

Executed transactions

Class of Instrument	Debt Instruments: Bonds				
Client Type	Professional				
Traded on a venue	On				
Notification if < 1 average trade per business day in the previous year	No				
	Proportion of volume executed 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
Top 5 Venues ranked in terms of volume (descending order)					
Tradeweb Europe Ltd (2138001WXZQOPMPA3D50)	100.0%	100.0%	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na

Debt Instruments: Bonds/Professional/On Venue – Counterparty breakdown

Class of Instrument	Debt Instruments: Bonds				
Client Type	Professional				
Traded on a venue	On				
Notification if < 1 average trade per business day in the previous year	No				
	Proportion of volume executed 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
Top 5 Venues ranked in terms of volume (descending order)					
Nomura (DGQCSV2PHVF712743539)	16.5%	8.2%	na	na	na
Citigroup (DLEP71J34FBYRCZ61289)	13.5%	8.4%	na	na	na
Natwest Markets (RR3QWICWWIPCS8A4S074)	9.1%	7.3%	na	na	na
HSBC (MP6I5ZYBUEU3UXPYFY54)	8.6%	8.0%	na	na	na
Barclays Capital (G5GSEF7VJP5I7OUK5573)	8.3%	6.1%	na	na	na

Class of Instrument	Debt Instruments: Bonds				
Client Type	Professional				
Traded on a venue	Off				
Notification if < 1 average trade per business day in the previous year	No				
	Proportion of volume executed 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
Top 5 Venues ranked in terms of volume (descending order)					
BMO Capital Markets (L64HM9LHPDOS1B9HJC68)	29.4%	19.4%	na	na	na
CIBC (2IGI19DL77OX0HC3ZE78)	18.6%	25.0%	na	na	na
Royal Bank of Canada (ES7IP3U3RHIGC71XBU11)	14.6%	13.0%	na	na	na
Bofa Merrill Lynch (B4TYDEB6GKMZO031MB27)	13.6%	24.5%	na	na	na
Lloyds Bank Corporate Markets (213800MBWEJDM5CU638)	8.7%	1.8%	na	na	na

Class of Instrument		Debt Instruments: Bonds				
Client Type		Retail				
Traded on a venue		On				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
Tradeweb Europe Ltd (2138001WXZQOPMPA3D50)		100.0%	100.0%	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na

Debt Instruments: Bonds/Retail/On Venue – Counterparty breakdown

Class of Instrument		Debt Instruments: Bonds				
Client Type		Retail				
Traded on a venue		On				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
Deutsche Bank (7LTFWFZYICNSX8D621K86)		16.4%	21.3%	na	na	na
Citigroup (DLEP71J34FBYRCZ61289)		13.6%	6.1%	na	na	na
Natwest Markets (RR3QWICWWIPCS8A4S074)		9.4%	4.7%	na	na	na
Nomura (DGQCSV2PHVF7I2743539)		9.0%	5.9%	na	na	na
HSBC (MP6ISZYZBEU3UXPYFY54)		8.1%	9.8%	na	na	na

Class of Instrument		Debt Instruments: Bonds				
Client Type		Retail				
Traded on a venue		Off				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
Lloyds Bank Corporate Markets (213800MBWEIJD5CU638)		42.9%	42.0%	na	na	na
BMO Capital Markets (L64HM9LHPDOS1B9HJC68)		24.2%	12.7%	na	na	na
Barclays Capital (G5GSEF7VJP5I7OUK5573)		11.1%	1.6%	na	na	na
TD Securities Canada (PT3QB789TSUIDF371261)		4.5%	7.4%	na	na	na
CIBC (2IGI19DL77OX0HC3ZE78)		3.5%	12.9%	na	na	na

Interest Rate Derivatives: Swaps, Forwards and other Interest Rate Derivatives					
<u>Class of Instrument</u>					
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Proportion of volume executed 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	
<u>Top 5 Venues ranked in terms of volume (descending order)</u>					
Barclays Capital (G5GSEF7VJP5I7OUK5573)	37.0%	27.1%	na	na	na
Morgan Stanley (4PQUHN3JPPGFNF3BB653)	20.0%	41.0%	na	na	na
JP Morgan (K6Q0W1PS1L1O4IQL9C32)	17.3%	12.8%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	15.7%	9.6%	na	na	na
Nomura (DGQCSV2PHVF712743539)	3.5%	4.0%	na	na	na

Interest Rate Derivatives: Swaps, Forwards and other Interest Rate Derivatives				
<u>Class of Instrument</u>				
Client Type	Retail			
Notification if < 1 average trade per business day in the previous year	No			
Proportion of volume executed 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
<u>Top 5 Venues ranked in terms of volume (descending order)</u>				
na	na	na	na	na
na	na	na	na	na
na	na	na	na	na
na	na	na	na	na
na	na	na	na	na

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives					
<u>Class of Instrument</u>					
Client Type	Professional				
Traded on a venue	On				
Notification if < 1 average trade per business day in the previous year	No				
Proportion of volume executed 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	
<u>Top 5 Venues ranked in terms of volume (descending order)</u>					
FXConnect – MTF MFXR (549300SQM0MRIF4HE647)	100.0%	100.0%	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives/Professional/On Venue – Counterparty breakdown

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives				
Class of Instrument	Professional			
Client Type	Professional			
Traded on a venue	On			
Notification if < 1 average trade per business day in the previous year	No			
Proportion of volume executed 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
<u>Top 5 Venues ranked in terms of volume (descending order)</u>				
Bank of New York Mellon (HPFHU00Q28E4N0NFVK49)	74.4%	71.4%	na	na
Pictet (549300GSSPQ1QSKI1376)	11.8%	2.8%	na	na
Northern Trust (6PTKHDJ8HDUF78PFWH30)	6.6%	12.7%	na	na
State Street (571474TGEMMWANRLN572)	2.5%	4.3%	na	na
National Australia Bank (F8SB4JFBSYQFRQEH3Z21)	2.4%	2.2%	na	na

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives				
Class of Instrument	Professional			
Client Type	Professional			
Traded on a venue	Off			
Notification if < 1 average trade per business day in the previous year	No			
Proportion of volume executed 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
<u>Top 5 Venues ranked in terms of volume (descending order)</u>				
JP Morgan (K6Q0W1PS1L1O4IQL9C32)	29.4%	33.6%	na	na
Morgan Stanley (4PQUHN3JPGFNF3BB653)	11.4%	15.9%	na	na
Natwest Markets (RR3QWICWWIPCS8A4S074)	9.1%	7.1%	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	8.3%	3.5%	na	na
Bank of New York Mellon (HPFHU00Q28E4N0NFVK49)	8.1%	0.9%	na	na

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives				
Class of Instrument	Retail			
Client Type	Retail			
Traded on a venue	On			
Notification if < 1 average trade per business day in the previous year	No			
Proportion of volume executed 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
<u>Top 5 Venues ranked in terms of volume (descending order)</u>				
FXConnect – MTF MFXR (549300SQM0MRIF4HE647)	100.0%	100.0%	na	na
#na	#na	#na	na	na
#na	#na	#na	na	na
#na	#na	#na	na	na
#na	#na	#na	na	na

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives/Retail/On Venue – Counterparty breakdown

Currency Derivatives: Swaps, Forwards and Other Currency Derivatives					
Class of Instrument	Currency Derivatives				
Client Type	Retail				
Traded on a venue	On				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Bank of New York Mellon (HPFHU00Q28E4N0NFVK49)	96.8%	91.9%	na	na	na
Pictet (549300GSSPQ1QSKI1376)	1.5%	0.8%	na	na	na
Royal Bank of Canada (5493002MUOV04NSPT571)	1.2%	7.0%	na	na	na
Northern Trust (6PTKHDJ8HDUF78PFWH30)	0.5%	0.4%	na	na	na
na	na	na	na	na	na

Equity Derivatives: Swaps and Other Equity Derivatives					
Class of Instrument	Equity Derivatives				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Barclays Capital (G5GSEF7VJP5I7OUK5573)	48.7%	43.3%	na	na	na
Morgan Stanley (4PQUHN3JPFQFNF3BB653)	23.8%	22.9%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	14.9%	16.6%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	12.6%	17.2%	na	na	na
na	na	na	na	na	na

Class of Instrument		Equity Derivatives: Swaps and Other Equity Derivatives				
Client Type		Retail				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
na		na	na	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na
na		na	na	na	na	na

Class of Instrument		Other Instruments				
Client Type		Professional				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
Link Fund Solutions (213800X5W8ARSPPOOG16)		58.5%	53.1%	na	na	na
FundPartner Solutions Europe SA (2221002W65PS26SQKX63)		13.3%	34.5%	na	na	na
Saba Capital Management (YCZ8C13B1NIESD9DNZ63)		11.0%	0.3%	na	na	na
Northern Trust International Fund Administration Services (Guernsey) Limited (549300EOCJQ4ER0W4035)		5.7%	7.2%	na	na	na
Chenavari Investment Managers (2221002I7YLPYESJP112)		4.9%	0.4%	na	na	na

Class of Instrument		Other Instruments				
Client Type		Retail				
Notification if < 1 average trade per business day in the previous year		No				
Top 5 Venues ranked in terms of volume (descending order)		Proportion of volume executed 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
Link Fund Solutions (213800X5W8ARSPPOOG16)		62.2%	53.0%	na	na	na
FundPartner Solutions Europe SA (2221002W65PS26SQKX63)		33.6%	40.4%	na	na	na
Northern Trust International Fund Administration Services (Guernsey) Limited (549300EOCJQ4ER0W4035)		2.8%	4.7%	na	na	na
CG Asset Management Ltd (213800R1BS3Z253M2J72)		0.4%	0.3%	na	na	na
Carvetian Capital Management Ltd (213800O8EJ9UNYJNTF82)		0.2%	0.3%	na	na	na

Transmitted transactions

Class of Instrument	Equities – Shares and Depositary Receipts				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
CLSA (213800VZMAGVIU2IJA72)	27.6%	26.7%	na	na	na
Banco Santander (5493006QMFDDMYWIAM13)	21.6%	13.2%	na	na	na
Sanford Bernstein (54930049G8WQ5OOUSD19)	7.5%	8.2%	na	na	na
RBC Capital Markets FX (TXDSU465XBWIGJ8G8E98)	6.3%	5.9%	na	na	na
Deutsche Bank (7LTWFZYICNSX8D621K86)	4.3%	9.3%	na	na	na

Class of Instrument	Equities – Shares and Depositary Receipts				
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	30.6%	44.7%	na	na	na
Jefferies (S5THZMDUJCTQBTRV198)	10.4%	7.1%	na	na	na
Instinet (213800MXAKR2LA1VBM44)	8.2%	12.2%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	7.8%	6.6%	na	na	na
Canaccord Genuity Limited UK Canada (ZBU7V5NIMN4ILRFC23)	2.4%	3.6%	na	na	na

Class of Instrument	Equities – Shares and Depositary Receipts: Tick size liquidity bands 1 and 2				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	14.0%	16.0%	na	na	na
Instinet (213800MXAKR2LA1VBM44)	10.7%	9.2%	na	na	na
Liquidnet (213800ZIRB79BE5XQM68)	7.4%	8.5%	na	na	na
SMBC (G7WFA3G3MT5YHH8CHG81)	7.4%	8.7%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	7.2%	7.0%	na	na	na

Equities – Shares and Depositary Receipts: Tick size liquidity bands 1 and 2					
Class of Instrument					
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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 (213800MXAKR2LA1VBM44)	21.7%	16.2%	na	na	na
Sanford Bernstein (54930049G8WQ5OOUSD19)	21.0%	19.7%	na	na	na
UBS (BFM8T61CT2L1QCCEMIK50)	9.7%	8.9%	na	na	na
SMBC (G7WFA3G3MT5YHH8CHG81)	7.2%	8.6%	na	na	na
Citigroup (XKZZ2JZF41MRHTR1V493)	5.4%	5.8%	na	na	na

Equities – Shares and Depositary Receipts: Tick size liquidity bands 3 and 4					
Class of Instrument					
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Liquidnet (213800ZIRB79BE5XQM68)	14.8%	12.5%	na	na	na
Sanford Bernstein (54930049G8WQ5OOUSD19)	12.6%	25.0%	na	na	na
Barclays Capital (K9WDOH4D2PYBSLSOB484)	7.2%	1.9%	na	na	na
ITG (213800EEC95PRUCEUP63)	7.2%	4.3%	na	na	na
BMO Capital Markets (L64HM9LHPDOS1B9HJC68)	5.5%	1.5%	na	na	na

Equities – Shares and Depositary Receipts: Tick size liquidity bands 3 and 4					
Class of Instrument					
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	23.5%	24.8%	na	na	na
Jefferies (S5THZMDUJCTQZBTRV198)	10.3%	5.0%	na	na	na
Kempen & Co (20302V7616D3HTVSXO60)	8.2%	2.8%	na	na	na
Numis (213800P3F4RT97WDSX47)	5.8%	12.7%	na	na	na
Peel Hunt Ltd (5493007DWN0R4YBM4C84)	5.5%	7.6%	na	na	na

Equities – Shares and Depositary Receipts: Tick size liquidity bands 5 and 6					
Class of Instrument	Professional				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Liquidnet (213800ZIRB79BE5XQM68)	15.5%	24.7%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	14.8%	5.9%	na	na	na
Sanford Bernstein (54930049G8WQ5OOUSD19)	11.8%	13.4%	na	na	na
ITG (213800EEC95PRUCEUP63)	6.6%	7.8%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	5.3%	4.0%	na	na	na

Equities – Shares and Depositary Receipts: Tick size liquidity bands 5 and 6					
Class of Instrument	Retail				
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	23.7%	21.5%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	14.7%	9.1%	na	na	na
Liquidnet (213800ZIRB79BE5XQM68)	11.8%	17.5%	na	na	na
Morgan Stanley (4PQUHN3JPPGFNF3BB653)	5.8%	4.9%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	5.1%	4.2%	na	na	na

Equity Derivatives: Futures and Options Admitted to Trading on a Trading Venue					
Class of Instrument	Professional				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
Barclays Capital (AC28XWWI3WIBK2824319)	51.9%	27.7%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	12.6%	11.4%	na	na	na
Morgan Stanley (5493006PLV06WO8C1T28)	10.9%	26.7%	na	na	na
UBS (T6FIZBDPKLYJKFCRVK44)	6.7%	5.6%	na	na	na
Bofa Merrill Lynch (GGDZP1UYGU9STUHRDP48)	5.1%	5.4%	na	na	na

Equity Derivatives: Futures and Options Admitted to Trading on a Trading Venue					
Class of Instrument					
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na
na	na	na	na	na	na

Securitized Derivatives: Warrants and Certificate Derivatives					
Class of Instrument					
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
JP Morgan (K6Q0W1PS1L1O4IQL9C32)	42.4%	38.9%	na	na	na
Barclays Capital (G5GSEF7VJP5I7OUK5573)	24.0%	25.8%	na	na	na
Morgan Stanley (4PQUHN3JPFQFN3BB653)	15.1%	10.7%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	10.0%	12.8%	na	na	na
Goldman Sachs (W22LROWP2IHZNBB6K528)	7.8%	10.5%	na	na	na

Securitized Derivatives: Warrants and Certificate Derivatives					
Class of Instrument					
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
Top 5 Venues ranked in terms of volume (descending order)	Proportion of volume executed 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
BTIG (213800YZXS7U4QZP6441)	92.2%	13.6%	na	na	na
Barclays Capital (G5GSEF7VJP5I7OUK5573)	5.4%	8.5%	na	na	na
Morgan Stanley (4PQUHN3JPFQFN3BB653)	1.1%	3.4%	na	na	na
JP Morgan (K6Q0W1PS1L1O4IQL9C32)	0.8%	3.4%	na	na	na
N+1 Singer Capital Markets (213800ITO7QMNQ9SFG53)	0.4%	64.4%	na	na	na

<u>Class of Instrument</u>	Exchange Traded Products (Exchange Traded Funds, Exchange Traded Notes and Exchange Traded Commodities)				
Client Type	Professional				
Notification if < 1 average trade per business day in the previous year	No				
<u>Top 5 Venues ranked in terms of volume (descending order)</u>	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	85.9%	96.2%	na	na	na
Macquarie Capital Limited (549300GX4FPMFF91RJ37)	4.4%	0.6%	na	na	na
RBC Capital Markets FX (TXDSU46SXBWIGJ8G8E98)	4.2%	1.5%	na	na	na
Instinet (213800MXAKR2LA1VBM44)	4.1%	0.2%	na	na	na
Societe Generale (O2RNE8IBXP4R0TD8PU41)	0.7%	0.4%	na	na	na

<u>Class of Instrument</u>	Exchange Traded Products (Exchange Traded Funds, Exchange Traded Notes and Exchange Traded Commodities)				
Client Type	Retail				
Notification if < 1 average trade per business day in the previous year	No				
<u>Top 5 Venues ranked in terms of volume (descending order)</u>	Proportion of volume executed 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
Sanford Bernstein (54930049G8WQ5OOUSD19)	98.6%	98.8%	na	na	na
RBC Capital Markets FX (TXDSU46SXBWIGJ8G8E98)	1.2%	1.0%	na	na	na
UBS (BFM8T61CT2L1QCEMIK50)	0.1%	0.1%	na	na	na
Instinet (213800MXAKR2LA1VBM44)	0.1%	0.1%	na	na	na
Redburn Partners (213800PKEJQZQXQCOJ04)	0.0%	0.0%	na	na	na