

Spiderrock EXS, LLC - Held NMS Stocks and Options Order Routing Public Report

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3rd Quarter, 2020

July 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
0.32	0.00	76.79	23.21	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
CBOE BATY OPTIONS EXCHANGE (BATY)	1.78	0.00	2.43	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	2.80	0.00	3.82	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	20.27	0.00	19.99	21.05	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	19.97	0.00	19.71	20.69	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	24.92	0.00	26.35	20.98	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEGX)	0.33	0.00	0.45	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	18.35	0.00	17.32	21.18	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	2.76	0.00	3.59	0.47	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	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
NYSE MKT 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

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)
(XASE)													

Material Aspects:

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

INVESTORS EXCHANGE (IEXG):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

July 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
0.30	0.00	76.79	23.21	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
CBOE BATS OPTIONS EXCHANGE (BATS)	19.02	0.00	16.95	22.34	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.78	0.00	2.89	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	2.52	0.00	4.10	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	22.34	0.00	22.03	22.84	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	23.86	0.00	25.01	22.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	3.43	0.00	3.75	2.92	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEXG)	0.22	0.00	0.35	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	21.81	0.00	21.53	22.27	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	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
NYSE MKT LLC (XASE)	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:

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

INVESTORS EXCHANGE (IEXG):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

July 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
99.38	0.00	76.79	23.21	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
ISE GMNI EXCHANGE (GMNI)	6.31	0.00	5.49	9.07	0.00	6.05	0.0000	13,821.99	47.9930	6,215.11	33.7778	0.00	0.0000
MIAX PEARL, LLC (MPRL)	6.98	0.00	6.06	10.08	0.00	0.00	0.0000	24,926.66	46.1605	20,694.38	56.6969	0.00	0.0000
ISE XISX EXCHANGE (XISX)	1.38	0.00	1.79	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATO OPTIONS EXCHANGE (BATO)	16.16	0.00	17.48	11.90	0.00	0.00	0.0000	97,182.00	46.5431	28,684.07	44.7489	0.00	0.0000
PHILADELPHIA OPTIONS EXCHANGE (XPHO)	1.48	0.00	1.91	0.04	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	23.07	0.00	21.51	28.44	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	7.71	0.00	9.35	2.33	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
MIAX XMIO, LLC (XMIO)	0.09	0.00	0.11	0.01	0.00	0.00	0.0000	7,065.99	46.4868	31,727.65	51.5059	0.00	0.0000
NYSE AMEX OPTIONS (AMXO)	5.26	0.00	6.84	0.03	0.00	0.00	0.0000	3,774.41	37.0040	769.99	26.5514	0.00	0.0000
CBOE EDGO OPTIONS	0.07	0.00	0.08	0.01	0.00	0.00	0.0000	5,065.43	44.8268	26,670.62	49.2987	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)
EXCHANGE (EDGO)													
CBOE GLOBAL MARKETS INC. (XCBO)	0.83	0.00	0.83	0.07	0.00	1.89	0.0000	26,745.85	48.6288	104,742.55	52.9003	0.00	0.0000
BOX OPTIONS EXCHANGE (XBOX)	0.56	0.00	0.73	0.00	0.00	0.00	0.0000	2,799.50	44.4365	282.40	56.4800	0.00	0.0000
ISE MERCURY, LLC (MCRY)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	259.93	43.3217	39.97	0.0000	0.00	0.0000
NYSE ARCA OPTIONS (ARCO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	179,726.54	41.7096	164,112.54	42.2209	0.00	0.0000
MIAX EMERALD, LLC (EMLD)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	6,524.18	43.7864	12,797.28	40.3700	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	0.00	0.00	0.00	0.00	0.00	2.97	0.0000	26,657.47	43.1351	77,412.25	50.5632	0.00	0.0000
ISE (XISE)	0.00	0.00	0.00	0.00	0.00	1.10	0.0000	15,036.64	27.6409	6,671.94	32.7056	0.00	0.0000
NASDAQ OPTIONS MARKET (XNDQ)	0.00	0.00	0.00	0.00	0.00	6.50	0.0000	51,850.15	47.4818	20,129.37	52.5571	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	1,849.68	45.1141	57.51	57.5100	0.00	0.0000

