

G1 Execution Services, LLC(ETMM)	6.34	6.81	0.00	0.00	0.00	0	0	0	0	0	0	0	0
NYSE Arca(ARCA)	2.41	0.00	0.00	41.30	0.00	0	0	0	0	0	0	0	0
NASDAQ Execution Services, LLC(NSDQ)	2.28	0.00	0.00	39.13	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	1.65	1.77	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Cboe EDGX US Equities Exchange(EDGX)	0.38	0.00	0.00	6.52	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	0.38	0.00	22.22	2.17	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.38	0.41	0.00	0.00	0.00	0	0	0	0	0	0	0	0

Material Aspects:

October 2020

Option Contracts

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
0	0	0	0	0

Venues

G1 Execution Services, LLC(ETMM)	6.93	7.10	0.00	2.63	0.00	0	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	6.10	6.31	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	1.73	1.72	12.50	0.00	0.00	0	0	0	0	0	0	0	0
NASDAQ Execution Services, LLC(NSDQ)	1.18	0.00	0.00	44.74	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	1.04	0.00	0.00	39.47	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.28	0.29	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Instinet BlockCross(BLKX)	0.07	0.00	0.00	0.00	100.00	0	0	0	0	0	0	0	0
Cboe EDGX US Equities Exchange(EDGX)	0.07	0.00	0.00	2.63	0.00	0	0	0	0	0	0	0	0

Material Aspects:

November 2020

Non S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
100	96.5	1.75	1.75	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders(%)	Market Orders(%)	Marketable Limit Orders(%)	Non-Marketable Limit Orders(%)	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Citadel Securities LLC(CDRG)	50.95	54.12	46.67	6.90	0.00	0	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	26.92	29.18	6.67	0.00	0.00	0	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	6.56	6.90	6.67	1.72	0.00	0	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	6.34	6.30	20.00	3.45	0.00	0	0	0	0	0	0	0	0
NASDAQ Execution Services, LLC(NSDQ)	3.00	0.00	13.33	43.10	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	2.45	2.66	0.00	0.00	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	2.34	0.00	6.67	34.48	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.78	0.85	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Cboe EDGX US Equities Exchange(EDGX)	0.67	0.00	0.00	10.34	0.00	0	0	0	0	0	0	0	0

Material Aspects:

November 2020

Option Contracts

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
0	0	0	0	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders(%)	Market Orders(%)	Marketable Limit Orders(%)	Non-Marketable Limit Orders(%)	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)

Material Aspects:

December 2020

S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
100	96.56	2	1.2	0.24

Venues

Venue - Non-directed Order Flow	Non-Directed Orders(%)	Market Orders(%)	Marketable Limit Orders(%)	Non-Marketable Limit Orders(%)	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Citadel Securities LLC(CDRG)	45.22	50.75	48.00	0.68	0.00	0	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	26.56	29.52	16.00	3.40	50.00	0	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	7.89	8.54	16.00	0.68	25.00	0	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	7.38	8.21	8.00	0.68	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	6.58	0.00	0.00	61.90	0.00	0	0	0	0	0	0	0	0
NASDAQ Execution Services, LLC(NSDQ)	3.40	0.00	8.00	30.61	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	2.17	2.49	0.00	0.00	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.58	0.50	4.00	0.68	0.00	0	0	0	0	0	0	0	0
Cboe EDGX US Equities Exchange(EDGX)	0.14	0.00	0.00	1.36	0.00	0	0	0	0	0	0	0	0
Instinet BlockCross(BLKX)	0.07	0.00	0.00	0.00	25.00	0	0	0	0	0	0	0	0

Material Aspects:

NASDAQ Execution Services, LLC(NSDQ)	1.37	0.00	0.00	18.07	0.00	0	0	0	0	0	0	0	0
Cboe EDGX US Equities Exchange(EDGX)	0.46	0.00	0.00	6.02	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.37	0.41	0.00	0.00	0.00	0	0	0	0	0	0	0	0

Material Aspects:

December 2020

Option Contracts

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
0	0	0	0	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders(%)	Marketable Limit Orders(%)	Non-Marketable Limit Orders(%)	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)

Material Aspects: