail customer | 1=Member for their own trading account 5=Retail customer | 1=Member for their own trading account 5=Retail customer |
| **NoMDStatistics(2474)** | Y | 5 | 5 | 5 |
| **> MDStatisticType(2456)** | Y | 5=Ratio | 5=Ratio | 5=Ratio |
| **> MDStatisticScope(2457)** | Y | 5=Orders | 5=Orders | 5=Orders |
| **> MDStatisticSubScope(2458)** | N | 5=Passive | 32=Aggressive | 33=Directed |
| **> MDStatisticDesc(2455)** | Y | "Propotion of passive orders executed on a venue as a percentage of total" | "Propotion of aggressive orders executed on a venue as a percentage of total" | "Propotion of directed orders executed on a venue as a percentage of total" |
| **> MDStatisticIntervalType(2464)** | Y | 3=Fixed date range | 3=Fixed date range | 3=Fixed date range |
| **> MDStatisticStartDate(2468)** | Y | <1.1.YYYY> | <1.1.YYYY> | <1.1.YYYY> |
| **> MDStatisticEndDate(2469)** | Y | <31.12.YYYY> | <31.12.YYYY> | <31.12.YYYY> |
| **> MDStatisticFrequencyPeriod(2460)** | Y | 1 | 1 | 1 |
| **> MDStatisticFrequencyUnit(2461)** | Y | 15=Years | 15=Years | 15=Years |
| **> MDStatisticRatioType(2472)** | Y | 12=Orders to total number of orders | 12=Orders to total number of orders | 12=Orders to total number of orders |
| **>NoNestedPartyIDs(539)** |  | 1 | 1 | 1 |
| **>>NestedPartyID(524)** | N | <Venue MIC> | <Venue MIC> | <Venue MIC> |
| **>>NestedPartyIDSource(525)** | N | G=MIC | G=MIC | G=MIC |
| **>>NestedPartyRole(538)** | N | 73=Execution Venue | 73=Execution Venue | 73=Execution Venue |
| **> AnnualTradingBusinessDays(2584)** | N | N/A | N/A | N/A |
| **> MDStatisticID(2475)** | N | T1ei | T1eii | T1f |
| **> MDStatisticValue(2478)** | Y | <Value> | <Value> | <Value> |
| **> MDStatisticValueType(2479)** | Y | 2=Percentage | 2=Percentage | 2=Percentage |
| **Comments** |  | Up to 5 statistic | Up to 5 statistic | Up to 5 statistic |

**D.3 Annex 1 - Class of Financial Instrument**

| **Financial Instrument Class** | **ProductComplex(1227)** | **SecurityGroup(1151)** | **SecurityType(167)** |
| --- | --- | --- | --- |
|  |  |  |  |
| **Equities - Shares and Depository Receipts** | **Equities - Shares and Depository receipts** |  | **CS=Common Stock <tbd>=Depository Receipts** |
| Tick size liquidity bands 5 and 6 (from 2000 trades per day) |  | Tick size liquidity bands 5 and 6 (from 2000 trades per day) |  |
| Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day) |  | Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day) |  |
| Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day) |  | Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day) |  |
|  |  |  |  |
| **Debt Instruments** | **Debt** |  |  |
| Bonds |  | Bonds |  |
| Money markets instruments |  | Money market instruments |  |
|  |  |  |  |
| **Interest rate derivatives** | **Interest Rate Derivatives** |  |  |
| Futures and options admitted to trading on a trading venue |  | Futures and options admitted to trading on a trading venue |  |
| Swaps, forwards, and other interest rate derivatives |  | Swaps, forwards, and other interest rate derivatives |  |
|  |  |  |  |
| **Credit Derivatives** | **Credit Derivatives** |  |  |
| Futures and options admitted to trading on a trading venue |  | Futures and options admitted to trading on a trading venue |  |
| Other credit derivatives |  | Other credit derivatives |  |
|  |  |  |  |
| **Currency Derivatives** | **Currency Derivatives** |  |  |
| Futures and options admitted to trading on a trading venue |  | Futures and options admitted to trading on a trading venue |  |
| Swaps, forwards, and other currency derivatives |  | Swaps, forwards, and other currency derivatives |  |
|  |  |  |  |
| **Structured finance instruments** | **Structured finance instruments** |  |  |
|  |  |  |  |
| **Equity Derivatives** | **Equity Derivatives** |  |  |
| Options and Futures admitted to trading on a trading venue |  | Futures and options admitted to trading on a trading venue |  |
| Swaps and other equity derivatives |  | Swaps and other equity derivatives |  |
|  |  |  |  |
| **Securitized Derivatives** | **Securitized Derivatives** |  |  |
| Warrants and Certificates Derivatives |  | Warrants and Certificates Derivatives | |
| Other securitized derivatives |  | Other securitized derivatives |  |
|  |  |  |  |
| **Commodities Derivatives and emission allowances Derivatives** | **Commodities Derivatives and emission allowances Derivatives** |  |  |
| Options and Futures admitted to trading on a trading venue |  | Futures and options admitted to trading on a trading venue |  |
| Other commodities derivatives and emission allowances derivatives |  | Other commodities derivatives and emission allowances derivatives |  |
|  |  |  |  |
|  |  |  |  |
| **Contracts for difference** | **Contracts for difference** |  | **CFD=Contract for Difference** |
|  |  |  |  |
| **Exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities)** | **Exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities)** |  |  |
|  |  |  |  |
| **Emission allowances** | **Emission allowances** |  |  |
|  |  |  |  |
| **Other instruments** | **Other instruments** |  |  |



# Appendix E - Disposition of Public Comments

The following sections captures each individual public comment posted to the FIX website (<http://forum.fixtrading.org/t/public-comment-period-mifid-rts-28-gap-analysis/191> ) along with disposition and resolution to the comments.

## PC-1 - Issue with Class of Financial Instrument mappings

MIFID\_II\_RTS28\_FIXMappings.xlsx - 1st tab. Our agreement was to use just the ProductComplex(1227) and SecurityGroup(1151) fields with ESMA's exact phrase for each sub-group. But there are blanks under SecurityGroup(1151) in the Equities group. And there are values like "OTC" and "Exchange traded" in the IR SecurityGroup(1151) column, etc. Please revise and quote the ESMA phrase exactly in every case without resorting to any particular value in SecurityType(167) to identify the sub-group.

**GTC disposition / Resolution, Sept. 21, 2017 call:**

An update to table D.3 in Appendix D and accompanying spreadsheets is to be made to reflect the changes to the mapping based on the comment received.