

Material Aspects:

August 2021

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	97.68	0.37	1.09	0.87

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)	48.32	48.74	37.50	17.79	42.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	26.41	26.61	30.00	12.71	20.21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	14.64	14.67	20.00	8.47	17.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	2.95	2.97	2.50	2.54	1.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	2.79	2.82	5.00	0.84	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NATIONAL FINANCIAL SERVICES, LLC (NFSC)	2.77	2.81	5.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	1.44	1.38	0.00	0.84	9.57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX U.S. EQUITIES EXCHANGE (EDGX)	0.35	0.00	0.00	33.10	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ EXECUTION SERVICES, LLC (INET)	0.22	0.00	0.00	20.33	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.10	0.00	0.00	3.38	7.44	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SECURITIES AMERICA, INC. (SAIN)	0.01	0.00	0.00	0.00	1.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SKNY (SKNY)	0.00	0.00	0.00	0.00	1.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

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)
CBOE Options Exchange (C2OP)	1.50	1.49	0.00	2.63	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ Options Market (NOM)	1.25	0.74	2.22	5.26	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE BZX U.S. EQUITIES EXCHANGE (BATS)	1.13	0.89	0.00	3.94	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
International Securities Exchange (ISEG)	1.13	0.89	2.22	1.31	14.28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MIAX PEARL, LLC (MPRL)	1.13	0.74	4.44	2.63	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GLOBAL EXECUTION BROKERS, LP (GEBB)	1.00	0.59	4.44	2.63	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISE MERCURY, LLC (MCRY)	0.88	0.74	0.00	2.63	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Execution Services (CES)	0.37	0.29	0.00	1.31	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MIAX EMERALD, LLC (EMLD)	0.37	0.14	4.44	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	0.37	0.29	2.22	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
International Securities Exchange (ISE)	0.25	0.29	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MORGAN STANLEY AND CO. LLC (MSCO)	0.25	0.14	2.22	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Interactive Brokers Llc (IBKR)	0.12	0.00	0.00	0.00	14.28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NATIONAL FINANCIAL SERVICES, LLC (NFSC)	0.12	0.14	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

September 2021

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	97.63	0.21	0.80	1.37

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)	46.76	46.94	43.76	30.68	41.16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	25.49	25.44	31.25	21.77	30.37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	15.12	15.15	21.87	11.29	14.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NATIONAL FINANCIAL SERVICES, LLC (NFSC)	5.74	5.83	3.12	3.22	1.40	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	2.95	2.93	0.00	3.22	5.14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	2.71	2.75	0.00	3.22	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	1.04	0.96	0.00	1.61	6.54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ EXECUTION SERVICES, LLC (INET)	0.10	0.00	0.00	12.90	0.46	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX U.S. EQUITIES EXCHANGE (EDGX)	0.09	0.00	0.00	12.09	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.00	0.00	0.00	0.00	0.46	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SKNY (SKNY)	0.00	0.00	0.00	0.00	0.46	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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September 2021

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
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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	96.21	1.10	1.13	1.57

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)	45.56	45.88	44.83	12.94	47.88	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	24.29	24.39	27.60	8.06	27.43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	14.24	14.42	13.89	2.06	12.70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NATIONAL FINANCIAL SERVICES, LLC (NFSC)	8.64	8.79	8.68	4.87	2.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	2.93	2.96	1.93	0.75	3.64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	2.56	2.62	2.31	1.12	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	0.97	0.92	0.57	0.18	4.86	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX U.S. EQUITIES EXCHANGE (EDGX)	0.44	0.00	0.00	39.27	0.40	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ EXECUTION SERVICES, LLC (INET)	0.33	0.00	0.00	28.70	0.67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SECURITIES AMERICA, INC. (SAIN)	0.02	0.02	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.01	0.00	0.00	0.75	0.13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SKNY (SKNY)	0.01	0.00	0.00	1.12	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
American Stock Exchange (AMEX)	0.00	0.00	0.00	0.18	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Archipelago Trading Services, Inc. (ARCA)	0.00	0.00	0.00	0.00	0.27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INSTINET BLOCKCROSS ATS (BLKX)	0.00	0.00	0.19	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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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)
GLOBAL EXECUTION BROKERS, LP (GEBB)	0.96	0.57	4.16	2.56	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ISE MERCURY, LLC (MCRY)	0.84	1.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NASDAQ OMX BX OPTIONS (XB XO)	0.72	0.86	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
International Securities Exchange (ISEG)	0.48	0.14	0.00	3.84	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
International Securities Exchange (ISE)	0.36	0.43	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MIAX EMERALD, LLC (EMLD)	0.36	0.43	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MORGAN STANLEY AND CO. LLC (MSCO)	0.12	0.14	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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