ANNUAL TOP FIVE EXECUTION VENUE REPORT 2022 TRADING YEAR 2021

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INTRODUCTION

In accordance with Markets and Financial Instruments Directive and Regulation (MIFID II/MIFIR), BNPP PARIBAS Dealing Services ("Dealing Services"), as investment firm, is required to publish an annual report regarding the quality of execution top 5 venues in term of trading volumes for all executed clients orders per class of financial instruments.

This report is presenting the top 5 venue reports per class of instrument for the trading year 2021 as required and described in the Regulatory Technical Standard RTS 28 of MIFIR (Delegated regulation C(2016) 3337 final) and in the COMMISSION DELEGATED REGULATION (EU) 2017/576.

CONTENT OF THE REPORT

OVERVIEW OF THE QUANTITATIVE REPORTS

RTS 28 requires to report per class of instruments the top 5 venues and display the following data:

- venue name and identifier;
- volume of client orders executed on that execution venue expressed as a percentage of total executed volume;
- number of client orders executed on that execution venue expressed as a percentage of total executed orders;
- percentage of the executed orders that were passive and aggressive orders;
- percentage of orders that were directed orders;
- 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.

Dealing Services provides both the services of execution and reception-transmission of orders depending on the type of instrument and /or the type of order and/or the parameters of the order. One report must be produced per instrument and per type of investments services provided by Dealing Services.

The following table shows all classes of instruments handled by Dealing Services in 2021 and the type of services provided by Dealing Services (execution and/or transmission):

ESMA	Class of finantial instruments	Service of execution	Service of transmission
Equities – Shares & Depositary	Tick Size liquidity band 1 to 2	YES	YES
Receipts	Tick Size liquidity band 3 to 4	YES	YES
	Tick Size liquidity band 5 to 6	YES	YES
Debt instruments	Bonds	YES	
Debt instruments	Money market	YES	
Interest rates derivatives	Futures and options admitted to trading on a trading venue	YES	YES
interest rates derivatives	Swaps, forwards, and other interest rates derivatives	YES	
	Futures and options admitted to trading on a trading venue		
Credit derivatives	Other credit derivatives	YES	
Common doubookioon	Futures and options admitted to trading on a trading venue	YES	YES
Currency derivatives	Swaps, forwards, and other currency derivatives	YES	
Structured finance instruments			
Equity derivatives	Options and Futures admitted to trading on a trading venue	YES	YES
Equity derivatives	Swaps and other equity derivatives	YES	
Securitized derivatives	Warrants and Certificate Derivatives		YES
Securitized derivatives	Other securitized derivatives		
Commodity derivatives and	Options and Futures admitted to trading on a trading venue		YES
emission allowances Derivatives	Other commodities derivatives and emission allowances derivatives		
Contract for Difference		YES	YES
	Exchange traded funds, exchange traded notes and	YES	YES
Exchange traded products	exchange traded commodities	153	1E3
Emission allowances			
Other instruments			
SFT	repo/reverse repo	YES	

 $N.B\ 1: If\ the\ line\ is\ grey,\ it\ means\ that\ Dealing\ Services\ has\ not\ traded\ these\ instruments\ in\ 2021.$



Equity instruments must classified according to their liquidity as determined under the tick size regime as set out in Directive 2014/65/EU of the European Parliament and the Council. There are three liquidity categories known as "bands". As Dealing Services has traded shares of the three bands either executing or transmitting, six separate Top 5 Venue tables are published in this document.

SCOPE OF THE REPORT

The report includes

- all transactions executed or transmitted by Dealing Services in 2021
- all transactions delegated to BNP PARIBAS AM UK, BNP PARIBAS AM ASIA and BNPP AM US and that have been executed or transmitted by the local dealing desk of these entities on behalf of Dealing Services orders in 2021

GENERAL DISCLOSURE ABOUT QUALITATIVE ASSESSMENT

The RTS 28 requires, for each class of instruments, a summary of the analysis and conclusions Dealing Services draw from its detailed monitoring of the quality of execution obtained on the execution venues where it has executed all client orders in 2021.

Some of the requirements apply to all instruments and are commented below. Some will be detailed instruments by instruments.

(a) an explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution;

A major part of Dealing Services trading activity of Dealing Services is directly performed under the European Union regulations; as such, traders have to comply with MiFID requirements, especially those related to best selection and execution. In all local trading desks of BNP PARISBAS Asset Management entities to which Dealing Services can delegate the execution of orders (BNPP AM UK, BNPP AM Asia and BNPP AM US), MiFID requirements will be respected throughout these entities as long as they are not in contradiction with local regulations.

As principles defined by its execution policies to meet MiFID II best execution requirements, executing clients' orders using either trading venues or counterparties and brokers authorised by its clients, BNP Paribas Dealing Services generally takes into account several parameters which can be combined or not and may vary according to the instrument types, as described below:

- ⇒ Price of the instrument
- ⇒ Potential market impact
- ⇒ Market liquidity & conditions
- ⇒ Order size & order type
- ⇒ Likelihood of execution
- ⇒ Speed of execution
- ⇒ Likelihood of settlement
- ⇒ Direct and/or indirect transaction costs
- ⇒ Specific client instructions
- Counterparties trading capacities combined with competitive pricing & qualitative coverage as per their overall performances defined by our detailed ranking (cf. point (d) below)
- ⇒ Legal documentation

Transactions are executed with the pre-selected intermediaries that are the best match for these criteria, which are ranked differently depending on the financial instrument and the order type.

(b) a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

Dealing Service is fully owned subsidiary of BNP Paribas Asset Management. Dealing Services may use BNP Paribas group's affiliated brokers/counterparties. According to internal compliance procedures, the in-house brokers will be subject to the same broker selection and evaluation process and rules as any other broker/counterparties, and receives no preferential consideration.

Dealing Services does not have any links or conflict of interest with trading venues.



(c) a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received:

Dealing Services does not have any specific arrangements with any execution venues regarding payments made or received discounts, rebates or non-monetary benefits. Dealing Services may receive minor material non-monetary benefits from execution venues and these are only accepted after Dealing Services have made consideration in line with its regulatory obligations and with its own internal procedures.

(d) an explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy, if such a change occurred;

Trading Platforms:

Platforms to be used are selected based on the following criteria:

- ⇒ Traded products
- ⇒ Operational efficiency

Hereafter is a non-exhaustive list of the main platforms currently used within Dealing Services trading desks:

- ⇒ Liquidnet (Equity and Fixed Income)
- ⇒ ITG POSIT (Equity)
- ⇒ TSOX (Fixed Income)
- ⇒ MarketAccess (Fixed Income)
- ⇒ FXAII (Forex)
- ⇒ CBOE / LIS (Equity, added in 2018 to have a better access to the available buy side liquidity)

Counterparties and brokers:

Dealing Services does not determine the list of Counterparties and Brokers with which it is authorised to work; the clients give the list.

Twice a year, Dealing Services evaluates the quality of the execution services provided by the brokers and the counterparties with whom it has worked. Each intermediary is evaluated and noted according to a set of quantitative and qualitative criteria (electronic offer, market coverage and instruments, proposed prices, liquidity provided, post trade follow-up...). This evaluation is communicated to clients.

The results of this execution vote are used, among other criteria, on a daily basis as part of the best selection of the brokers/counterparties and the best execution processes.

<u>Brexit</u>

To answer the Brexit challenges, Dealing Services has switched gradually in 2020 trading with UK market intermediaries to their EUR based entities. This is why several entities of a same corporate group can appear in the top 5 venues reports, displacing other brokers/counterparties that are used on a regular basis on the 6^{th} or 7^{th} rank.

In that case, so as to provide additional information on the other market intermediaries chosen for execution that are deemed relevant to Dealing Services' order execution practices, the report will list the top 6 or top 7 venues.

For the trading platforms, which have also been migrated to the EUR based entities, executions done on both UK and EUR platforms have been gathered to show the actual part of execution done on platforms.

- (e) an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;
 - ⇒ All Dealing Services' clients are professional clients. All clients' orders are dealt with the same diligence.
- (f) an indication that other criteria have been favoured, or not, over the price and the immediate costs of executing orders from retail clients, and an explanation of how these other criteria have been decisive in achieving the best possible result in terms of total cost for the customer.
 - ⇒ Dealing Service has no retail client.
- (g) an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under Delegated Regulation (EU) 2017/575.
 - Will be detailed instrument by instruments.



(h)	where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of
	Directive 2014/65/FU.

- $\, \Rightarrow \, \,$ Dealing Services does not use output of a consolidated tape provider.
- (i) where applicable, disclose the identity of the main venues investment firm commonly selects via DEA arrangements and the existence of any close links and specific arrangements with such execution venues.
 - ⇒ Dealing Services does not select venue via DEA arrangements.



REPORTING BY INSTRUMENTS

EQUITIES – SHARES & DEPOSITARY RECEIPTS

The traders who determine which execution factors are most important and, therefore the strategy to employ in order to obtain the best possible result assess each order.

With the aim of getting the best execution price, Dealing Services traders takes into account, the execution cost (brokerage costs) agreed between the clients and their brokers.

After the nature of the order, the price (including implicit cost) is usually the execution factor the traders consider to be most important when dealing in equities, although speed is also an important factor when they want to take advantage of a particular price observed in the market, or to avoid an adverse market impact if the order is large in size or the market is volatile.

The execution factors are generally driven by the price and order size, and then the likelihood of execution (market liquidity and conditions), speed of execution and the settlement arrangements.

The vast majority of shares orders handled by Dealing Services are transmitted to brokers and will appear in the transmission reports of the different liquidity bands.

The shares orders that are executed directly by the trading desks corresponds to less liquid shares or larger sizes that may be executed on conditionnel venues that matches interests on an anonymous basis or are bilaterally executed with a broker(s) that has published Indication Of Interest, who has the reverse interests and who offers the best execution conditions.

It is up to the negotiator to use the different modes of execution offered by brokers and counterparties (blocks, trading algorithms, program trading...)

For the three liquidity bands and for execution and transmission services, Dealing Services uses TCA (Transaction Cost Analysis) analysis to monitor its execution performance and control execution quality. For each transaction, execution price is compared to a benchmark price value provided by an independent TCA data provider. Reference benchmarks have been selected by order type to obtain the most effective, fair and coherent benchmarking results. Deviations from benchmarks above pre-determined threshold are all justified by traders.

Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.

1. Execution reports

Liquidity band 5 to 6 corresponds to an average daily number of transactions from 2000 trades per day (as defined under the tick size regime as set out in Directive 2014/65/EU).

Tick Size	liquidity	band	5 and	6

rick Size liquidity balla 5 and 6						
Class of Instrument	1 - Equities - S	hares & Dep	ositary Rece	ipts		
Notification if <1 average trade per business day in the previous Year	N					
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of	
op 5 Execution venues ranked in terms of trading volumes (descending order)		Orders	Passive	Agressive	Directed	
	Volume Traded		Orders	Orders	Orders	
LIQUIDNET SYSTEMS (LIQU)	44,61%	43,27%	36,27%	6,03%	0,00%	
POSIT MTF (ITGL)	28,63%	31,60%	31,94%	28,29%	0,00%	
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	7,74%	4,49%	0,00%	0,00%	0,00%	
CBOE Europ Equities (BCXE)	4,10%	3,14%	2,04%	57,14%	0,00%	
CREDIT SUISSE BANK (EUROPE), S.A. (959800TMGPWX7NYM4R72)	3,58%	2,42%	54,14%	35,76%	0,00%	

The MTF (Multilateral Trading Platform) "Liquidnet System" is ranked first in the report. This trading platform being a platform that matches interests on an anonymous basis to minimize the possible impact of orders in the market, the only counterparty that Dealing Services is facing is Liquidnet EU limited (entity opened for Brexit purpose).

For this category, compare to last year, Liquidnet and Posit have been used to trade larger blocks that might have an impact in the market. We have access with these two platforms to sell side and buy side liquidity pools. In this category, we have exposed a large range of our flows Large caps and Small & Mid-caps.

This year, Liquinet is still the platform that we use for a large part of our orders included in this category. POSIT MTF ranks second place as for Liquidnet a majority of passive orders. It has clearly progressed in particularly for aggressive orders. BOFA is in third place.



Top 5 counterparties on Liquidnet

Tick Size liquidity band 5 and 6

Class of Instrument	1 - Equities - S	1 - Equities - Shares & Depositary		
Notification if <1 average trade per business day in the previous Year	N			
	Proportion of			
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec		
	Traded			
LIQUIDNET SYSTEMS (LIQU)	44,61%	43,27%		
LIQUIDNET EU LIMITED (2138005N5TO2UJR67I36)	100,00%	43,27%		

We only deal with the European entity Liquidnet. Its volume continued to increase compared to last year.

Top 5 counterparties on Posit

Notification if <1 average trade per business day in the previous Year	N	
	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec
	Traded	
POSIT MTF (ITGL)	28,63%	31,60%
VIRTU ITG EUROPE LIMITED (213800EEC95PRUCEUP63)	56,11%	16,61%
SANFORD C. BERNSTEIN IRELAND LTD (549300W30847BJ1LD502)	17,57%	1,08%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	7,82%	3,14%
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	4,36%	3,23%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	4,22%	0,72%

Regarding the POSIT MTF, The VIRTU ITG EUROPE liquidity pool was the most active, the other four brokers are below 35% of the volumes traded.

Top 5 contreparties sur CBOE Europ Equities

Notification if <1 average trade per business day in the previous Year	N	
	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec
	Traded	
CBOE Europ Equities (BCXE)	4,10%	3,14%
CREDIT SUISSE BANK (EUROPE), S.A. (959800TMGPWX7NYM4R72)	35,35%	0,63%
INSTINET GERMANY GMBH (213800A7BEQATAOUAN40)	23,04%	0,90%
EXANE (969500UP76J52A9OXU27)	17,05%	0,81%
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	11,97%	0,18%
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	4,22%	0,18%

The counterparties that are in the TOP 5 of BIDS Trader platform, that gives access to CBOE venue, and which have therefore been the most used are Credit Suisse for the majority of the volume, Instinet, Exane, Société Générale and Morgan Stanley in a lesser extent for this category.



Liquidity band 3 to 4 corresponds to an average daily number of transactions from 80 trades to 1999 trades per day (as defined under the tick size regime as set out in Directive 2014/65/EU).

Tick Size liquidity band 3 and 4

Class of Instrument	1 - Equities - Shares & Depositary Receipts				
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of F Orders	Proportion of Passive	Proportion of Agressive	Proportion of Directed
	Volume Traded		Orders	Orders	Orders
LIQUIDNET SYSTEMS (LIQU)	38,56%	38,27%	64,00%	2,50%	0,00%
POSIT MTF (ITGL)	22,71%	28,28%	33,62%	20,11%	0,00%
CBOE Europ Equities (BCXE)	5,56%	2,36%	0,00%	54,35%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	5,26%	4,71%	21,95%	26,68%	0,00%
GOODBODY STOCKBROKERS (635400IL71G3SXS7OE16)	4,65%	1,91%	52,77%	20,40%	0,00%

The MTF (Multilateral Trading Platform) "Liquidnet System" is ranked 1 in the report. This trading platform being a platform that matches interests on an anonymous basis to minimize the possible impact of orders in the market. The only counterparty that Dealing Services is facing is Liquidnet EU limited (EU based entity opened for Brexit purpose/ European entity created following Brexit).

In 2021, we have diversified our execution venues, using Liquidnet, POSIT and Goodbody stockbrokers for passive strategies for the execution orders with lower liquidity than the previous category CBOE and JP Morgan to a lesser extent have been used to more aggressive trading strategies.

Top 5 counterparties on Liquidnet

Tick Size liquidity band 3 and 4

Class of Instrument	1 - Equities - Shares & Depositary		
Notification if <1 average trade per business day in the previous Year	N		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
LIQUIDNET SYSTEMS (LIQU)	38,56%	38,27%	
LIQUIDNET EU LIMITED (2138005N5TO2UJR67I36)	100,00%	38,27%	

We only deal with the European entity Liquidnet

Top 5 counterparties on Posit

Tick Size liquidity band 3 and 4

Class of Instrument	1 - Equities - Shares & Depositary	
Notification if <1 average trade per business day in the previous Year	N	
	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec
	Traded	
POSIT MTF (ITGL)	22,71%	28,28%
VIRTU ITG EUROPE LIMITED (213800EEC95PRUCEUP63)	67,52%	16,50%
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	7,42%	3,03%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	7,42%	1,80%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	3,44%	0,56%
LIQUIDNET EU LIMITED (2138005N5TO2UJR67I36)	3,32%	0,34%

Regarding POSIT MTF, we have dealt more than 20% of orders in this category. VIRTU is the most active venue with nearly 70% of volumes traded, Barclays, JP Morgan, UBS and Liquidinet for around 22% of the volumes traded on POSIT.



Top 5 counterparties on CBOE Europ Equities

Tick Size liquidity band 3 and 4

Class of Instrument	1 - Equities - Shares & Depositary	
Notification if <1 average trade per business day in the previous Year	N	
	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec
	Traded	
CBOE Europ Equities (BCXE)	5,56%	2,36%
INSTINET GERMANY GMBH (213800A7BEQATAOUAN40)	59,50%	0,56%
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	19,73%	0,34%
EXANE (969500UP76J52A9OXU27)	16,83%	0,90%
CREDIT SUISSE BANK (EUROPE), S.A. (959800TMGPWX7NYM4R72)	3,13%	0,34%
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	0,80%	0,22%

CBOE totals less than 6% of orders for this category with the leading group Instinet, Société Générale and Exane with around 95% of volumes then Credit Suisse and Morgan Stanley for just under 5%.

Liquidity band 1 to 2 corresponds to an average daily number of transactions less than 80 trades per day (as defined under the tick size regime as set out in Directive 2014/65/EU).

Tick Size liquidity band 1 and 2

Class of Instrument	1 - Equities - S	hares & Depo	sitary Rece	ipts		
Notification if <1 average trade per business day in the previous Year	N					
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)		Volume Traded	Orders	Passive	Agressive	Directed
	volume maded	Executed	Orders	Orders	Orders	
LIQUIDNET SYSTEMS (LIQU)	47,99%	44,62%	41,72%	9,18%	0,00%	
CBOE Europ Equities (BCXE)	9,24%	7,69%	4,35%	69,57%	0,00%	
VTB BANK (EUROPE) SE (529900N90QS8ARRHWY83)	8,19%	3,69%	0,00%	0,00%	0,00%	
J.P. Morgan SE (549300ZK53CNGEEI6A29)	6,95%	8,31%	0,00%	13,61%	0,00%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	5,47%	4,31%	0,00%	0,00%	0,00%	

For the last category, Liquidnet is this year the first counterparty with a majority of passive orders as CBOE, the second broker of the list used as part of a passive strategy.

Top 5 counterparties on Liquidnet System:

Tick Size liquidity band 1 and 2

Tick Size inquiarty band 1 and 2		
Class of Instrument	1 - Equities - S	hares & Depositary
Notification if <1 average trade per business day in the previous Year	Υ	
	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec
	Traded	
LIQUIDNET SYSTEMS (LIQU)	47,99%	44,62%
LIQUIDNET EU LIMITED (2138005N5TQ2UJR67I36)	100.00%	44.62%

We only deal with the European entity Liquidnet. The volume continue to increase.



Top 5 counterparties on CBOE Europ Equities

Tick Size liquidity band 1 and 2

Class of Instrument	1 - Equities - Shares & Depositary		
Notification if <1 average trade per business day in the previous Year	Υ		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
CBOE Europ Equities (BCXE)	9,24%	7,69%	
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	28,17%	2,15%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	20,46%	0,92%	
INSTINET GERMANY GMBH (213800A7BEQATAOUAN40)	19,99%	2,15%	
EXANE (969500UP76J52A9OXU27)	14,39%	1,23%	
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	12,51%	0,31%	

CBOE totals less than 10% of orders for this category with the leading group Morgan Stanley, Société Générale and Instinet with around 70 % of volumes, then Exane and Barclays for just under 30%.

2. <u>Transmission reports</u>

Tick Size liquidity band 5 and 6

Tien Size inquirary build 5 und 5					
Class of Instrument	1 - Equities - Shar	res & Deposi	tary Receipts	;	
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	13,79%	9,16%	37,75%	17,40%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	10,14%	11,65%	29,32%	9,36%	0,00%
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	8,63%	8,29%	41,89%	10,11%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	7,45%	7,23%	35,48%	23,42%	0,00%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	7,30%	8,51%	29,28%	22,77%	0,00%

We can observe that the first five counterparties total more than 50% of the volumes traded with a greater proportion of passive orders than aggressive orders, in particular for Barclays.

Tick Size liquidity band 3 and 4

rick Size liquidity band 5 and 4					
Class of Instrument	1 - Equities - Shar	es & Deposit	tary Receipts	:	
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	12,47%	9,77%	38,55%	17,21%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	10,93%	9,72%	29,06%	28,16%	0,00%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	9,94%	8,86%	34,42%	22,76%	0,00%
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	9,29%	6,38%	33,00%	16,91%	0,00%
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	8,00%	7,88%	29,86%	21,47%	0,00%

Same observation, more than 50% of the volumes dealt by the first five venues. There are three counterparties present from last year ranking (JP Morgan, UBS, Morgan Stanley). We can notice the entry of Barclays in the 1st position. The proportion of passive orders is always higher than the aggressive orders.



Tick Size liquidity band 1 and 2

Class of Instrument	1 - Equities - Shares & Depositary Receipts				
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	13,17%	6,65%	25,72%	18,19%	0,00%
CREDIT SUISSE BANK (EUROPE), S.A. (959800TMGPWX7NYM4R72)	8,52%	11,65%	38,65%	40,80%	0,00%
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	7,00%	7,20%	51,95%	9,28%	0,00%
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	6,93%	8,19%	37,10%	13,93%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	6,22%	7,87%	49,35%	27,15%	0,00%

For the less liquid order category, a predominance of Goldman Sachs and Anglo saxon banks with even more passive orders than aggressive orders except for Credit Suisse.

DEBT INSTRUMENTS - BONDS

1. Execution report

Class of Instrument	2 - Debt Instru	ments - Bond	ls		
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
Bloomberg Multilateral Trading Facility (BMTF)	29,66%	25,38%	0,00%	0,00%	0,00%
TRADEWEB (TREU)	12,62%	11,68%	0,00%	0,00%	0,00%
BNP PARIBAS (R0MUWSFPU8MPRO8K5P83)	6,63%	4,13%	0,00%	0,00%	0,00%
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	5,07%	10,25%	0,00%	0,00%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	3,53%	1,73%	0,00%	0,00%	0,00%

The MTF Bloomberg TSOX is ranked first. This trading venue enables to perform electronic STP (Straight Through Processing) Request For Quotes to a broad range of counterparties that are authorized by the clients. The use of trading plateforms minimizes operationnal errors, enhances the access to liquidity and the execution quality.

Trading is conducted following the RFQ process. Executions on Debt instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

In order to complete orders, liquidity may become the most important factor. This is relevant when the order is of a large size for the market or for a security with limited availability. The composition of the top 5 trading venues changed this year to include Tradeweb Europe in 2020. We use Tradeweb and Bloomberg MTF to trade electronically a broad range of debts such T-bills and bonds in secondary markets.

This year, the top 5 remains the same, Tradeweb and TSOX keep their place. These both platforms total for more than 41% of volumes traded. BNP Paribas, JP Morgan and Bank of America total more than 15% of the volumes. Our traders have a broad range of eligible Counterparties to trade within this classification of delivery versus payment (DVP) instruments.

As our Counterparties capacity to provide competitive prices (liquidity) changes over time, our traders adapt their Counterparty selection and thus we would expect the composition and order of the top 5 venues to be also dynamic. Our Execution policy provides traders with a framework in terms of selecting an appropriate number of Counterparts given the characteristics of the order and a requirement to document a reason on our audit trail, which justifies executions where less than 3 quotes have been recorded.

This is particularly relevant in parts of the market where specific bonds have reached a point in their maturity so that they are no longer widely quoted or traded. Our traders have access to a trading tool, which consolidates and sorts Counterparty bond axes in real time. The tool identifies axed Banks or Brokers, which can be incorporated into Counterparty selection for any given trade, providing the trader with the opportunity to negotiate a super execution price.



Less liquid bonds, orders with larger size or other specific orders may have to be traded off venue (telephone or IB Chat) as they require more interaction between the traders and the counterparties. As much as possible, the traders perform an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.

For Bonds, Dealing Services uses two kinds of report to perform controls and monitor its execution performance.

- A 'RFQ' report highlighting competing quotes received from counterparties and justifications when execution prices differ from best quotes of if there have been insufficient number of quotes.
- A report based on TCA (Transaction Cost Analysis) analysis. For each transaction, execution price is compared to a benchmark price value provided by an independent TCA data provider.

Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.

Top 5 counterparties on Bloomberg TSOX:

Class of Instrument	2 - Debt Instruments - Bonds		
Notification if <1 average trade per business day in the previous Year	N		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
Bloomberg Multilateral Trading Facility (BMTF)	29,66%	25,38%	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	9,44%	2,02%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH	8,93%	1,78%	
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	8,49%	2,08%	
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	8,08%	1,77%	
NOMURA FINANCIAL PRODUCTS EURO GMBH (5493002XYZZ0CGQ6CB58)	7,67%	0,48%	

The top five counterparties total a little less than 45% of the volume, with a fairly close distribution of volumes.

Two counterparties join the top 5 this year: Goldman Sachs and Barclays. BNP and BOFA remain in the rankings with a significant decline for Nomura.

Top 5 des contreparties sur Tradeweb:

Class of Instrument	2 - Debt Instruments - Bonds		
Notification if <1 average trade per business day in the previous Year	N		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
TRADEWEB (TREU)	12,62%	11,68%	
BNP PARIBAS (R0MUWSFPU8MPRO8K5P83)	10,49%	1,28%	
NOMURA FINANCIAL PRODUCTS EURO GMBH (5493002XYZZ0CGQ6CB58)	8,69%	0,63%	
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	8,03%	0,86%	
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	7,71%	0,81%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH	7,29%	0,73%	

As for the previous platform the counterparties have a fairly close distribution of volumes. We note the entry of Citigroup in the fourth place and Goldman Sachs in fifth place. BNP, BOFA and Nomura remain in the rankings.



DEBT INSTRUMENTS – MONEY MARKET INSTRUMENTS

1. Execution report

Class of Instrument	3 - Debt Instruments - Money Market				
Notification if <1 average trade per business day in the previous Year	N				
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed
Volume 11	Volume Traded	Executed	Orders	Orders	Orders
BARCLAYS BANK IRELAND PLC (2G5BKIC2CB69PRJH1W31)	19,94%	12,65%	0,00%	0,00%	0,00%
BRED BANQUE POPULAIRE (NICH5Q04ADUV9SN3Q390)	10,73%	14,91%	0,00%	0,00%	0,00%
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	9,84%	6,32%	0,00%	0,00%	0,00%
CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK (1VUV7VQFKUOQSJ21A208)	8,67%	6,64%	0,00%	0,00%	0,00%
Bloomberg Multilateral Trading Facility (BMTF)	4,28%	9,64%	0,00%	0,00%	0,00%

Similar to last year BNP Paribas, BRED and Barclays are still on the top five. TSOX enters the top 5 this year.

Top 5 counterparties on Bloomberg TSOX:

Class of Instrument	3 - Debt Instruments - Money Market		
Notification if <1 average trade per business day in the previous Year	N		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
Bloomberg Multilateral Trading Facility (BMTF)	4,28%	9,64%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH	14,80%	1,05%	
CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK	14,44%	1,20%	
NOMURA FINANCIAL PRODUCTS EURO GMBH (5493002XYZZ0CGQ6CB58)	11,61%	1,12%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	10,34%	1,26%	
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	8,37%	0,77%	

TSOX totals less than 5% of orders for this category with Goldman Sachs, CACIB, Nomura and Société Générale in the leading group with around 50% of volumes then Citigroup for less than 10%.

Executions on Money Market instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

Main activity is done off venue (telephone, IB Chat), due to the nature of the Money Markets instruments. As much as possible, the traders perform an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.

To perform its controls for Money Market, Dealing Services uses a 'RFQ' report highlighting competing quotes received from counterparties (including justifications when execution prices differ from best quotes of if there have been insufficient number of quotes).

Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.



INTEREST RATES DERIVATIVES – FUTURES AND OPTIONS ADMITTED TO TRADING ON A TRADING VENUE

Executions on Interest Rates Listed Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

The majority of Interest Rates Listed Futures and Options are transmitted to brokers for execution.

Execution services done by the traders correspond to the case when the trader has to rollover a position: depending on different factors, the dealer may organize an RFQ process to get the best possible results.

1. Execution report

Class of Instrument	4 - Interest rates Derivatives - Listed				
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	35,31%	34,58%	20,84%	21,08%	0,00%
TRADITION SECURITIES AND FUTURES (969500ULC0Y1IG0A4O72)	17,93%	19,15%	0,00%	0,24%	0,00%
AUREL BGC (5RJTDGZG4559ESIYLD31)	16,62%	15,20%	66,21%	0,00%	0,00%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	8,83%	8,68%	0,00%	0,00%	0,00%
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	4,93%	4,44%	0,00%	0,00%	0,00%

We are trading for this category with a mix of Banks and Brokers. Compared to last year the majority of the volumes was traded with Brokers. This year, Aurel BGC and BOFA have replaced Société Générale and GFI.

2. Transmission report

Class of Instrument	4 - Interest rates Derivatives - Listed					
Notification if <1 average trade per business day in the previous Year	N					
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	31,41%	38,48%	18,98%	37,00%	0,00%	
TRADITION SECURITIES AND FUTURES (969500ULC0Y1IG0A4O72)	15,87%	17,25%	5,43%	14,72%	0,00%	
UBS EUROPE SE (5299007QVIQ7IO64NX37)	15,14%	20,13%	0,00%	0,00%	0,00%	
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	10,48%	3,70%	1,57%	1,17%	0,00%	
AUREL BGC (5RJTDGZG4559ESIYLD31)	8,06%	3,96%	43,87%	0,00%	0,00%	

We are trading for this category with a mix of Banks and Brokers. This year, BOFA and Aurel BGC have replaced HPC and Société Générale.

INTEREST RATES DERIVATIVES - SWAPS, FORWARDS AND OTHER INTEREST RATES DERIVATIVES

1. Execution report

Class of Instrument	4 - Interest rates Derivatives - OTC					
Notification if <1 average trade per business day in the previous Year	N					
		. Proportion of Proportion of Proportion of				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Orders	Passive	Agressive	Directed	
	volume maded	Executed	Orders	Orders	Orders	
J.P. Morgan SE (549300ZK53CNGEEI6A29)	20,88%	22,08%	0,00%	0,00%	0,00%	
HSBC CONTINENTAL EUROPE (F0HUI1NY1AZMJMD8LP67)	13,36%	2,01%	0,00%	0,00%	0,00%	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	13,22%	11,13%	0,00%	0,00%	0,00%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	11,49%	19,34%	0,00%	0,00%	0,00%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	10,48%	4,93%	0,00%	0,00%	0,00%	



We traded over the counter (OTC) swaps and IRS in this category of financial instrument.

Our traders focus mainly on price, and request RFQ's from different counterparties depending on where they expect liquidity to be available. In order to complete orders, liquidity can be a factor in relation to less liquid swaps or large in size orders.

You will notice a concentration of volumes traded on the five counterparties with a predominance of JP Morgan followed by HSBC, BNP Paribas and Goldman Sachs, which total around 60% of volumes. We find the same counterparties as the previous year with a significant decline from BNP Paribas and Goldman Sachs in favor of JP Morgan. Société Générale replaces Citigroup.

As with other OTC products, our list of authorized OTC derivative Counterparts comprises major banks that have satisfied our criteria to protect clients from settlement risk and includes the execution of ISDA/CSA documentation to support Bilateral trading or Clearing agreements.

We have adapted our trading architecture so that we are ready to meet modified US and European regulations which require changes to how we clear, trade, report and record eligible derivative contracts.

Executions on Interest Rates Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

All the trading activity is done off venue (telephone, IB Chat), due to the nature of the instruments. As much as possible, the traders perform an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.

CREDIT DERIVATIVES – OTHER CREDIT DERIVATIVES

1. Execution report

Class of Instrument	5 - Credit derivatives - OTC				
Notification if <1 average trade per business day in the previous Year	N				
	Proportion of	Proportion of I	Proportion of	Proportion of	Proportion of
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed
		Executed	Orders	Orders	Orders
J.P. Morgan SE (549300ZK53CNGEEI6A29)	54,23%	33,42%	0,00%	0,00%	0,00%
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	21,30%	31,58%	0,00%	0,00%	0,00%
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	10,20%	15,79%	0,00%	0,00%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	8,42%	7,63%	0,00%	0,00%	0,00%
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	3,63%	7,37%	0,00%	0,00%	0,00%

Compared to 2020, the top 5 counterparties remain unchanged in 2021. However, we can notice a greater concentration of volumes on this top 5, with a strong increase in JP Morgan's market share.

Executions on Credit Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

All the trading activity is done off venue (telephone, lbChat), due to the nature of the instruments. As much as possible, the traders perform an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.



CURRENCY DERIVATIVES - FUTURES AND OPTIONS ADMITTED TO TRADING ON A TRADING VENUE

Executions on Currency Listed Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

The majority of Currency Listed Futures and Options are transmitted to brokers for execution.

Execution services done by the traders correspond to the case when the trader has to rollover a position: depending on different factors, the dealer may organize an RFQ process to get the best possible results.

1. Execution report

Class of Instrument	6 - Currency derivatives - Listed					
Notification if <1 average trade per business day in the previous Year	Υ					
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed	
		Executed	Orders	Orders	Orders	
TRADITION SECURITIES AND FUTURES (969500ULC0Y1IG0A4O72)	38,79%	10,00%	0,00%	0,00%	0,00%	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	26,83%	52,86%	0,00%	0,55%	0,00%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	20,36%	4,29%	0,00%	0,00%	0,00%	
DEUTSCHE BANK AG (7LTWFZYICNSX8D621K86)	4,65%	10,00%	0,00%	0,00%	0,00%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	4,55%	17,14%	0,00%	0,00%	0,00%	

The top three counterparties represent more than 80% of the volume traded, Tradition for 38.79% of the volume and 10% for the proportion of the orders, followed by BNP Paribas with 26.83% of the volumes and 52.86% of the executed orders. Then, we have Goldman Sachs with 20.36% of the volumes and 4.29% of orders executed.

2. Transmission report

Class of Instrument	6 - Currency deriv	6 - Currency derivatives - Listed				
Notification if <1 average trade per business day in the previous Year	N					
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	54,99%	52,57%	32,94%	29,78%	0,00%	
UBS EUROPE SE (5299007QVIQ7IO64NX37)	15,33%	15,45%	0,00%	0,00%	0,00%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	12,35%	16,05%	0,00%	0,00%	0,00%	
HPC (969500AMLHB21RACL168)	8,08%	5,99%	0,00%	0,00%	0,00%	
DEUTSCHE BANK AG (7LTWFZYICNSX8D621K86)	3,95%	0,96%	0,00%	0,00%	0,00%	

For the transmission report, BNP Paribas is still the number one with 55% of the volumes and the more than 52% of the orders, UBS with 15.3 % of the volumes and 15.4% of the orders. Then, we have Société Générale with 12.3% of the volumes and 16% of the executed orders and HPC with 8% of volumes and 6% of the executed orders.



CURRENCY DERIVATIVES - SWAPS, FORWARDS AND OTHER CURRENCY DERIVATIVES

1. Execution report

Class of Instrument	6 - Currency de	6 - Currency derivatives - OTC				
Notification if <1 average trade per business day in the previous Year	N					
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed	
	volunie Traded	Executed	Orders	Orders	Orders	
FXALL Multilateral Trading Facility (TRAL)	73,41%	69,85%	0,00%	0,00%	0,00%	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	8,06%	5,42%	0,00%	0,00%	0,00%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	4,20%	4,36%	0,00%	0,00%	0,00%	
J.P. Morgan SE (549300ZK53CNGEEI6A29)	3,86%	4,22%	0,00%	0,00%	0,00%	
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	2,59%	5,01%	0,00%	0,00%	0,00%	

This year, Société Générale has joined the top 5 execution venues and has replaced BP2S.

We predominantly execute transactions in foreign exchange forwards, swaps, non-deliverable forwards and OTC currency options using an RFQ process. Price is usually the most important factor when we select which counterparty to trade with. For Fixing orders each counterparty has to offer the same price, hence cost is the most important factor.

It is a fiduciary responsibility to protect our Clients from FX settlement risk. Our list of authorized Counterparts comprises major banks that have met specific requirements we have set out in terms of acceptable financial strength, proven market share, and price competitiveness. As a result, our list of Counterparts for these financial instruments is purposefully selective.

In order to complete orders, liquidity can be a factor for less liquid currency pairs or where market conditions are challenging. Having pre-arranged credit lines or limits in place can also be a factor in precluding some client orders from trading at the best price provided by the RFQ process. Where we employ algorithms to achieve the best result, counterparties are chosen given the strategy and suitability of the algorithm.

Executions on Forex instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

In the top 5 venues, we traded the majority of our orders using the trading venue FX ALL (a Multilateral Trading Platform), which is ranked first in the report.

This trading venue enables to perform electronic STP (Straight Through Processing) . The use of trading plateforms minimizes operationnal errors and enhances the access to liquidity and the execution quality.

When we use electronic trading venues, we are able to ask a greater number of our Counterparties for quotes at the same time and then select the best price. Using this process is a more efficient way to deliver best execution, which explains the high percentage of orders traded using the FX ALL platform.

Less liquid currency pairs, orders with larger size or other specific orders may have to be traded off venue (telephone, IB Chat) as they requires more interaction between the traders and the counterparties. As much as possible, the traders do an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.

As a part of our trading framework, we monitor our trading efficiency by employing continuous trade cost analysis (TCA) and by conducting periodic reviews of Counterparties, which incorporate hit ratio competitiveness studies.

For Currency OTC derivatives, Dealing Services uses two kinds of report to perform controls and monitor its execution performance.

A 'RFQ' report highlighting competing quotes received from counterparties and justifications when execution prices differ from best quotes of if there have been insufficient number of quotes



A report based on TCA (Transaction Cost Analysis) analysis. For each transaction (except for OTC currency Options), execution price is compared to a benchmark price value provided by an independent TCA data provider. Deviations from benchmark are monitored according to pre-determined thresholds.

Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.

Top 5 counterparties on FXALL

Class of Instrument	6 - Currency derivatives - OTC		
Notification if <1 average trade per business day in the previous Year	N		
	Proportion of		
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec	
	Traded		
FXALL Multilateral Trading Facility (TRAL)	73,41%	69,85%	
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	24,51%	10,32%	
BNP PARIBAS (R0MUWSFPU8MPRO8K5P83)	16,36%	15,10%	
J.P. Morgan SE (549300ZK53CNGEEI6A29)	11,61%	10,97%	
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	10,30%	6,59%	
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	9,51%	8,79%	

This year, Morgan Stanley has joined the top 5 execution venues and has replaced BOFA

EQUITY DERIVATIVES - FUTURES AND OPTIONS ADMITTED TO TRADING ON A TRADING VENUE

Executions on Equity Listed Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

The majority of Equity Listed Futures and Options are transmitted to brokers for execution.

