

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

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2nd Quarter, 2023

April 2023

## 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
99.62	57.95	5.05	26.58	10.41

### 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	29.35	27.70	27.58	28.69	41.06	225,750.92	10.0000	36,698.40	10.0026	190,388.60	32.4681	43,467.39	9.5490
Virtu Americas, LLC	22.22	22.18	22.49	17.70	33.87	190,032.32	9.9893	25,825.84	10.0000	83,677.35	32.8784	27,069.75	8.5320
G1 Execution Services, LLC	21.71	21.04	20.91	26.94	12.47	155,538.86	9.9609	22,180.83	9.9368	188,788.50	32.6656	27,985.29	13.7474
JANEST	15.32	21.56	20.78	4.85	4.73	189,569.20	9.9691	33,251.10	9.9315	49,426.81	31.7188	15,566.60	10.9246
UBS Securities, LLC	6.78	4.25	4.80	13.03	5.90	36,327.21	9.9997	10,597.48	10.1159	84,094.22	31.5611	14,635.42	15.0721

### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

#### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

#### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

#### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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April 2023

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
99.40	56.38	7.73	26.15	9.74

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	29.41	27.49	27.21	28.89	43.63	706,173.96	10.0000	209,958.60	10.0045	519,326.39	23.9552	124,182.35	7.0752
Virtu Americas, LLC	22.35	22.02	22.30	17.96	36.09	582,963.12	9.9955	164,176.60	10.0000	264,890.34	25.1497	86,895.53	6.2857
G1 Execution Services, LLC	21.65	21.20	20.96	26.99	10.47	460,179.20	9.9773	121,504.71	9.9923	526,471.85	24.7571	60,429.85	13.4510
JANEST	15.34	21.69	21.03	4.72	2.62	642,888.64	9.9858	196,912.93	9.9893	120,646.52	21.9927	21,928.49	11.1718
UBS Securities, LLC	6.75	4.36	4.60	12.94	5.72	131,614.80	9.9998	62,256.03	10.1075	238,766.98	25.3733	45,764.22	14.0714

Material Aspects:

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April 2023

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	11.34	6.17	42.49	40.00

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	34.41	35.43	35.76	34.57	33.74	1,216,725.68	49.1619	1,316,073.20	52.5070	1,083,449.65	46.5204	165,726.84	6.9128
Wolverine Execution Services, LLC	25.89	25.13	24.92	24.77	27.44	982,123.32	53.0354	917,287.21	57.0092	1,216,761.86	59.7057	985,891.09	48.4528
Global Execution Brokers LP	25.22	32.68	32.50	28.06	18.95	1,306,382.90	52.2639	1,065,948.10	54.7370	1,595,813.44	59.0812	542,192.17	46.3903
Dash/IMC Financial Markets	12.49	2.19	2.02	9.82	19.86	83,311.84	50.6578	58,668.34	50.1555	427,962.69	51.7504	753,040.94	46.2169

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Global Execution Brokers LP:  
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Dash/IMC Financial Markets:  
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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	57.77	5.44	27.10	9.69

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	29.17	27.57	27.71	28.93	40.18	287,363.61	10.0000	44,474.36	10.0006	238,133.51	32.5095	49,249.29	9.6952
G1 Execution Services, LLC	22.04	21.32	21.13	26.74	13.71	199,818.73	9.9604	27,565.22	9.9549	232,276.93	32.6108	33,420.03	13.9879
Virtu Americas, LLC	21.90	22.02	22.39	17.87	32.15	252,207.47	9.9907	36,553.80	10.0000	120,515.73	32.8378	33,523.77	8.8610
JANEST	15.41	21.71	20.90	4.53	5.19	243,679.16	9.9753	41,694.21	9.9468	66,183.41	32.0261	19,366.52	10.9628
UBS Securities, LLC	6.81	4.26	4.65	12.82	6.44	46,921.43	10.0000	15,925.87	10.2644	92,581.96	31.0495	19,852.47	15.5004

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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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	54.73	8.25	27.09	9.94

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 SECURITIES LLC	29.69	27.66	27.42	29.22	44.09	807,238.62	10.0000	262,200.56	10.0212	714,326.68	26.1620	143,254.89	7.7594
Virtu Americas, LLC	22.35	21.99	22.30	18.08	36.02	667,066.53	9.9948	197,636.24	9.9997	352,822.55	26.9060	97,184.88	7.0475
G1 Execution Services, LLC	21.57	21.28	21.07	26.48	10.15	526,575.15	9.9741	153,445.30	9.9943	696,020.47	27.1817	72,039.99	13.6929
JANEST	15.09	21.69	21.08	4.47	2.68	713,070.91	9.9836	240,498.35	9.9847	177,937.61	25.4526	26,253.62	11.5841
UBS Securities, LLC	6.76	4.32	4.58	12.80	5.60	142,261.26	9.9999	86,198.26	10.0621	287,861.59	26.8023	61,313.42	14.4461

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May 2023

Options

Summary

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100.00	11.20	6.11	42.16	40.52

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	34.57	35.34	35.94	34.88	33.84	1,449,502.00	47.7221	1,648,076.63	52.4550	1,394,909.96	48.6983	278,212.25	9.8949
Wolverine Execution Services, LLC	25.92	24.98	24.42	24.35	28.05	1,187,939.96	51.1856	1,053,249.22	56.5489	1,511,021.00	60.3158	1,120,590.20	48.6487
Global Execution Brokers LP	25.64	33.65	33.41	28.90	18.85	1,287,741.58	51.8519	1,005,717.42	56.0022	1,834,552.75	60.6113	623,359.25	47.6316
Dash/IMC Financial Markets	11.82	1.38	1.44	8.99	19.21	68,312.40	51.3724	57,516.00	55.5463	509,299.94	53.5267	858,611.74	46.8036

Material Aspects:

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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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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June 2023

S&P 500 Stocks

Summary

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99.71	55.36	5.83	28.96	9.85

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	29.66	27.63	28.05	29.73	41.82	288,652.18	10.0000	44,263.59	10.0022	280,513.86	32.6093	56,079.16	9.8768
Virtu Americas, LLC	22.20	22.14	22.73	18.49	33.12	249,581.54	9.9891	39,889.11	10.0000	140,746.48	32.8014	37,353.16	9.1483
G1 Execution Services, LLC	21.96	21.62	21.40	25.91	12.57	205,035.61	9.9542	27,731.69	9.9705	260,355.87	32.7442	38,331.79	13.9046
JANEST	14.52	20.84	19.66	4.82	4.51	232,103.39	9.9704	36,168.90	9.9399	70,940.55	32.1165	20,249.47	11.0818
UBS Securities, LLC	7.02	4.52	4.95	12.52	6.10	48,878.35	10.0000	18,537.58	10.2422	97,676.30	30.2930	21,560.05	14.9252

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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June 2023

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
99.37	51.84	9.11	29.18	9.87

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
CITADEL SECURITIES LLC	30.01	27.54	27.79	30.08	44.78	886,186.91	10.0000	311,558.09	10.0284	871,886.65	25.6366	157,366.49	7.3548
Virtu Americas, LLC	22.69	22.32	22.61	18.86	36.03	733,027.76	9.9978	232,102.77	9.9997	432,205.44	26.0428	115,763.81	7.2944
G1 Execution Services, LLC	21.56	21.54	21.27	25.64	9.80	582,226.10	9.9803	175,125.57	9.9957	809,538.55	26.0735	80,451.63	14.0534
JANEST	14.17	20.75	19.79	4.67	2.51	747,220.21	9.9922	265,754.39	9.9775	191,895.27	23.1036	23,409.17	11.8032
UBS Securities, LLC	6.99	4.64	4.80	12.32	5.57	165,688.37	10.0000	99,359.03	10.0624	321,029.17	25.4049	67,520.59	14.6630

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

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June 2023

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	11.72	6.34	44.74	37.20

## 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	34.38	35.11	35.65	34.30	34.04	1,276,998.06	40.7582	1,433,643.47	43.6241	1,420,510.86	46.1961	144,259.10	4.9077
Wolverine Execution Services, LLC	26.16	25.09	24.69	25.12	27.99	1,062,828.68	44.9323	903,114.16	46.7389	1,621,693.75	59.8758	980,097.71	41.5595
Global Execution Brokers LP	25.46	33.64	33.41	28.70	17.64	1,281,569.82	51.7364	996,160.08	54.3563	1,932,825.96	60.5436	627,818.04	46.8047
Dash/IMC Financial Markets	11.44	1.50	1.51	9.13	19.05	69,277.59	49.6774	47,579.63	46.5914	566,634.40	53.6442	813,717.27	40.3911

## 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

### 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 nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality. 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.