



# Vanguard Asset Management | RTS 28 Report

Jan 01, 2018 to Dec 31, 2018

Investment Services - Portfolio Management/Reception and Transmission | Professional Clients

## Class of Instrument: Equities Derivatives - Options & Futures Admitted on a Trading Venue

Notification if < 1 average trade per business day in the previous year: N

Broker Name	% of Volume Traded	% of Orders Executed	% of Passive Orders	% of Aggressive Orders	% of Directed Orders
Morgan Stanley International	98.51%	98.00%	100.00%	99.74%	0.00%
Goldman Sachs International	0.97%	1.89%	0.00%	0.26%	0.00%
Merrill Lynch International LLC	0.52%	0.20%	0.00%	0.00%	0.00%

Notes: Top five execution venues ranked in terms of trading volumes (decending order)