Execution services done by the traders correspond to the case when the trader has to rollover a position: depending on different factors, the dealer may organize an RFQ process to get the best possible results.

1. Execution report

Class of Instrument	8 - Equity deri				
Notification if <1 average trade per business dag in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Orders	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	26,58%	Executed 30,43%	6,84%	20,60%	0,00%
TRADITION SECURITIES AND FUTURES (969500ULC0Y1IG0A4O72)	13,84%	18,65%	0,00%	14,63%	0,00%
BOFA SECURITIES EUROPE SA (549300FH0WJAPEHTIQ77)	12,86%	3,46%	0,00%	0,00%	0,00%
UBS EUROPE SE (5299007QVIQ7IO64NX37)	9,88%	11,31%	0,00%	0,00%	0,00%
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	8,66%	4,68%	0,87%	0,87%	0,00%

BNP Paribas is the first in the top five with around 27% of the volumes and 30% of executed orders, followed by Tradition with 13.84% of the volumes and around 18.65% of the executed orders. BOFA, UBS and Goldman Sachs represent around 31% of the volumes and around 19% of the executed orders.



2. Transmission report

Class of Instrument	8 - Equity derivat	ives - Listed			
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
UBS EUROPE SE (5299007QVIQ7IO64NX37)	31,97%	40,55%	0,00%	0,00%	0,00%
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	23,55%	22,30%	33,20%	29,26%	0,00%
CITIGROUP GLOBAL MARKETS INC. (MBNUM2BPBDO7JBLYG310)	10,01%	1,32%	29,28%	22,05%	0,00%
CREDIT SUISSE BANK (EUROPE), S.A. (959800TMGPWX7NYM4R72)	7,40%	12,73%	22,96%	2,40%	0,00%
TRADITION SECURITIES AND FUTURES (969500ULC0Y1IG0A4O72)	7,13%	4,83%	10,58%	7,27%	0,00%

For the transmission report in this category, UBS is the first counterparty with 31.97% of the volumes, followed in volumes by BNP Paribas for more than 23%, and respectively Citigroup 10.1%, Credit Suisse 7.4% and Tradition 7.1%. On the number of executed orders, UBS more than 40%, then 22.3% for BNP Paribas, Crédit Suisse with 12.73% and Tradition with 4.83%.

EQUITY DERIVATIVES – SWAP AND OTHER EQUITY DERIVATIVES

Executions on Equity Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

All the trading activity is done off venue (telephone, IB Chat), due to the nature of the instruments. As much as possible, the traders perform an RFQ process if it doesn't lead to information leakage on the market.

In some cases, Dealing Services may not be in a position to organise a request for quotes or may consider that it is inappropriate to do so in the client's interests, which provides a de facto justification that the price criterion has been adhered to.

Without drawing up a comprehensive list, this may occur in the following circumstances:

- ⇒ a need to guarantee maximum confidentiality;
- ⇒ the illiquidity of the financial instrument;
- ⇒ any situation where the request for quotes is contrary to the clients' interests.

1. Execution report

Class of Instrument	8 - Equity derivatives - OTC					
Notification if <1 average trade per business day in the previous Year	Υ					
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of	
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed	
		Executed	Orders	Orders	Orders	
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	64,41%	34,38%	0,00%	0,00%	0,00%	
J.P. Morgan SE (549300ZK53CNGEEI6A29)	19,70%	25,00%	0,00%	0,00%	0,00%	
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	11,03%	18,75%	0,00%	0,00%	0,00%	
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	4,87%	21,88%	0,00%	0,00%	0,00%	

We traded over the counter (OTC) swaps and Equity Derivatives in this category of financial instrument.

Our traders focus mainly on price, and request RFQ's from different counterparties depending on where they expect liquidity to be available. In order to complete orders, liquidity can be a factor in relation to less liquid swaps or large in size orders.

In the top 5 execution venues, BNP Paribas is the first counterparty with more than 64% of volume and 34.38% of the executed orders, JP Morgan has dealt with 19.7% of the volumes and 25% of the orders. Goldman Sachs almost 11% of volumes and 18.5% of orders, Morgan Stanley has less 5% of volumes but 21.88% of the executed orders.

As with other OTC products, our list of authorized OTC derivative Counterparts comprises major banks that have satisfied our criteria to protect clients from settlement risk and includes the execution of ISDA/CSA documentation to support Bilateral trading or Clearing agreements.



We have adapted our trading architecture so that we are ready to meet modified US and European regulations which require changes to how we clear, trade, report and record eligible derivative contracts.

SECURITIZED DERIVATIVES

Executions on Securitized Derivatives instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

All Securitized Derivatives are transmitted to brokers for execution.

1. <u>Transmission report</u>

Class of Instrument	9 - Securitized de	rivatives			
Notification if <1 average trade per business day in the previous Year	Υ				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	99,62%	52,38%	0,00%	0,00%	0,00%
MAYBANK INVESTMENT BANK BERHAD (254900M5DG9AKERWWZ42)	0,17%	19,05%	0,00%	0,00%	0,00%
UBS SECURITIES ASIA LIMITED (549300Y35FCB6270R069)	0,16%	14,29%	0,00%	0,00%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	0,05%	9,52%	0,00%	0,00%	0,00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	0,00%	4,76%	0,00%	0,00%	0,00%

This year, we have dealt with Goldman Sachs for 99.62% of the volumes and 52.38% of the executed orders, most of these orders being processed with the issuer of the instrument. Maybank and UBS represent 0.33% of the volume and 33% of the executions. JP Morgan and Citigroup have less than 1% of the volume with respectively 14.29% of the executions.

CONTRACT FOR DIFFERENCE

Executions on CFD instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

Depending on the parameters of the orders (Buy, Sell, Open or Close of position), traders may have to deal with the prime brokers.

1. Transmission report

Class of Instrument	11 - CFD				
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
GOLDMAN SACHS & CO. LLC (FOR8UP27PHTHYVLBNG30)	23,72%	6,17%	53,50%	44,78%	0,00%
CITIGROUP GLOBAL MARKETS INC. (MBNUM2BPBDO7JBLYG310)	22,71%	7,48%	39,53%	14,05%	0,00%
MORGAN STANLEY EUROPE SE (54930056FHWP7GIWYY08)	19,50%	69,83%	13,67%	6,35%	0,00%
GOLDMAN SACHS INTERNATIONAL - PARIS BRANCH (W22LROWP2IHZNBB6K528)	18,08%	6,22%	58,55%	30,89%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	15,30%	9,64%	22,14%	15,46%	0,00%

For this chart, we have traded again with prime brokers. Goldman Sachs is the first counterparty with more 23% of the volumes and more 6% of the executed orders, Citigroup with 22.7% of volumes and 17% of the executed orders across European and American entities. Morgan Stanley is the third with 19.5% of the volumes and about 70% of executed orders.



EXCHANGE TRADED PRODUCTS

Executions on Exchange Traded Products are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

A part of the ETP, orders are transmitted to brokers. Depending on the parameters of the orders, traders may have to execute and in this case, they perform an RFQ process to get the best possible results. This is the case, in particular, for ETF with the type of order "NAV guaranteed".

To perform its controls for ETF, Dealing Services uses a 'RFQ' report highlighting competing quotes received from counterparties (including justifications when execution prices differ from best quotes of if there have been insufficient number of quotes).

Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.

1. Execution report

Class of Instrument	12 - Exchange traded products				
Notification if <1 average trade per business day in the previous Year	N				
	Proportion of	Proportion of	Proportion of	Proportion of	Proportion of
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume Traded	Orders	Passive	Agressive	Directed
	volume maded	Executed	Orders	Orders	Orders
TRADEWEB (TREU)	99,21%	99,16%	0,00%	0,00%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	0,32%	0,45%	0,00%	0,00%	0,00%
JANE STREET NETHERLANDS B.V. (549300AE0DWETJDYFB29)	0,20%	0,06%	0,00%	0,00%	0,00%
FLOW TRADERS B.V. (549300CLJI9XDH12XV51)	0,19%	0,11%	0,00%	0,00%	0,00%
BNP PARIBAS ARBITRAGE SNC (6EWKU0FGVX5QQJHFGT48)	0,06%	0,08%	0,00%	0,00%	0,00%

Tradeweb is the number one with around 99% of volumes and 99% of executed orders being the main platform for RFQs. The other counterparties provided axes, which helped us to supply efficiently with liquidity.

Top 5 counterparties on Tradeweb

Class of Instrument	12 - Exchange traded products			
Notification if <1 average trade per business day in the previous Year	N			
	Proportion of			
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Volume	Proportion Total Exec		
	Traded			
TRADEWEB (TREU)	99,21%	99,16%		
JANE STREET NETHERLANDS B.V. (549300AE0DWETJDYFB29)	28,07%	26,31%		
FLOW TRADERS B.V. (549300CLJI9XDH12XV51)	18,66%	14,98%		
BNP PARIBAS ARBITRAGE SNC (6EWKU0FGVX5QQJHFGT48)	18,58%	15,20%		
OPTIVER V.O.F (7245009KRYSAYB2QCC29)	13,20%	18,88%		
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	12,51%	13,21%		

Jane Street with almost 30% of the volumes has increased this year its market share and number of trades, Flow Traders has increased its market share in volumes with around 18% and 15% of orders.

The other specialized Market Makers in ETD, Flow Traders and Optiver represent 32% of the remaining volume and 34% of the executions.



2. Transmission report

Class of Instrument	12 - Exchange traded products				
Notification if <1 average trade per business day in the previous Year	N				
Top 5 Execution venues ranked in terms of trading volumes (descending order)	Proportion of Volume Traded	Proportion of Orders Executed	Proportion of Passive Orders	Proportion of Agressive Orders	Proportion of Directed Orders
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	65,64%	67,10%	10,41%	2,09%	0,00%
KEPLER CHEUVREUX (9695005EOZG9X8IRJD84)	16,26%	22,21%	23,93%	0,00%	0,00%
JEFFERIES GMBH (5493004I3LZM39BWHQ75)	4,08%	6,00%	0,00%	0,00%	0,00%
CITIGROUP GLOBAL MARKETS INC. (MBNUM2BPBDO7JBLYG310)	3,40%	0,46%	0,00%	0,00%	0,00%
UBS SECURITIES JAPAN CO., LTD. (54930090QR873H4M6D72)	2,92%	1,54%	0,00%	0,00%	0,00%

For the transmission report, Citigroup keeps the first rank with 65.6% in terms of volumes and 67% in terms number of executed orders. Kepler is only at around 16% of volumes and 22% of executed orders. There are two newcomers: Jefferies and Citigroup Global Market also participated in the reception and transmission of orders.

UBS is declining in volume traded but remains in the top 5.

SECURITIES FINANCING TRANSACTIONS (SFT)

REPO AND REVERSE REPO

1. Execution report

Class of Instrument	13 - Repo / Re	verse Repo			
Notification if <1 average trade per business dag in the previous Year	Υ				
	Proportion of Volume Traded	Proportion of	Proportion of	Proportion of	Proportion of
Top 5 Execution venues ranked in terms of trading volumes (descending order)		Orders	Passive	Agressive	Directed
		Executed	Orders	Orders	Orders
BNP PARIBAS (ROMUWSFPU8MPRO8K5P83)	40,61%	71,14%	0,00%	0,00%	0,00%
CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK (1VUV7VQFKUOQSJ21A208)	38,72%	17,45%	0,00%	0,00%	0,00%
CITIGROUP GLOBAL MARKETS EUROPE AG (6TJCK1B7E7UTXP528Y04)	18,74%	10,07%	0,00%	0,00%	0,00%
SOCIETE GENERALE SA (O2RNE8IBXP4R0TD8PU41)	1,64%	0,67%	0,00%	0,00%	0,00%
J.P. Morgan SE (549300ZK53CNGEEI6A29)	0,28%	0,67%	0,00%	0,00%	0,00%

This year on Repo / Reverse Repo, the top three counterparties represent around 98 % of the volumes. BNP Paribas is the first counterparty and has concentrated more 40% of the volumes with more than 71% in number of orders, followed by CACIB with more than 38% of volumes and 17% of number of executed orders and Citigroup with less than 19% of volumes but with more than 10% of number of executed orders. La Banque Postale has been replaced by the arrival of JP Morgan.

Executions on Repo/Reverse repo instruments are generally driven by the price and order size, and then market liquidity and conditions, speed of execution and likelihood of settlement.

All the activity is done off venue (telephone, IB Chat), due to the nature of the instruments. As much as possible, the traders do an RFQ process if it does not lead to information leakage on the market.

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Without drawing up a comprehensive list, this may occur in the following circumstances:

- a need to guarantee maximum confidentiality;
- the illiquidity of the financial instrument;
- any situation where the request for quotes is contrary to the clients' interests.



To perform its controls on repo/reverse repo transactions, Dealing Services uses a 'RFQ' report highlighting competing quotes received from counterparties (including justifications when execution prices differ from best quotes of if there have been insufficient number of quotes). Execution quality is regularly reviewed by Dealing Services desks (first level controls), Compliance teams (second level controls) and with the client's investments strategy teams.



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