

# Alpaca Securities LLC - 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
100.00	65.10	9.49	16.07	9.34

### 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)
Virtu Americas, LLC (NITE)	24.13	21.53	28.00	24.62	37.45	4,669.89	33.3172	883.20	33.2273	777.16	19.6362	1,066.85	30.4982
Citadel Securities LLC (CDRG)	28.49	29.37	32.38	36.79	4.09	5,722.49	29.9239	923.17	30.0375	1,055.12	17.8424	128.44	33.6612
Jane Street Capital, LLC (JNST)	47.39	49.11	39.62	38.59	58.46	8,241.14	25.7729	781.27	20.7713	1,240.53	20.0000	1,935.35	35.4470

### Material Aspects:

Virtu Americas, LLC (NITE):

Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Virtu and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will not receive a rebate nor incur a charge. Marketable orders filled above \$1 filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price of \$1 per share or higher that are filled during the core session will receive a rebate of 20 mills per share. There is a potential conflict inherent to a market maker such as Virtu both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Virtu can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Virtu's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

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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
100.00	53.13	28.14	11.21	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)
Virtu Americas, LLC (NITE)	31.47	31.84	29.54	31.34	36.27	52,239.60	8.1113	35,724.06	11.2903	8,648.82	6.4655	10,698.44	10.3005
Citadel Securities LLC (CDRG)	16.72	16.82	18.43	20.46	3.99	36,683.10	10.7819	25,395.69	12.8659	6,942.72	7.9518	1,265.69	11.0739
Jane Street Capital, LLC (JNST)	51.81	51.33	52.03	48.20	59.74	99,376.48	9.5718	69,819.81	12.5281	13,167.46	6.4005	20,128.45	11.7646

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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
0.00	0.00	0.00	0.00	0.00

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)
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Material Aspects:

May 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
100.00	65.51	8.57	15.43	10.49

Venues

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Virtu Americas, LLC (NITE)	27.60	24.65	29.63	29.56	41.49	5,466.15	31.5186	885.38	32.4637	972.04	19.8382	1,158.29	24.7886
Citadel Securities LLC (CDRG)	27.45	28.41	32.97	36.78	3.20	6,803.65	34.0376	993.31	32.7288	1,119.58	18.3621	101.23	28.0728
Jane Street Capital, LLC (JNST)	44.95	46.94	37.41	33.66	55.31	9,878.00	29.9160	876.06	25.4408	1,115.87	20.0000	1,930.00	30.9844

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May 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
100.00	69.53	9.90	16.67	3.90

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)
Virtu Americas, LLC (NITE)	30.99	30.33	28.25	31.91	45.91	67,492.80	10.8387	14,936.52	18.0875	11,865.51	7.5552	3,312.32	6.2601
Citadel Securities LLC (CDRG)	20.09	19.23	25.32	23.26	8.64	47,591.18	12.0517	12,548.56	16.9548	9,755.78	8.5194	1,588.03	15.9489
Jane Street Capital, LLC (JNST)	48.91	50.44	46.43	44.83	45.45	116,121.81	11.2135	25,599.75	18.8645	18,043.70	8.1765	6,275.39	11.9788

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May 2023

Options

Summary

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0.00	0.00	0.00	0.00	0.00

Venues

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Material Aspects:

June 2023

S&P 500 Stocks

Summary

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100.00	70.89	8.87	13.66	6.58

Venues

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Virtu Americas, LLC (NITE)	26.83	24.92	30.99	31.15	32.91	5,594.05	32.6559	829.49	31.1125	817.64	19.8144	473.70	22.5548
Citadel Securities LLC (CDRG)	25.97	25.81	29.07	35.01	4.75	6,420.04	36.1791	747.16	29.8796	858.02	18.5037	114.06	37.6381
Jane Street Capital, LLC (JNST)	47.20	49.27	39.95	33.84	62.34	11,079.69	32.7078	929.26	27.0396	886.71	19.7854	1,127.29	28.3411

Material Aspects:

Virtu Americas, LLC (NITE):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Virtu and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will not receive a rebate nor incur a charge. Marketable orders filled above \$1 filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price of \$1 per share or higher that are filled during the core session will receive a rebate of 20 mills per share. There is a potential conflict inherent to a market maker such as Virtu both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Virtu's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

Citadel Securities LLC (CDRG):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Citadel and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will incur a charge against Alpaca of 12 mills per share. Marketable orders filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price greater than \$1 will receive a rebate of 20 mills per share. Non-marketable orders that are filled at a price of less than \$1 and filled during the core session, Alpaca Securities LLC will receive a rebate of 1.3 mills per share. There is a potential conflict inherent to a market maker such as Citadel both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Citadel can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Citadel's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

Jane Street Capital, LLC (JNST):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Jane Street Capital, LLC and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will not receive a rebate nor incur a charge. Marketable orders filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price greater than \$1 will receive a rebate of 20 mills per share. Non-marketable orders that are filled at a price of less than \$1 and filled during the core session, Alpaca Securities LLC will receive a rebate of 1.3 mills per share. There is a potential conflict inherent to a market maker such as Jane Street both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Jane Street can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Jane Street's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

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
100.00	62.68	15.42	17.42	4.48

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
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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)
Virtu Americas, LLC (NITE)	23.94	20.97	24.50	27.37	50.08	55,268.22	14.3920	13,743.55	12.4511	13,475.64	9.6760	2,669.89	4.0705
Citadel Securities LLC (CDRG)	28.90	26.74	32.97	37.11	13.20	52,513.92	10.7247	12,867.39	8.6649	14,225.37	7.5328	2,145.90	12.4115
Jane Street Capital, LLC (JNST)	47.16	52.29	42.53	35.52	36.72	113,008.13	11.8031	22,132.95	11.5540	16,445.03	9.0978	5,177.29	10.7639

Material Aspects:

Virtu Americas, LLC (NITE):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Virtu and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will not receive a rebate nor incur a charge. Marketable orders filled above \$1 filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price of \$1 per share or higher that are filled during the core session will receive a rebate of 20 mills per share. There is a potential conflict inherent to a market maker such as Virtu both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Virtu can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Virtu's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

Citadel Securities LLC (CDRG):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Citadel and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will incur a charge against Alpaca of 12 mills per share. Marketable orders filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price greater than \$1 will receive a rebate of 20 mills per share. Non-marketable orders that are filled at a price of less than \$1 and filled during the core session, Alpaca Securities LLC will receive a rebate of 1.3 mills per share. There is a potential conflict inherent to a market maker such as Citadel both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Citadel can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Citadel's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

Jane Street Capital, LLC (JNST):  
Alpaca Securities receives revenue from third-party liquidity providers based on the order flow execution received at each destination. While rebate rates are substantially similar amongst the liquidity providers they may vary based on order characteristics (such as price of execution, marketability, and other characteristics). Extended hours orders routed to Jane Street Capital, LLC and filled outside the core session will not receive payment. However, orders marked as extended hours eligible filled in the core session will receive a payment. Orders filled on the primary market opening and closing auctions/crosses will not receive a rebate nor incur a charge. Marketable orders filled during the core session will receive 12% of the spread per share, capped at 5 cents per share. Non-marketable orders filled at a price greater than \$1 will receive a rebate of 20 mills per share. Non-marketable orders that are filled at a price of less than \$1 and filled during the core session, Alpaca Securities LLC will receive a rebate of 1.3 mills per share. There is a potential conflict inherent to a market maker such as Jane Street both paying for order flow and providing price improvement, as the potential source of funds for each is the same, namely the anticipated profit the market maker seeks to earn from executing or facilitating the execution of Alpaca Securities LLC customer orders. Accordingly, from such anticipated profit, a market maker such as Jane Street can (i) forgo a portion of such anticipated profit to provide price improvement; (ii) forgo a portion of such anticipated profit to pay for order flow; or (iii) retain a larger portion of anticipated profit and not provide (or provide less) price improvement or not provide (or provide less) payment for order flow. A market maker's (such as Jane Street's) anticipated profit must be allocated among these three sub-categories, such that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories.

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
0.00	0.00	0.00	0.00	0.00

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)
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Material Aspects: