



Jan 01, 2017 to Dec 31, 2017

Vanguard Asset Management

Investment Service – Portfolio Management/Reception and Transmission Professional Clients

Class of Instrument		Equity Derivatives – Options and Futures admitted to trading on a trading venue			
Notification if < 1 average trade per business day in the previous year		N			
Top five execution venues ranked in terms of trading volumes (descending order)	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
Morgan Stanley & Co. LLC	99.08	98.82	18.79	39.46	0.00
Goldman Sachs & Co. LLC	0.69	0.78	0.00	0.00	0.00
Morgan Stanley & Co. International PLC	0.22	0.25	0.00	0.00	0.00
Merrill Lynch, Pierce, Fenner & Smith Incorporated	0.01	0.16	0.00	0.00	0.00

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