

# RBC Correspondent Services - Held NMS Stocks and Options Order Routing Public Report

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4th Quarter, 2023

October 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	97.31	0.40	1.66	0.63

## 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 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	40.61	40.70	35.91	39.43	32.65	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	33.16	33.20	30.18	30.65	35.34	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	17.72	17.60	22.64	21.42	23.71	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	8.51	8.50	11.27	8.50	8.29	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

## Material Aspects:

G1 Execution Services, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

Virtu Americas, LLC:

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CITADEL SECURITIES LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

UBS Securities, LLC:

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## October 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	92.90	2.89	3.34	0.87

#### Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Virtu Americas, LLC	39.57	39.60	36.42	42.29	36.11	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	26.17	26.23	23.37	25.97	29.75	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	25.22	25.39	20.57	23.95	27.13	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	9.05	8.78	19.64	7.80	7.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

#### Material Aspects:

##### Virtu Americas, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

##### CITADEL SECURITIES LLC:

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##### G1 Execution Services, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

##### UBS Securities, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

# October 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	37.65	11.02	35.47	15.87

### Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
CITADEL SECURITIES LLC	50.97	56.03	50.80	65.08	7.53	5,425.65	12.3619	6,914.95	21.9133	13,645.30	43.4758	360.25	25.5859
Wolverine Execution Services, LLC	47.65	43.97	49.20	34.77	84.12	10,670.05	29.8088	24,840.50	36.0593	12,754.95	34.0096	17,929.95	39.9642
Dash/IMC Financial Markets	1.38	0.00	0.00	0.16	8.34	0.00	0.0000	0.00	0.0000	0.00	0.0000	897.35	7.6834

### Material Aspects:

#### CITADEL SECURITIES LLC:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

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

For penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.25 per contract.

For non-penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.70 per contract.

#### Wolverine Execution Services, LLC:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

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

For penny stock options orders remuneration is paid at a rate of no more than \$0.25 per contract.

For non-penny stock options orders remuneration is paid at a rate of no more than \$0.70 per contract.

#### Dash/IMC Financial Markets:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

RBC Wealth is a brokerage client of Dash Financial Technologies; while Dash Financial does maintain a relationship with IMC, that relationship is not pertinent to the execution agreement between RBC Wealth and Dash.

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

For options orders without price improvement remuneration is paid at a rate of no more than \$0.90 per contract.

## November 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	97.38	0.44	1.48	0.70

#### 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)
G1 Execution Services, LLC	39.96	40.03	38.33	38.30	34.91	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	34.53	34.47	32.43	35.44	41.59	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	17.69	17.68	20.71	17.92	15.80	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	7.83	7.82	8.54	8.34	7.70	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

#### Material Aspects:

G1 Execution Services, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

Virtu Americas, LLC:

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CITADEL SECURITIES LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

UBS Securities, LLC:

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## November 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	92.79	2.76	3.35	1.10

#### 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	33.83	33.77	30.30	36.22	40.79	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	29.94	30.05	25.08	31.21	28.62	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
G1 Execution Services, LLC	27.17	27.64	18.13	23.37	22.28	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	9.06	8.54	26.46	9.18	8.30	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
StoneX Financial, Inc.	0.00	0.00	0.02	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Hudson River Trading (Hrt)	0.00	0.00	0.00	0.01	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

#### Material Aspects:

##### Virtu Americas, LLC:

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##### G1 Execution Services, LLC:

G1X Execution Services, LLC: RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

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StoneX Financial, Inc.:

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Hudson River Trading (Hrt):

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow.

## November 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	38.29	10.33	38.56	12.82

#### 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(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	59.06	68.64	54.57	68.23	6.44	9,471.45	19.2886	13,037.80	29.4300	17,889.45	47.4358	374.35	34.3440
Wolverine Execution Services, LLC	39.96	31.36	45.43	31.64	86.24	8,586.40	29.3813	33,962.80	42.7098	14,616.90	38.5081	21,415.75	32.1403
Dash/IMC Financial Markets	0.99	0.00	0.00	0.13	7.33	0.00	0.0000	0.00	0.0000	0.00	0.0000	358.40	3.7194

#### Material Aspects:

CITADEL SECURITIES LLC:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

The Firm and this venue do not have any arrangements:

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

For penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.25 per contract.

For non-penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.70 per contract.

Wolverine Execution Services, LLC:

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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

For penny stock options orders remuneration is paid at a rate of no more than \$0.25 per contract.  
For non-penny stock options orders remuneration is paid at a rate of no more than \$0.70 per contract.

Dash/IMC Financial Markets:

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- 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

For options orders without price improvement remuneration is paid at a rate of no more than \$0.90 per contract.

## December 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	96.73	0.49	1.80	0.98

#### 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)
G1 Execution Services, LLC	39.61	39.68	36.50	41.71	30.68	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	29.81	29.86	24.49	25.49	35.92	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	22.52	22.34	29.43	27.74	27.40	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	6.04	6.06	7.98	4.31	6.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
StoneX Financial, Inc.	0.68	0.70	0.61	0.25	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	0.67	0.69	0.53	0.31	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

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)
Hudson River Trading (Hrt)	0.67	0.69	0.46	0.19	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

### Material Aspects:

#### G1 Execution Services, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

#### Virtu Americas, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

#### CITADEL SECURITIES LLC:

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#### UBS Securities, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

#### StoneX Financial, Inc.:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow.

#### Two Sigma Securities, LLC:

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow.

#### Hudson River Trading (Hrt):

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow.

## December 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	91.78	3.35	3.79	1.08

#### Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
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Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
G1 Execution Services, LLC	32.95	33.82	19.47	26.05	24.66	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Virtu Americas, LLC	32.55	32.48	31.90	33.48	37.61	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CITADEL SECURITIES LLC	24.01	23.49	27.24	32.07	29.56	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
UBS Securities, LLC	8.46	8.13	19.56	6.70	7.99	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
StoneX Financial, Inc.	0.69	0.70	0.61	0.62	0.09	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Hudson River Trading (Hrt)	0.67	0.69	0.60	0.62	0.06	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
Two Sigma Securities, LLC	0.67	0.69	0.62	0.46	0.03	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

#### Material Aspects:

G1 Execution Services, LLC:

G1X Execution Services, LLC: RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow. RBC Capital Markets LLC contracts with third party vendor, S3 Matching Technologies, LP to provide execution metrics that RBC Capital Markets LLC uses to evaluate execution quality among various markets and firms. RBC Capital Markets LLC has arranged for its market centers to remit payment for a portion of this service based on the previous year's volumes routed to each destination.

Virtu Americas, LLC:

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CITADEL SECURITIES LLC:

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UBS Securities, LLC:

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Hudson River Trading (Hrt):

RBC Capital Markets LLC, does not receive compensation, rebates nor pay transaction fees for the routing of its equity order flow. RBC Capital Markets LLC does not receive incentives for equaling or exceeding an agreed upon volume threshold; RBC Capital Markets LLC is not penalized for failing to meet an agreed upon minimum order flow threshold; nor does RBC Capital Markets LLC have agreements regarding minimum amount of order flow.

Two Sigma Securities, LLC:

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**December 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	33.40	10.69	39.80	16.11

### 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	54.32	59.50	55.43	69.10	6.34	4,750.20	11.9445	10,794.35	25.8090	13,639.15	44.8789	497.80	43.1369
Wolverine Execution Services, LLC	45.27	40.50	44.44	30.74	91.66	8,763.45	29.9985	21,310.50	31.4351	17,646.55	37.2549	30,231.60	35.2304
Dash/IMC Financial Markets	0.40	0.00	0.13	0.16	2.01	0.00	0.0000	0.00	0.0000	0.00	0.0000	363.20	4.7316

### Material Aspects:

#### CITADEL SECURITIES LLC:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

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

For penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.25 per contract.

For non-penny stock options orders without price improvement remuneration is paid at a rate of no more than \$0.70 per contract.

#### Wolverine Execution Services, LLC:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

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

For penny stock options orders remuneration is paid at a rate of no more than \$0.25 per contract.

For non-penny stock options orders remuneration is paid at a rate of no more than \$0.70 per contract.

#### Dash/IMC Financial Markets:

For exchange-listed equity and index options, RBC is assessed fees and receives credits from the option market centers that may exceed the amount we are charged. RBC may receive the benefit of these credits and such payments constitute payment for order flow.

RBC Wealth is a brokerage client of Dash Financial Technologies; while Dash Financial does maintain a relationship with IMC, that relationship is not pertinent to the execution agreement between RBC Wealth and Dash.

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

For options orders without price improvement remuneration is paid at a rate of no more than \$0.90 per contract.

