

VIRTU Americas LLC(NITE)	35.77	35.80	0.00	33.33	0.00	0	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	10.98	11.11	0.00	0.00	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	2.03	2.06	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	0.81	0.82	0.00	0.00	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	0.41	0.00	0.00	33.33	0.00	0	0	0	0	0	0	0	0

Material Aspects:

January 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
0.00	0.00	0.00	0.00	0.00

Venues

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

Material Aspects:

February 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
100.00	99.44	0.11	0.45	0.00

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	Net Payment Paid/Received for Marketable Limit	Net Payment Paid/Received for Non-Marketable Limit	Net Payment Paid/Received for Other
							Orders(cent per hundred shares)	Orders(USD)	Orders(cent per hundred shares)	Orders(USD)
Citadel Securities LLC(CDRG)	56.38	56.72	0.00	25.00	0.00	0	0	0	0	0
VIRTU Americas LLC(NITE)	31.32	31.30	100.00	25.00	0.00	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	8.84	8.93	0.00	0.00	0.00	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	1.01	1.02	0.00	0.00	0.00	0	0	0	0	0
UBS Securities, LLC(UBSS)	0.89	0.90	0.00	0.00	0.00	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	0.67	0.68	0.00	0.00	0.00	0	0	0	0	0
State Street Global Markets, LLC(SSBS)	0.45	0.45	0.00	0.00	0.00	0	0	0	0	0
New York Stock Exchange(NYSE)	0.34	0.00	0.00	37.50	0.00	0	0	0	0	0
NASDAQ Execution Services, LLC(NSDQ)	0.11	0.00	0.00	12.50	0.00	0	0	0	0	0

Material Aspects:

February 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
100.00	99.68	0.00	0.00	0.32

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	Net Payment Paid/Received for Marketable Limit	Net Payment Paid/Received for Non-Marketable Limit	Net Payment Paid/Received for Other
							Orders(cent per hundred shares)	Orders(USD)	Orders(cent per hundred shares)	Orders(USD)
Citadel Securities LLC(CDRG)	58.65	58.52	0.00	0.00	100.00	0	0	0	0	0
VIRTU Americas LLC(NITE)	31.41	31.51	0.00	0.00	0.00	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	5.13	5.14	0.00	0.00	0.00	0	0	0	0	0

UBS Securities, LLC(UBSS) State Street Global Markets, LLC(SSBS) JANE STREET CAPITAL, LLC(JNST) Two Sigma Securities, LLC(SOHO)	2.24	2.25	0.00	0.00	0.00	0	0	0	0	0	0	0	0
	1.28	1.29	0.00	0.00	0.00	0	0	0	0	0	0	0	0
	0.64	0.64	0.00	0.00	0.00	0	0	0	0	0	0	0	0
	0.64	0.64	0.00	0.00	0.00	0	0	0	0	0	0	0	0

Material Aspects:

February 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
0.00	0.00	0.00	0.00	0.00

Venues

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

Material Aspects:

March 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
100.00	99.87	0.00	0.13	0.00

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	Net Payment	Net Payment	Net Payment	Net Payment	Net Payment	Net Payment
							Paid/Received for Market Orders(cents per hundred shares)	Paid/Received for Marketable Limit Orders(USD)	Paid/Received for Marketable Limit Orders(cents per hundred shares)	Paid/Received for Non-Marketable Limit Orders(USD)	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Paid/Received for Other Orders(USD)	Paid/Received for Other Orders(cents per hundred shares)
Citadel Securities LLC(CDRG)	60.08	60.22	0.00	16.67	0.00	0	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	13.43	13.37	0.00	33.33	0.00	0	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	11.41	11.45	0.00	0.00	0.00	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	7.43	7.45	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	4.35	4.37	0.00	0.00	0.00	0	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	2.92	2.93	0.00	0.00	0.00	0	0	0	0	0	0	0	0
State Street Global Markets, LLC(SSBS)	0.21	0.21	0.00	0.00	0.00	0	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	0.16	0.00	0.00	50.00	0.00	0	0	0	0	0	0	0	0

Material Aspects:

March 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
100.00	100.00	0.00	0.00	0.00

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	Net Payment	Net Payment	Net Payment	Net Payment	Net Payment
							Paid/Received for Market Orders(cents per hundred shares)	Paid/Received for Marketable Limit Orders(USD)	Paid/Received for Marketable Limit Orders(cents per hundred shares)	Paid/Received for Non-Marketable Limit Orders(USD)	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Paid/Received for Other Orders(USD)
Citadel Securities LLC(CDRG)	59.95	59.95	0.00	0.00	0.00	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	12.97	12.97	0.00	0.00	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	9.88	9.88	0.00	0.00	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	8.68	8.68	0.00	0.00	0.00	0	0	0	0	0	0	0

Two Sigma Securities, LLC(SOHO)	4.19	4.19	0.00	0.00	0.00	0	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	3.79	3.79	0.00	0.00	0.00	0	0	0	0	0	0	0	0
State Street Global Markets, LLC(SSBS)	0.55	0.55	0.00	0.00	0.00	0	0	0	0	0	0	0	0

Material Aspects:

March 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
0.00	0.00	0.00	0.00	0.00

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 Marketable Limit Orders(cent per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(cent per hundred shares)	Net Payment Paid/Received for Non-Marketable Other Orders(USD)	Net Payment Paid/Received for Other Orders(cent per hundred shares)

Material Aspects: