

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

Generated on Fri Apr 22 2022 12:20:07 GMT-0400 (Eastern Daylight Time)

1st Quarter, 2022

January 2022

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	58.46	4.33	29.63	7.58

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 SECURITIES LLC	31.86	33.63	30.02	26.44	40.41	281,907.39	10.0000	42,243.45	10.0004	225,983.88	32.9999	43,440.02	10.1663
Virtu Americas, LLC	22.31	22.92	22.67	17.77	35.14	236,519.70	9.9897	36,923.14	10.0000	135,262.44	32.9999	28,661.77	9.0059
G1 Execution Services, LLC	19.87	17.10	20.30	27.12	12.64	162,363.15	10.0000	25,508.80	10.0000	233,401.11	32.7828	29,940.88	15.5649
UBS Securities, LLC	11.76	7.44	8.92	21.66	8.01	71,434.73	9.9998	28,008.02	10.2959	158,842.67	30.6556	26,001.57	17.1194
JANEST	10.79	16.97	14.92	0.12	2.44	161,726.28	10.0119	20,319.93	10.0000	1,938.63	27.2393	7,981.70	10.0845
Two Sigma Securities, LLC	2.84	1.90	2.12	5.24	1.13	20,165.89	9.9998	3,621.06	10.0045	42,753.48	31.6806	3,467.10	16.2820
Cboe EDGX Exchange, Inc.	0.25	0.04	1.02	0.57	0.10	0.00	0.0000	-2,381.69	-24.6339	4,579.51	26.4715	0.00	0.0000
Members Exchange (MEMX)	0.21	0.00	0.03	0.69	0.08	0.00	0.0000	0.00	0.0000	5,232.61	37.0000	0.00	0.0000
The Nasdaq Stock Market	0.12	0.00	0.02	0.39	0.05	0.00	0.0000	-28.55	-30.0000	2,796.59	33.0000	-13.89	-12.8101

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Virtu Americas, LLC:

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Cboe EDGX Exchange, Inc.:

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

Members Exchange (MEMX):

For Non-Marketable Limit orders that added liquidity, and which subsequently executed, Schwab receives a credit up to \$0.0037 per share. Schwab is charged for removing liquidity from this venue up to \$0.0029. Schwab has an ownership interest in the Members Exchange.

The Nasdaq Stock Market:

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January 2022

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
99.46	55.03	6.41	31.04	7.52

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	30.31	30.93	29.91	26.44	42.10	966,791.28	10.0000	302,933.86	10.0125	763,783.17	30.0009	130,483.59	8.6062
Virtu Americas, LLC	22.07	22.46	22.67	17.82	36.28	803,921.48	9.9897	258,831.55	10.0000	455,675.24	30.2045	87,431.25	7.4561
G1 Execution Services, LLC	20.51	18.28	19.81	26.85	11.31	576,010.16	10.0000	180,193.85	10.0000	814,724.08	30.0567	82,645.27	14.4154
UBS Securities, LLC	12.24	8.03	8.71	21.64	7.26	241,526.36	9.9853	167,880.38	10.0962	540,107.67	27.7175	88,347.89	15.9134
JANEST	11.14	18.21	14.79	0.10	1.87	540,389.29	10.0071	135,056.82	10.0000	6,265.77	23.1923	17,151.24	10.2222

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Two Sigma Securities, LLC	2.95	2.04	2.08	5.24	0.96	68,763.73	9.9996	24,725.86	10.0055	135,930.20	28.7936	8,933.93	14.6557
Cboe EDGX Exchange, Inc.	0.42	0.05	1.99	0.82	0.11	0.00	0.0000	-13,352.33	-20.3231	15,873.53	22.7896	0.00	0.0000
Members Exchange (MEMX)	0.22	0.00	0.02	0.69	0.07	0.00	0.0000	0.00	0.0000	17,806.79	35.4377	0.00	0.0000
The Nasdaq Stock Market	0.13	0.00	0.01	0.40	0.04	0.00	0.0000	-138.63	-29.3775	9,008.61	31.0062	-98.24	-18.0043

Material Aspects:

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Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

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UBS Securities, LLC:

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

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The Nasdaq Stock Market:

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

January 2022

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
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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	14.52	5.85	51.68	27.95

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	28.81	27.03	28.13	28.22	30.98	1,356,378.75	55.3408	1,319,670.05	59.9116	1,626,723.33	54.1682	498,785.19	23.8917
Global Execution Brokers LP	25.67	27.59	27.89	27.61	20.62	600,671.78	55.8767	836,902.93	59.6073	1,854,884.64	59.4857	2,178,189.97	54.5583
Wolverine Execution Services, LLC	23.61	19.99	20.34	22.21	28.77	1,072,018.55	58.7504	939,707.82	62.9143	1,604,251.53	59.5799	1,319,285.34	50.3048
Dash/IMC Financial Markets	20.84	23.99	21.93	20.57	19.47	1,374,459.25	53.2858	779,178.01	53.9345	1,384,500.95	53.5453	1,065,126.23	48.0305
Morgan Stanley & Co., LLC	1.07	1.40	1.71	1.40	0.16	93,323.98	68.7343	115,019.82	75.1552	93,200.69	67.3284	13,731.91	72.3761

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Global Execution Brokers LP:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Wolverine Execution Services, LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Dash/IMC Financial Markets:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker. In connection with Dash's handling of Charles Schwab's retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab's retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab's retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.

Morgan Stanley & Co., LLC:

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February 2022

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	56.84	4.54	30.13	8.49

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	31.62	33.03	29.84	26.45	41.49	245,838.56	10.0000	38,684.06	10.0013	189,254.27	33.0000	36,523.78	9.5008
Virtu Americas, LLC	22.18	22.40	22.36	17.63	36.70	207,423.29	9.9900	33,422.42	10.0000	115,362.17	32.9966	23,539.03	8.2800
G1 Execution Services, LLC	20.12	17.56	20.93	27.37	11.17	145,773.11	10.0000	23,894.66	10.0000	192,130.34	32.7881	24,135.76	15.3346
UBS Securities, LLC	11.74	7.47	8.77	21.55	7.06	61,079.85	9.9999	23,894.16	10.1250	127,798.74	31.0176	20,647.21	16.6320
JANEST	10.94	17.60	15.58	0.09	2.35	150,716.55	10.0117	20,641.39	10.0000	1,515.30	24.4194	6,997.70	10.1074
Two Sigma Securities, LLC	2.84	1.90	2.11	5.23	1.03	17,578.14	9.9995	3,319.17	10.0017	34,886.41	31.1276	2,802.50	16.3446
Cboe EDGX Exchange, Inc.	0.22	0.04	0.37	0.58	0.11	-5.00	-0.1343	-1,627.12	-27.3031	3,499.38	29.1587	0.00	0.0000
Members Exchange (MEMX)	0.22	0.00	0.02	0.71	0.08	0.00	0.0000	0.00	0.0000	4,521.26	37.0000	0.00	0.0000
The Nasdaq Stock Market	0.12	0.00	0.01	0.40	0.04	0.00	0.0000	-27.93	-30.0000	2,241.23	33.0000	-12.35	-13.9589

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Non-S&P 500 Stocks

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Venues

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CITADEL SECURITIES LLC	30.28	30.49	29.83	26.51	42.05	833,633.32	10.0000	264,630.46	10.0091	664,562.53	29.4438	125,879.31	8.2379
Virtu Americas, LLC	22.05	21.94	22.52	17.70	36.88	696,382.46	9.9769	225,993.92	10.0000	381,805.36	29.4637	86,626.56	7.1026
G1 Execution Services, LLC	20.63	18.61	20.24	27.13	10.88	516,532.32	10.0000	154,554.95	10.0000	703,530.91	29.7985	77,761.02	14.5762
UBS Securities, LLC	12.16	8.03	8.69	21.62	6.95	209,621.28	9.9874	141,783.10	10.1458	472,021.74	27.9972	73,043.20	15.6384
JANEST	11.32	18.84	15.78	0.08	2.09	489,567.32	10.0068	128,162.82	10.0000	4,649.57	21.5285	17,587.22	10.0939
Two Sigma Securities, LLC	2.92	2.04	2.06	5.23	0.98	59,843.19	9.9996	20,380.74	10.1952	121,567.77	29.1227	7,586.79	13.9749
Cboe EDGX Exchange, Inc.	0.28	0.06	0.87	0.61	0.07	0.00	0.0000	-5,070.90	-23.4716	11,553.93	26.8132	0.00	0.0000
Members Exchange (MEMX)	0.23	0.00	0.01	0.72	0.07	0.00	0.0000	0.00	0.0000	15,171.83	34.8195	0.00	0.0000
The Nasdaq Stock Market	0.13	0.00	0.01	0.40	0.04	0.00	0.0000	-97.75	-29.8124	7,553.44	30.9656	-124.74	-20.0966

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Virtu Americas, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

G1 Execution Services, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

UBS Securities, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

JANEST:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Two Sigma Securities, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Cboe EDGX Exchange, Inc.:

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

Members Exchange (MEMX):

For Non-Marketable Limit orders that added liquidity, and which subsequently executed, Schwab receives a credit up to \$0.0037 per share. Schwab is charged for removing liquidity from this venue up to \$0.0029. Schwab has an ownership interest in the Members Exchange.

The Nasdaq Stock Market:

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

February 2022

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	14.04	5.66	52.55	27.75

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	28.66	26.24	27.55	28.09	31.18	1,220,321.11	56.6279	1,138,258.88	60.7207	1,415,291.74	54.0183	428,206.25	22.7536
Global Execution Brokers LP	25.53	27.62	28.01	27.50	20.24	1,261,435.20	56.2609	1,029,018.36	60.2686	1,710,112.58	60.1891	723,206.30	49.3711
Wolverine Execution Services, LLC	23.88	20.33	20.52	22.54	28.91	1,003,828.81	58.8779	821,550.33	63.7805	1,477,963.52	60.1498	1,052,748.38	49.5384

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)
Dash/IMC Financial Markets	20.92	24.47	22.26	20.48	19.67	1,230,044.62	53.6343	724,351.50	54.5528	1,262,827.09	53.9388	836,641.38	47.7278
Morgan Stanley & Co., LLC	1.01	1.35	1.65	1.38	0.00	86,163.78	73.0041	90,181.26	78.7602	92,905.01	69.6497	3,966.58	101.9949

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Global Execution Brokers LP:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Wolverine Execution Services, LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Dash/IMC Financial Markets:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker. In connection with Dash's handling of Charles Schwab's retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab's retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab's retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.

Morgan Stanley & Co., LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

March 2022

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
99.70	57.85	4.42	29.89	7.84

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)
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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)
CITADEL SECURITIES LLC	31.51	33.12	30.12	26.41	39.86	296,696.86	10.0000	49,846.74	10.0037	239,811.37	32.9967	43,076.11	10.3030
Virtu Americas, LLC	21.31	21.87	21.78	17.13	32.81	246,273.26	9.9916	40,865.76	10.0000	137,374.57	32.9917	25,610.87	9.0223
G1 Execution Services, LLC	20.51	17.76	21.02	27.51	13.84	179,918.43	10.0000	29,524.21	10.0000	250,749.48	32.8236	29,777.57	15.0481
UBS Securities, LLC	12.02	7.66	8.88	21.75	8.85	75,651.84	10.0001	28,001.15	10.1818	167,708.04	31.1984	26,967.72	16.7390
JANEST	11.03	17.43	15.79	0.08	2.89	178,850.64	10.0074	24,617.72	10.0000	1,391.24	25.0182	9,232.70	10.0911
Two Sigma Securities, LLC	3.02	2.09	2.27	5.36	1.38	22,866.23	9.9999	3,828.02	10.0027	44,523.19	31.5686	3,539.89	14.7077
Members Exchange (MEMX)	0.23	0.00	0.02	0.75	0.11	0.00	0.0000	0.00	0.0000	5,255.86	35.0000	0.00	0.0000
Cboe EDGX Exchange, Inc.	0.23	0.06	0.11	0.59	0.20	-0.04	-0.0002	-9,433.91	-27.0166	4,133.25	29.7622	0.00	0.0000
The Nasdaq Stock Market	0.13	0.00	0.01	0.42	0.07	0.00	0.0000	-33.63	-30.0000	2,741.74	33.0000	-36.12	-14.8282

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Virtu Americas, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

G1 Execution Services, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

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Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

JANEST:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Two Sigma Securities, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Members Exchange (MEMX):

For Non-Marketable Limit orders that added liquidity, and which subsequently executed, Schwab receives a credit up to \$0.0037 per share. Schwab is charged for removing liquidity from this venue up to \$0.0029. Schwab has an ownership interest in the Members Exchange.

Cboe EDGX Exchange, Inc.:

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

The Nasdaq Stock Market:

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

March 2022

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
99.39	53.33	6.51	30.75	9.41

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	30.41	30.59	30.03	26.52	42.35	1,165,206.25	10.0000	382,223.35	10.0151	892,832.08	28.3933	194,959.59	8.0025
Virtu Americas, LLC	21.60	21.49	22.08	17.24	36.19	968,645.90	9.9280	316,160.61	9.9999	530,346.94	28.3790	128,418.23	6.8724
G1 Execution Services, LLC	20.83	18.88	20.25	27.28	11.18	722,212.45	10.0000	220,163.18	10.0000	1,007,991.09	28.6821	111,974.51	14.2919
UBS Securities, LLC	12.32	8.23	8.74	21.74	7.18	303,874.01	9.9923	205,822.50	10.0898	679,807.96	27.6380	103,387.77	16.0088
JANEST	11.13	18.58	15.71	0.07	1.90	663,467.03	10.0073	184,048.17	10.0000	5,204.17	20.6878	22,355.82	10.1594
Two Sigma Securities, LLC	3.06	2.21	2.23	5.34	1.01	88,576.42	9.9997	29,863.25	10.0050	170,997.49	27.5877	11,646.44	14.0449
Cboe EDGX Exchange, Inc.	0.27	0.03	0.94	0.61	0.07	-929.96	-2.8180	-15,519.28	-24.6724	17,156.42	26.6418	0.00	0.0000
Members Exchange (MEMX)	0.24	0.00	0.01	0.76	0.07	0.00	0.0000	0.00	0.0000	21,044.76	32.6189	0.00	0.0000
The Nasdaq Stock Market	0.14	0.00	0.01	0.43	0.04	0.00	0.0000	-167.82	-29.2091	11,255.64	30.4382	-155.07	-21.8802

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

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G1 Execution Services, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

UBS Securities, LLC:

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JANEST:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Two Sigma Securities, LLC:

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is \$0.001 per share or less, for non-marketable orders the rate is \$0.0033 per share or less, and for extended hours orders the rate is \$0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Cboe EDGX Exchange, Inc.:

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

Members Exchange (MEMX):

For Non-Marketable Limit orders that added liquidity, and which subsequently executed, Schwab receives a credit up to \$0.0037 per share. Schwab is charged for removing liquidity from this venue up to \$0.0029. Schwab has an ownership interest in the Members Exchange.

The Nasdaq Stock Market:

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

March 2022

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	13.32	5.53	51.97	29.17

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	28.80	26.23	27.73	28.02	31.57	1,445,284.60	59.5388	1,369,569.21	63.5105	1,751,202.50	55.9999	522,276.75	22.7957
Global Execution Brokers LP	25.60	27.84	28.11	27.73	20.30	1,488,009.90	57.7756	1,216,162.15	62.3600	2,036,271.41	61.2356	832,062.33	49.6368
Wolverine Execution Services, LLC	23.99	20.31	20.70	22.48	28.97	1,159,155.42	60.7382	1,019,736.67	66.3080	1,783,257.93	61.2051	1,301,187.40	50.4396
Dash/IMC Financial Markets	20.46	24.14	21.59	20.13	19.16	1,409,149.91	54.3476	822,734.42	55.2391	1,415,966.48	54.0408	1,017,328.28	48.8000
Morgan Stanley & Co., LLC	1.15	1.47	1.86	1.63	0.01	118,232.28	77.8110	147,282.21	85.4722	117,458.59	69.3536	4,403.95	94.7290

Material Aspects:

CITADEL SECURITIES LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Global Execution Brokers LP:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Wolverine Execution Services, LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.

Dash/IMC Financial Markets:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker. In connection with Dash's handling of Charles Schwab's retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab's retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab's retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.

Morgan Stanley & Co., LLC:

Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is \$1.49 per contract or less (for classes in the penny interval program the rate is \$0.51 per contract or less). For complex orders the payment rate is \$0.93 per contract or less (for classes in the penny interval program the rate is \$0.43 per contract or less). For non-marketable orders the payment rate is \$0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker.