July 2020

S&P 500 Stocks Summary

			Market Orders as	%	
Total Non-Directed	Non-Directed Orders		of Non-Directed	Total Marketable	
Orders	as % of All Orders	Total Market Orders	Orders	Limit Orders	
75	100.00	69	92	2.00	0

Venue - Non- directed Order Flow Citadel Securities	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
LLC(CDRG) VIRTU Americas	43	50.59	43	62.32
LLC(NITE)	15	17.65	15	21.74
New York Stock Exchange(NYSE)	9	10.59	0	0.00
NASDAQ Execution Services, LLC(NSDQ)	7	8.24	0	0.00
G1 Execution Services, LLC(ETMM)	5	5.88	5	7.25
JANE STREET CAPITAL, LLC(JNST)	3	3.53	3	4.35
Two Sigma Securities, LLC(SOHO)	2	2.35	2	2.90
UBS Securities, LLC(UBSS)	1	1.18	1	1.45

July 2020

Non-S&P 500 Stocks Summary

		Market Orders as %		
Total Non-Directed	Non-Directed Orders		of Non-Directed	Total Marketable
Orders	as % of All Orders	Total Market Orders	Orders	Limit Orders
211	100.00	116	54.98	14

Venue - Non- directed Order Flow Citadel Securities	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
LLC(CDRG) VIRTU Americas	104	45.61	60	51.72
LLC(NITE)	70	30.70	36	31.03
G1 Execution Services, LLC(ETMM)	11	4.82	11	9.48
NASDAQ Execution Services, LLC(NSDQ) Choe EDGX US	10	4.39	0	0.00
Equities Exchange(EDGX)	8	3.51	0	0.00
JANE STREET				
CAPITAL, LLC(JNST) Instinet	7	3.07	6	5.17
BlockCross(BLKX) Two Sigma	5	2.19	0	0.00
Securities,	_	2.42		
LLC(SOHO) NYSE Arca(ARCA) New York Stock	5 4	2.19 1.75	3	2.59 0.00
Exchange(NYSE)	2	0.88	0	0.00

Option Contracts Summary

			Market Orders as S	%	
Total Non-Directed	Non-Directed Orders	5	of Non-Directed	Total Marketable	
Orders	as % of All Orders	Total Market Orders	Orders	Limit Orders	
(0.00	0	0.	00	0

Venues

Venue - Non-Directed

directed Order Flow Non-Directed Orders Orders(%) Market Orders Market Orders(%)

August 2020

S&P 500 Stocks Summary

				Market Orders	as %		
Total Non-Directe	d N	on-Directed Orders		of Non-Directe	d	Total Marketable	
Orders	as	s % of All Orders	Total Market Orders	Orders		Limit Orders	
1	L02	100.00	100		98.04		0

Venue - Non-	Non-Direct	ed		
directed Order Flow	Non-Directed Orders Orders(%)	Market Orders	Ma	rket Orders(%)
Citadel Securities				
LLC(CDRG)	51	48.57	50	50.00
VIRTU Americas				
LLC(NITE)	42	40.00	42	42.00
G1 Execution				
Services, LLC(ETMM)	3	2.86	3	3.00
JANE STREET				
CAPITAL, LLC(JNST)	3	2.86	3	3.00
New York Stock				
Exchange(NYSE)	3	2.86	0	0.00
• • •				

Two Sigma Securities, LLC(SOHO)	2	1.90	2	2.00
NASDAQ Execution Services, LLC(NSDQ)	1	0.95	0	0.00

August 2020

Non-S&P 500 Stocks Summary

			Market Orders as %		
Total Non-Directed	Non-Directed Orders		of Non-Directed	Total Marketable	
Orders	as % of All Orders	Total Market Orders	Orders	Limit Orders	
194	100.00	89	45.88	2	27

Venue - Non-		Non-Directed		
directed Order Flow	Non-Directed Orders	Orders(%)	Market Orders	Market Orders(%)
Citadel Securities				
LLC(CDRG)	91	40.81	40	45.45
VIRTU Americas				
LLC(NITE)	63	28.25	36	40.91
Cboe EDGX US				
Equities				
Exchange(EDGX)	21	9.42	0	0.00
New York Stock				
Exchange(NYSE)	12	5.38	0	0.00
Instinet				
BlockCross(BLKX)	8	3.59	0	0.00
JANE STREET				
CAPITAL, LLC(JNST)	7	3.14	5	5.68
NACDAO Evenution				
NASDAQ Execution	7	2.44	•	0.00
Services, LLC(NSDQ)	7	3.14	0	0.00

