

Alpaca Securities LLC - Held NMS Stocks and Options Order Routing Public Report

Generated on Tue Oct 15 2024 09:30:00 GMT-0800 (Alaska Daylight Time)

3rd Quarter, 2024

July 2024

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	54.4486	14.1183	25.8504	5.5827

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)	24.6348	26.9862	19.2495	17.9033	46.4895	15,161.62	42.7425	2,293.62	34.9594	2,234.51	19.9998	1,848.18	29.4978
Citadel Securities LLC (CDRG)	51.2550	51.8583	54.4626	55.2647	18.6928	30,791.14	45.1714	5,050.89	27.2101	6,282.05	18.2150	505.01	20.0461
Jane Street Capital, LLC (JNST)	24.1056	21.1554	26.2838	26.8169	34.8159	12,109.34	43.5467	2,474.00	27.6167	2,970.29	17.7487	1,706.63	36.3717
G1 Execution Services, LLC (ETMM)	0.0046	0.0000	0.0041	0.0152	0.0018	0.00	0.00	0.00	0.00	1.89	19.9789	0.22	91.6667

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 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 or higher per share or higher that are filled during the core session will receive a rebate of 20 mils 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 mils 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 filled between 4:00 am ET - 7:00 am ET, Alpaca will pay or receive pass-through exchange/ECN fees and will incur an additional cost of .0002 per share if the execution price is equal to or over \$1. Extended hours orders filled between 7:00am ET - 9:30 am ET and 4:00 pm - 8:00 pm ET will not be paid a rebate and will not incur a cost. However, orders marked as extended hours eligible filled in the core session will receive a payment at the below terms. Orders filled on the primary auction will not receive a rebate or charge.

Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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). 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 or equal to \$1 will receive a rebate of 20 mils 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 mils per share. There is a potential conflict inherent to a market maker such as G1 Execution Services, LLC 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 G1 Execution Services, LLC 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 G1 Execution Services, LLC'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. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

July 2024

**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	68.9591	12.4117	16.2097	2.4195

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)	23.1542	26.2479	12.4266	12.6107	60.6466	143,150.27	17.0743	12,716.29	17.7997	13,310.59	14.0579	3,325.11	4.8923
Citadel Securities LLC (CDRG)	51.3041	49.0165	57.7516	60.5236	21.6632	248,737.81	15.8871	29,797.02	8.9746	43,341.88	9.5377	2,479.19	10.2118
Jane Street Capital, LLC (JNST)	25.5391	24.7340	29.8217	26.8566	17.6895	110,368.97	13.9701	18,464.79	10.7701	18,987.52	9.4163	3,382.64	17.0631

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G1 Execution Services, LLC (ETMM)	0.0026	0.0016	0.0001	0.0090	0.0006	4.10	7.8846	0.00	0.00	9.92	14.6205	2.55	359.1549

Material Aspects:

Virtu Americas, LLC (NITE):

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Citadel Securities LLC (CDRG):

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Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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that an increased allocation to any one subcategory will result in a decreased allocation to one or more of the other categories. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

July 2024

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	45.37	26.76	27.87	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)
Citadel Securities LLC (CDRG)	51.3374	50.4370	55.1382	49.1542	0.0000	12,812.40	60.0000	8,260.80	60.0000	7,671.00	60.0000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	48.6626	49.5630	44.8618	50.8458	0.00	5,576.43	26.5747	3,237.21	28.8985	4,659.18	35.2301	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Citadel Securities LLC (CDRG) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Citadel Securities LLC 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. Citadel Securities LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Citadel Securities LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). The spread used was the average spread on marketable orders from the prior month as calculated by Citadel Securities LLC. Spread dollars is calculated as the difference between the bid and ask for rebate calculations (listed above in this paragraph) multiplied by the options multiplier of the options contract traded (usually 100).

Furthermore, Alpaca Securities and Citadel Securities LLC do not have any arrangements:

- that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- for volume-based tiered payment schedules; or
- that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Citadel Securities LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.

Jane Street Capital, LLC (JNST):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Jane Street Capital, LLC (JNST) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Jane Street Capital, LLC 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. Jane Street Capital, LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Jane Street Capital, LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). Spread Dollars is calculated as the difference between the bid and ask at the time the order is acknowledged by Jane Street Capital, LLC, and then multiplied by the multiplier of the options contract. This is for all orders (marketable and non-marketable orders).

Furthermore, Alpaca Securities and Jane Street Capital, LLC do not have any arrangements:

- that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- for volume-based tiered payment schedules; or
- that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Jane Street Capital, LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.

August 2024

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	55.4725	11.4872	26.5383	6.5021

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)	24.3931	27.1407	19.0861	15.4553	46.8074	14,249.89	36.3509	2,163.12	37.8925	2,134.98	19.9916	1,963.28	24.7752
Citadel Securities LLC (CDRG)	51.6816	53.0281	54.8176	56.1999	16.2127	27,137.00	35.4308	4,362.86	26.6097	7,086.12	18.2475	639.03	23.2816
Jane Street Capital, LLC (JNST)	23.9240	19.8313	26.0958	28.3433	36.9671	9,934.57	34.6836	2,150.10	27.5471	3,414.24	17.4331	1,680.54	26.8524
G1 Execution Services, LLC (ETMM)	0.0013	0.0000	0.0005	0.0015	0.0128	0.01	100.0000	0.0000	0.0000	0.19	17.7570	1.66	76.4977

Material Aspects:

Virtu Americas, LLC (NITE):

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Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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). 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 or equal to \$1 will receive a rebate of 20 mils 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 mils per share. There is a potential conflict inherent to a market maker such as G1 Execution Services, LLC 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 G1 Execution Services, LLC 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 G1 Execution Services, LLC'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. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

August 2024

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	72.5596	10.8413	14.3966	2.2025

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)	24.4585	27.5586	14.3849	11.3487	57.6040	181,901.57	15.8464	14,328.48	16.0052	13,164.49	14.0361	4,393.21	6.0319
Citadel Securities LLC (CDRG)	50.3046	47.7579	58.1223	61.6667	21.4557	295,289.35	14.8441	28,469.75	7.8706	54,860.10	10.7645	2,766.98	10.1996
Jane Street Capital, LLC (JNST)	25.2367	24.6835	27.4925	26.9836	20.9402	130,131.50	12.6569	18,438.68	10.7766	21,127.54	9.4741	3,986.85	15.0581
G1 Execution Services, LLC (ETMM)	0.0002	0.0000	0.0004	0.0010	0.0001	0.0000	0.0000	0.02	0.8475	1.45	17.3238	0.28	311.1111

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 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 or higher per share or higher that are filled during the core session will receive a rebate of 20 mils 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 mils 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 filled between 4:00 am ET - 7:00 am ET, Alpaca will pay or receive pass-through exchange/ECN fees and will incur an additional cost of .0002 per share if the execution price is equal to or over \$1. Extended hours orders filled between 7:00am ET - 9:30 am ET and 4:00 pm - 8:00 pm ET will not be paid a rebate and will not incur a cost. However, orders marked as extended hours eligible filled in the core session will receive a payment at the below terms. Orders filled on the primary auction will not receive a rebate or charge.

Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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). 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 or equal to \$1 will receive a rebate of 20 mils 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 mils per share. There is a potential conflict inherent to a market maker such as G1 Execution Services, LLC 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 G1 Execution Services, LLC 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 G1 Execution Services, LLC'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. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

August 2024

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	63.6916	9.7535	26.5550	0.0000

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 (CDRG)	56.7584	52.8573	63.4677	63.6507	0.0000	8,823.60	45.6000	1,622.45	45.6000	4,430.04	45.6000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	43.2416	47.1427	36.5323	36.3493	0.00	4,638.00	26.8745	606.54	29.6162	2,050.44	36.9582	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Citadel Securities LLC (CDRG) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Citadel Securities LLC 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. Citadel Securities LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Citadel Securities LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). The spread used was the average spread on marketable orders from the prior month as calculated by Citadel Securities LLC. Spread dollars is calculated as the difference between the bid and ask for rebate calculations (listed above in this paragraph) multiplied by the options multiplier of the options contract traded (usually 100).

Furthermore, Alpaca Securities and Citadel Securities LLC do not have any arrangements:

- A. that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- B. that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Citadel Securities LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.

Jane Street Capital, LLC (JNST):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Jane Street Capital, LLC (JNST) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Jane Street Capital, LLC 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. Jane Street Capital, LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Jane Street Capital, LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). Spread Dollars is calculated as the difference between the bid and ask at the time the order is acknowledged by Jane Street Capital, LLC, and then multiplied by the multiplier of the options contract. This is for all orders (marketable and non-marketable orders).

Furthermore, Alpaca Securities and Jane Street Capital, LLC do not have any arrangements:

- A. that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- B. that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Jane Street Capital, LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.

September 2024

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	57.0216	11.0969	25.7314	6.1501

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)	27.4808	28.9990	22.1979	20.5755	51.8276	14,377.56	33.7272	2,346.46	36.9502	2,729.56	19.9984	2,332.77	28.3887
Citadel Securities LLC (CDRG)	53.8594	55.6474	57.9286	56.5719	18.5914	25,561.10	31.2473	5,411.22	32.6526	6,915.38	18.4276	372.42	12.6343
Jane Street Capital, LLC (JNST)	18.6595	15.3537	19.8736	22.8512	29.5810	6,509.26	28.8400	1,640.03	28.8464	2,616.80	17.2629	1,161.06	24.7558

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)
G1 Execution Services, LLC (ETMM)	0.0003	0.0000	0.0000	0.0014	0.0000	0.00	0.0000	0.00	0.0000	0.18	20.0000	0.00	0.0000

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 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 or higher per share or higher that are filled during the core session will receive a rebate of 20 mils 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 mils 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 filled between 4:00 am ET - 7:00 am ET, Alpaca will pay or receive pass-through exchange/ECN fees and will incur an additional cost of .0002 per share if the execution price is equal to or over \$1. Extended hours orders filled between 7:00am ET - 9:30 am ET and 4:00 pm - 8:00 pm ET will not be paid a rebate and will not incur a cost. However, orders marked as extended hours eligible filled in the core session will receive a payment at the below terms. Orders filled on the primary auction will not receive a rebate or charge.

Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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). 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 or equal to \$1 will receive a rebate of 20 mils 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 mils per share. There is a potential conflict inherent to a market maker such as G1 Execution Services, LLC 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 G1 Execution Services, LLC 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 G1 Execution Services, LLC'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. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

September 2024

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	80.9037	7.8811	9.6215	1.5938

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)	25.2144	27.0470	12.6538	13.6991	63.8196	209,492.96	14.5086	11,208.23	17.0323	12,780.53	14.6946	3,889.07	5.7944
Citadel Securities LLC (CDRG)	54.5309	54.2277	59.1259	58.8144	21.3440	380,399.25	13.1399	22,643.70	7.3642	42,273.29	11.3210	2,259.77	10.0672
Jane Street Capital, LLC (JNST)	20.2543	18.7254	28.2203	27.4833	14.8364	119,456.73	11.9496	14,836.86	10.1097	19,569.79	11.2155	2,278.51	14.6030
G1 Execution Services, LLC (ETMM)	0.0003	0.0000	0.0001	0.0032	0.0000	0.00	0.0000	0.07	21.2121	3.87	18.8965	0.00	0.0000

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 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 or higher per share or higher that are filled during the core session will receive a rebate of 20 mils 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 mils 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 filled between 4:00 am ET - 7:00 am ET, Alpaca will pay or receive pass-through exchange/ECN fees and will incur an additional cost of .0002 per share if the execution price is equal to or over \$1. Extended hours orders filled between 7:00am ET - 9:30 am ET and 4:00 pm - 8:00 pm ET will not be paid a rebate and will not incur a cost. However, orders marked as extended hours eligible filled in the core session will receive a payment at the below terms. Orders filled on the primary auction will not receive a rebate or charge.

Orders filled on the primary closing auctions/crosses will incur a charge against Alpaca of 12 mils 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 of \$1 or higher will receive a rebate of 20 mils 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 mils 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 or equal to \$1 will receive a rebate of 20 mils 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 mils 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.

G1 Execution Services, LLC (ETMM):

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). 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 or equal to \$1 will receive a rebate of 20 mils 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 mils per share. There is a potential conflict inherent to a market maker such as G1 Execution Services, LLC 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 G1 Execution Services, LLC 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 G1 Execution Services, LLC'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. Alpaca does not currently route G1 Execution Services, LLC extended hours eligible orders. In June of 2024, Alpaca ceased routing new client orders to G1 Execution Services, LLC and the executions and rebates during this month represent GTC orders routed to G1 Execution Services, LLC before or in June 2024 that were filled during the month listed above.

September 2024

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	69.8063	10.3297	19.8639	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)
Citadel Securities LLC (CDRG)	54.6551	55.9008	39.2177	58.3052	0.0000	9,841.39	52.8000	1,021.68	52.8000	2,920.90	52.8000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	45.3449	44.0992	60.7823	41.6948	0.0000	4,094.25	27.8445	803.19	26.7819	1,186.32	29.9879	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Citadel Securities LLC (CDRG) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Citadel Securities LLC 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. Citadel Securities LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Citadel Securities LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). The spread used was the average spread on marketable orders from the prior month as calculated by Citadel Securities LLC. Spread dollars is calculated as the difference between the bid and ask for rebate calculations (listed above in this paragraph) multiplied by the options multiplier of the options contract traded (usually 100).

Furthermore, Alpaca Securities and Citadel Securities LLC do not have any arrangements:

- that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- for volume-based tiered payment schedules; or
- that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Citadel Securities LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.

Jane Street Capital, LLC (JNST):

Alpaca Securities, LLC routes customer orders in NMS securities that are options contracts to Jane Street Capital, LLC (JNST) to facilitate the execution of and price improvement of client orders. Non-exchange third-party market centers compete for orders based on execution quality. There is a potential conflict inherent to a market maker such as Jane Street Capital, LLC 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. Jane Street Capital, LLC generates revenue from executing or facilitating the execution of Alpaca Securities, LLC customer orders. In exchange for such routing, Alpaca Securities receives payment from Jane Street Capital, LLC (i.e. payment for order flow) in the amounts outlined in the above report and detailed below.

0.06 per contract + 9% of spread dollars (capped at 0.60 per contract). Spread Dollars is calculated as the difference between the bid and ask at the time the order is acknowledged by Jane Street Capital, LLC, and then multiplied by the multiplier of the options contract. This is for all orders (marketable and non-marketable orders).

Furthermore, Alpaca Securities and Jane Street Capital, LLC do not have any arrangements:

- A. that require Alpaca Securities, LLC to meet certain volume thresholds or that provide incentives to Alpaca Securities, LLC for meeting or exceeding certain volume thresholds;
- B. that require Alpaca Securities, LLC to meet certain minimum volume thresholds or that provide disincentives to Alpaca Securities, LLC for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. that requires Alpaca Securities, LLC to route any orders or a minimum number of orders to Jane Street Capital, LLC.

There is no rebate paid to Alpaca Securities LLC on sub-penny option contracts.