Material Aspects:

ISE GMNI EXCHANGE (GMNI):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

MIAX PEARL, LLC (MPRL):

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ISE XISX EXCHANGE (XISX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BAT0 OPTIONS EXCHANGE (BATO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

PHILADELPHIA OPTIONS EXCHANGE (XPHO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

MIAX XMIO, LLC (XMIO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE AMEX OPTIONS (AMXO):

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CBOE EDGO OPTIONS EXCHANGE (EDGO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE GLOBAL MARKETS INC. (XCBO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

BOX OPTIONS EXCHANGE (XBOX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

ISE MERCURY, LLC (MCRY):

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NYSE ARCA OPTIONS (ARCO):

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MIAX EMERALD, LLC (EMLD):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX PHLX (XPHL):

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ISE (XISE):

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NASDAQ OPTIONS MARKET (XNDQ):

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NASDAQ OMX BX OPTIONS (XBXO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

August 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
0.47	0.00	67.42	32.58	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
NEW YORK STOCK EXCHANGE, INC. (XNYS)	2.65	0.00	3.49	0.07	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS	2.38	0.00	3.16	0.00	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)
EXCHANGE (EDGA)													
CBOE BATS OPTIONS EXCHANGE (BATS)	18.45	0.00	17.11	22.55	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	20.36	0.00	19.55	22.85	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEXG)	0.20	0.00	0.27	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.42	0.00	1.88	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	19.59	0.00	18.48	22.96	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	24.91	0.00	25.63	22.69	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	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
NYSE MKT LLC (XASE)	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:

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

INVESTORS EXCHANGE (IEXG):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

August 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
0.37	0.00	67.42	32.58	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
INVESTORS EXCHANGE (EXG)	0.26	0.00	0.40	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	2.19	0.00	3.38	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	2.15	0.00	2.77	1.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	21.95	0.00	20.60	24.44	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.91	0.00	2.93	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	18.52	0.00	15.28	24.45	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	20.57	0.00	18.66	24.06	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	23.67	0.00	23.44	24.08	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	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
NYSE MKT 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

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)
(XASE)													

Material Aspects:

INVESTORS EXCHANGE (IEGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

August 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
99.15	0.00	67.42	32.58	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
ISE XISX EXCHANGE (XISX)	1.23	0.00	1.81	0.04	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATO OPTIONS EXCHANGE (BATO)	18.75	0.00	22.66	10.75	0.00	0.00	0.0000	215,202.08	46.3298	42,637.06	39.8105	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	2.15	0.00	1.91	2.65	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
ISE GMNI EXCHANGE (GMNI)	4.27	0.00	1.97	9.05	0.00	0.00	0.0000	28,731.16	54.4151	7,567.28	45.5860	0.00	0.0000
CBOE EDGO OPTIONS EXCHANGE (EDGO)	0.15	0.00	0.22	0.01	0.00	0.00	0.0000	13,279.40	48.4650	92,550.84	49.8658	0.00	0.0000
MIAX XMIO, LLC (XMIO)	0.19	0.00	0.28	0.02	0.00	0.00	0.0000	21,329.30	53.1903	105,769.90	51.7465	0.00	0.0000
NYSE AMEX OPTIONS (AMXO)	7.37	0.00	10.94	0.03	0.00	0.00	0.0000	10,035.16	36.3593	2,900.46	26.1303	0.00	0.0000
ISE MERCURY, LLC (MCRY)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	334.46	41.8075	35.30	0.0000	0.00	0.0000
BOX OPTIONS EXCHANGE (XBOX)	0.50	0.00	0.74	0.00	0.00	0.00	0.0000	6,685.60	44.8698	623.70	56.7000	0.00	0.0000
CBOE GLOBAL MARKETS INC. (XCBO)	1.05	0.00	1.32	0.04	0.00	0.00	0.0000	75,214.00	53.7627	306,278.66	55.6162	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	21.41	0.00	16.67	31.29	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
PHILADELPHIA OPTIONS EXCHANGE (XPHO)	0.82	0.00	1.20	0.05	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
MIAX PEARL, LLC (MPRL)	5.39	0.00	3.36	9.62	0.00	14.00	0.0000	42,770.76	47.1563	34,040.06	67.4061	0.00	0.0000
ISE (XISE)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	34,013.20	23.6039	18,991.64	30.5824	0.00	0.0000
NASDAQ OPTIONS MARKET (XNDQ)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	108,541.80	49.3148	42,172.88	52.5192	0.00	0.0000
MIAX EMERALD, LLC (EMLD)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	12,715.66	50.8626	2,626.54	35.0205	0.00	0.0000
NYSE ARCA OPTIONS (ARCO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	242,815.38	24.7090	258,706.56	24.9308	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	0.00	0.00	0.00	0.00	0.00	7.74	0.0000	62,128.58	46.9959	209,606.54	50.5076	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	6,289.56	44.6068	48.48	48.4800	0.00	0.0000

