

January 2020

**S&P 500 Stocks  
Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	94.15	1.46	3.19	1.21

**Venues**

<b>Venue - Non- directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Market Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	40.19	41.07	39.35	26.80
<b>National Financial Services LLC(XSTM)</b>	26.04	28.58	25.46	0.00
<b>VIRTU Americas LLC(NITE)</b>	20.10	19.98	24.54	13.85
<b>G1 Execution Services, LLC(ETMM)</b>	6.02	6.24	6.94	4.32
<b>UBS Securities, LLC(UBSS)</b>	1.96	2.07	0.46	0.90
<b>Two Sigma Securities, LLC(SOHO)</b>	1.73	1.84	2.31	0.18

<b>NASDAQ Execution Services, LLC(NSDQ)</b>	1.70	0.01	0.00	24.46
<b>New York Stock Exchange(NYSE)</b>	1.55	0.00	0.46	22.30
<b>Cboe EDGX U.S. Equities Exchange(EDGX)</b>	0.40	0.00	0.00	5.76
<b>State Street Global Markets, LLC(SSBS)</b>	0.12	0.13	0.46	0.00

**Material Aspects:**

**January 2020**

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

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	96.61	1.02	1.86	0.50

**Venues**

<b>Venue - Non-directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Market Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	36.82	37.86	31.26	15.36
<b>National Financial Services LLC(XSTM)</b>	32.04	33.54	38.64	0.00
<b>VIRTU Americas LLC(NITE)</b>	19.57	19.84	18.06	9.33
<b>G1 Execution Services, LLC(ETMM)</b>	5.11	5.29	4.27	2.47
<b>UBS Securities, LLC(UBSS)</b>	1.54	1.48	2.33	1.10
<b>Two Sigma Securities, LLC(SOHO)</b>	1.37	1.37	1.17	0.82
<b>NASDAQ Execution Services, LLC(NSDQ)</b>	1.05	0.00	0.78	25.38
<b>Cboe EDGX U.S. Equities Exchange(EDGX)</b>	0.86	0.00	0.00	21.12
<b>New York Stock Exchange(NYSE)</b>	0.55	0.01	0.97	12.76
<b>State Street Global Markets, LLC(SSBS)</b>	0.44	0.41	2.14	0.00

**Material Aspects:**

January 2020

**Option Contracts  
Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	77.78	5.91	15.23	1.08

**Venues**

<b>Venue - Non- directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Marketable Limit Market Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	31.07	28.12	44.26
<b>MORGAN STANLEY &amp; CO. LLC(MSCO)</b>	27.79	29.17	19.67
<b>Susquehanna Capital Group(SUSQ)</b>	24.34	29.17	3.83
<b>Citigroup Global Markets, Inc.(CITI)</b>	8.03	6.61	12.57
<b>DASH FINANCIAL TECHNOLOGIES LLC(DASH)</b>	4.75	4.51	7.10
<b>Wolverine Execution Services LLC(WEXX)</b>	3.85	2.41	12.57

<b>Interactive Brokers LLC(IBKR)</b>	0.16	0.00	2.78	0.00
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**Material Aspects:**

**February 2020**

**S&P 500 Stocks Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	92.11	1.99	4.30	1.59

**Venues**

<b>Venue - Non-directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	42.68	43.51	28.29
<b>National Financial Services LLC(XSTM)</b>	23.86	25.41	0.12
<b>VIRTU Americas LLC(NITE)</b>	20.73	20.96	15.50

<b>G1 Execution Services, LLC(ETMM) NASDAQ Execution Services, LLC(NSDQ)</b>	6.62	6.88	7.81	2.95
<b>UBS Securities, LLC(UBSS) New York Stock Exchange(NYSE)</b>	1.48	0.00	1.20	26.94
<b>Two Sigma Securities, LLC(SOHO) JANE STREET CAPITAL, LLC(JNST)</b>	1.45	1.46	0.90	1.11
	1.02	0.00	2.10	18.08
<b>Cboe EDGX U.S. Equities Exchange(EDGX)</b>	0.98	0.93	3.30	0.62
	0.67	0.69	0.90	0.37
	0.29	0.00	0.30	5.29

**Material Aspects:**

**February 2020**

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

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	93.68	2.08	3.34	0.90

## Venues

Venue - Non-directed Order Flow	Non-Directed Orders(%)	Market Orders(%)	Marketable Limit Orders(%)	Non-Marketable Limit Orders(%)
<b>Citadel Securities LLC(CDRG)</b>	37.90	39.00	32.91	16.91
<b>National Financial Services LLC(XSTM)</b>	30.76	31.94	42.65	2.05
<b>VIRTU Americas LLC(NITE)</b>	19.26	19.58	14.07	10.40
<b>G1 Execution Services, LLC(ETMM)</b>	5.89	6.06	5.61	3.44
<b>UBS Securities, LLC(UBSS)</b>	1.31	1.33	1.06	0.37
<b>NASDAQ Execution Services, LLC(NSDQ)</b>	1.15	0.00	0.42	27.01
<b>Cboe EDGX U.S. Equities Exchange(EDGX)</b>	0.82	0.00	0.00	19.33
<b>Two Sigma Securities, LLC(SOHO)</b>	0.78	0.81	0.63	0.37
<b>State Street Global Markets, LLC(SSBS)</b>	0.71	0.71	1.59	0.15
<b>JANE STREET CAPITAL, LLC(JNST)</b>	0.54	0.56	0.63	0.07

**Material Aspects:**

February 2020

**Option Contracts  
Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	70.65	4.11	22.71	2.52

**Venues**

<b>Venue - Non- directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	39.44	34.66	29.55
<b>Susquehanna Capital Group(SUSQ)</b>	24.84	31.35	29.55
<b>MORGAN STANLEY &amp; CO. LLC(MSCO)</b>	15.63	17.99	15.91
<b>Citigroup Global Markets, Inc.(CITI)</b>	9.86	10.05	13.64
<b>Wolverine Execution Services LLC(WEXX)</b>	5.95	2.25	4.55



**DASH FINANCIAL  
TECHNOLOGIES**

<b>LLC(DASH)</b>	4.19	3.70	4.55	6.05
<b>Other(UNKN)</b>	0.09	0.00	2.27	0.00

**Material Aspects:**

**March 2020**

**S&P 500 Stocks  
Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	89.61	1.94	7.18	1.26

**Venues**

<b>Venue - Non- directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Marketable Limit Market Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	40.30	42.12	36.01
<b>National Financial Services LLC(XSTM)</b>	25.24	27.60	37.12
			22.50
			0.95

<b>VIRTU Americas LLC(NITE)</b>	13.26	13.42	10.11	11.20
<b>G1 Execution Services, LLC(ETMM)</b>	7.45	7.92	5.54	3.76
<b>UBS Securities, LLC(UBSS)</b>	4.17	4.52	3.19	0.77
<b>NASDAQ Execution Services, LLC(NSDQ)</b>	2.75	0.00	0.83	30.19
<b>Two Sigma Securities, LLC(SOHO)</b>	2.04	2.22	0.97	0.34
<b>New York Stock Exchange(NYSE)</b>	1.92	0.00	4.29	20.53
<b>JANE STREET CAPITAL, LLC(JNST)</b>	1.86	1.97	1.52	0.92
<b>Cboe EDGX U.S. Equities Exchange(EDGX)</b>	0.68	0.00	0.00	7.63

**Material Aspects:**

**March 2020**

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

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
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100.00	92.09	2.08	5.33	0.50
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**Venues**

<b>Venue - Non-directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Market Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
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<b>Citadel Securities LLC(CDRG)</b>	38.86	40.26	32.70	16.75
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**National Financial Services**

<b>LLC(XSTM)</b>	30.39	31.91	41.37	2.26
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**VIRTU Americas**

<b>LLC(NITE)</b>	12.39	12.69	10.16	7.68
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**G1 Execution**

**Services,**

<b>LLC(ETMM)</b>	6.55	6.79	6.03	3.19
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**UBS Securities,**

<b>LLC(UBSS)</b>	3.67	3.87	2.84	0.74
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**Two Sigma**

**Securities,**

<b>LLC(SOHO)</b>	1.93	2.02	1.56	0.40
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**JANE STREET**

**CAPITAL,**

<b>LLC(JNST)</b>	1.62	1.69	1.35	0.51
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**NASDAQ**

**Execution**

**Services,**

<b>LLC(NSDQ)</b>	1.55	0.00	0.34	27.97
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**Cboe EDGX U.S.**

**Equities**

<b>Exchange(EDGX)</b>	1.06	0.00	0.00	19.30
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**State Street**

**Global Markets,**

<b>LLC(SSBS)</b>	0.81	0.78	2.98	0.53
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**Material Aspects:**

March 2020

**Option Contracts  
Summary**

<b>Non-Directed Orders as % of All Orders</b>	<b>Market Orders as % of Non-Directed Orders</b>	<b>Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Non-Marketable Limit Orders as % of Non-Directed Orders</b>	<b>Other Orders as % of Non-Directed Orders</b>
100.00	63.86	3.58	30.30	2.26

**Venues**

<b>Venue - Non- directed Order Flow</b>	<b>Non-Directed Orders(%)</b>	<b>Market Orders(%)</b>	<b>Marketable Limit Orders(%)</b>	<b>Non-Marketable Limit Orders(%)</b>
<b>Citadel Securities LLC(CDRG)</b>	35.33	29.25	26.32	46.06
<b>MORGAN STANLEY &amp; CO. LLC(MSCO)</b>	23.39	27.49	30.26	15.41
<b>Susquehanna Capital Group(SUSQ)</b>	20.56	28.75	21.05	3.41
<b>Wolverine Execution Services LLC(WEXX)</b>	7.71	3.02	2.63	19.00
<b>Citigroup Global Markets, Inc.(CITI)</b>	7.39	6.62	9.21	9.14

**DASH FINANCIAL  
TECHNOLOGIES**

<b>LLC(DASH)</b>	5.41	4.86	5.26	6.99
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**Interactive**

<b>Brokers LLC(IBKR)</b>	0.16	0.00	3.95	0.00
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<b>Other(UNKN)</b>	0.05	0.00	1.32	0.00
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**Material Aspects:**

**CAMBRIDGE INVESTMENT RESEARCH - Held  
NMS Stocks and Options Order Routing Public  
Report  
Generated on Wed May 27 2020 08:42:30 GMT-  
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**1st Quarter, 2020**

<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
50.37		0	0
0.00		0	0
45.19		0	0
0.00		0	0
2.96		0	0
1.48		0	0

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<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
43.75		0	0
0.00		0	0
42.50		0	0
0.63		0	0
6.88		0	0
4.38		0	0
0.63		0	0
0.63		0	0
0.63		0	0
0.00		0	0



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)
50.00		0	0
0.00		0	0
33.33		0	0
16.67		0	0
0.00		0	0
0.00		0	0

0.00

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<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
49.03		0	0
0.00		0	0
43.23		0	0

0.00		0	0	0
0.65		0	0	0
3.87		0	0	0
0.00		0	0	0
3.23		0	0	0
0.00		0	0	0
0.00		0	0	0

<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
41.81		0	0
0.00		0	0
52.16		0	0
0.00		0	0
5.17		0	0
0.00		0	0
0.00		0	0
0.86		0	0
0.00		0	0
0.00		0	0

<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
66.67		0	0
22.22		0	0
0.00		0	0
11.11		0	0
0.00		0	0

0.00		0	0	0
0.00		0	0	0

	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
<b>Other Orders(%)</b>			
49.37	0	0	0
0.00	0	0	0

29.71	0	0	0
0.42	0	0	0
5.44	0	0	0
8.37	0	0	0
4.60	0	0	0
1.67	0	0	0
0.00	0	0	0
0.42	0	0	0

<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
63.24		0	0
0.00		0	0
24.32		0	0
0.00		0	0
3.24		0	0
4.32		0	0
0.00		0	0
1.08		0	0
0.00		0	0
0.00		0	0



<b>Other Orders(%)</b>	<b>Net Payment Paid/Received for Market Orders(USD)</b>	<b>Net Payment Paid/Received for Market Orders(cents per hundred shares)</b>	<b>Net Payment Paid/Received for Marketable Limit Orders(USD)</b>
82.93		0	0
0.00		0	0
14.63		0	0
0.00		0	0
2.44		0	0

0.00

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

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

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