



## Transaction report 2020

### 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	213800MXAKR2LA1VBM44	37,9	82,1	46,7	53,3	100,0
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	29,3	92,0	47,1	52,9	99,9
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	9,6	97,3	51,3	48,7	100,0
DBS Vickers Singapore PTE Ltd.	549300O3J3YO6S614573	6,1	87,6	38,6	61,4	100,0
Kim Eng Securites Hong Kong LTD	254900JOZO98RSYZ3694	4,8	81,8	47,3	52,7	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
Linear Investments Ltd.	213800GNOS9QQ31DCK54	33,2	95,8	67,4	32,6	100,0
Instinet Europe Limited	213800MXAKR2LA1VBM44	21,8	94,4	71,1	28,9	99,3
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	15,0	93,8	79,5	20,5	98,8
M.M.Warburg & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	8,7	89,0	59,0	41,0	100,0
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	8,1	97,7	68,2	31,8	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
Linear Investments Ltd.	213800GNOS9QQ31DCK54	32,4	93,3	15,9	84,1	100,0
Virtu Financial Ireland Limited	549300XG5LFGN1IGYC71	18,3	95,7	21,0	79,0	99,6
M.M.Warburg & CO (AG & Co.)	MZ11VDH2BQLFZGLQDO60	10,9	96,0	16,2	83,8	100,0
Cantor Fitzgerald Europe	549300KM6VUHPKQLQX53	8,3	98,7	8,6	91,4	100,0
Marcard, Stein und Co AG	529900CK14SGH0EXOB27	6,7	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
Citigroup Global Markets Ltd.	XKZZ2JZF41MRHTR1V493	21,0	100,0	0,0	100,0	98,4
DZ Bank AG	529900HNOAA1KXQJUQ27	17,8	100,0	0,0	100,0	100,0
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	12,7	100,0	16,1	83,9	100,0
Unicredit Bank AG	2ZCNRR8UK83OBTEK2170	10,7	100,0	33,3	66,7	100,0
M.M.Warburg & CO (AG & Co.)	MZ11VDH2BQLFZGLQDO60	8,3	93,9	78,8	21,2	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
1st Capital Management Group GmbH	529900ISP KU VG8HSQD34	17,2	82,4	69,4	30,6	98,8
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	15,0	96,5	25,6	74,4	100,0
BMO Capital Markets Ltd	L64HM9LHPDOS1B9HJC68	11,0	100,0	42,9	57,1	100,0
M.M.Warburg & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	10,8	70,6	62,3	37,7	99,7
Goldman Sachs International	W22LROWP2IHZNBB6K528	8,3	96,2	13,5	86,5	100,0

### Interest Rate Derivates

Class of Instrument	Interest rate derivates / 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
M.M.Warburg & CO (AG & Co.)	MZI1VDH2BQLFZGLQDO60	54,2	98,2	21,4	78,6	100,0
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	45,8	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.)	MZ11VDH2BQLFZGLQDO60	89,1	100,0	0,0	100,0	100,0
Commerzbank AG	851WYG NLUQLFZBSYGB56	8,4	100,0	0,0	100,0	100,0
Citibank N.A.	549300U8H3KN0K301B23	1,7	100,0	0,0	100,0	100,0
Unicredit Bank AG	2ZCNRR8UK83OBTEK2170	0,6	100,0	0,0	100,0	100,0
Joh. Berenberg, Gossler & Co.	529900UC2OD7II24Z667	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 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.)	MZI1VDH2BQLFZGLQDO60	55,5	100,0	21,8	78,2	100,0
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	44,5	89,0	20,3	79,7	100,0



## Securitised Derivates

Class of Instrument	Securitised 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.)	MZ11VDH2BQLFZGLQDO60	58,7	97,6	33,0	67,0	100,0
Leonteq Securities AG	ML61HP3A4MKTTA1ZB671	11,5	100,0	100,0	0,0	100,0
Flow Traders B.V.	549300CLJI9XDH12XV51	7,5	100,0	8,0	92,0	100,0
OPTIVER V.O.F.	7245009KRY SAYB2QCC29	4,4	100,0	0,0	90,9	100,0
Societe Generale S.A.	O2RNE8IBXP4R0TD8PU41	3,6	100,0	13,9	86,1	97,2



## Commodity Derivates

Class of Instrument	Commodity derivates / 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
-	-	-	-	-	-	-

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
Flow Traders B.V.	549300CLJI9XDH12XV51	49,5	100,0	1,9	98,1	100,0
OPTIVER V.O.F.	7245009KRY SAYB2QCC29	9,4	100,0	0,0	100,0	97,3
SOCIETE GENERALE S.A.	O2RNE8IBXP4R0TD8PU41	8,7	100,0	0,9	99,1	100,0
Commerzbank AG	851WYG NLUQLFZBSYGB56	7,0	100,0	0,0	100,0	100,0
Unicredit Bank AG	2ZCNRR8UK83OBTEK2170	6,1	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
-	-	-	-	-	-	-