Two Sigma Securities, LLC(SOHO)		7	3.14		3	3.	.41
G1 Execution Services, LLC(ETMM) Cboe BZX U.S. Equities	!	5	2.24		3	3.	.41
Exchange(BATS)	:	1	0.45		0	0.	.00
August 2020							
Option Contracts Summary							
Total Non-Directed Orders	Non-Directed Order as % of All Orders	Total Market O	r ders 0			Total Marketable Limit Orders	0
Venues							
Venue - Non- directed Order Flow	Non-Directed Order	Non-Directed s Orders(%)		Market Orders		Market Orders(%)	
September 2020							
S&P 500 Stocks Summary							
Total Non-Directed Orders	Non-Directed Order as % of All Orders 100.00	Total Market O	r ders 51			Total Marketable Limit Orders	1
Venues							

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

Citadel Securities LLC(CDRG) VIRTU Americas LLC(NITE)	27 19	52.94 37.25	26 19	52.00 38.00
LEC(III)	15	37.23	13	30.00
G1 Execution Services, LLC(ETMM)	3	5.88	3	6.00
JANE STREET CAPITAL, LLC(JNST) Two Sigma	1	1.96	1	2.00
Securities, LLC(SOHO)	1	1.96	1	2.00

September 2020

Non-S&P 500 Stocks Summary

			Market Orders as %	
Total Non-Directed	Non-Directed Orders		of Non-Directed	Total Marketable
Orders	as % of All Orders	Total Market Orders	Orders	Limit Orders
17	4 100.00	82	47.13	29

Venue - Non- directed Order Flow Citadel Securities	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)
LLC(CDRG)	78	45.88	48	63.16
VIRTU Americas				
LLC(NITE)	51	30.00	22	28.95
New York Stock				
Exchange(NYSE)	13	7.65	0	0.00
Cboe EDGX US				
Equities				
Exchange(EDGX)	10	5.88	0	0.00
UBS Securities,				
LLC(UBSS)	6	3.53	0	0.00
G1 Execution Services, LLC(ETMM)	4	2.35	4	5.26

JANE STREET CAPITAL, LLC(JNST)	3	1.76	2	2.63
NASDAQ Execution Services, LLC(NSDQ) Instinet	3	1.76	0	0.00
BlockCross(BLKX)	2	1.18	0	0.00

September 2020

Option Contracts Summary

			Market Ord	ders as %	
Total Non-Directed	Non-Directed O	rders	of Non-Dire	ected Total Mark	cetable
Orders	as % of All Orde	rs Total Market (Orders Orders	Limit Orde	ers
	0	0.00	0	0.00	0

Venues

Venue - Non-Directed

directed Order Flow Non-Directed Orders Orders(%) Market Orders Market Orders(%)

HIGHTOWER SECURITIES, LLC - Held NMS
Stocks and Options Order Routing Public
Report
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EDT

3rd Quarter, 2020

Marketable Limit
Orders as % of NonDirected Orders Total Non-Marketable Limit Orders

0.00

Non-Marketable
Limit Orders as % of
Non-Directed Orders
6 8.00

Marketable Limit Orders	Marketable Limit Orders(%)		Non-Marketable Limit Orders	
	0	0.00		0
	0	0.00		0
	0	0.00		9
	0	0.00		7
	0	0.00		0
	0	0.00		0
		0.00		_
	0	0.00		0
	0	0.00		0

Marketable Limit
Orders as % of NonDirected Orders

6.64

Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders 15 7.11

Marketable Limit Non-Marketable Marketable Limit Orders(%) Orders **Limit Orders** 5 35.71 2 8 0 57.14 0 0.00 0 0 0.00 10 0 0.00 8 7.14 1 0 0 0 0.00 0 0.00 0 0 0.00 4 0 0.00 2

Marketable Limit		Non-Ma	arketable
Orders as % of Non-		Limit O	rders as % of
Directed Orders	Total Non-Marketable Limit Orders	Non-Di	rected Orders
0.0	0	0	0.00

Marketable Limit		Non-Marketable
Orders	Marketable Limit Orders(%)	Limit Orders

Marketable Limit			Non-Marketable
Orders as % of Non-			Limit Orders as % of
Directed Orders	Total Non-Marketable Limit Orders		Non-Directed Orders
0.00)	2	1.96

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

0	0.00	0
0	0.00	1

Marketable Limit
Orders as % of NonDirected Orders

13.92

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

Non-Directed Orders

10.82

Marketable Limit Orders	Marketable Limit Orders(%)		Non-Marketable Limit Orders
12		44.44	1
9		33.33	1
0		0.00	21
0		0.00	12
0		0.00	0
2		7.41	0
0		0.00	7

2		7.41	0	
2		7.41	0	
0		0.00	1	
Marketable Limit Orders as % of Non- Directed Orders 0.00	Total Non-Marketable Limit Orders		Non-Marketable Limit Orders as % of Non-Directed Orders 0.00	
Marketable Limit Orders	Marketable Limit Orders(%)		Non-Marketable Limit Orders	
Marketable Limit Orders as % of Non- Directed Orders 1.92	Total Non-Marketable Limit Orders		Non-Marketable Limit Orders as % of Non-Directed Orders 0.00	

Marketable Limit
Orders Marketable Li

Marketable Limit Orders(%)

Non-Marketable Limit Orders

1	100.00	0
0	0.00	0
0	0.00	0
0	0.00	0
0	0.00	0

Marketable Limit
Orders as % of NonDirected Orders Total Non-Marketable Limit Orders

16.67

Non-Marketable Limit Orders as % of Non-Directed Orders 15 8.62

Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders
8	2	7.59 0
8	2	7.59 1
12	4	1.38 1
0		0.00 10
0		0.00 0
0		0.00 0

1	3.45	0
0	0.00	3
0	0.00	0

Marketable Limit
Orders as % of NonDirected Orders

0.00

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

Non-Directed Orders

0 0.00

Marketable Limit
Orders
Marketable Limit Orders(%)
Non-Marketable
Limit Orders

Total Other Orders S % of 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(cen per hundred shares	
0.00		0	0.00	0	ı	0
0.00		0	0.00	0	ı	0
56.25		0	0.00	0	ı	0
43.75		0	0.00	0	ı	0
0.00		0	0.00	0	J	0
0.00		0	0.00	0	ı	0
0.00		0	0.00	0	ı	0
0.00		0	0.00	0)	0

Other Orders as % of Total Other Orders

Non-Directed Orders

31.28

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)
7.41	37	52.11	0	0
0.00	26	36.62	0	0
0.00	0	0.00	0	0
37.04	0	0.00	0	0
29.63	0	0.00	0	0
0.00	0	0.00	0	0
0.00	5	7.04	0	0
0.00 14.81		2.82 0.00	0	
7.41	0	0.00	0	0

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

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

Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%	.)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cer per hundred share	
20.00		0	0.00	0	l	0
0.00		0	0.00	0	l	0
0.00		0	0.00	0	I	0
0.00		0	0.00	0	ı	0
60.00		0	0.00	0		0

0.00	0	0.00	0	0
20.00	0	0.00	0	0

Other Orders as % of Total Other Orders
Non-Directed Orders
57 29.38

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)
2.33	38	58.46	0	0
2.33	17	26.15	0	0
48.84	0	0.00	0	0
27.91	0	0.00	0	0
0.00	8	12.31	0	0
0.00	0	0.00	0	0
16.28	0	0.00	0	0

0.00	2	3.08	0	0
0.00	0	0.00	0	0
2.33	0	0.00	0	0

Total Other Orders Mon-Directed Orders
0 0.00

Net Payment

Net Payment

Paid/Received for

Non-Marketable

Limit Orders(%)

Other Orders

Other Orders(%)

Net Payment

Paid/Received for

Market Orders(cents

Market Orders(USD)

per hundred shares)

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

Net Payment

Net Payment

Paid/Received for

Non-Marketable

Limit Orders(%)

Other Orders

Other Orders(%)

Net Payment

Paid/Received for

Market Orders(cents

Market Orders(USD)

per hundred shares)

0.00	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0
0.00	0	0.00	0	0

Total Other Orders

Non-Directed Orders

48
27.59

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)
0.00	22	44.00	0	0
6.67	20	40.00	0	0
6.67	0	0.00	0	0
66.67	0	0.00	0	0
0.00	6	12.00	0	0
0.00	0	0.00	0	0

0.00	0	0.00	0	0
20.00	0	0.00	0	0
0.00	2	4.00	0	0

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

Net Payment

Net Payment

Paid/Received for

Paid/Received for

Market Orders(cents

Limit Orders(%)

Other Orders

Other Orders(%)

Market Orders(USD)

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 share		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

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

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

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

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
1	0	0	0	()	0
	0	0	0	(0	0
	0	0	0	()	0
	0	0	0	()	0

0	0	O	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) Other Orders(USD)

Net Payment Paid/Received for

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**

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

	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)	
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0 (0	0
	O	O	· ·	5	U
	0	0	0	0	0
	0	0	0	0	0

U	U	U	U	Ü
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) Other Orders(USD)

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

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

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

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)

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

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

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