

Virtu ITG LLC - Held NMS Stocks and Options Order Routing Public Report

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2nd Quarter, 2020

April 2020

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	0.28	46.21	50.43	3.07

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)
Nasdaq Execution Services, LLC	13.95	0.00	1.25	25.50	16.62	0.00	0.0000	4,413.73	873.3147	20,749.30	1,958.7196	2,454.44	532.7739
Morgan Stanley & Co., LLC	11.84	64.26	0.42	21.93	13.05	2,967.53	82.0452	1,568.77	1,546.3490	35,654.16	2,088.3114	8,277.98	29.0446
INVESTORS EXCHANGE	6.50	0.00	8.53	4.76	5.22	0.00	0.0000	3,076.68	374.1555	924.70	748.6254	203.86	336.7951
CBOE BYX U.S. EQUITIES EXCHANGE	6.22	0.00	0.54	11.77	1.04	0.00	0.0000	1,602.26	2,949.6686	57,170.97	2,674.6154	51.98	308.5116
Bats Trading Inc.	5.80	0.00	0.67	10.42	7.49	0.00	0.0000	2,912.79	1,402.9426	11,321.35	3,150.3338	534.97	814.3833
UBS Securities, LLC ATS	5.38	0.00	10.20	1.03	4.77	0.00	0.0000	6,447.90	498.4847	135.03	450.0920	567.27	729.3302
Virtu Americas LLC POSIT	5.04	35.74	8.86	1.14	8.91	817.82	301.7797	2,348.05	326.5721	145.04	483.4550	730.47	471.2741
NYSE Arca, Inc.	4.91	0.00	0.60	8.74	7.27	0.00	0.0000	3,200.81	797.8491	7,620.86	2,506.6968	631.12	98.9021
Credit Suisse Crossfinder	4.36	0.00	8.19	0.98	2.68	0.00	0.0000	1,428.71	234.2878	85.74	571.6240	100.33	413.9055
Virtu Americas LLC	3.76	0.00	7.12	0.79	2.42	0.00	0.0000	399.41	262.0609	6.13	153.1875	23.94	1,162.1845

Material Aspects:

Nasdaq Execution Services, LLC:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. Nasdaq has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

<https://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>

Morgan Stanley & Co., LLC:

Virtu ITG LLC routes a portion of their market on close order flow to the Nasdaq, NYSE, Bats and Arca exchanges through Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway.

INVESTORS EXCHANGE:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. IEXG has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:
<https://iextrading.com/trading/fees/>

CBOE BYX U.S. EQUITIES EXCHANGE:

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https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/

Bats Trading Inc.:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. BATS has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:
https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/

UBS Securities, LLC ATS:

No material relationship exists between Virtu ITG LLC and this venue.

Virtu Americas LLC POSIT:

POSIT is an alternative trading system owned and operated by Virtu ITG LLC. Virtu ITG LLC receives a commission on a per share basis for orders executed within POSIT.

NYSE Arca, Inc.:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. ARCA has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:
https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf

Credit Suisse Crossfinder:

No material relationship exists between Virtu ITG LLC and this venue.

Virtu Americas LLC:

Virtu Financial, Inc., the parent company of Virtu Americas LLC completed the acquisition of Investment Technology Group, Inc on March 1st, 2019.

April 2020

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	0.12	67.01	27.45	5.42

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 POSIT	8.27	84.58	9.47	5.45	6.06	1,695.54	279.7917	7,902.28	141.0114	729.02	66.9442	2,405.63	550.4875
UBS Securities, LLC ATS	8.23	0.00	9.67	5.45	4.73	0.00	0.0000	12,773.46	215.0542	802.62	99.7284	1,646.15	758.1767
INVESTORS EXCHANGE	7.33	0.00	7.90	6.28	5.74	0.00	0.0000	4,950.57	167.3684	900.90	209.6823	334.25	263.3982

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)
Credit Suisse Crossfinder	6.99	0.00	7.96	5.26	3.86	0.00	0.0000	3,263.99	126.7593	227.56	62.1347	566.40	520.6338
Virtu Americas LLC	5.76	0.00	6.61	4.14	3.62	0.00	0.0000	688.04	98.9175	57.32	59.0935	66.39	1,327.8080
Instinet, LLC	5.54	0.00	6.40	3.86	3.53	0.00	0.0000	693.13	106.6456	69.34	77.0483	133.75	581.5096
J.P. Morgan Securities LLC	5.03	0.00	5.80	3.47	3.47	0.00	0.0000	680.92	162.4948	70.66	19.0972	108.77	679.7825
Barclays ATS	4.66	0.00	5.39	3.17	3.27	0.00	0.0000	4,125.13	185.0666	81.17	54.8478	777.83	707.1154
Goldman Sachs & Co. LLC SIGMA X2	4.58	0.00	5.12	3.94	1.36	0.00	0.0000	1,217.46	91.7946	287.74	111.5281	5.86	585.9800
BofA Securities, Inc.	4.56	0.00	5.15	3.44	3.09	0.00	0.0000	685.19	84.8007	74.22	42.9023	152.34	594.6284

Material Aspects:

Virtu Americas LLC POSIT:
POSIT is an alternative trading system owned and operated by Virtu ITG LLC. Virtu ITG LLC receives a commission on a per share basis for orders executed within POSIT.

UBS Securities, LLC ATS:
No material relationship exist between Virtu ITG LLC and this venue.

INVESTORS EXCHANGE:
Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. IEXG has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:
<https://iextrading.com/trading/fees/>

Credit Suisse Crossfinder:
No material relationship exist between Virtu ITG LLC and this venue.

Virtu Americas LLC:
Virtu Financial, Inc., the parent company of Virtu Americas LLC completed the acquisition of Investment Technology Group, Inc. on March 1, 2019

Instinet, LLC:
No material relationship exist between Virtu ITG LLC and this venue.

J.P. Morgan Securities LLC:
No material relationship exist between Virtu ITG LLC and this venue.

Barclays ATS:
No material relationship exists between Virtu ITG LLC and this venue.

Goldman Sachs & Co. LLC SIGMA X2:
No material relationship exist between Virtu ITG LLC and this venue.

BofA Securities, Inc.:
No material relationship exist between Virtu ITG LLC and this venue.

April 2020

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

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)

Material Aspects:

May 2020

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	0.12	37.80	61.21	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)
Nasdaq Execution Services, LLC	17.81	0.00	1.13	28.32	6.05	0.00	0.0000	182.16	68.2902	-873.82	-11.9207	340.59	365.7909
Morgan Stanley & Co., LLC	12.94	74.30	0.79	20.25	18.28	528.55	43.7050	-252.61	-120.4931	-737.11	-14.1302	5,428.05	1,460.8418
Bats Trading Inc.	8.98	0.00	0.54	14.30	3.09	0.00	0.0000	348.70	274.5265	-1,062.13	-30.2561	122.88	818.1005
CBOE BYX U.S. EQUITIES EXCHANGE	8.18	0.00	0.40	13.08	2.19	0.00	0.0000	-30.01	-23.8110	-11,838.25	-132.9115	32.56	1,085.1700
INVESTORS EXCHANGE	6.21	0.00	8.15	5.05	4.83	0.00	0.0000	28.70	3.5024	-293.52	-80.6494	18.31	61.0477
NYSE Arca, Inc.	5.56	0.00	0.34	8.79	5.73	0.00	0.0000	345.04	181.4170	-15.72	-0.7906	265.86	228.8698
UBS Securities, LLC ATS	4.37	0.00	11.35	0.03	6.69	0.00	0.0000	1,383.34	82.4155	7.70	154.0720	249.40	1,246.9925
Nasdaq OMX BX	3.86	0.00	0.14	6.21	0.97	0.00	0.0000	78.18	192.1322	-2,866.86	-103.5778	3.21	321.4100
Virtu Americas LLC POSIT	3.34	12.15	8.59	0.04	6.05	91.21	144.7854	64.40	7.0692	2.05	102.3850	147.87	547.6685
Credit Suisse Crossfinder	3.06	0.00	7.97	0.02	4.18	0.00	0.0000	439.98	95.0879	0.00	0.0000	54.40	1,360.1100

Material Aspects:

Nasdaq Execution Services, LLC:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. Nasdaq has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

<https://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>

Morgan Stanley & Co., LLC:

Virtu ITG LLC routes a portion of their market on close order flow to the Nasdaq, NYSE, Bats and Arca exchanges through Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway.

Bats Trading Inc.:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. BATS has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/

CBOE BYX U.S. EQUITIES EXCHANGE:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. BATS has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/

INVESTORS EXCHANGE:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. IEXG has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

<https://iextrading.com/trading/fees/>

NYSE Arca, Inc.:

Virtu ITG LLC receives a cash payment or is charged a fee for order flow on a per shares basis. The per share cash payment or fee is calculated based upon a variety of factors including, but not limited to, orders size and whether an order provides or removes liquidity. A portion of the orders routed to this venue were sent via Morgan Stanley Speedway ("MS Speedway"). Virtu ITG LLC may incur reduced execution costs when routing orders via MS Speedway. ARCA has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf

UBS Securities, LLC ATS:

No material relationship exists between Virtu ITG LLC and this venue.

