

Wells Fargo Clearing Services, 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
99.99	61.99	1.03	30.65	6.33

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)
Wells Fargo Securities	57.90	90.13	0.10	0.01	31.93	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	10.88	2.68	16.76	27.42	10.26	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	9.47	1.08	29.72	24.72	14.53	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	8.12	1.04	23.40	21.06	12.22	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	6.26	1.60	15.43	14.27	11.57	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	5.86	1.57	11.82	12.04	17.02	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	1.51	1.90	2.77	0.48	2.47	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

Wells Fargo Securities:

Wells Fargo Clearing Services, LLC (the "WFCS") and Wells Fargo Securities, LLC (WFS) are registered broker/dealers and are both indirect, wholly-owned subsidiaries of Wells Fargo & Company. WFCS routes the majority of its 'held' customer orders in equity securities to WFS, which routes the orders to other venues on an agency basis, including broker-dealers and ATS platforms. WFS does not execute the orders in a principal capacity, nor receive payments from the venues to which it routes. Additional information regarding the arrangement between WFCS and WFS for handling these orders includes:

- WFS receives a non-financial benefit from the handling of WFCS orders in the form of increased prominence in industry trading volume rankings.
- WFS participates in an order matching system (LUMINEX TRADING & ANALYTICS LLC (EBXL)) that systematically matches WFCS and WFS client orders, in certain instances. Matched orders are generally executed at NBBO mid-point and WFS receives a commission payment from the WFS client. Further information on the order matching system is available in the WFS quarterly report referenced above for venue 'EBXL'.
- WFCS does not accept rebates, credits, or payments for order flow in connection with orders routed to WFS
- WFCS has an arrangement to route approximately 90% of its held customer orders in equity securities to WFS, but does not have any arrangements with WFS:

- A. that provide incentives for meeting or exceeding certain volume thresholds;
- B. that provide disincentives for failing to meet certain minimum volume thresholds; or
- C. for volume-based tiered payment schedules.

Quarterly reports with information on WFS order routing are available at <https://mta.ihsmarkit.com/app-v2/public-report-library/public-report-library-view/WellsFargoSecuritiesLLC/241> by selecting 'WCHV', and include identification of venues to which WFS routes orders, and pertinent material aspects of the arrangements between WFS and identified venues. WFS quarterly reports may combine information on customer orders received from WFCS with WFS customer orders.

Held orders are required to be executed immediately upon receipt.

G1 Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

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Virtu Americas, LLC:

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Two Sigma Securities, LLC:

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April 2023

Non-S&P 500 Stocks

Summary

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100.00	48.86	3.08	41.77	6.29

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)
Wells Fargo Securities	43.29	84.52	0.03	0.00	31.69	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	13.38	3.20	11.77	25.89	10.20	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	13.09	2.57	27.80	24.10	14.38	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	12.50	2.03	29.73	23.42	12.85	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	7.82	2.09	12.50	13.68	11.07	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	6.89	1.62	9.77	11.37	16.59	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	3.03	3.97	8.28	1.51	3.20	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
GTS SECURITIES LLC	0.01	0.00	0.02	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Flow Traders	0.00	0.00	0.02	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Execution Services	0.00	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

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Virtu Americas, LLC:

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D. for minimum amount of orders.

Two Sigma Securities, LLC:

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UBS Securities, LLC:

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B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
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Jane Street Capital:

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GTS SECURITIES LLC:

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Flow Traders:

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Jane Street Execution Services:

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D. for minimum amount of orders.

April 2023

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
100.00	37.21	11.21	50.34	1.24

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)
Global Execution Brokers LP	40.35	40.26	41.20	40.17	42.82	20,841.45	9.7327	27,655.23	16.2349	48,654.12	28.2372	5,002.09	17.5076
CITADEL SECURITIES LLC	40.11	40.11	39.37	40.29	39.47	22,942.90	9.7006	22,485.33	9.8755	11,770.64	9.7475	1,839.01	5.2602
Wolverine Execution Services, LLC	9.82	9.91	9.86	9.77	8.89	6,166.11	11.6720	5,110.22	16.2891	5,987.05	19.3699	66.03	13.8718
Morgan Stanley & Co., LLC	9.72	9.72	9.57	9.77	8.81	3,643.45	7.4043	4,310.20	12.2195	6,799.95	28.0110	215.60	18.1176
Interactive Brokers LLC	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

Global Execution Brokers LP:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.65 per contract.

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives a constant, per contract payment for executed option orders routed to this smart router. These payments are based on amounts the smart router receives, from exchange sponsored programs, on the option exchange where the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.10 per contract.

Wolverine Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.38 per contract.

Morgan Stanley & Co., LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.50 per contract.

Interactive Brokers LLC:

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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	61.52	1.11	30.66	6.72

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)
Wells Fargo Securities	57.61	90.29	0.08	0.01	30.71	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	11.73	2.76	13.12	29.20	13.88	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	9.09	1.01	12.67	24.53	12.01	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	7.15	1.05	25.42	17.76	11.66	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

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CITADEL SECURITIES LLC	6.85	1.06	28.69	16.20	13.57	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	5.32	0.94	15.54	11.58	15.19	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	2.25	2.89	4.48	0.72	2.98	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

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100.00	49.03	3.34	41.23	6.40

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Wells Fargo Securities	43.92	85.28	0.05	0.01	32.81	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	14.05	2.97	9.59	27.69	13.41	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	11.37	2.54	31.15	20.10	12.41	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	11.19	1.12	10.72	23.30	10.63	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	9.62	2.42	28.01	16.31	12.14	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	6.74	1.50	13.82	11.21	14.36	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	3.10	4.18	6.54	1.36	4.23	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Flow Traders	0.00	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Susquehanna Financial Group LLP	0.00	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Execution Services	0.00	0.00	0.02	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

Wells Fargo Securities:

Wells Fargo Clearing Services, LLC (the "WFCS") and Wells Fargo Securities, LLC (WFS) are registered broker/dealers and are both indirect, wholly-owned subsidiaries of Wells Fargo & Company. WFCS routes the majority of its 'held' customer orders in equity securities to WFS, which routes the orders to other venues on an agency basis, including broker-dealers and ATS platforms. WFS does not execute the orders in a principal capacity, nor receive payments from the venues to which it routes. Additional information regarding the arrangement between WFCS and WFS for handling these orders includes:

- WFS receives a non-financial benefit from the handling of WFCS orders in the form of increased prominence in industry trading volume rankings.
- WFS participates in an order matching system (LUMINEX TRADING & ANALYTICS LLC (EBXL)) that systematically matches WFCS and WFS client orders, in certain instances. Matched orders are generally executed at NBBO mid-point and WFS receives a commission payment from the WFS client. Further information on the order matching system is available in the WFS quarterly report referenced above for venue 'EBXL'.
- WFCS does not accept rebates, credits, or payments for order flow in connection with orders routed to WFS
- WFCS has an arrangement to route approximately 90% of its held customer orders in equity securities to WFS, but does not have any arrangements with WFS:

- A. that provide incentives for meeting or exceeding certain volume thresholds;
- B. that provide disincentives for failing to meet certain minimum volume thresholds; or
- C. for volume-based tiered payment schedules.

Quarterly reports with information on WFS order routing are available at <https://mta.ihsmarkit.com/app-v2/public-report-library/public-report-library-view/WellsFargoSecuritiesLLC/241> by selecting 'WCHV', and include identification of venues to which WFS routes orders, and pertinent material aspects of the arrangements between WFS and identified venues. WFS quarterly reports may combine information on customer orders received from WFCS with WFS customer orders.

Held orders are required to be executed immediately upon receipt.

G1 Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Virtu Americas, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

UBS Securities, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Two Sigma Securities, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Jane Street Capital:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Flow Traders:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Susquehanna Financial Group LLP:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Jane Street Execution Services:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

May 2023

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
100.00	37.17	11.12	50.52	1.18

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	40.26	40.01	40.15	40.47	39.71	37,365.18	9.7322	31,838.13	9.7728	14,449.37	9.4590	2,288.99	5.1083
Global Execution Brokers LP	40.19	40.11	40.52	40.12	42.46	13,534.10	6.5499	11,699.55	8.0339	62,563.15	31.6545	6,766.56	17.9823
Morgan Stanley & Co., LLC	9.83	10.00	9.69	9.77	8.10	5,365.25	6.8491	7,233.50	12.7943	10,126.10	25.1830	462.60	35.0455
Wolverine Execution Services, LLC	9.73	9.87	9.63	9.64	9.73	8,174.28	11.5124	7,209.58	16.4037	7,305.67	16.8913	118.88	11.9718
Interactive Brokers LLC	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives a constant, per contract payment for executed option orders routed to this smart router. These payments are based on amounts the smart router receives, from exchange sponsored programs, on the option exchange where the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.10 per contract.

Global Execution Brokers LP:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.65 per contract.

Morgan Stanley & Co., LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.50 per contract.

Wolverine Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.38 per contract.

Interactive Brokers LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

June 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	60.79	1.07	30.38	7.75

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Wells Fargo Securities	56.47	89.12	0.08	0.01	29.57	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	12.05	2.39	15.02	29.71	18.13	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	8.10	2.44	31.59	17.39	12.87	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	8.09	0.99	24.19	20.90	11.31	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	7.41	0.99	11.14	18.51	13.77	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	5.72	1.38	14.49	12.74	11.08	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	1.08	1.32	1.93	0.44	1.66	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Wells Fargo Clearing Services, LLC	1.07	1.37	1.56	0.30	1.62	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

Wells Fargo Securities:

Wells Fargo Clearing Services, LLC (the "WFCS") and Wells Fargo Securities, LLC (WFS) are registered broker/dealers and are both indirect, wholly-owned subsidiaries of Wells Fargo & Company. WFCS routes the majority of its 'held' customer orders in equity securities to WFS, which routes the orders to other venues on an agency basis, including broker-dealers and ATS platforms. WFS does not execute the orders in a principal capacity, nor receive payments from the venues to which it routes. Additional information regarding the arrangement between WFCS and WFS for handling these orders includes:

- WFS receives a non-financial benefit from the handling of WFCS orders in the form of increased prominence in industry trading volume rankings.
- WFS participates in an order matching system (LUMINEX TRADING & ANALYTICS LLC (EBXL)) that systematically matches WFCS and WFS client orders, in certain instances. Matched orders are generally executed at NBBO mid-point and WFS receives a commission payment from the WFS client. Further information on the order matching system is available in the WFS quarterly report referenced above for venue 'EBXL'.
- WFCS does not accept rebates, credits, or payments for order flow in connection with orders routed to WFS
- WFCS has an arrangement to route approximately 90% of its held customer orders in equity securities to WFS, but does not have any arrangements with WFS:

- A. that provide incentives for meeting or exceeding certain volume thresholds;
- B. that provide disincentives for failing to meet certain minimum volume thresholds; or
- C. for volume-based tiered payment schedules.

Quarterly reports with information on WFS order routing are available at <https://mta.ihsmarkit.com/app-v2/public-report-library/public-report-library-view/WellsFargoSecuritiesLLC/241> by selecting 'WCHV', and include identification of venues to which WFS routes orders, and pertinent material aspects of the arrangements between WFS and identified venues. WFS quarterly reports may combine information on customer orders received from WFCS with WFS customer orders.

Held orders are required to be executed immediately upon receipt.

G1 Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Virtu Americas, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

UBS Securities, LLC:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Two Sigma Securities, LLC:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Jane Street Capital:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Wells Fargo Clearing Services, LLC:
Wells Fargo Clearing Services ("WFCS"): WFCS executes client orders as principal solely to facilitate execution of orders involving fractional shares. For orders that involve whole and fractional shares, WFCS routes an order for the whole shares to one of the execution venues identified in this report and executes the fractional share component as principal. WFCS may generate trading profits (or losses) from orders it executes as principal. WFCS does not accept rebates, credits, or payments in connection with fractional share orders, nor are there arrangements:

A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

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	48.69	3.48	40.20	7.63

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 Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(USD)
Wells Fargo Securities	43.21	83.87	0.03	0.01	31.13	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00

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	14.62	3.22	11.23	28.14	17.65	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	12.52	2.21	30.92	23.46	12.28	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	11.10	4.07	31.04	17.58	12.66	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	8.97	1.22	9.67	17.62	12.58	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	7.00	1.81	12.50	12.14	10.55	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Capital	1.65	2.15	3.23	0.82	2.11	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Wells Fargo Clearing Services, LLC	0.92	1.46	1.26	0.22	1.04	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
GTS SECURITIES LLC	0.00	0.00	0.01	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Jane Street Execution Services	0.00	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

Wells Fargo Securities:

Wells Fargo Clearing Services, LLC (the "WFCS") and Wells Fargo Securities, LLC (WFS) are registered broker/dealers and are both indirect, wholly-owned subsidiaries of Wells Fargo & Company. WFCS routes the majority of its 'held' customer orders in equity securities to WFS, which routes the orders to other venues on an agency basis, including broker-dealers and ATS platforms. WFS does not execute the orders in a principal capacity, nor receive payments from the venues to which it routes. Additional information regarding the arrangement between WFCS and WFS for handling these orders includes:

- WFS receives a non-financial benefit from the handling of WFCS orders in the form of increased prominence in industry trading volume rankings.
- WFS participates in an order matching system (LUMINEX TRADING & ANALYTICS LLC (EBXL)) that systematically matches WFCS and WFS client orders, in certain instances. Matched orders are generally executed at NBBO mid-point and WFS receives a commission payment from the WFS client. Further information on the order matching system is available in the WFS quarterly report referenced above for venue 'EBXL'.
- WFCS does not accept rebates, credits, or payments for order flow in connection with orders routed to WFS
- WFCS has an arrangement to route approximately 90% of its held customer orders in equity securities to WFS, but does not have any arrangements with WFS:

- A. that provide incentives for meeting or exceeding certain volume thresholds;
- B. that provide disincentives for failing to meet certain minimum volume thresholds; or
- C. for volume-based tiered payment schedules.

Quarterly reports with information on WFS order routing are available at <https://mta.ihsmarkit.com/app-v2/public-report-library/public-report-library-view/WellsFargoSecuritiesLLC/241> by selecting 'WCHV', and include identification of venues to which WFS routes orders, and pertinent material aspects of the arrangements between WFS and identified venues. WFS quarterly reports may combine information on customer orders received from WFCS with WFS customer orders.

Held orders are required to be executed immediately upon receipt.

G1 Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Virtu Americas, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

UBS Securities, LLC:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Two Sigma Securities, LLC:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Jane Street Capital:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Wells Fargo Clearing Services, LLC:
Wells Fargo Clearing Services ("WFCS"): WFCS executes client orders as principal solely to facilitate execution of orders involving fractional shares. For orders that involve whole and fractional shares, WFCS routes an order for the whole shares to one of the execution venues identified in this report and executes the fractional share component as principal. WFCS may generate trading profits (or losses) from orders it executes as principal. WFCS does not accept rebates, credits, or payments in connection with fractional share orders, nor are there arrangements:

A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

GTS SECURITIES LLC:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

Jane Street Execution Services:
Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer. The Firm and this venue do not have any arrangements:
A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
C. for volume-based tiered payment schedules; or
D. for minimum amount of orders.

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
100.00	36.68	10.70	51.27	1.34

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)
CITADEL SECURITIES LLC	40.97	40.87	41.17	40.99	41.54	32,942.93	9.9108	34,206.59	9.9731	15,212.00	9.7352	2,091.83	5.4657
Global Execution Brokers LP	39.42	39.41	39.65	39.34	40.70	11,397.99	5.8114	12,656.27	7.7953	52,457.89	30.9854	4,670.25	15.8749
Morgan Stanley & Co., LLC	9.80	9.68	9.38	9.99	9.36	4,661.85	7.2078	6,340.25	12.0235	8,512.95	25.9660	481.30	29.7650
Wolverine Execution Services, LLC	9.80	10.03	9.79	9.68	8.41	7,474.95	11.1329	7,018.57	15.3401	7,082.00	18.3125	212.17	14.0324
Interactive Brokers LLC	0.01	0.00	0.01	0.01	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

CITADEL SECURITIES LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives a constant, per contract payment for executed option orders routed to this smart router. These payments are based on amounts the smart router receives, from exchange sponsored programs, on the option exchange where the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.10 per contract.

Global Execution Brokers LP:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.65 per contract.

Morgan Stanley & Co., LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.50 per contract.

Wolverine Execution Services, LLC:

Wells Fargo Clearing Services, LLC (the "Firm") receives payments for executed option orders routed to this smart router. These payments are based on the amount of payment that the smart router receives, from exchange-sponsored programs, on the option exchange on which the option order was executed.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.

Remuneration is paid at a rate of no more than \$0.38 per contract.

Interactive Brokers LLC:

Wells Fargo Clearing Services, LLC (the "Firm") does not accept rebates, credits or payments from this broker-dealer.

The Firm and this venue do not have any arrangements:

- A. that provide incentives to the Firm for meeting or exceeding certain volume thresholds;
- B. that provide disincentives to the Firm for failing to meet certain minimum volume thresholds;
- C. for volume-based tiered payment schedules; or
- D. for minimum amount of orders.