

2nd Quarter, 2022

April 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
197	100.00	193	97.97	0	0.00	4	2.03	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(per hundred shares)
Citadel Securities LLC(DDO)	66	30.41	66	34.20	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Jane Street Capital, LLC(NST)	53	24.42	53	27.46	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
VRTU America, LLC(NTE)	43	19.82	43	22.28	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
GI Execution Services, LLC(ETMM)	27	12.44	26	13.47	0	0.00	1	4.35	0	0.00	0	0	0	0	0	
NASDAQ Execution Services, LLC(SDQ)	17	7.83	0	0.00	1	100.00	16	69.57	0	0.00	0	0	0	0	0	
Close EDOX US Equities Exchange(EDGX)	4	1.84	0	0.00	0	0.00	4	17.39	0	0.00	0	0	0	0	0	
Two Sigma Securities, LLC(SHO)	4	1.84	4	2.07	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
New York Stock Exchange(NYSE)	2	0.92	0	0.00	0	0.00	2	8.70	0	0.00	0	0	0	0	0	
UBS Securities, LLC(URS)	1	0.46	1	0.52	0	0.00	0	0.00	0	0.00	0	0	0	0	0	

April 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
1,042	100.00	1,027	98.56	7	0.67	8	0.77	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(per hundred shares)
Citadel Securities LLC(DDO)	411	38.66	404	39.34	5	71.43	2	9.09	0	0.00	0	0	0	0	0	
VRTU America, LLC(NTE)	210	19.76	210	20.45	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Jane Street Capital, LLC(NST)	206	19.38	203	19.77	2	28.57	1	4.55	0	0.00	0	0	0	0	0	
GI Execution Services, LLC(ETMM)	195	18.34	195	18.99	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Two Sigma Securities, LLC(SHO)	8	0.75	8	0.78	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Instinet BlackCross(BLCK)	7	0.66	0	0.00	0	0.00	0	0.00	7	100.00	0	0	0	0	0	
Close EDOX US Equities Exchange(EDGX)	7	0.66	0	0.00	0	0.00	7	31.82	0	0.00	0	0	0	0	0	
NASDAQ Execution Services, LLC(SDQ)	7	0.66	0	0.00	0	0.00	7	31.82	0	0.00	0	0	0	0	0	
UBS Securities, LLC(URS)	7	0.66	7	0.68	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Members Exchange(MEMX)	2	0.19	0	0.00	0	0.00	2	9.09	0	0.00	0	0	0	0	0	

April 2022

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

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(per hundred shares)
	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	

May 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
305	100.00	302	99.02	0	0.00	2	0.66	1	0.33

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(per hundred shares)
Citadel Securities LLC(DDO)	119	35.31	118	39.07	0	0.00	0	0.00	1	100.00	0	0	0	0	0	
VRTU America, LLC(NTE)	68	20.18	68	22.52	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
GI Execution Services, LLC(ETMM)	60	17.80	60	19.87	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Jane Street Capital, LLC(NST)	50	14.84	50	16.56	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
New York Stock Exchange(NYSE)	29	8.61	0	0.00	0	0.00	29	85.29	0	0.00	0	0	0	0	0	
Two Sigma Securities, LLC(SHO)	5	1.48	5	1.66	0	0.00	0	0.00	0	0.00	0	0	0	0	0	
Close EDOX US Equities Exchange(EDGX)	2	0.59	0	0.00	0	0.00	2	5.88	0	0.00	0	0	0	0	0	
NASDAQ Execution Services, LLC(SDQ)	2	0.59	0	0.00	0	0.00	2	5.88	0	0.00	0	0	0	0	0	
Members Exchange(MEMX)	1	0.30	0	0.00	0	0.00	1	2.94	0	0.00	0	0	0	0	0	
UBS Securities, LLC(URS)	1	0.30	1	0.33	0	0.00	0	0.00	0	0.00	0	0	0	0	0	

May 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
832	100.00	808	97.12	20	2.40	4	0.48	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(per hundred shares)
Citadel Securities LLC(DDO)	339	39.70	331	40.97	7	33.33	1	4.55	0	0.00	0	0	0	0	0	
VRTU America, LLC(NTE)	169	19.79	165	20.42	4	19.05	0	0.00	0	0.00	0	0	0	0	0	
GI Execution Services, LLC(ETMM)	159	18.62	156	19.31	3	14.29	0	0.00	0	0.00	0	0	0	0	0	
Jane Street Capital, LLC(NST)	145	16.98	140	17.33	5	23.81	0	0.00	0	0.00	0	0	0	0	0	
New York Stock Exchange(NYSE)	18	2.11	0	0.00	1	4.76	17	77.77	0	0.00	0	0	0	0	0	

Two Sigma Securities, LLC(SHOH)	12	1.41	11	1.36	1	4.76	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	5	0.59	5	0.62	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0
Insinet																			
BlockCross(BLCK)	3	0.35	0	0.00	0	0.00	0	0.00	3	100.00	0	0	0	0	0	0	0	0	0
Clear EDDX US Equities Exchange(EDGX)	3	0.35	0	0.00	0	0.00	3	13.64	0	0.00	0	0	0	0	0	0	0	0	0
Members Exchange(MEMX)	1	0.12	0	0.00	0	0.00	1	4.55	0	0.00	0	0	0	0	0	0	0	0	0

May 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
4	100.00	4	100.00	0	0.00	0	0.00	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market 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)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
CitySec Securities LLC(CDNG)	3	75.00	3	75.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Suqoqhana Capital Group(SUQ)	1	25.00	1	25.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

June 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
226	100.00	222	98.23	0	0.00	4	1.77	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market 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)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
GI Execution Services, LLC(ETRM)	74	29.84	74	33.33	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Jane Street Capital, LLC(JNST)	54	21.77	53	23.87	0	0.00	1	3.85	0	0.00	0	0	0	0	0	0	0
VIRTU Americas, LLC(VNTE)	52	20.97	50	22.52	0	0.00	2	7.69	0	0.00	0	0	0	0	0	0	0
New York Stock Exchange(NYSE)	44	17.74	44	19.82	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Clear EDDX US Equities Exchange(EDGX)	22	8.87	0	0.00	0	0.00	22	84.62	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	1	0.40	0	0.00	0	0.00	1	3.85	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	1	0.40	1	0.45	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

June 2022

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	Marketable Limit Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders
466	100.00	447	95.92	17	3.65	2	0.43	0	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market 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)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
GI Execution Services, LLC(ETRM)	163	34.61	156	34.90	5	29.41	2	50.00	0	0.00	0	0	0	0	0	0	0
Jane Street Capital, LLC(JNST)	112	23.78	107	23.94	5	29.41	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas, LLC(VNTE)	101	21.44	99	22.15	2	11.76	0	0.00	0	0.00	0	0	0	0	0	0	0
Insinet	85	18.05	81	18.12	4	23.53	0	0.00	0	0.00	0	0	0	0	0	0	0
BlockCross(BLCK)	3	0.64	0	0.00	0	0.00	0	0.00	3	100.00	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SHOH)	3	0.64	3	0.67	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	2	0.42	1	0.22	1	5.88	0	0.00	0	0.00	0	0	0	0	0	0	0
NYSE Arca(ARCA)	1	0.21	0	0.00	0	0.00	1	25.00	0	0.00	0	0	0	0	0	0	0

NASDAQ Execution Services, LLC(NSDQ)

1	0.21	0	0.00	0	0.00	0.00	1	25.00	0	0.00	0	0	0	0	0	0	0	0
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June 2022

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

Venues

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