Nasdaq OMX BX:

For orders routed by ITG Inc. to NASDAQ OMX BX, ITG Inc may receive payment for order flow in the form of rebates, reductions of fees, or credits. The per share amount or fee is calculated based upon a variety of factors including, but not limited to, order size and whether an order provides liquidity or removes liquidity from Nasdaq OMX BX. A portion of the orders routed to this exchange were sent via Morgan Stanley Speedway ("MS Speedway"). ITG Inc. incurs reduced execution costs when routing orders via MS Speedway. BOSE has a tiered pricing/payment schedule. For detailed information, please see the exchange's public website:

http://nasdaqbx.cchwallstreet.com/nasdaqbx/main/bx-incrules/chp_1_1/chp_1_1_3/chp_1_1_3_2

Virtu Americas LLC POSIT:

POSIT is an alternative trading system owned and operated by Virtu ITG LLC. Virtu ITG LLC receives a commission on a per share basis for orders executed within POSIT.

Credit Suisse Crossfinder:

No material relationship exists between Virtu ITG LLC and this venue.

May 2020

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	0.02	75.28	24.08	0.61

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)
INVESTORS EXCHANGE	8.64	0.00	8.15	10.17	8.50	0.00	0.0000	-4,892.26	-74.5403	-855.79	-91.7405	-1,079.67	-407.3474
UBS Securities, LLC ATS	8.48	0.00	10.58	1.96	7.74	0.00	0.0000	-2,969.79	-27.5915	719.91	130.6804	-1,668.71	-522.7463
Credit Suisse Crossfinder	6.89	0.00	8.53	1.86	4.57	0.00	0.0000	426.31	13.8637	408.61	73.3423	-137.90	-475.5093
Virtu Americas LLC POSIT	6.73	36.63	8.32	1.79	5.41	218.93	106.2756	-4,995.45	-38.2500	106.94	54.5629	-29.16	-28.8751
Instinet, LLC	5.94	0.00	7.47	1.22	3.71	0.00	0.0000	-11.78	-3.4753	13.98	69.9085	-47.15	-471.4760
Virtu Americas LLC	5.75	0.00	7.21	1.22	3.92	0.00	0.0000	-88.26	-22.4853	32.20	97.5700	-37.79	-944.6300
J.P. Morgan Securities LLC	5.50	0.00	6.91	1.14	3.72	0.00	0.0000	208.08	24.4746	26.83	103.1865	1.21	121.4600
Barclays ATS	5.43	0.00	6.80	1.18	4.46	0.00	0.0000	-548.67	-40.6573	266.48	48.6269	-45.63	-106.1230
BIDS TRADING L.P.	5.26	0.00	6.68	0.87	3.79	0.00	0.0000	-90.76	-24.3319	11.28	141.0062	-37.79	-472.3150
Goldman Sachs & Co. LLC SIGMA X2	5.23	0.00	6.49	1.37	3.53	0.00	0.0000	417.63	73.7580	103.38	117.4780	-5.80	-116.0500
BofA Securities, Inc.	5.12	0.00	6.39	1.19	3.93	0.00	0.0000	-10.09	-2.2673	136.49	53.3157	2.50	62.5400
Deutsche Bank ATS	5.06	0.00	6.51	0.57	3.89	0.00	0.0000	-79.27	-29.3579	24.25	40.4148	9.73	81.1008

Material Aspects:

INVESTORS EXCHANGE:

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UBS Securities, LLC ATS:

No material relationship exist between Virtu ITG LLC and this venue.

Credit Suisse Crossfinder:

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Virtu Financial, Inc., the parent company of Virtu Americas LLC completed the acquisition of Investment Technology Group, Inc. on March 1, 2019

J.P. Morgan Securities LLC:

No material relationship exist between Virtu ITG LLC and this venue.

Barclays ATS:

No material relationship exists between Virtu ITG LLC and this venue.

BIDS TRADING L.P.:

No material relationship exist between Virtu ITG LLC and this venue.

Goldman Sachs & Co. LLC SIGMA X2:

No material relationship exist between Virtu ITG LLC and this venue.

BofA Securities, Inc.:
No material relationship exist between Virtu ITG LLC and this venue.

May 2020

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

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)

Material Aspects:

June 2020

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

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)

Material Aspects:

June 2020

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

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)

Material Aspects:

June 2020

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

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)

Material Aspects: