

3rd Quarter, 2020

July 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	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
248	100.00	220	88.71	10	4.03	18	7.26	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 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)	104	39.25	103	47.69	1		10.00	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	79	29.81	79	36.57	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution, Instinet	30	11.32	3	1.39	9		90.00	18	100.00	0	0.00	0	0	0	0	0	0	0
BlockCross(BLKX)	21	7.92	0	0.00	0		0.00	0	0.00	21	100.00	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	13	4.91	13	6.02	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	11	4.15	11	5.09	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	6	2.26	6	2.78	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	1	0.38	1	0.46	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

July 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	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
51	100.00	42	82.35	3	5.88	6	11.76	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 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)	20	38.46	20	47.62	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	11	21.15	11	26.19	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution, G1 Execution Services, LLC(ETMM)	9	17.31	0	0.00	3		100.00	6	100.00	0	0.00	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)	4	7.69	4	9.52	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	4	7.69	4	9.52	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Instinet	3	5.77	3	7.14	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
BlockCross(BLKX)	1	1.92	0	0.00	0		0.00	0	0.00	1	100.00	0	0	0	0	0	0	0

July 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	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
484	100.00	285	58.88	107	22.11	92	19.01	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 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)
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Citadel Securities LLC(CDRG)	162	33.40	110	38.60	31	28.70	21	22.83	0	0.00	0	0	0	0	0	0	0	0
Susquehanna Capital Group(SUSQ)	145	29.90	110	38.60	35	32.41	0	0.00	0	0.00	0	0	0	0	0	0	0	0
Citigroup Global Markets, Inc.(KEXP)	72	14.85	12	4.21	22	20.37	38	41.30	0	0.00	0	0	0	0	0	0	0	0
Dash Financial Technologies LLC(DASH)	49	10.10	26	9.12	12	11.11	11	11.96	0	0.00	0	0	0	0	0	0	0	0
Morgan Stanley & Company LLC(MSCO)	26	5.36	20	7.02	3	2.78	3	3.26	0	0.00	0	0	0	0	0	0	0	0
Wolverine Execution Services LLC(WEXX)	25	5.15	7	2.46	2	1.85	16	17.39	0	0.00	0	0	0	0	0	0	0	0
Interactive Brokers LLC(IBKR)	6	1.24	0	0.00	3	2.78	3	3.26	0	0.00	0	0	0	0	0	0	0	0

August 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	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
318	100.00	265	83.33	17	5.35	36	11.32	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 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)	128	39.02	128	48.67	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	100	30.49	100	38.02	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution, JANE STREET CAPITAL, LLC(JNST)	53	16.16	0	0.00	17		100.00	36	100.00	0	0.00	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	14	4.27	14	5.32	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Instinet	13	3.96	13	4.94	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
BlockCross(BLXX)	12	3.66	0	0.00	0		0.00	0	0.00	12	100.00	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)	6	1.83	6	2.28	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)	2	0.61	2	0.76	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

August 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	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
35	100.00	29	82.86	2	5.71	4	11.43	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 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)	19	54.29	19	65.52	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)	7	20.00	7	24.14	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution, JANE STREET CAPITAL, LLC(JNST)	6	17.14	0	0.00	2		100.00	4	100.00	0	0.00	0	0	0	0	0	0	0
G1 Execution Services, LLC(ETMM)	2	5.71	2	6.90	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
	1	2.86	1	3.45	0		0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

August 2020

Option Contracts  
Summary

							Non-Marketable			
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-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders	
628	100.00	326	51.91	201	32.01		101	16.08	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 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)		240	37.74	146	44.65	72	34.45	22	22.00	0	0.00	0	0	0	0	0	0	0
Susquehanna Capital Group(SUSQ)		168	26.42	108	33.03	58	27.75	2	2.00	0	0.00	0	0	0	0	0	0	0
Dash Financial Technologies LLC(DASH)		86	13.52	45	13.76	29	13.88	12	12.00	0	0.00	0	0	0	0	0	0	0
Citigroup Global Markets, Inc.(KEXPI)		64	10.06	5	1.53	24	11.48	35	35.00	0	0.00	0	0	0	0	0	0	0
Wolverine Execution Services LLC(WEXX)		35	5.50	6	1.83	7	3.35	22	22.00	0	0.00	0	0	0	0	0	0	0
Morgan Stanley & Company LLC(MSCO)		32	5.03	17	5.20	12	5.74	3	3.00	0	0.00	0	0	0	0	0	0	0
Interactive Brokers LLC(IBKR)		11	1.73	0	0.00	7	3.35	4	4.00	0	0.00	0	0	0	0	0	0	0

September 2020

S&P 500 Stocks  
Summary

							Non-Marketable			
Non-Directed		Market Orders as %		Marketable Limit		Limit Orders as % of		Other Orders as %		
Total Non-Directed Orders	Orders as % of All Orders	Total Market Orders	of Non-Directed Orders	Total Marketable Limit Orders	Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Directed Orders	Total Other Orders	of Non-Directed Orders	
163	100.00	120	73.62	15	9.20		28	17.18	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 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)		64	40.25	64	55.65	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution, VIRTU Americas LLC(NITE)		43	27.04	0	0.00	15	100.00	28	100.00	0	0.00	0	0	0	0	0	0	0
G1 Execution Services, LLC(JETMM)		35	22.01	35	30.43	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
JANE STREET CAPITAL, LLC(JNST)		7	4.40	7	6.09	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Two Sigma Securities, LLC(SOHO)		6	3.77	6	5.22	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
Instinet BlockCross(BLKK)		2	1.26	2	1.74	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
UBS Securities, LLC(UBSS)		1	0.63	0	0.00	0	0.00	0	0.00	1	100.00	0	0	0	0	0	0	0
		1	0.63	1	0.87	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0

September 2020

Non-S&P 500  
Stocks  
Summary

							Non-Marketable			
Non-Directed		Market Orders as %		Marketable Limit		Limit Orders as % of				
Total Non-Directed Orders	Orders as % of All Orders	Total Market Orders	of Non-Directed Orders	Total Marketable Limit Orders	Orders as % of Non-Directed Orders	Total Non-Marketable Limit Orders	Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders	
42	100.00	36	85.71	2	4.76		4	9.52	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 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)		16	41.03	16	48.48	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
VIRTU Americas LLC(NITE)		9	23.08	9	27.27	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0
CITI Order Routing and Execution,		6	15.38	0	0.00	2	100.00	4	100.00	0	0.00	0	0	0	0	0	0	0

G1 Execution Services, LLC(ETMM) JANE STREET CAPITAL, LLC(JNST) Two Sigma Securities, LLC(SOHO)	3	7.69	3	9.09	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0
	3	7.69	3	9.09	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0
	2	5.13	2	6.06	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0

September 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	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
492	100.00	293	59.55	128	26.02	71	14.43	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 Market Orders(cent per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cent per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cent per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cent per hundred shares)
Citadel Securities LLC(CDRG)	155	42.01	81	46.02	52		42.62	22	30.99	0	0.00	0	0	0	0	0	0	0
Susquehanna Capital Group(SUSQ)	105	28.46	65	36.93	39		31.97	1	1.41	0	0.00	0	0	0	0	0	0	0
Citigroup Global Markets, Inc.(KEXP)	34	9.21	0	0.00	12		9.84	22	30.99	0	0.00	0	0	0	0	0	0	0
Dash Financial Technologies LLC(DASH)	33	8.94	18	10.23	8		6.56	7	9.86	0	0.00	0	0	0	0	0	0	0
Wolverine Execution Services LLC(WEXX)	21	5.69	4	2.27	1		0.82	16	22.54	0	0.00	0	0	0	0	0	0	0
Morgan Stanley & Company LLC(MSCO)	17	4.61	8	4.55	8		6.56	1	1.41	0	0.00	0	0	0	0	0	0	0
Interactive Brokers LLC(IBKR)	4	1.08	0	0.00	2		1.64	2	2.82	0	0.00	0	0	0	0	0	0	0