Vanguard

Vanguard Asset Management

Jan 01, 2020 to Dec 31, 2020

Investment service - portfolio management/reception and transmission - professional clients

Class of instrument	Interest Rate – Futures and Options admitted to trading on a trading venue		
Notifications if < 1 average trade per business day in the previous year	Y		

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
FIXEMSX	89.40%	82.21%	0.00%	0.00%	0.00%
Citigroup Global Markets Inc.	3.53%	8.64%	0.00%	0.00%	0.00%
JP Morgan Securities LLC	2.03%	2.19%	0.00%	0.00%	0.00%
BNP Paribas Securities Corp.	2.00%	0.51%	0.00%	0.00%	0.00%
Deutsche Bank Securities Inc.	0.99%	0.29%	0.00%	0.00%	0.00%