

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

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2nd Quarter, 2020

April 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
99.66	49.58	5.03	35.60	9.79

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	31.08	31.48	31.74	28.64	37.61	394,459.89	9.1172	75,680.66	9.4670	494,256.92	29.8505	83,588.12	8.0213
Virtu Americas, LLC	29.31	28.49	27.13	27.63	40.69	370,863.60	8.9999	73,886.71	9.0000	349,633.52	30.0000	51,970.74	6.0879
G1 Execution Services, LLC	21.13	22.60	22.99	21.48	11.39	260,606.62	9.0000	48,424.53	9.0000	293,595.20	30.0000	54,170.21	13.2103
UBS Securities, LLC	15.82	15.65	16.05	17.93	8.89	153,233.36	8.9989	55,867.11	6.9358	201,516.35	27.7093	55,022.05	13.4726
Two Sigma Securities, LLC	1.69	1.75	1.78	1.79	0.98	22,962.98	9.0000	4,217.11	9.0000	23,562.47	27.3969	1,838.37	9.0000
Nasdaq Execution Services, LLC	0.53	0.00	0.03	1.43	0.21	0.00	0.0000	0.00	0.0000	19,284.35	33.0000	0.00	0.0000
Choe EDGX Exchange, Inc.	0.44	0.02	0.27	1.10	0.22	-1,837.11	-26.9919	-3,940.32	-28.9471	10,907.24	20.5348	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.

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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.

April 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
99.48	49.53	6.58	33.77	10.13

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	31.50	31.89	31.84	28.87	38.19	1,059,624.56	8.1367	298,853.35	7.0004	1,167,832.84	23.6325	127,755.69	5.0933
Virtu Americas, LLC	29.34	28.14	27.71	27.77	41.48	982,594.87	7.8317	271,609.37	6.6190	963,969.88	24.0886	61,193.66	2.7580
G1 Execution Services, LLC	20.71	22.36	22.37	21.05	10.50	677,983.11	8.0328	175,231.53	6.7747	805,587.02	24.3342	90,299.60	11.4795
UBS Securities, LLC	15.77	15.75	16.13	17.90	8.53	309,371.07	7.7593	279,958.40	6.2428	528,294.90	21.1908	105,580.32	11.0300
Two Sigma Securities, LLC	1.76	1.84	1.86	1.85	1.00	60,165.07	7.7618	17,136.73	6.4475	65,824.06	21.6209	5,199.67	7.5979
Nasdaq Execution Services, LLC	0.51	0.00	0.02	1.45	0.16	0.00	0.0000	-6.79	-1.4919	41,089.88	29.8702	-20.63	-1.0082
Cboe EDGX Exchange, Inc.	0.41	0.02	0.07	1.11	0.14	-4,441.45	-26.9987	-21,607.73	-29.2162	23,989.61	18.0589	0.00	0.0000

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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.

April 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	13.50	5.94	56.58	23.99

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	34.16	32.68	33.03	32.57	39.04	820,650.60	33.9975	734,178.50	35.0309	1,172,740.40	35.9432	524,768.50	30.9516
Global Execution Brokers LP	28.87	28.53	28.45	28.24	30.66	1,095,105.99	33.9898	268,103.41	32.4303	1,065,711.84	34.8093	525,395.45	36.3943
Wolverine Execution Services, LLC	17.58	18.01	18.06	18.49	15.08	471,091.05	35.3966	401,464.35	37.5488	756,776.85	40.2815	307,732.80	36.2995
Morgan Stanley & Co., LLC	9.51	7.25	7.31	8.22	14.35	197,783.20	36.2604	214,717.50	40.6454	326,194.10	39.8920	273,408.80	35.2625
Dash Financial Technologies, LLC	5.41	8.11	7.76	6.56	0.58	227,982.70	32.9658	156,915.00	34.0733	262,750.00	35.2316	2,865.10	31.0715
Citigroup Global Markets Inc.	4.47	5.42	5.39	5.91	0.29	73,725.76	35.1480	142,741.36	32.8788	203,657.93	35.9442	5,612.45	21.1336

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.

Morgan Stanley & Co., LLC:

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Dash Financial Technologies, LLC:

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Citigroup Global Markets Inc.:

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May 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	50.25	5.23	35.13	9.40

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	30.76	31.65	30.96	27.89	36.61	340,627.85	9.2371	69,294.01	9.4657	437,166.82	29.8481	70,318.16	8.9633
Virtu Americas, LLC	28.32	27.27	26.42	26.92	40.23	307,618.26	8.9996	63,016.33	9.0000	314,382.74	30.0000	43,437.18	6.3436
G1 Execution Services, LLC	24.05	25.57	26.02	24.42	13.49	262,561.75	9.0000	52,273.12	9.0000	296,218.55	30.0000	58,665.10	13.8187
UBS Securities, LLC	14.97	14.45	15.17	17.36	8.69	123,890.05	8.9957	52,975.16	6.9214	163,244.90	27.4427	46,333.01	13.8878
Two Sigma Securities, LLC	1.08	1.04	1.15	1.25	0.64	11,762.32	9.0000	2,633.85	9.0000	12,961.66	26.1544	943.49	9.0000
Nasdaq Execution Services, LLC	0.44	0.00	0.07	1.21	0.17	0.00	0.0000	0.00	0.0000	13,102.63	33.0000	0.00	0.0000
Cboe EDGX Exchange, Inc.	0.38	0.02	0.22	0.96	0.18	-1,906.62	-26.9929	-2,723.54	-29.2893	8,107.60	20.6818	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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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.

May 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
99.44	48.54	6.57	34.04	10.84

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	30.69	31.29	30.90	27.95	36.53	830,286.52	8.1734	239,968.87	6.9427	901,543.23	23.4791	103,587.79	5.1351
Virtu Americas, LLC	28.60	26.79	26.83	27.07	42.56	766,166.97	7.8241	223,473.24	6.6220	831,593.69	24.0183	51,757.75	2.6351
G1 Execution Services, LLC	24.02	26.11	26.03	24.41	12.20	645,733.58	7.9549	174,556.27	6.8950	831,705.26	24.2516	87,380.10	11.4028
UBS Securities, LLC	14.87	14.75	15.04	17.23	7.89	246,500.48	7.7772	211,270.05	6.4700	424,687.36	21.1615	89,755.16	11.3081
Two Sigma Securities, LLC	1.05	1.04	1.09	1.20	0.58	27,613.67	8.0135	8,215.15	6.8065	32,147.85	21.3335	2,451.66	7.8688

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)
Nasdaq Execution Services, LLC	0.43	0.00	0.06	1.21	0.12	0.00	0.0000	-9.17	-1.5200	29,155.89	29.5761	-64.79	-1.9012
Cboe EDGX Exchange, Inc.	0.34	0.01	0.06	0.93	0.12	-1,770.71	-26.9855	-5,070.14	-28.0916	18,907.35	20.7480	0.00	0.0000

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May 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	15.04	6.68	53.42	24.87

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 Execution Services	34.62	32.74	33.18	32.54	40.62	948,587.10	35.0363	777,461.60	36.4537	1,121,257.30	37.6264	607,281.20	30.8707
Global	28.21	27.70	27.62	27.33	30.55	1,179,744.57	34.7501	239,885.49	33.1296	935,923.84	35.5563	567,585.79	37.6673

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Execution Brokers LP													
Wolverine Execution Services, LLC	17.07	17.61	17.47	18.18	14.23	535,497.00	37.4806	411,986.85	40.1555	700,382.85	42.7827	304,863.60	37.5818
Morgan Stanley & Co., LLC	9.72	7.58	7.92	8.61	13.91	232,997.40	38.2111	246,940.30	43.7670	301,581.80	42.7717	275,053.60	36.8645
Dash Financial Technologies, LLC	5.60	8.64	8.05	6.85	0.44	269,658.00	33.6944	167,917.70	35.0885	249,450.90	36.3668	4,731.70	30.5291
Citigroup Global Markets Inc.	4.78	5.73	5.75	6.49	0.26	89,012.01	35.1439	168,091.66	33.0163	215,457.20	36.7530	5,520.40	37.0696

Material Aspects:

Citadel Execution Services:

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June 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
99.65	52.86	4.89	32.82	9.42

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	30.92	32.03	30.85	27.56	36.37	382,641.63	9.3825	73,422.43	9.4770	466,801.32	29.8766	82,477.45	8.4062
Virtu Americas, LLC	28.87	28.29	26.22	26.67	41.12	344,592.02	8.9920	68,672.05	9.0000	343,894.73	30.0000	50,788.99	5.9110
G1 Execution Services, LLC	23.08	24.02	25.71	24.08	12.97	279,854.40	9.0000	50,543.05	9.0000	311,278.35	30.0000	62,366.54	13.4127
UBS Securities, LLC	14.34	13.59	14.81	17.19	8.38	147,355.27	8.9960	49,998.25	7.4075	183,305.45	27.9322	58,068.28	14.7237
Two Sigma Securities, LLC	1.99	2.05	2.20	2.17	0.87	25,709.58	9.0000	5,509.00	9.0000	27,310.69	28.0945	1,428.81	9.0000
Nasdaq Execution Services, LLC	0.44	0.00	0.02	1.31	0.14	0.00	0.0000	0.00	0.0000	16,198.04	33.0000	0.00	0.0000
Cboe EDGX Exchange, Inc.	0.37	0.02	0.18	1.03	0.15	-3,676.56	-26.9817	-2,711.32	-29.1673	11,002.77	25.6912	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 \$.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.

June 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
99.43	48.65	6.54	33.88	10.94

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	30.40	30.79	30.75	27.68	36.85	1,047,449.06	8.2487	306,777.91	7.4621	1,163,572.81	24.0754	118,590.56	4.2296
Virtu Americas, LLC	28.57	26.54	26.50	26.80	44.34	941,911.37	7.7312	290,066.45	7.0860	1,085,434.35	24.5454	49,527.80	1.6519
G1 Execution Services, LLC	23.51	25.76	25.49	23.99	10.81	802,241.73	7.9840	219,079.70	7.2692	1,060,200.07	24.6178	98,071.11	11.4007
UBS Securities, LLC	14.65	14.62	14.91	17.07	7.13	375,325.92	7.9251	206,476.00	6.5378	557,394.81	22.2376	106,868.00	11.2624
Two Sigma Securities, LLC	2.06	2.27	2.28	2.16	0.70	74,190.10	7.8726	22,607.12	6.9851	82,327.36	22.2717	4,402.73	7.8006
Nasdaq Execution Services, LLC	0.45	0.00	0.02	1.29	0.09	0.00	0.0000	-0.69	-0.1352	40,610.68	29.7883	-8.74	-0.5423
Cboe EDGX Exchange, Inc.	0.37	0.02	0.06	1.01	0.08	-3,481.04	-26.9999	-20,730.54	-28.5560	25,819.53	21.3715	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 \$.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.

June 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	18.76	7.88	62.48	10.87

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 Execution Services	33.27	32.54	32.80	32.40	39.88	1,129,774.60	35.9575	947,949.10	38.3369	1,299,504.50	39.0443	705,013.60	31.7980
Global Execution Brokers LP	28.64	28.83	28.76	28.54	28.82	1,575,124.30	38.6109	335,610.20	36.2914	1,300,825.63	41.0333	683,920.69	38.5293
Wolverine Execution Services, LLC	18.65	18.29	18.42	19.17	16.41	688,733.10	38.7942	542,616.60	42.6478	902,161.05	44.3503	405,813.90	39.1216
Morgan Stanley & Co., LLC	7.59	6.48	6.77	7.08	13.08	245,637.70	38.6403	233,512.40	43.9935	321,740.00	43.4994	317,809.90	38.2535
Dash Financial Technologies, LLC	6.21	8.12	7.36	6.36	1.20	303,929.10	34.3826	177,128.90	36.4746	279,195.80	36.9905	3,017.70	31.7419
Citigroup Global Markets Inc.	5.64	5.74	5.89	6.45	0.60	103,881.26	35.7027	198,313.19	34.7166	249,056.97	37.3003	5,958.80	36.6786

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.

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.

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.

Citigroup Global Markets Inc.:

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.