

FINsights:

CTP Whitepaper Series

#3: The coherence of underlying transaction data

All that glitters is not gold! 21 February

2022

Executive Summary

As policy continues to evolve following the announcements of the European Commission's 2021 Capital Markets Union package and the UK HMT's Wholesale Markets Review, we continue to believe the developments leading to the creation of a Consolidated Tape ('CT') for European capital markets are still moving in the right direction.

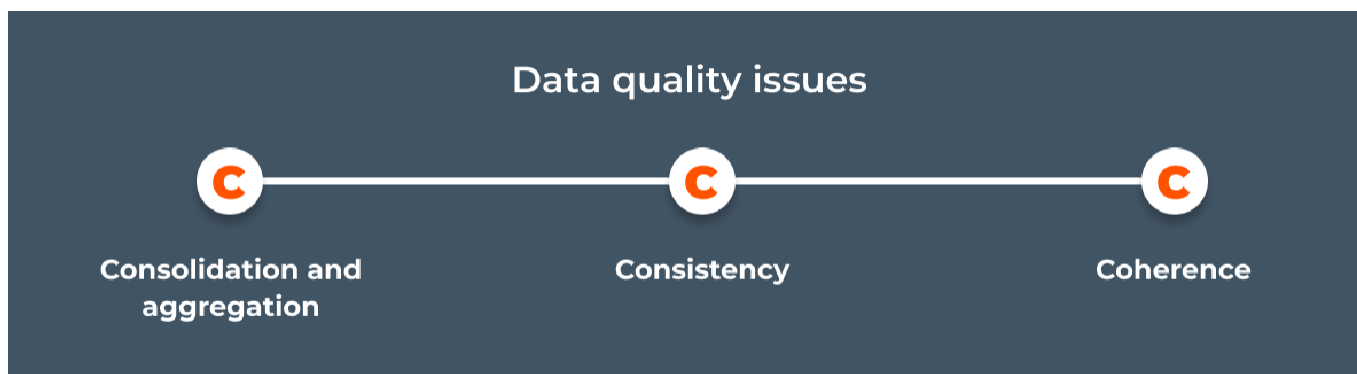
Notwithstanding these developments, several vital steps needed to support this market mechanism are yet to be defined: the design of an operational framework, the technological infrastructure, and a commercial model - in collaboration with the market - across the four defined asset classes.

While the above concerns will be addressed in the on-going political debate, as a technology provider, we continue to define the nature of the 'data quality' issues - a basic, yet significant, building block.

The quality of the data input will determine the effectiveness of any CT and mis-classification can have a real and significant impact on investor capital flows.

The Three C's of CT data

We have, as you will have seen in our previous whitepapers [Insights | Finbourne](#), broken the issues down into 3 component parts, to build a better understanding of specific problems that will need to be addressed:



In the previous whitepapers, we explored:

- **Consolidation and aggregation** challenges create significant barriers for market participants - unless they have technical SMEs. The myriad of codes, formats and transaction reporting conventions makes it difficult to access the data at the first level.
- **Consistency** of data emerges as an issue where, at a second level of the data, different venues seem to have either adopted, permit or accept certain conventions being applied to reporting of MiFID transaction data.

In this whitepaper, we will examine the **coherence** of the underlying input data - the root of the quality problem. When data is examined at this basic level, we can see that some of the 'golden' data (**currency, price and quantity**) is being reported in a manner that prevents the effective aggregation of 'simple' transaction records' data or leads to incoherent results.

While there are strict regulatory rules for reporting, the manner of reporting highlights the different approaches or interpretations that market participants have to transactions and their reporting. **A more uniform practice is needed around how the current standards are practically applied – an 'instructions manual' - alongside appropriate oversight and remediation. Otherwise, the well-known 'data quality' issues will persist.**

Transaction records' data

Overview of the public 'portfolio'

In early 2021, we commenced our own analysis, using publicly available, post-trade transaction data from a number of the largest trading venues and APAs ('Data Groups'). To-date, we've examined some **64 million** transactions across equities, ETFs, fixed income and derivatives.

Our analysis comprises post-trade transparency records covering all asset classes, from the largest trading venues and APAs. This data, collected from **1 March – 31 December 2021**, formed part of the preliminary workings that FINBOURNE is conducting, in order to prepare for the creation of a **post-trade** CT. The data is publicly available and is provided in a variety of formats, on a delayed basis.

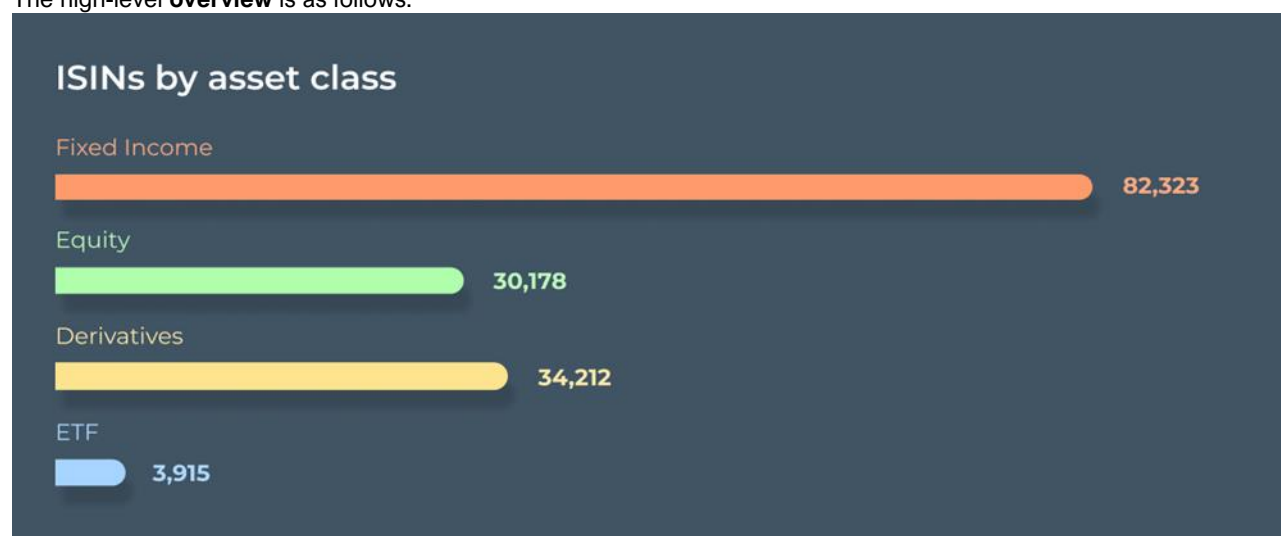
Transaction data source details

The data sources that FINBOURNE accessed were, as identified in the ESMA Annual Statistical Report 2020ii, the largest venues for the **equities, ETF, bond** and derivatives markets. We also included other sources, both to deliver a substantial and objective sample and for comparison purposes:

Type	Jurisdiction	Data Group #1	Data Group #2	Data Group #3	Data Group #4	Data Group #5	Data Group #6
APA	EU	✓	✓	✓		✓	✓
	UK	✓	✓	✓			✓
MTF	EU			✓			✓
	UK						✓
OTF	EU			✓			✓
	UK			✓	✓		✓

For analysis purposes, we also linked the transaction records to the EU's Financial Instruments **Reference Data System ('FIRDS')** database, which covers the publication, collection and processing of additional issuer data, to support the MiFIR transparency regime.

The high-level **overview** is as follows:



Portfolio

We have focused on **Fixed Income** transactions for the purpose of this analysis.

1. Overall context

Description	# transactions	% total	# ISINs	% total
all Fixed Income transactions	5,110,525	-	82,323	-
all FI transactions net of AMND, DUPL and CANC	4,466,814	87.4%	81,191	98.7%
all FI transactions net of flags	1,601,927	31.3%	38,046	46.2%

2. Breakdown by sub-asset class

Description	# transactions	% total	# ISINs	% total
Asset Backed Security	84,541	1.9%	2,031	2.5%
Bond	2,964,996	66.4%	28,445	35.0%
Bond with warrant	470	-	7	-
Convertible Bond	43,661	1.0%	668	0.8%
Depository Receipt	466	-	8	-
Medium Term Note	1,047,878	23.5%	13,858	17.1%
Miscellaneous	2,274	0.3%	369	0.5%
Money Market Instrument	9,796	0.1%	1,091	2.3%
Mortgage-Backed Security	13,200	0.2%	932	1.1%
Municipal Bond	25,264	0.6%	957	1.2%
Structured Product (with Capital Protection)	49,446	1.1%	1,099	1.4%
Structured Product (without Capital Protection)	224,822	5.0%	30,916	38.1%
totals	4,466,818		81,191	

Once again, as part of our CTP focus, FINBOURNE can identify particular examples of the issues that represent a 'data quality' barrier.

However, to achieve the overall policy goal, until underlying data **input** is improved (analysis can be conducted to specifically identify systemic versus data group-specific problems), new solutions and proposed adjustments to standards or reporting processes will not fix the fundamental problem.

Coherence

Currency

3. the 'danger' of 'NOTIONAL CURRENCY' and 'NOTIONAL AMOUNT'

- there are 55 currencies represented in total – with a (large) number defined as 'blank'

it is **impossible** to simply aggregate the data available to give a simple, accurate picture of overall liquidity as the debt instruments are reported in different currencies

'Notional Currency'	# ISIN	# transactions	sum 'Notional Amount'	FX rate*	adjusted 'Notional Amount' **
Indonesian rupiah	73	3,569	19,344,178,031,961	16,868	1,146,808,662
Korean won	45	3,562	5,574,325,386,888	1,356	4,109,914,796
Hungarian florint	124	8,743	3,890,732,426,880	389	10,851,624,560
€	44,836	2,272,790	3,881,023,184,401	-	3,881,023,184,401
US\$	21,910	1,519,732	3,402,964,634,185	1.18	2,895,497,030,686
'blank'	12,289	111,008	-	-	-
GB£	2,256	269,951	2,341,638,924,863	.85	2,740,352,665,694
ZAR	107	10,427	2,153,796,709,725	17	123,981,652,718
JP¥	211	3,099	1,559,876,525,833	130	11,958,450,372
Colombian Peso	19	202	998,154,847,937	4,543	219,696,541
Danish kröner	782	73,184	805,716,803,402	7,43	108,338,756,269

* source: ECB Statistical Database: 9 month 'simple' average FX rates per EURO except COP where spot rate 14 January 2022 used

** estimates only

- Presentation of 'raw' data **does not** make any immediate aggregation useful
- Comparison requires **estimates of the FX rates** used for the transactions and would require 'real time' translation **in the absence of a '€ equivalent field'** being available

This was feedback received in the Call for Evidence on RTS 1 and RTS 2 by ESMA and considered as part of the recent RTS 1/RTS 2 Consultation Paper:

3.3.1.3 Fields "Price", "Price currency", "Price notation" and "Quantity"

142. In the CfE several stakeholders requested that APAs publish the price in the post-trade reports in EUR. ESMA considers that the information on the currency in which the trade was made is sufficient to compare post-trade reports and does not consider it necessary to add this new requirement.

Applying appropriate, but, estimated, FX rates, transforms the picture of liquidity based on a volume of 'notional' traded

4. A further complication: 'NOTIONAL CURRENCY' and 'PRICE CURRENCY'

- It is also not simply a case that you can look at the notional currency of the bond and assume that all trades can simply be converted into a Euro equivalent – as we have done above – to 'normalise' the data
- Transactions are completed where the '**NOTIONAL CURRENCY**' and the '**PRICE CURRENCY**' differ (or are 'blank'), so it is not clear in which currency the transaction is being reported
- We took 1 month's data from our 2021 set to examine the prevalence of this issue:

description	total # transactions	# where 'NOTIONAL CURRENCY' and 'PRICE CURRENCY' differs	% different
Asset Backed Security	7,524	500	6.6%
Bond	297,459	33,346	11.2%
Bond with warrant	86	2	2.3%
Convertible Bond	15,114	421	2.8%
Depository Receipt	49	2	4.1%
Medium Term Note	125,698	13,596	10.8%
Miscellaneous	430	74	17.2%
Money Market Instrument	2,015	169	8.4%
Mortgage-Backed Security	1,706	145	8.5%
Municipal Bond	6,658	698	10.5%
Structured Product (with Capital Protection)	5,313	153	2.9%
Structured Product (without Capital Protection)	21,759	4,020	18.5%
total/average	483,811		11.0%

It is worth noting:

- The issue affects all sub-asset type. However, the unevenness of the results shows that it has a greater effect on some sub-asset types
- The issues can be narrowed down and highlighted in order, to improve business practice in the future.

Quality of 'PRICE NOTATION' data

We have seen a wide variance in the practice relating to the use of 'PRICE NOTATION' for MiFID reporting purposes. 'PRICE NOTATION' is an indication as to whether the price is expressed in monetary value ('MONE'), in percentage ('PERC'), in yield ('YIEL') or where price is currently not available but pending, the value would be 'PNDG'.

The option to report in different formats creates several issues:

- for any given bond, there needs to be segregation of the different 'PRICE NOTATION' used and adjustments to present a 'single view' of the 'price' for the bond
- there are manifest errors in the MiFID public trade reporting

5. 'PERC' – different horses for different courses

We looked at this Bundesrepublik Deutschland (generic) zero-coupon 10-year bond in detail as it was one of the most traded European bonds in 2021 and we can see numerous instances, even for one of the most liquid bonds in the market, the 'rule' is not observed.

In a snapshot of 11,125 (net) trades during 2021, we could observe:

- 10,698 records - 96.2% - were 'PERC'
- 345 trades - 3.1% - with 'MONE' (as with the examples above), although **all** these transactions seem to have a **percentage amount** displayed as the 'PRICE'
- A further 82 trades – 0.7%% - had a 'PNDG' flag i.e. no price reported at the time of the transaction

Examples: zero coupon 10-year (February 2031) BUND 'PERC'

fields specified	Trade #1	Trade #2	Trade #3	Trade #4
ISIN	DE0001102531			
Venue of Publication (Data Group)	#3	#2	#3	#2
Notional Amount	1,350,000	25,000	2,233,845.9	3,200,000
Notional Currency	EUR	EUR	EUR	EUR
Price	104.91	101.31	1.01079	102.51
Price Currency	EUR	EUR	EUR	EUR
Price Notation	PERC	PERC	PERC	PERC
Quantity	1,350,000	2,500,000	2,210,000	1

In the example trades above, we can see issues around the correct application of the 'PRICE NOTATION':

- In Trades #1 and #4, we see a scenario where trades are being reported that lack a uniform practice around a (single) transaction resulting in an inability to aggregate data simply
- We see 500 transactions where the 'NOTIONAL AMOUNT' is a percentage of the 'QUANTITY' as in Trade #2
- There are 12 cases in which we see, as in Trade #3, a percentage 'PRICE' that looks closer to a yield

Example: the trade with the 'highest' price

fields specified	bond details
ISIN	HU0000523071
Instrument ID type	ISIN
Notional Amount	165,000,000
Notional Currency	HUF
Price	164,979,375
Price Currency	HUF
Price Notation	PERC
Quantity	16,500
To be Cleared	FALSE
TradeTimeDate	2021-04-XX
Transaction ID	XXXXXXXXXXXX
Venue of Publication	XXXX
Flags	LRGS, ILQD, SIZE

The transaction is a '**PERC**' with a monetary amount mistakenly entered:

- A domestic Hungarian 364-day bond
- Issued in April 2020, maturing 21st April 2021
- The bond seems to be offered via the domestic savings banks and Volksbank associations

From a 'market' perspective, we can make the following observations about this bond:

- Although reported as '**PERC**', the price is not expressed as a percentage, rather a monetary amount – the corrected '**PERC**' price is **99.9875%**

6. 'MONE' – no prizes for guessing

The definition is: "where price is reported in monetary terms, it shall be provided in the **major** currency unit.iii"

Examples: zero coupon 10-year (February 2031) BUND 'MONE'

fields specified	Trade #1	Trade #2	Trade #3	Trade #4
ISIN	DE0001102531			
Venue of Publication (Data Group)	#3	#3	#3	#2
Notional Amount	2,044,620	7,700,000	5,330,000	2,750,000
Notional Currency	EUR	EUR	EUR	EUR
Price	102.231	101.9655	105.181	102.42
Price Currency	EUR	EUR	EUR	EUR
Price Notation	MONE	MONE	MONE	MONE
Quantity	20,000	7,700,000	53,300	1

Rather than a monetary amount being displayed, these records seem, in general, to represent **percentages**

In most cases, the ability to reconcile the transaction records were further complicated by the fact that reporting of **'QUANTITY'** - *"the number of units of the financial instrument, or the number of derivative contracts in the transactioniv"* – did not follow a consistent pattern:

- In 80.6% of transaction records, it reflected the minimum denomination of the BUND (€100) combined with the **'PRICE'** as in Trade #1
- In most cases (17.4%), the **'NOTIONAL AMOUNT'** was equal **'QUANTITY'** as in Trade #2
- While, in last cohort (2.0%), there seemed to be no connection whatsoever between **'PRICE'**, **'QUANTITY'** and **'NOTIONAL AMOUNT'** that could be ascertained as in Trades #3 and #4.

Example: the trade with the *'lowest'* price

fields specified	bond details
ISIN	DE000A3E5KG2
Instrument ID type	ISIN
Notional Amount	45,624,176
Notional Currency	EUR
Price	-372,176.23
Price Currency	EUR
Price Notation	MONE
Quantity	431
To be Cleared	FALSE
TradeTimeDate	2021-06-XX
Transaction ID	XXXXXXXXXXXX
Venue of Publication	XXXX
Flags	FULJ, ILQD, LRGS

We can see that the bond is:

- A 5% TUI AG semi-annual pay, convertible bond
- Issued in April 2021 and maturing April 2028
- Trades in minimum units of €100,000 From a 'market' perspective:
- Around the trade date (+/- 1 day), the price was in a range between 103.1% – 104.6%
- The bond is traded on a number of exchanges

Quality of 'PRICE' data

We have seen examples of where, due to the nature of the underlying bond, care has to be taken to simply averaging prices as components of the trades differ.

In §4 (above) we highlighted where transactions don't match when looking at 'PRICE CURRENCY' and 'NOTIONAL CURRENCY'. An additional complication arises where the transaction currencies match, but the bond has multi-currency trading features:

7. Example: multicurrency trading in 'matched' currencies

trade	'PRICE'	'QUANTITY'	'NOTIONAL QUANTITY'	'PRICE CURRENCY'	'NOTIONAL CURRENCY'
#1	181.2658	364,157	66,010,521	USD	USD
#2	158.6904	338,000	53,638,403	EUR	EUR
#3	176.7082	230,195	40,676,538	USD	USD
#4	170.1601	200,000	34,031,340	USD	USD
#5	146.5305	85,000	12,455,339	EUR	EUR
#6	129.2766	72,698	9,398,339	GBP	GBP

In this case, of the most traded ETC bonds, we find that there are while there are not the same cross-currency issues we see with unmatched currencies, there are:

- Multi-currency issues related to this bond
- As it trades in three different currencies
- At, effectively, three different (local) currency prices

This means that this bond needs to be parsed by currency to ensure consistency – effectively creating three different prices for this bond depending on the currency traded.

In general, as we are focused on fixed income transactions, we applied simple analytic metrics to the 4,466,814 records as bond prices below 1 and above 150 (accepting that the vast majority of the trade price representation are 'PERC') would be unusual.

