

Charles Schwab - Held NMS Stocks and Options Order Routing Public Report

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3rd Quarter, 2020

July 2020

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
99.63	52.81	4.94	32.77	9.48

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 Execution Services	30.58	31.83	30.08	27.12	35.80	270,134.68	9.5000	59,226.37	9.5029	361,260.40	29.9636	62,179.06	14.6120
Virtu Americas, LLC	28.63	28.11	25.84	26.17	41.49	241,710.06	8.9891	57,432.45	9.0000	248,661.60	30.0000	34,478.49	5.9472
G1 Execution Services, LLC	22.09	22.74	24.74	23.37	12.70	196,670.90	9.0000	40,187.65	9.0000	226,036.07	30.0000	46,303.70	14.0068
UBS Securities, LLC	13.46	12.57	13.77	16.38	8.15	99,676.45	9.0001	41,237.62	9.0773	126,168.22	28.0996	34,591.24	14.0588
Two Sigma Securities, LLC	4.36	4.74	5.00	4.48	1.55	45,995.07	9.0000	10,898.12	9.0000	44,855.13	28.2894	1,744.24	9.0000
Nasdaq Execution Services, LLC	0.47	0.00	0.01	1.39	0.17	0.00	0.0000	0.00	0.0000	12,095.89	32.9994	0.00	0.0000
Cboe EDGX Exchange, Inc.	0.41	0.01	0.55	1.11	0.15	-1,734.96	-26.9226	-1,377.55	-28.3909	8,473.17	26.8721	0.00	0.0000

Material Aspects:

Citadel Execution Services:

Citadel is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Virtu Americas, LLC:

VIRTU is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

G1 Execution Services, LLC:

G1X is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment

up to \$0.0030 per share.

UBS Securities, LLC:
UBS is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$0.0030 per share.

Two Sigma Securities, LLC:
Two Sigma is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for orders executed through the firm, which average \$.0009 per share.

Nasdaq Execution Services, LLC:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$0.0033 per share. Schwab is charged for removing liquidity from this venue up to \$0.0030.

Cboe EDGX Exchange, Inc.:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$0.0032 per share. Schwab is charged for removing liquidity from this venue up to \$0.00265.

July 2020

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
99.34	48.15	6.64	33.98	11.23

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 Execution Services	29.82	30.28	30.13	27.13	35.82	902,248.65	8.4373	279,490.21	7.5293	986,815.55	24.8887	109,278.74	11.0574
Virtu Americas, LLC	28.14	25.95	25.90	26.32	44.40	802,324.39	7.9316	258,393.44	6.9866	924,678.20	25.0288	49,733.61	1.8761
G1 Execution Services, LLC	22.80	24.83	24.69	23.41	11.17	677,857.12	8.1291	197,034.80	7.3549	895,976.25	25.5796	92,867.36	11.8667
UBS Securities, LLC	13.91	13.74	14.03	16.32	7.25	317,112.10	8.0643	184,828.04	7.7442	459,165.52	23.0732	92,137.35	12.2114
Two Sigma Securities, LLC	4.45	5.19	5.09	4.38	1.15	146,508.75	8.0477	47,857.30	7.2102	152,145.34	23.5983	7,508.39	8.1826
Nasdaq Execution Services, LLC	0.48	0.00	0.01	1.37	0.11	0.00	0.0000	-10.06	-2.0700	36,177.79	29.9839	-23.64	-1.6307
Cboe EDGX Exchange, Inc.	0.39	0.01	0.15	1.07	0.10	-4,628.00	-27.0000	-7,240.64	-28.6263	26,331.62	23.4946	0.00	0.0000

Material Aspects:

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G1X is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

UBS Securities, LLC:
UBS is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Two Sigma Securities, LLC:
Two Sigma is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for orders executed through the firm, which average \$.0009 per share.

Nasdaq Execution Services, LLC:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0033 per share. Schwab is charged for removing liquidity from this venue up to \$.0030.

Cboe EDGX Exchange, Inc.:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0032 per share. Schwab is charged for removing liquidity from this venue up to \$.00265.

July 2020

Options

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	15.76	6.51	51.72	26.02

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 Execution Services	34.52	32.87	33.13	32.74	39.41	1,010,645.80	33.2914	771,805.10	34.6574	1,101,746.70	36.0304	653,737.50	29.6658
Global Execution Brokers LP	30.22	29.96	29.73	29.82	31.31	1,388,241.74	35.5622	335,400.44	33.7558	1,107,083.94	37.7330	670,012.59	36.2323
Wolverine Execution Services, LLC	17.94	18.41	18.64	19.20	14.99	607,668.90	36.1070	454,178.25	39.1090	755,474.10	41.7094	397,383.75	36.9790
Morgan Stanley & Co., LLC	7.39	4.78	5.27	5.29	13.66	178,316.00	41.4609	171,473.00	45.7209	220,605.40	46.9852	314,629.70	36.4978
Dash Financial Technologies, LLC	5.23	8.17	7.27	6.50	0.40	266,505.30	31.7016	137,109.20	32.3783	217,004.20	33.1944	8,308.30	30.6478
Citigroup Global Markets Inc.	4.70	5.80	5.96	6.45	0.24	102,387.60	36.8293	194,968.10	33.8121	233,519.44	37.6758	5,957.70	35.9917

Material Aspects:
Citadel Execution Services:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is

due to the various type of orders and respective quantities they handle.

Global Execution Brokers LP:

As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.

Wolverine Execution Services, LLC:

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Dash Financial Technologies, LLC:

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Citigroup Global Markets Inc.:

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August 2020

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
99.69	54.80	5.11	31.62	8.46

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 Execution Services	30.58	31.80	29.93	27.08	36.13	252,707.87	9.5000	60,268.03	9.5071	354,358.24	29.9672	48,610.11	15.0930
Virtu Americas, LLC	27.58	27.09	25.03	25.66	39.55	223,603.10	8.9890	52,646.50	9.0000	222,178.64	30.0000	28,496.86	6.5216
G1 Execution Services, LLC	23.09	23.69	25.67	24.10	13.84	188,839.53	9.0000	41,816.65	9.0000	217,251.86	30.0000	32,459.01	14.2218
UBS Securities, LLC	13.62	12.70	13.95	16.45	8.77	95,417.02	8.9999	39,282.90	9.0828	113,055.07	28.0348	29,205.95	14.3936
Two Sigma Securities, LLC	4.33	4.70	4.88	4.38	1.44	43,021.18	9.0000	9,677.44	9.0000	39,174.10	28.2230	1,635.94	9.0000
Nasdaq Execution Services, LLC	0.42	0.00	0.02	1.28	0.15	0.00	0.0000	0.00	0.0000	9,016.56	32.9996	-97.84	-20.0000
Cboe EDGX Exchange, Inc.	0.38	0.02	0.53	1.05	0.13	-792.10	-26.9999	-1,071.55	-27.0449	7,275.91	28.6990	0.00	0.0000

Material Aspects:

Citadel Execution Services:
Citadel is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

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G1X is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

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Nasdaq Execution Services, LLC:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0033 per share. Schwab is charged for removing liquidity from this venue up to \$.0030.

Cboe EDGX Exchange, Inc.:
For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0032 per share. Schwab is charged for removing liquidity from this venue up to \$.00265.

August 2020

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
99.38	48.67	6.83	33.90	10.61

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 Execution Services	29.73	30.04	30.07	27.11	36.48	763,774.42	8.6076	260,662.12	7.9608	854,897.26	25.7406	90,754.94	11.5782
Virtu Americas, LLC	27.38	25.32	25.33	25.84	43.14	672,791.94	8.0882	237,494.79	7.3909	786,840.39	25.9843	42,903.57	2.1077
G1 Execution Services, LLC	23.65	25.72	25.50	24.04	11.68	602,398.44	8.2577	196,338.78	7.6826	802,541.89	26.1646	79,002.50	11.9870
UBS Securities, LLC	14.04	13.80	14.05	16.45	7.40	268,396.13	8.1919	167,363.58	7.8795	394,275.36	23.1758	81,491.94	12.6997
Two Sigma Securities, LLC	4.38	5.09	4.95	4.28	1.10	123,146.29	8.1478	44,258.69	7.5401	130,701.18	24.6131	6,516.78	8.2665

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Nasdaq Execution Services, LLC	0.44	0.00	0.03	1.27	0.10	0.00	0.0000	-5.19	-0.9733	28,806.42	30.9723	-365.46	-19.9543
Cboe EDGX Exchange, Inc.	0.38	0.03	0.09	1.02	0.09	-5,673.77	-26.9977	-16,276.78	-29.2683	17,741.18	18.1871	0.00	0.0000

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August 2020

Options

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	16.35	6.66	50.41	26.58

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 Execution Services	34.89	33.08	33.26	33.38	39.28	1,034,483.60	33.9481	847,648.50	35.7644	1,072,165.70	37.0125	704,513.20	30.4853
Global	30.67	30.14	30.21	30.40	31.62	1,419,308.32	36.6918	401,220.11	34.7521	1,104,161.20	38.8745	716,661.34	36.3629

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)
Execution Brokers LP													
Wolverine Execution Services, LLC	18.12	18.46	18.93	19.65	14.80	620,791.60	36.5675	468,857.40	39.5719	746,264.30	41.3065	404,680.80	35.7048
Morgan Stanley & Co., LLC	7.99	5.44	6.08	6.02	13.80	215,206.40	43.5706	214,261.40	47.9952	243,040.00	48.3903	337,914.60	35.2661
Dash Financial Technologies, LLC	7.75	12.23	10.79	9.73	0.47	404,065.00	32.0497	221,918.70	32.6875	324,733.30	33.9607	12,482.50	30.9901
Citigroup Global Markets Inc.	0.57	0.65	0.73	0.81	0.03	12,717.70	37.2887	20,547.38	34.4957	27,956.30	38.0669	932.00	35.6133

Material Aspects:

Citadel Execution Services:

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September 2020

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
99.71	53.86	4.81	33.61	7.72

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 Execution Services	30.51	31.79	30.36	27.10	36.45	269,067.03	9.5000	54,930.83	9.5007	405,825.88	29.9715	67,006.00	21.2746
Virtu Americas, LLC	27.58	26.77	24.64	26.17	41.13	234,043.70	8.9893	48,064.89	9.0000	255,812.85	30.0000	22,659.82	5.4712
G1 Execution Services, LLC	23.09	23.71	25.72	24.07	12.81	200,153.39	9.0000	40,312.17	9.0000	245,915.97	30.0000	29,183.68	13.6620
UBS Securities, LLC	13.83	12.93	14.25	16.53	8.07	94,745.25	8.6961	36,888.45	9.0405	115,221.53	27.6814	26,266.98	14.0860
Two Sigma Securities, LLC	4.38	4.78	4.96	4.37	1.30	44,353.72	9.0000	9,128.48	9.0000	45,996.13	28.0529	1,821.14	9.0000
Cboe EDGX Exchange, Inc.	0.35	0.02	0.03	0.99	0.14	-190.88	-4.2993	-1,283.59	-26.3394	7,170.90	27.8041	0.00	0.0000
Nasdaq Execution Services, LLC	0.27	0.00	0.04	0.77	0.09	0.00	0.0000	-35.93	-30.0000	5,907.76	33.0000	-74.26	-12.2875

Material Aspects:

Citadel Execution Services:

Citadel is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Virtu Americas, LLC:

VIRTU is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

G1 Execution Services, LLC:

G1X is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

UBS Securities, LLC:

UBS is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Two Sigma Securities, LLC:

Two Sigma is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for orders executed through the firm, which average \$.0009 per share.

Cboe EDGX Exchange, Inc.:

For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0032 per share. Schwab is charged for removing liquidity from this venue up to \$.00265.

Nasdaq Execution Services, LLC:

For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0033 per share. Schwab is charged for removing liquidity from this venue up to \$.0030.

September 2020

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
99.42	49.08	6.33	34.66	9.93

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 Execution Services	29.89	30.43	30.18	27.19	36.44	752,230.54	8.7629	228,495.28	7.9269	784,360.14	26.3221	146,189.24	19.6764
Virtu Americas, LLC	27.11	24.71	25.05	26.29	43.09	649,161.66	8.2248	201,180.60	7.3116	721,371.32	26.3975	38,805.45	2.5310
G1 Execution Services, LLC	23.68	25.66	25.41	23.96	11.75	585,832.67	8.3240	165,287.83	7.6890	718,670.52	26.5011	74,211.55	12.0075
UBS Securities, LLC	14.26	14.01	14.22	16.57	7.45	257,690.57	8.2240	136,890.65	7.7893	349,136.83	22.4661	68,652.23	12.0537
Two Sigma Securities, LLC	4.44	5.15	4.98	4.27	1.12	123,463.31	8.3058	36,224.78	7.5872	116,315.00	24.6783	5,915.84	8.3894
Cboe EDGX Exchange, Inc.	0.37	0.03	0.10	0.97	0.09	-1,117.70	-10.1147	-7,186.20	-18.7736	19,128.09	25.4056	0.00	0.0000
Nasdaq Execution Services, LLC	0.27	0.00	0.06	0.74	0.06	0.00	0.0000	-270.19	-28.5421	15,155.98	30.5545	-2,164.99	-18.2365

Material Aspects:

Citadel Execution Services:

Citadel is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Virtu Americas, LLC:

VIRTU is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

G1 Execution Services, LLC:

G1X is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which average \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

UBS Securities, LLC:

UBS is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for marketable orders executed through the firm, which averaged \$.0009 per share. Non-Marketable Limit orders that added liquidity and which subsequently executed received payment up to \$.0030 per share.

Two Sigma Securities, LLC:

Two Sigma is a market maker in certain exchange listed and OTC equity securities. Schwab receives payments for orders executed through the firm, which average \$.0009 per share.

Cboe EDGX Exchange, Inc.:

For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0032 per share. Schwab is charged for removing liquidity from this venue up to \$.00265.

Nasdaq Execution Services, LLC:

For Non-Marketable Limit orders that added liquidity and which subsequently executed, Schwab received a credit up to \$.0033 per share. Schwab is charged for removing liquidity from this venue up to \$.0030.

September 2020

Options

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	17.35	6.36	50.98	25.31

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 Execution Services	34.86	33.07	33.54	33.46	39.23	1,137,463.40	33.5277	785,898.00	34.9887	1,119,058.30	35.8965	705,925.90	29.6637
Global Execution Brokers LP	30.34	30.00	30.04	30.07	31.20	1,468,427.85	35.5507	418,229.04	33.6216	1,133,498.07	37.7252	736,587.67	35.8213
Wolverine Execution Services, LLC	18.45	19.25	18.98	19.90	14.86	684,268.00	35.3965	435,457.50	38.0850	750,302.70	39.8148	420,997.60	35.5969
Dash Financial Technologies, LLC	8.69	12.49	11.36	10.18	2.40	492,235.90	31.6956	226,108.20	32.3184	361,781.20	33.3921	69,932.86	33.8255
Morgan Stanley & Co., LLC	7.66	5.19	6.08	6.39	12.32	218,555.70	40.9423	185,604.70	45.1762	247,645.00	45.1895	307,293.10	35.3003

Material Aspects:

Citadel Execution Services:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.

Global Execution Brokers LP:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.

Wolverine Execution Services, LLC:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.

Dash Financial Technologies, LLC:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.

Morgan Stanley & Co., LLC:
As detailed above, Charles Schwab receives payment for routing listed option order flow to market makers. The rates paid vary by the characteristics of the order (e.g., size of order, price of security, marketability). Any difference in average net per share payments paid by market makers is due to the various type of orders and respective quantities they handle.