

Transaction Report 2022

Equities - Shares & Depositary Receipts

Class of Instrument	Liquidity Band A+B					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Instinet Europe Limited	213800A7BEQATAOUAN40	29,5%	94,7%	35,2%	64,8%	100,0%
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	23,7%	90,8%	42,0%	58,0%	100,0%
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	15,8%	92,3%	19,2%	80,8%	100,0%
DBS Vickers Securities, Singapore, SINGAPORE	549300O3J3YO6S614573	14,3%	96,2%	69,2%	30,8%	100,0%
Vantage Capital Markets LLP	21380072HUXSGBB53N72	3,5%	97,9%	29,2%	70,8%	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 business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Instinet Europe Limited	213800MXAKR2LA1VBM44	48,9%	95,8%	49,1%	50,9%	100,0%
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	23,1%	96,7%	11,7%	88,3%	100,0%
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	13,7%	100,0%	21,5%	78,5%	100,0%
Vantage Capital Markets LLP	21380072HUXSGBB53N72	5,3%	100,0%	40,4%	59,6%	100,0%
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	4,0%	100,0%	0,0%	100,0%	100,0%

Class of Instrument	Liquidity Band E+F					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	29,6%	97,4%	16,0%	84,0%	100,0%
Instinet Europe Limited	213800MXAKR2LA1VBM44	20,8%	97,8%	16,1%	83,9%	100,0%
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	20,3%	96,8%	6,8%	93,2%	100,0%
Vantage Capital Markets LLP	21380072HUXSGBB53N72	13,7%	100,0%	6,6%	93,4%	100,0%
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	11,8%	100,0%	0,0%	100,0%	100,0%

Debt Instruments / Bonds

Class of Instrument	Debt instruments <397 days to maturity					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	37,9%	100,0%	0,0%	100,0%	100,0%
M.M.Warbug & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	15,5%	88,6%	88,6%	11,4%	100,0%
Leonteq Securites AG, Zuerich	ML61HP3A4MKTTA1ZB671	10,9%	100,0%	42,9%	57,1%	100,0%
BMO Europe PLC	L64HM9LHPDOS1B9HJC68	8,8%	100,0%	14,3%	85,7%	100,0%
Market Axess Capital Limited London	529900CTXON8S5AOCB70	7,1%	90,9%	13,6%	86,4%	100,0%

Class of Instrument	Debt instruments > 397 days to maturity					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	21,7%	100,0%	0,0%	100,0%	100,0%
BMO Europe PLC	L64HM9LHPDOS1B9HJC68	16,2%	100,0%	53,6%	46,4%	100,0%
Citigroup Global Markets Ltd, London, United Kingdom	XKZZ2JZF41MRHTR1V493	11,3%	100,0%	52,9%	47,1%	100,0%
Market Axess Capital Limited London	529900CTXON8S5AOCB70	10,7%	94,8%	27,8%	72,2%	100,0%
HSBC Trinkaus und Burkhardt AG	JUNT405OW8OY5GN4DX16	8,9%	100,0%	29,3%	70,7%	100,0%

Interest Rate Derivates

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

Currency Derivates

Class of Instrument	Currency Derivates / Futures and Options					
Notification if <1 average trade per business day in the previous year	Yes					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
J.P. MORGAN SECURITIES PLC	K6Q0W1PS1L1O4IQL9C32	100,0%	100,0%	0,0%	100,0%	100,0%

Class of Instrument	Currency Derivates / Swaps, Forwards and other Derivates					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
M.M.Warburg & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	62,1%	100,0%	0,0%	100,0%	100,0%
Commerzbank AG	851WYG NLUQLFZBSYGB56	21,4%	100,0%	0,0%	100,0%	100,0%
Citibank N.A.	549300U8H3KN0K301B23	13,1%	100,0%	0,0%	100,0%	100,0%
Joh. Berenberg, Gossler & Co.	529900UC2OD7II24Z667	2,0%	100,0%	0,0%	100,0%	100,0%
Unicredit Bank AG	2ZCNRR8UK83OBTEK2170	1,3%	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 business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
-	-	-	-	-	-	-

Class of Instrument	Equity Derivates / Futures and Options					
Notification if <1 average trade per business day in the previous year	Nein					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
M.M.Warburg & CO (AG & Co.)	MZ11VDH2BQLFZGLQDO60	60,7%	98,5%	10,8%	89,2%	100,0%
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	39,3%	97,6%	7,2%	92,8%	100,0%

Securitized Derivates

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

Class of Instrument	Warrants and Certificates					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
M.M.Warburg & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	84,1%	98,9%	44,2%	55,8%	100,0%
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	9,1%	100,0%	4,2%	95,8%	100,0%
Leonteq Securites AG, Zuerich	ML61HP3A4MKTTA1ZB671	3,5%	100,0%	94,1%	5,9%	100,0%
Unicredit Bank AG	2ZCNRR8UK83OBTEK2170	1,0%	100,0%	0,0%	100,0%	100,0%
Societe Generale S.A., Paris, France	O2RNE8IBXP4R0TD8PU41	0,9%	100,0%	0,0%	100,0%	100,0%

Commodity Derivates

Class of Instrument	Commodity derivatives / Futures and Options					
Notification if <1 average trade per business day in the previous year	N/A					
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	100,0%	100,0%	0,0%	100,0%	100,0%

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

Contracted for differences and Exchange Traded Products (Funds, ETF)

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

Class of Instrument	Exchange traded products (Funds and ETF)					
Notification if <1 average trade per business day in the previous year						
Top five execution venues ranked in terms of trading volumes (descending order)	LEI	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Citibank Europe PLC Bertrange, Luxembourg	549300U8H3KN0K301B23	83,4%	100,0%	0,0%	100,0%	100,0%
International Fund Services and Asset Management	549300QX1Z31SD5RIK58	12,6%	98,8%	0,1%	99,9%	100,0%
Jane Street Financial, London, UK	549300ZHEHX8M31RP142	1,3%	100,0%	3,5%	96,5%	100,0%
Flow Traders B.V, Amsterdam, Netherlands	549300CLJI9XDH12XV51	0,8%	100,0%	5,0%	95,0%	100,0%
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	0,5%	100,0%	0,0%	100,0%	100,0%

Emission Certificates

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