

ROYAL ALLIANCE ASSOCIATES INC. - Held NMS Stocks and Options Order Routing Public Report

Generated on Tue Apr 12 2022 09:54:29 GMT-0400 (Eastern Daylight Time)

1st Quarter, 2022

January 2022

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	97.47	0.57	1.80	0.16

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)	42.26	43.90	37.63	10.00	36.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	25.67	26.49	26.88	8.36	48.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	20.89	21.69	15.05	6.16	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	5.06	5.23	8.60	1.23	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	1.66	0.00	2.15	35.07	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.61	1.65	1.08	1.10	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.51	0.00	8.60	30.96	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	1.01	1.04	0.00	0.14	12.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.32	0.00	0.00	6.71	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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)
Members Exchange (MEMX)	0.01	0.00	0.00	0.27	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Members Exchange (MEMX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

January 2022

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	97.63	0.71	1.52	0.15

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)	42.96	44.06	40.86	10.01	27.72	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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)
VIRTU Americas, LLC (NITE)	26.05	26.79	26.34	4.60	6.93	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	20.65	21.28	17.74	3.65	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	5.01	5.16	5.38	0.81	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.65	1.69	1.08	0.54	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.03	0.00	5.91	33.29	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	1.01	1.02	1.08	0.68	0.99	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	0.62	0.00	1.61	20.57	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.54	0.00	0.00	18.27	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Instinet BlockCross (BLKX)	0.26	0.00	0.00	0.00	64.36	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Instinet BlockCross (BLKX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

January 2022

Options

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	74.73	5.34	19.93	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 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)	54.04	55.71	60.00	46.67	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	23.16	26.67	26.67	10.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	9.47	8.57	0.00	15.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	7.02	7.14	6.67	6.67	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Services LLC (WEXX)	6.32	1.90	6.67	21.67	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

February 2022

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	97.62	0.53	1.84	0.01

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)	41.01	42.13	30.67	14.54	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	26.20	26.98	20.00	7.57	33.33	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	20.76	21.27	22.67	7.97	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	6.78	6.95	10.67	1.99	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.68	1.70	5.33	0.80	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.24	0.00	4.00	32.07	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	1.08	0.00	5.33	27.49	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.93	0.97	1.33	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.27	0.00	0.00	6.97	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Members Exchange (MEMX)	0.02	0.00	0.00	0.60	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Boe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Members Exchange (MEMX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

February 2022

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	97.32	1.00	1.57	0.12

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)	40.51	41.90	37.38	6.61	20.88	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	26.06	27.04	24.30	3.11	4.40	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	20.65	21.39	24.30	2.33	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	6.74	6.97	9.35	0.78	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.53	1.59	0.93	0.13	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	1.09	1.11	1.87	0.13	2.20	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.00	0.00	1.40	27.72	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	1.00	0.00	0.47	27.98	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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)
Cboe EDGX US Equities Exchange (EDGX)	0.75	0.00	0.00	21.11	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Instinet BlockCross (BLKX)	0.30	0.00	0.00	0.00	72.53	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Instinet BlockCross (BLKX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

February 2022

Options

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	80.19	5.11	14.70	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 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)
---------------------------------	-------------------------	-------------------	-----------------------------	---------------------------------	------------------	--------------------------------------------------	-----------------------------------------------------------------------	------------------------------------------------------------	---------------------------------------------------------------------------------	----------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------	----------------------------------------------------------------------

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)	54.29	54.37	56.25	53.19	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	25.71	28.57	43.75	4.26	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	9.52	9.52	0.00	12.77	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Services LLC (WEXX)	5.40	1.59	0.00	27.66	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	5.08	5.95	0.00	2.13	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

March 2022

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	97.88	0.31	1.53	0.28

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)	38.88	40.03	38.30	10.33	27.66	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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)
Jane Street Capital, LLC (JNST)	22.51	23.28	19.15	4.98	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	21.95	22.50	25.53	5.90	40.43	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	11.59	11.95	4.26	2.77	14.89	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.46	1.50	4.26	0.55	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.34	0.00	0.00	36.16	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	1.03	0.00	6.38	27.12	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.73	0.74	2.13	0.18	2.13	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.36	0.00	0.00	9.59	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Members Exchange (MEMX)	0.09	0.00	0.00	2.40	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Members Exchange (MEMX):
 [Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

March 2022

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	97.61	0.78	1.47	0.14

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)	37.91	38.96	41.45	9.42	9.56	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	22.75	23.48	21.76	4.32	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	22.47	23.10	22.80	3.93	14.71	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	11.68	12.06	10.36	2.09	0.74	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	1.55	1.59	1.04	0.52	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	0.88	0.00	1.04	28.53	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.79	0.81	0.00	0.39	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	0.63	0.00	1.04	20.29	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.59	0.00	0.00	19.37	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Instinet BlockCross (BLKX)	0.41	0.00	0.00	0.00	75.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Jane Street Capital, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Instinet BlockCross (BLKX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

March 2022

Options 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	76.91	5.82	17.27	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 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)	44.47	47.00	55.17	30.85	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	26.68	32.11	31.03	3.19	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	15.42	13.05	6.90	27.66	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Services LLC (WEXX)	8.89	2.87	0.00	36.17	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	4.55	4.96	6.90	2.13	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]