



Pershing Trading Services 2020 RTS 28 Publication

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Overview

Pershing Trading Services (PTS) executes orders in an agency capacity on behalf of Professional Clients. A description of our activities and an outline of how we monitored execution quality in 2020, are included in this document.

As per MiFID II RTS 28 article 3 (3), the four statements that are common to every asset type that we traded in 2020, and listed on a consolidated basis below are:

- PTS does not have any ownership or holdings in any of the counterparties or venues that we traded with during 2020. We have links with BNY Mellon London Branch Fixed Income, and BNY Mellon LLC for fixed income execution. We also trade US equities with Pershing LLC and BNY Mellon Capital Markets LLC. Execution quality with all these counterparties is analysed on an arms-length basis as per other venues and counterparties we trade with.
- We do not have any specific arrangements with any execution venues regarding payments made or received, discounts, rebates, or non-monetary benefits received.
- All of our direct clients are categorised as Professional Clients. We therefore did not require different or augmented approaches in the way we executed orders between 'different client types'.
- PTS does not classify any of its direct client firms as 'Retail Clients'. Therefore, any analysis explanations around criteria weighing for orders from these clients is not applicable.

Global Equities

Pershing Trading Services (PTS) provides agency execution services in global equities across the UK, EMEA, U.S., and APAC. Pershing has the appropriate permissions to 'execute' orders. We did not receive and transmit any orders to other brokers to work on PTS' behalf in 2020.

Equity Order Types

For order-driven equities, PTS executed client orders using smart order routers (SOR) and algorithms (ALGO) across all leading primary exchanges, multi-lateral trading facilities (MTFs) and with a selection of Systematic Internalisers (SI). As per article 23 in MiFIR, we followed the Trading Obligation for all of our electronic order flow. Our 'top five' venues for equities can be found in the links to .csv files in this RTS 28 report. There are three tables covering equities, showing which venues we traded upon the most, categorised by liquidity levels as per MiFID tick size bandings. The most liquid are shown in 'tick size 5&6', followed by 'tick size 3&4', with "tick size 1&2" being the most illiquid stocks.

Electronic Equities

The largest part of our business in 2020 was institutional electronic equity trading, trading global markets.

Our splits between passive and aggressive behaviour across equities represents a mixture of clients trading electronically through our systems themselves, therefore influencing passive/aggressive splits, and also our own PTS traders using those same systems when working orders or using algorithms. The levels of urgency in algorithmic trading was also a contributory factor in our passive/aggressive statistics, such as for dark liquidity and block seeking algorithms whereby the level of urgency may have been high. Naturally, algorithms of a passive nature had an influence too.

Request for Quote

In addition to electronic trading, PTS also executed orders with UK market makers via Request for Quote (RFQ) systems. The vast majority of our London Stock Exchange (LSE) order and volume statistics is whereby the SOR we employed traded electronically on LSE order books (amongst other MTFs and SIs). Retail Service Provider (RSP) trading represents a small part of our business, in which we used RFQ protocols for trading mid-cap and small cap UK companies. The top five counterparties we most commonly executed against via RFQ trading protocols and under the rules of the LSE were:

- Peel Hunt LLP 24%
- Winterflood Securities Limited 17%
- Numis 13%
- Investec Bank PLC 11%
- Panmure Gordon Limited 8%

These percentages represent the top five market makers across all market makers we traded with via RFQ, in which we connect to all major market makers. PTS did not favour any of these firms over others and had no counterparty bias. The market share figures are reflective of 'best price' executions.

Equity Execution Venues: Summary of Analysis and Conclusions Drawn

- When assessing the quality of execution for equities, we prioritised "price" as the most important factor in our best execution analysis. "Likelihood of execution and settlement" took a lower priority, because we elected to only trade with reputable venues and brokers that had high levels of liquidity and settlement success rates.
- Apart from some minor additions, there were no significant changes to our list of execution venues in 2020. This means we maintained the list of proven venues that provided healthy liquidity throughout the year.
- Our overall liquidity dispersion was reflective of the market-wide share statistics covering exchanges, MTFs, SIs liquidity, periodic auction books, and LIS dark venues.

- PTS continued to use LiquidMetrix as the primary tool for analysing global equity executions. PTS performed transaction cost analysis (TCA) on a daily and weekly basis by our in-house TCA services desk. Regular reports were analysed for different types of order flow including (but not limited to) algorithmic orders, smart order routed orders, 'care orders' and orders in quote driven securities executed either electronically or on a voice basis by our trading desk.

Exchange Traded Funds

Pershing Trading Services (PTS) executed orders in an agency capacity in Exchange Traded Funds (ETFs) across the UK, EMEA, US and APAC. Primary exchanges, MTFs, UK market makers, and European specialist ETF market makers, all featured regularly as different venue types we used to access liquidity. We did not receive and transmit any ETF orders to other brokers to work on our behalf.

ETF Order Types

Our clients traded actively via electronic smart order routing (SOR) we provided to European exchanges (mainly Germany), MTFs and systematic internalisers.

For the larger order types, our main venue was BMTF where we were able to interact with our panel of ETF Market Makers in larger tickets. For UK listed ETFs in retail sizes, we traded with LSE market makers via RFQ systems.

The main counterparties we interacted across the two aforementioned RFQ systems we used were:

Bloomberg MTF (Institutional UK and EU ETFs)

- | | |
|-----------------------------|-----|
| • Flow Traders | 36% |
| • Jane Street Financial | 32% |
| • Susquehanna International | 8% |
| • Optiver | 7% |
| • Morgan Stanley | 5% |

Iress RSP system (retail sized UK ETFs)

- | | |
|----------------------------------|-----|
| • Winterflood Securities Limited | 37% |
| • Peel Hunt LLP | 28% |
| • Investec Bank Limited | 23% |
| • Stifel Nicolaus Limited | 6% |
| • Flow Traders | 4% |

PTS did not favour any of these top five firms over others and had no counterparty bias. The market share figures are reflective of 'best price' executions. We do not 'poll' market makers on either a

selective, or an individual basis unless in the instances of minimal coverage whereby information leakage had to be minimised.

ETF Execution Venues: Summary of Analysis and Conclusions Drawn

- When assessing the quality of execution for ETFs, in most cases we prioritised “price” as the most important factor in our analysis. ‘Likelihood of execution’ was less of a concern because we traded mainly on quality venues or OTC with quality counterparties.
- There were no significant changes to our list of ETF execution venues over the course of the year. We currently connect to all major liquidity points and closely monitor the landscape for worthwhile new additions.
- We used LiquidMetrix as our central tool for analysing our ETF executions, across all order types and venues. As in 2019, the vast majority of ETFs that PTS executed were in liquid, well-known issues across the UK and Europe.
- The methods of execution employed for ETF trading, which included smart order routing, use of algorithmic trading tools, and RFQ trading, were the same toolsets we used for equities.
- At the time of writing, there is no official Consolidated Tape Provider (CTP) for ETFs. PTS paid for consolidated data provided by Bloomberg and national exchanges.

Fixed Income

Pershing Trading Services (PTS) executed orders globally on an agency basis across both rates and credit markets in 2020. All trades were booked as agent on a gross price basis. We did not mark up any bond prices. PTS traders executed orders in line with client instructions/consultation. PTS did not transmit orders or to any bond brokers to trade on our behalf.

Fixed Income Order Types

Depending on the bond in question, its country of issue and its maturity, PTS traders exercised discretion in accessing liquidity on both fixed income MTFs and through matched principal brokers. Our bond broker panel (sometimes known as ‘other liquidity providers’) were often sourced for a selection of prices. They were utilised particularly in larger orders. For retail sized orders, in UK government paper, our venue of choice would commonly be a UK gilt market maker on an RFQ basis under the rules of the London Stock Exchange.

As in 2019, BMTF was our largest fixed income execution venue in 2020. The remaining business we traded on an XOFF basis with matched principal brokers. For more information on our top five venues, please consult the .csv files on our 2020 RTS 28 section on the Pershing EMEA website.

As BMTF was our largest venue, and it is RFQ based, we highlight below the main underlying counterparties we interacted with on BMTF.

Bloomberg BMTF

- BNP Paribas 27%
- Guy Butler Limited 15%
- BNY Mellon Capital Markets LLC 12%
- RIA 11%
- UBS 9%

There was no bias of choice with these brokers. The majority of trades were resultant from multi-broker requests for quotes. We did not show preference of any broker in our technologies either.

Fixed Income Execution: Summary of Analysis and Conclusions Drawn

- a) Price was the most important factor in our execution process across the vast majority of our fixed income executions. This was most certainly the case for highly liquid government paper, and for retail sized orders, where liquidity was healthy with effective spreads. For longer dated paper and bond issues of a more esoteric nature, or illiquid, it was often the occasion that 'likelihood of execution' took an elevated weighting. There were times when it was deemed inadvisable to use RFQ for an order, even though there was enough on-screen indication. This was purely on the basis that sometimes the trade-off between 'liquidity capture' versus 'informational leakage' (with inferior or no returning quotes) were not in the best interests of the client. For these order types, PTS traders were selective about whom to approach for principal liquidity at the right price, therefore limiting signaling risk which is elevated when using RFQ.
- b) For RFQ trading, we maintained our connectivity with a comprehensive list of gilt-edged market makers, matched principal brokers, and 'other liquidity providers'. We also built new relationships with fixed income brokers as part of our ongoing enhancements to extend our reach into new types of liquidity and specialist brokers that match the profile of where and how our clients want to trade. BNP Paribas was a strong new addition to our panel.
- c) In 2020, we kept our relationship with Bloomberg BTCA for all our fixed income execution analysis. Execution performance was analysed in the main by referencing CBBT and BVAL prices—at least where price was the dominant factor. Furthermore, we were able to dynamically view order types by geography, across both short and long-term durations, and by credit ratings ranging from AAA to CCC-. Tools such as 'order ignition momentum', order difficulty, and spreads relative to arrival versus execution price, were used each day to benchmark performance. Further, we grouped our brokers by performance metrics across differing trade sizes, which provided meaningful data to help drive future selection process for the instances where we sought bilateral liquidity.

We consulted RTS 27 data from all major venues, but it remains challenging to find useful data sets in RTS 27 tables from fringe venues that would effectively assist in driving venue selection processes. Our current list of both 'on venue' and 'off exchange' liquidity channels enabled us to take both correct and sufficient steps in obtaining the best possible result for our clients.

- d) In 2020 we did not see the introduction of a consolidated tape as per the suggestions made by ESMA in the MIFID II text. PTS however has invested in multiple feeds from different Approved Publication Arrangements (APA).