

October 2020

S&P 500 Stocks
Summary

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
47	100.00	45	95.74	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	23	47.92	23	51.11
VIRTU Americas LLC(NITE)	18	37.50	18	40.00
Two Sigma Securities, LLC(SOHO)	2	4.17	2	4.44
Cboe EDGX US Equities Exchange(EDGX)	1	2.08	0	0.00
G1 Execution Services, LLC(ETMM)	1	2.08	1	2.22
JANE STREET CAPITAL, LLC(JNST)	1	2.08	1	2.22
NASDAQ Execution Services, LLC(NSDQ)	1	2.08	0	0.00
New York Stock Exchange(NYSE)	1	2.08	0	0.00

October 2020

Non-S&P 500 Stocks
Summary

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
263	100.00	109	41.44	35

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	126	42.00	52	47.71
VIRTU Americas LLC(NITE)	85	28.33	41	37.61
NASDAQ Execution Services, LLC(NSDQ)	34	11.33	0	0.00
Cboe EDGX US Equities Exchange(EDGX)	24	8.00	0	0.00
New York Stock Exchange(NYSE)	8	2.67	0	0.00
G1 Execution Services, LLC(ETMM)	7	2.33	4	3.67
UBS Securities, LLC(UBSS)	7	2.33	6	5.50
Two Sigma Securities, LLC(SOHO)	5	1.67	3	2.75
JANE STREET CAPITAL, LLC(JNST)	4	1.33	3	2.75

October 2020

**Option Contracts
Summary**

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
0	0.00	0	0.00	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
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November 2020

**S&P 500 Stocks
Summary**

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
70	100.00	58	82.86	4

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	48	52.75	40	68.97
New York Stock Exchange(NYSE)	21	23.08	0	0.00
VIRTU Americas LLC(NITE)	16	17.58	14	24.14
G1 Execution Services, LLC(ETMM)	2	2.20	2	3.45
Two Sigma Securities, LLC(SOHO)	2	2.20	2	3.45

Cboe EDGX US Equities Exchange(EDGX)	1	1.10	0	0.00
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NASDAQ Execution Services, LLC(NSDQ)	1	1.10	0	0.00
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November 2020

**Non-S&P 500 Stocks
Summary**

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
226	100.00	101	44.69	17

Venues

Venue - Non- directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	111	47.64	53	52.48
VIRTU Americas LLC(NITE)	79	33.91	33	32.67
G1 Execution Services, LLC(ETMM)	10	4.29	6	5.94
Two Sigma Securities, LLC(SOHO)	9	3.86	2	1.98
JANE STREET CAPITAL, LLC(JNST)	8	3.43	6	5.94
Cboe EDGX US Equities Exchange(EDGX)	6	2.58	0	0.00
NASDAQ Execution Services, LLC(NSDQ)	4	1.72	0	0.00

Instinet				
BlockCross(BLKX)	3	1.29	0	0.00
UBS Securities, LLC(UBSS)	2	0.86	1	0.99
NYSE Arca(ARCA)	1	0.43	0	0.00

November 2020

Option Contracts Summary

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
0	0.00	0	0.00	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
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December 2020

S&P 500 Stocks Summary

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
76	100.00	63	82.89	0

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	36	38.30	33	52.38
VIRTU Americas LLC(NITE)	23	24.47	16	25.40

New York Stock Exchange(NYSE)	14	14.89	0	0.00
G1 Execution Services, LLC(ETMM)	6	6.38	6	9.52
JANE STREET CAPITAL, LLC(JNST)	6	6.38	6	9.52
Cboe EDGX US Equities Exchange(EDGX)	4	4.26	0	0.00
NASDAQ Execution Services, LLC(NSDQ)	2	2.13	0	0.00
Two Sigma Securities, LLC(SOHO)	2	2.13	2	3.17
Instinet BlockCross(BLKX)	1	1.06	0	0.00

December 2020

Non-S&P 500 Stocks Summary

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
293	100.00	153	52.22	36

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
Citadel Securities LLC(CDRG)	151	49.51	79	51.63
VIRTU Americas LLC(NITE)	98	32.13	51	33.33
G1 Execution Services, LLC(ETMM)	13	4.26	8	5.23

JANE STREET CAPITAL, LLC(JNST) Cboe EDGX US Equities Exchange(EDGX) Instinet BlockCross(BLKX)	13	4.26	12	7.84
NASDAQ Execution Services, LLC(NSDQ) Two Sigma Securities, LLC(SOHO) UBS Securities, LLC(UBSS)	6	1.97	0	0.00
	4	1.31	2	1.31
	2	0.66	1	0.65

December 2020

**Option Contracts
Summary**

Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders
0	0.00	0	0.00	0

Venues

Venue - Non- directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
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**HIGHTOWER SECURITIES, LLC - Held NMS
 Stocks and Options Order Routing Public
 Report
 Generated on Wed Jan 06 2021 07:56:02 GMT-
 5 EST**

4th Quarter, 2020

Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders
0.00		2 4.26

Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders
0		0.00 0
0		0.00 0
0		0.00 0
0		0.00 1
0		0.00 0
0		0.00 0
0		0.00 1
0		0.00 1

Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders
13.31	42	15.97

Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders
14	40.00	10
15	42.86	3
0	0.00	34
0	0.00	24
0	0.00	8
3	8.57	0
0	0.00	0
2	5.71	0
1	2.86	0

Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders
0.00		0 0.00

Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders
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Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders
5.71		3 4.29

Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders
3		75.00 0
0		0.00 21
1		25.00 1
0		0.00 0
0		0.00 0

0	0.00	1
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0	0.00	1
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Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders
7.52	

Non-Marketable Limit Orders as % of Non-Directed Orders
13 5.75

Marketable Limit Orders	Marketable Limit Orders(%)
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Non-Marketable Limit Orders
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8	47.06	0
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6	35.29	2
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2	11.76	1
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0	0.00	0
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0	0.00	2
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0	0.00	6
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0	0.00	4
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0	0.00	0
1	5.88	0
0	0.00	1

Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders
0.00	

Non-Marketable Limit Orders as % of Non-Directed Orders
0 0.00

Marketable Limit Orders	Marketable Limit Orders(%)
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Non-Marketable Limit Orders
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Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders
0.00	

Non-Marketable Limit Orders as % of Non-Directed Orders
6 7.89

Marketable Limit Orders	Marketable Limit Orders(%)
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Non-Marketable Limit Orders
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0	0.00	0
0	0.00	3

0	0.00	14
0	0.00	0
0	0.00	0
0	0.00	4
0	0.00	2
0	0.00	0
0	0.00	0

Marketable Limit Orders as % of Non-Directed Orders
 12.29
Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders
 16
 5.46

Marketable Limit Orders
 21
 7
 5
Marketable Limit Orders(%)

Non-Marketable Limit Orders
 60.00
 20.00
 14.29
 4
 0
 0

1	2.86	0
0	0.00	10
0	0.00	0
0	0.00	6
0	0.00	1
1	2.86	0

Marketable Limit Orders as % of Non-Directed Orders
 0.00

Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders
 0 0.00

Marketable Limit Orders
Marketable Limit Orders(%)

Non-Marketable Limit Orders

	Other Orders as % of
Total Other Orders	Non-Directed Orders
0	0.00

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
0.00	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0
33.33	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0
33.33	0	0.00	0	0
33.33	0	0.00	0	0

	Other Orders as % of	
Total Other Orders	Non-Directed Orders	
77	29.28	

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
12.66	50	64.94	0	0
3.80	26	33.77	0	0
43.04	0	0.00	0	0
30.38	0	0.00	0	0
10.13	0	0.00	0	0
0.00	0	0.00	0	0
0.00	1	1.30	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0

	Other Orders as % of	
Total Other Orders	Non-Directed Orders	
0	0.00	

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
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	Other Orders as % of	
Total Other Orders	Non-Directed Orders	
5	7.14	

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
0.00	5	100.00	0	0
87.50	0	0.00	0	0
4.17	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0

4.17	0	0.00	0	0
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4.17	0	0.00	0	0
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	Other Orders as % of
Total Other Orders	Non-Directed Orders
95	42.04

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
0.00	50	50.51	0	0
12.50	38	38.38	0	0
6.25	1	1.01	0	0
0.00	7	7.07	0	0
12.50	0	0.00	0	0
37.50	0	0.00	0	0
25.00	0	0.00	0	0

0.00	3	3.03	0	0
0.00	0	0.00	0	0
6.25	0	0.00	0	0

	Other Orders as % of	
Total Other Orders	Non-Directed Orders	
0	0.00	

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

	Other Orders as % of	
Total Other Orders	Non-Directed Orders	
7	9.21	

			Net Payment	Net Payment
Non-Marketable			Paid/Received for	Paid/Received for
Limit Orders(%)	Other Orders	Other Orders(%)	Market Orders(USD)	Market Orders(cents
			per hundred shares)	
0.00	3	37.50	0	0
13.04	4	50.00	0	0

60.87	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0
17.39	0	0.00	0	0
8.70	0	0.00	0	0
0.00	0	0.00	0	0
0.00	1	12.50	0	0

	Other Orders as % of
Total Other Orders	Non-Directed Orders
88	30.03

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
19.05	47	48.96	0	0
0.00	40	41.67	0	0
0.00	0	0.00	0	0

0.00	0	0.00	0	0
47.62	0	0.00	0	0
0.00	8	8.33	0	0
28.57	0	0.00	0	0
4.76	1	1.04	0	0
0.00	0	0.00	0	0

Other Orders as % of
Total Other Orders Non-Directed Orders
 0 0.00

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)
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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)
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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)
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0 0 0 0 0

0 0 0 0 0

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)
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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)
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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)
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0	0	0	0	0
0	0	0	0	0

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0	0	0	0	0

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)
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

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)
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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

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**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**