

BERTHEL FISHER & COMPANY - Held NMS Stocks and Options Order Routing Public Report

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3rd Quarter, 2022

July 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	96.36	0.43	2.90	0.31

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)
National Financial Services LLC (XSTM)	24.32	0.00	0.00	0.00	99.09	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG)	23.61	35.45	28.57	5.49	0.18	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	16.06	23.98	28.57	2.95	0.73	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	14.64	22.18	14.29	2.53	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	10.89	16.66	14.29	0.84	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	4.69	0.00	14.29	43.88	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	4.11	0.00	0.00	38.82	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.76	1.17	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.45	0.00	0.00	4.22	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)
UBS Securities, LLC (UBSS)	0.36	0.55	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

National Financial Services LLC (XSTM):
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

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).]

G1 Execution Services, LLC (ETMM):
[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).]

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).]

Two Sigma Securities, LLC (SOHO):
[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).]

UBS Securities, LLC (UBSS):
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

July 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	96.71	0.80	2.45	0.04

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)	25.00	34.80	23.68	4.97	0.07	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)
National Financial Services LLC (XSTM)	23.56	0.00	0.00	0.00	99.34	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	17.36	24.25	28.95	0.93	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	14.61	20.36	15.79	2.17	0.07	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	13.62	19.04	18.42	1.24	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	2.66	0.00	7.89	51.86	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.95	0.00	0.00	18.94	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.66	0.88	5.26	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	0.55	0.00	0.00	10.87	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.45	0.64	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

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National Financial Services LLC (XSTM):

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Jane Street Capital, LLC (JNST):

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NASDAQ Execution Services, LLC (NSDQ):

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Cboe EDGX US Equities Exchange (EDGX):

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Two Sigma Securities, LLC (SOHO):

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New York Stock Exchange (NYSE):

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UBS Securities, LLC (UBSS):
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July 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	32.63	7.20	56.78	3.39

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)	43.16	50.65	47.06	41.26	50.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Services LLC (WEXX)	27.99	0.00	0.00	35.79	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	19.44	22.08	29.41	18.85	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	5.56	23.38	17.65	0.27	50.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	3.85	3.90	5.88	3.83	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):
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Wolverine Execution Services LLC (WEXX):
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Dash Financial Technologies LLC (DASH):
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Susquehanna Capital Group (SUSQ):
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Morgan Stanley & Company LLC (MSCO):
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August 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	88.54	0.74	10.05	0.67

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)	18.78	36.91	18.18	5.80	0.80	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	18.38	0.00	0.00	49.47	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	17.63	0.00	0.00	0.00	98.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	13.07	0.00	0.00	35.17	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	12.85	26.01	18.18	3.09	0.40	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	11.96	24.07	36.36	2.71	0.60	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	5.75	11.71	18.18	1.26	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.83	0.00	0.00	2.22	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.50	1.05	0.00	0.00	0.20	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.14	0.24	9.09	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

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NASDAQ Execution Services, LLC (NSDQ):

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VIRTU Americas, LLC (NITE):
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Jane Street Capital, LLC (JNST):
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Two Sigma Securities, LLC (SOHO):
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August 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	93.87	1.17	4.61	0.35

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)
National Financial Services LLC (XSTM)	28.80	0.00	0.00	0.00	98.69	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG)	23.07	37.10	17.50	5.93	0.26	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	16.02	26.15	27.50	0.76	0.13	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	14.78	23.60	30.00	2.68	0.39	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	7.13	11.46	17.50	1.15	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	3.53	0.00	7.50	34.61	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)
NASDAQ Execution Services, LLC (NSDQ)	2.45	0.00	0.00	24.47	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	1.88	0.00	0.00	18.74	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Members Exchange (MEMX)	0.71	0.00	0.00	7.07	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.57	0.96	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

National Financial Services LLC (XSTM):
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Citadel Securities LLC (CDRG):
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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).]

New York Stock Exchange (NYSE):
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NASDAQ Execution Services, LLC (NSDQ):
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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).]

Two Sigma Securities, LLC (SOHO):
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

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August 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
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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	32.12	5.59	59.50	2.79

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)	38.98	50.43	59.09	35.58	40.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Services LLC (WEXX)	33.88	2.61	4.55	42.69	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	16.79	16.52	13.64	17.31	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	6.90	26.96	9.09	1.35	60.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	3.45	3.48	13.64	3.08	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):
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Wolverine Execution Services LLC (WEXX):
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Morgan Stanley & Company LLC (MSCO):
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September 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	92.55	0.94	6.04	0.47

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)	25.23	40.08	27.27	6.34	0.98	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	25.18	0.00	0.00	0.00	98.62	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	15.15	24.03	45.45	3.87	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	14.24	22.86	9.09	3.87	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	7.27	11.34	0.00	3.52	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	6.42	0.00	9.09	44.72	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	4.11	0.00	9.09	28.52	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	1.00	0.00	0.00	7.04	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.95	1.43	0.00	0.70	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Members Exchange (MEMX)	0.20	0.00	0.00	1.41	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

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[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).]

Two Sigma Securities, LLC (SOHO):
[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).]

September 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	91.22	1.52	3.26	4.00

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)
National Financial Services LLC (XSTM)	34.28	0.00	0.00	0.00	92.79	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG)	22.31	36.86	33.33	11.48	1.36	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	15.85	24.00	33.33	1.44	5.07	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	14.48	25.07	19.44	1.91	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	6.83	11.84	8.33	0.96	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
NASDAQ Execution Services, LLC (NSDQ)	1.53	0.00	0.00	27.75	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
New York Stock Exchange (NYSE)	1.48	0.00	2.78	26.32	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Cboe EDGX US Equities Exchange (EDGX)	0.95	0.00	0.00	17.22	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.90	1.54	2.78	0.00	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)
UBS Securities, LLC (UBSS)	0.45	0.70	0.00	0.00	0.14	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects:

National Financial Services LLC (XSTM):
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

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).]

G1 Execution Services, LLC (ETMM):
[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).]

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).]

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).]

September 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	47.40	8.30	42.56	1.73

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)	43.10	48.32	43.48	39.80	80.00	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)
Wolverine Execution Services LLC (WEXX)	26.33	1.34	4.35	41.16	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Dash Financial Technologies LLC (DASH)	15.92	17.45	4.35	15.99	20.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna Capital Group (SUSQ)	10.83	26.85	39.13	0.68	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Morgan Stanley & Company LLC (MSCO)	3.82	6.04	8.70	2.38	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).]

Wolverine Execution Services LLC (WEXX):

[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).]

Susquehanna Capital Group (SUSQ):

[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).]