When we reviewed that transaction database, we found the following:

Price levels

Description	# transactions	% total	# ISINs	% total
all FI transactions net of AMND, DUPL and CANC	4,466,814	-	81,191	-
all FI transactions 'PRICE' < 1	2,480	0.1%	370	0.5%
all FI transactions 'PRICE' > 150	96,160	2.2%	720	0.9%

- We can see that there are transactions that are reported multiple times using a 'PRICE' that would be above or below 'normal' ranges – an average of 133 times for each bond for prices > 150

Example: 'PRICE' < 1

fields	Bond #1	Bond #2	Bond #3
ISIN	XS1683139692	XS2250998049	US445545AH91
Instrument Group	BOND	MEDIUM TERM NOTE	BOND
Notional Amount	12,000,000	150,000	500,000
Notional Currency	EUR	EUR	EUR
Price	0	.9984	-0.43736
Price displayed on relevant exchange during 2021	98.941 - 101.121%	100.00 - 102.68%	105.30 - 109.70%

- In some cases, such as Bond #2, the 'PRICE' representation can be adjusted to a 'PERC' – based on an assumption
- Whereas in the other cases, the explanation is not as clear, for Bond #3 (a Republic of Hungary 5.375% 2023 bond, there are 118 transactions affected by this form of reporting

Example: 'PRICE' > 150

fields	Bond #1	Bond #2	Bond #3
ISIN	XS1925432400	FR0014003J12	DE000A190ND6
Instrument Group	MEDIUM TERM NOTE	ASSET BACKED SECURITY	MEDIUM TERM NOTE
Notional Amount	1,225,320	40	500,000
Notional Currency	EUR	EUR	EUR
Price	306,330	101,480	100,345
Price displayed on relevant exchange during 2021	96.15 - 98.89%	-	100.255 - 101.235%

- Once again, based on a broad assumption, the representation of 'PRICE' for Bonds #2 and #3 might be easily adjusted to 101.48% and 100.345% respectively - although it is not clear who would intervene to ensure remediation
- However, the Bond #1 is not easy to explain nor remediate

Quality of 'QUANTITY' data

A final piece of the basic information that would typically be needed to present a picture of trading patterns or overview is quantity.

However, as you have seen above in numerous examples (§ 5, 6 and 7), the 'QUANTITY' reported, in many situations, creates more questions about the transaction rather than illuminating the data.

There are, however, several different interpretations of definition of 'QUANTITY' (the number of units of the financial instrument, or the number of derivative contracts in the transaction) that are being applied by market participants or exchanges but where there does need to be a more uniform application of the definition, especially by sub-asset class:

Example: application of 'QUANTITY' logic

fields specified	Bond #1	Bond #2	Bond #3	Bond #4
ISIN	US91282CCS89		IT0005406530	IE00B579F325
Venue of Publication (Data Group)	#2	#3	#3	#2
Notional Amount	6,100,000	528,000	10,000	695.89
Notional Currency	USD	USD	EUR	EUR
Price	97.90625	97.84766	1,078.808	139.178
Price Currency	USD	USD	EUR	EUR
Price Notation	PERC	PERC	MONE	PERC
Quantity	61,000	528,000	10	5

These four bond examples show how different logics or interpretations are being applied to the same 'rule':

- Bond #1 and Bond #2 differ in that, in the case of Bond #1, the reporting party is applying the \$100 denomination to the 'QUANTITY' of the US Treasury - whereas Bond #2 does not
- However, for Bond #3 (an Italian structured bond – primarily for retail clients) and #4 (a physical gold ETC), the bonds are sold as 'units' rather than in 'denominations'
- in the case of Bond #3, when we 'triangulate' the 'QUANTITY', 'PRICE' and 'NOTIONAL AMOUNT', we can see notionals are being used rather than, as opposed to Bond #4, an actual i.e. Bond #3 is transacted at €10,788.08

What's next

Forming part of the theme around the need for certain data issues to be tackled, the issue of coherence highlights the lack of uniform practice and the need for an 'instruction manual' rather than new standards. Dissecting the causes of the data quality issue - such as duplication, differing lineage, formatting and uniform application of standards will be key to ensuring a robust CT that is fit for purpose.

Our analysis is the first step in the journey ahead, and while we have identified some pressing concerns, we know that together with the collaboration of our Design Council members, and the use of our cloud-native SaaS technology, we can respond to the current data challenges, ahead of the creation of a CT.

Alongside this market engagement, we will continue to publish whitepapers in the series, providing more detail on how an effective CT can be built and what needs to change to make that happen.

FINBOURNE's Design Council

FINBOURNE is inviting market participants with an interest in the mechanics of developing a Consolidated Tape to join its Design Council.

The first meeting took place in December 2021 and the Council will continue to meet through June 2022.

FINBOURNE's Design Council - benefits to Members

In return for providing views and expertise, the Design Council offers Members the following:

- an opportunity to shape the implementation in a way that could make a CT more relevant for their institution
- a forum where the elements of the operation and governance of any CT entity can be discussed, explored and evolve an open environment where issues of data quality can be raised and examined in sufficient detail
- where the data discussed can be used by the Members either internally or at other fora or bodies where they participate
- where agreed by Members, analysis of data can be presented to other bodies in the form of whitepapers to help to develop the concept of market data standards or principles
- access to beta releases of the FINBOURNE CT Platform ("CT Platform") and other relevant material and services, including training
- exposure to thought leaders and the latest cloud technology in this space.

Get in touch

Tell us what you think. If you'd like to learn more about the CT journey, or have your say in the CT Design Council, get in touch with us at ctp@finbourne.com

ANNEX 1 - ACRONYMS

General

Acronym	Definition	Explanation
APA	Approved Publication Arrangement	A person/venue authorised under the provisions established in the MIFID II Directive to provide the service of publishing trade reports on behalf of investment firms.
API	Application Programming Interface	A set of programming code that enables data transmission between one software product and another.
BUND	Security issued by the German Government	A BUND is a fixed-interest, euro-denominated security issued by the German government to fund its debt. Although BUND refers to bonds with maturities of 10 years +, the term is used for a broader range of German government debt securities.
CT	Consolidated Tape	A Consolidated Tape is an electronic system that collates real-time exchange-listed data, such as price and volume, and disseminates it to investors.
ETF	Exchange Traded Fund	A type of security that tracks an index, sector, commodity, or other asset, but which can be purchased or sold on a stock exchange the same way a regular stock can.
FIRDS	Financial Instruments Reference Data System	A system created by the European Securities and Markets Authority (ESMA) that lists meta- information to all financial instruments included in the scope of MiFID II.
ISIN	International Securities Identification Number	A 12-digit alphanumeric code that uniquely identifies a specific financial security.
MTF	Multilateral Trading Facility	A trading system that facilitates the exchange of financial instruments between multiple parties.
OTF	Organised Trading Facility	Multilateral trading venues in the European Union enabling third parties to trade bonds, derivatives, structured finance products and emission allowances but not equities.
SINT	SI Trade	“SINT” is used when the transaction on a financial instrument is executed on a Systematic Internaliser.
XOFF	A trade made off the main exchange	“XOFF” is used when the transaction on a financial instrument is executed off the market and not on a trading venue, systematic internaliser or organised trading platform.

Trade Flags

Acronym	Definition	Explanation
AMND	Amendment Flag	When a previously published transaction is amended.
DUPL	Duplication Flag	When a transaction is reported to more than one APA.
CANC	Cancellation Flag	When a previously published transaction is cancelled.
PNDG	Pending Flag	When a transaction or price is currently not available but due to become available.
LGRS (LIS)	Post-Trade Large in Scale Transaction Flag	Transactions where deferred publication is permitted on the basis that they are large in scale compared with normal market transactions.
TPAC	Package Transaction Flag	A trade composed of several components/legs.
ILQD	Illiquid Instrument Flag	Transactions executed under the deferral for instruments for which there is not a liquid market.
FULJ	Full Details Flag	Individual transactions which have previously benefited from aggregated publications because of their status as non-equity instruments that are not sovereign debt.
FULV	Full Details Flag	Transactions for which limited details have been previously published about why an individual transaction has been given an extended time period of deferral for four weeks.
FULF	Full Details Flag	A transaction whereby limited details have been published about the value and average daily turnover of the transaction.
FULA	Full Details Flag	Individual transactions for which aggregated details have been previously published.
LMTF	Limited Details Flag	A supplementary deferral which requires additional information.
DATF	Daily Aggregated Transaction Flag	A supplementary deferral which requires additional daily aggregation information.
VOLO	Volume Omission Flag	A supplementary deferral allowing for an extended period without full post-trade transparency.
VOLW	Volume Omission Flag	Transactions for which limited details are published and for which the publication of several transactions in aggregated form for an indefinite period of time will be allowed.

Other

Acronym	Definition	Explanation
AFM	De Autoriteit Financiële Markten	AFM are responsible for supervising the operation of the financial markets in The Netherlands.
AFME	Association for Financial Markets in Europe	AFME is the regulatory representative for Europe's wholesale financial markets.
AIMA	Alternative Investment Management Association	AIMA is the global representative body of the alternative investment industry.
AMF	Autorité des Marchés Financiers	AMF regulate the French financial marketplace and are responsible for ensuring that savings invested in financial products are protected and providing investors with adequate information.
BVI	Bundesverband Investment (German Investment Funds Association)	BVI represent the interests of the German fund industry at the national and international level via the promotion of various regulations.
DG-FISMA	Directorate-General for Financial Stability, Financial Services and Capital Markets Union	DG-FISMA is the EU Commission department responsible for EU policy on banking and finance.
EDMA	Electronic Debt Markets Association	EDMA represent the common interests of companies whose primary business is the operation of regulated electronic fixed income trading venues in Europe.
EFAMA	European Fund and Asset Management Association	EFAMA is the representative association for the European investment management industry.
ESMA	European Securities and Markets Authority	ESMA is an independent EU Authority that contributes to safeguarding the stability of the EU's financial system by enhancing the protection of investors and promoting stable and orderly financial markets.
FCA	Financial Conduct Authority	FCA regulate the UK's financial services industry and focus on protecting consumers, keeping the industry stable and promoting competition between financial service providers.
FIX	The Financial Information eXchange	FIX is an organisation that seeks to set transaction data/field protocols in equity markets. FIX's Fixed Income Working Group (FIWG) is tasked with creating a set of trade field standards/protocol for fixed income products.
FMSB	The Fixed Income, Currencies and Commodities Markets Standards Board	FMSB is a regulatory standards body for the wholesale fixed income, currencies and commodities (FICC) markets.
ICMA	International Capital Markets Association	ICMA is a not-for-profit membership association serving the needs of its wide range of member firms active in the international debt capital markets

DISCLAIMER

This document has been prepared by FINBOURNE Technology Limited (“FINBOURNE”) on an ‘as is’ basis. It provides general background information regarding FINBOURNE’s activities and is supplied for information purposes only. Nothing in this document should be regarded as an invitation, inducement or recommendation to engage in investment activity (a financial promotion) as defined in section 21 of the UK Financial Services and Markets Act 2000 (“FSMA”) and the information contained in this document is not intended to be an offer to buy or sell any interest in any investment.

Information set forth herein is only a summary of certain information as at the time this document is provided. FINBOURNE does not make any representation or warranty (express or implied) as to the accuracy or completeness of the information provided and it shall have no liability in relation to the content or its use. You should not place any reliance on any statements contained herein and such statements are subject to change by FINBOURNE and uncertainty and contingencies outside FINBOURNE’s control. The information, materials and opinions contained herein are not intended to constitute legal or other professional advice and should not be relied on, nor treated as a substitute for specific advice relevant to particular circumstances.

This document is the property of FINBOURNE and any reproduction, dissemination or re-distribution of this document or the information herein without FINBOURNE’s prior written consent is forbidden.

© 2021 FINBOURNE Technology Limited. All rights reserved.

i EU Securities Market, ESMA Annual Statistical Report (18 November 2020) ESMA-50-165-1355



About

FINBOURNE's solutions deliver an interconnected network of functionality and data that enables the investment community to better serve clients in a constantly evolving market.

Its investment management solutions and cloud-native data management platform ensure that investment and operations teams can increase revenue, reduce costs, and better manage risk across the investment life cycle.

Get in touch

To discover more about FINBOURNE and learn how our solutions can drive growth, increase control and improve data access, contact us below

finbourne.com/info@finbourne.com

+44 (0)20 3880 1307

FINBOURNE Technology

North America: 666 3rd Avenue, New York, 10017

UK: 1 Carter Lane, London, England, EC4V 5ER

Singapore: 790, Level 7 Capital Square,
23 Church Street, 049481