

Transaction report 2023

Equities - Shares & Depositary Receipts

Class of Instrument	Liquidity Band A+B					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
Instinet Europe Limited, London, UK	213800MXAKR2LA1VBM44	37.4%	87.2%	43.3%	56.7%	100.0%
Virtu (Nite) Financial Ireland LTD, London, UK	549300XG5LFGN1IGYC71	26.4%	94.3%	32.8%	67.2%	100.0%
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	19.1%	97.4%	15.6%	84.4%	100.0%
MIB Securities (Hong Kong)	254900JOZO98RSYZ3694	4.7%	92.7%	49.1%	50.9%	100.0%
Marcard,Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	3.7%	100.0%	0.0%	100.0%	100.0%

*Notice: Securities with no Liquidity Band classification are in this category listed

Class of Instrument	Liquidity Band C+D					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	39.5%	95.7%	45.7%	54.3%	100.0%
Virtu (Nite) Financial Ireland LTD, London, UK	549300XG5LFGN1IGYC71	33.2%	97.8%	36.3%	63.7%	100.0%



Marcard,Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	10.1%	100.0%	0.0%	100.0%	100.0%
Instinet Europe Limited, London, UK	213800MXAKR2LA1VBM44	9.7%	90.3%	47.3%	52.7%	100.0%
Vantage Capital Markets LLP	2138007ZHUXSGBB53N72	4.6%	90.0%	26.7%	73.3%	100.0%

Class of Instrument	Liquidity Band E+F					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	35.8%	98.9%	11.9%	88.1%	100.0%
Virtu (Nite) Financial Ireland LTD, London, UK	549300XG5LFGN1IGYC71	30.1%	96.5%	9.0%	91.0%	100.0%
Marcard,Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	12.3%	100.0%	0.3%	99.7%	100.0%
Vantage Capital Markets LLP	2138007ZHUXSGBB53N72	8.8%	96.6%	8.5%	91.5%	100.0%
Instinet Europe Limited, London, UK	213800MXAKR2LA1VBM44	8.0%	93.6%	10.6%	89.4%	100.0%

Debt Instruments / Bonds

Class of Instrument	Debt instruments <397 days to n	naturity				
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
Citigroup Global Markets LTD, London, UK	XKZZ2JZF41MRHTR1V493	34.1%	100.0%	85.7%	14.3%	100.0%



Bmo Capital Markets LTD, London, UK	5493000YPN33HF74SN02	17.7%	100.0%	34.4%	65.6%	100.0%
Market Axess Capital Limited, London	529900CTXON8S5AOCB70	12.2%	100.0%	23.8%	76.2%	100.0%
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	11.7%	100.0%	38.5%	61.5%	100.0%
M.M.Warburg & Co Kgaa, Hamburg, DE	MZI1VDH2BQLFZGLQDO60	8.1%	80.6%	94.4%	5.6%	100.0%

Class of Instrument	Debt instruments>397 days to m	aturity				
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	15.6%	100.0%	26.9%	73.1%	100.0%
Marcard,Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	15.3%	100.0%	16.0%	84.0%	100.0%
Market Axess Capital Limited, London	529900CTXON8S5AOCB70	14.0%	99.1%	27.4%	72.6%	100.0%
Citigroup Global Markets LTD, London, UK	XKZZ2JZF41MRHTR1V493	10.3%	100.0%	45.5%	54.5%	100.0%
1St Capital Management Group GMBH, Munich, D	529900ISPKUVG8HSQD34	8.5%	68.4%	80.7%	19.3%	100.0%

Interest Rate Derivates

Class of Instrument	Interest rate derivates / Futures a	and options				
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	100.0%	100.0%	0.0%	100.0%	100.0%



Credit Derivates

Class of Instrument	Credit Derivates					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
-	-	-	-	-	-	-

Currency Derivates

Class of Instrument	Currency Derivates / Futures and	Options				
Notification if <1 average trade per	Yes					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage of total in that	percentage of total in that class	orders	aggressive orders	
		class			orders	
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	100.0%	100.0%	0.0%	100.0%	100.0%



Class of Instrument	Currency Derivates / Swaps, Forw	ards and other Der	ivates			
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
M.M.Warburg & Co Kgaa, Hamburg, DE	MZI1VDH2BQLFZGLQDO60	47.8%	100.0%	0.0%	100.0%	100.0%
Commerzbank AG, Frankfurt, DE	851WYGNLUQLFZBSYGB56	28.1%	100.0%	0.0%	100.0%	100.0%
Citibank Uk Limited London Citigb2L	549300U8H3KN0K301B23	22.4%	100.0%	0.0%	100.0%	100.0%
Joh. Berenberg, Gossler Hamburg Begodehh & Co	529900UC2OD7II24Z667	1.3%	100.0%	0.0%	100.0%	100.0%
Unicredit Bank AG Muenchen Hyvedemmtsy (Hyp	2ZCNRR8UK83OBTEK2170	0.2%	100.0%	0.0%	100.0%	100.0%

Credit Derivates and Equity Derivates

Class of Instrument	Structured Finance Instruments					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
-	-	-	-	-	-	-



Class of Instrument	Equity Derivates / Futures and Op	otions				
Notification if <1 average trade per	Nein					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	61.1%	77.0%	43.3%	56.7%	100.0%
M.M.Warburg & Co Kgaa, Hamburg, DE	MZI1VDH2BQLFZGLQDO60	38.9%	93.8%	18.6%	81.4%	100.0%

Securitised Derivates

Class of Instrument	Securitised Derivates					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
-	-	-	-	-	-	-



Class of Instrument	Warrants and Certificates					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentage	Percentage	Percentage of
trading volumes (descending order)		volume traded	orders executed as	of passive	of	directed orders
		as a percentage	percentage of total	orders	aggressive	
		of total in that	in that class		orders	
		class				
Leonteq Securities AG, Zuerich	ML61HP3A4MKTTA1ZB671	81,4%	100.0%	57.1%	42.9%	100.0%
M.M.Warburg & Co Kgaa, Hamburg, DE	MZI1VDH2BQLFZGLQDO60	17,4%	99.0%	53.0%	47.0%	100.0%
Marcard, Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	0,5%	100.0%	0.0%	100.0%	100.0%
Societe Generale S.A., Paris, France	O2RNE8IBXP4R0TD8PU41	0,2%	100.0%	0.0%	100.0%	100.0%
Baader Bank AG, Unterschleissheim, DE	529900JFOPPEDUR61H13	0,2%	100.0%	60.0%	40.0%	100.0%

Commodity Derivates

Class of Instrument	Commodity derivates / Futur	res and Options				
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentag	Percentag	Percentage of
trading volumes (descending order)		volume traded	orders executed	e of	e of	directed orders
		as a percentage	as percentage of	passive	aggressive	
		of total in that	total in that class	orders	orders	
		class				
-	-	-	-	-	-	-



Class of Instrument	Commodity Derivates / Others					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentag	Percentag	Percentage of
trading volumes (descending order)		volume traded	orders executed	e of	e of	directed orders
		as a percentage	as percentage of	passive	aggressive	
		of total in that	total in that class	orders	orders	
		class				
-	-	-	-	-	-	-

Class of Instrument	Contract for Differences					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentag	Percentag	Percentage of
trading volumes (descending order)		volume traded	orders executed	e of	e of	directed orders
		as a percentage	as percentage of	passive	aggressive	
		of total in that	total in that class	orders	orders	
		class				
-	-	-	-	-	-	-



Class of Instrument	Exchange traded products (Fun	ds and ETF)				
Notification if <1 average trade per						
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentag	Percentag	Percentage of
trading volumes (descending order)		volume traded	orders executed	e of	e of	directed orders
		as a percentage	as percentage of	passive	aggressive	
		of total in that	total in that class	orders	orders	
		class				
Citibank Europe PLC Bertrange	549300U8H3KN0K301B23	87.0%	99.9%	0.1%	99.9%	100.0%
International Fund Services And Asset Manager	549300QX1Z31SD5RIK58	3.7%	99.0%	0.0%	100.0%	100.0%
Jane Street Financial, London, UK	549300ZHEHX8M31RP142	2.8%	99.5%	4.1%	95.9%	100.0%
Flow Traders B.V., Amsterdam, NL	549300CLJI9XDH12XV51	2.3%	100.0%	2.6%	97.4%	100.0%
Marcard,Stein & Co AG, Hamburg, DE	529900CK14SGH0EXOB27	0.9%	100.0%	0.0%	100.0%	100.0%

Emission Certificates

Class of Instrument	Emission Certificates					
Notification if <1 average trade per	N/A					
business day in the previous year						
Top five execution venues ranked in terms of	LEI	Proportion of	Proportion of	Percentag	Percentag	Percentage of
trading volumes (descending order)		volume traded	orders executed	e of	e of	directed orders
		as a percentage	as percentage of	passive	aggressive	
		of total in that	total in that class	orders	orders	
		class				
-	-	-	-	-	-	-

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