Material Aspects:

ISE XISX EXCHANGE (XISX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATO OPTIONS EXCHANGE (BATO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept

September 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
0.51	0.00	68.83	31.17	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
INVESTORS EXCHANGE (IEGX)	0.88	0.00	1.20	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	8.13	0.00	9.23	5.18	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	7.65	0.00	10.11	1.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	30.88	0.00	28.86	36.36	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	2.78	0.00	3.80	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	2.29	0.00	3.12	0.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	12.93	0.00	15.84	5.05	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.62	0.00	2.22	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.59	0.00	0.81	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	25.28	0.00	19.74	40.31	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

INVESTORS EXCHANGE (IEGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

September 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
0.37	0.00	68.83	31.17	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
NYSE MKT LLC (XASE)	22.43	0.00	16.12	38.24	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	3.04	0.00	4.25	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	30.26	0.00	26.73	39.10	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK	2.12	0.00	2.95	0.03	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)
STOCK EXCHANGE, INC. (XNYS)													
CBOE EDGX OPTIONS EXCHANGE (EDGX)	9.41	0.00	12.69	1.16	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.96	0.00	2.74	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	12.08	0.00	14.98	4.80	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	9.81	0.00	11.74	4.98	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.94	0.00	1.31	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEGX)	1.03	0.00	1.44	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX PSX (XPSX)	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
NYSE NATIONAL, INC. (XCIS)	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:

NYSE MKT LLC (XASE):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGA OPTIONS EXCHANGE (EDGA):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATS OPTIONS EXCHANGE (BATS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NEW YORK STOCK EXCHANGE, INC. (XNYS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE EDGX OPTIONS EXCHANGE (EDGX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

CBOE BATY OPTIONS EXCHANGE (BATY):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ - ALL MARKETS (XNAS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE ARCA (ARCX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX BX (XBOS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

INVESTORS EXCHANGE (IEXG):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NASDAQ OMX PSX (XPSX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE NATIONAL, INC. (XCIS):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

September 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
99.12	0.00	68.83	31.17	0.00

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
MIAX XMIO, LLC (XMIO)	2.76	0.00	4.01	0.01	0.00	0.00	0.0000	9,878.89	50.6610	45,235.37	50.9982	0.00	0.0000
NYSE AMEX OPTIONS (AMXO)	8.94	0.00	13.02	0.03	0.00	5.00	0.0000	3,553.61	35.8951	1,876.91	25.3636	0.00	0.0000
ISE (XISE)	0.10	0.00	0.13	0.03	0.00	0.00	0.0000	13,325.94	25.0018	5,795.28	27.8619	0.00	0.0000
NYSE ARCA OPTIONS (ARCO)	18.75	0.00	13.11	31.33	0.00	0.00	0.0000	101,300.33	24.7678	123,747.31	25.4101	0.00	0.0000
CBOE EDGO OPTIONS EXCHANGE (EDGO)	0.16	0.00	0.23	0.01	0.00	0.00	0.0000	4,806.95	42.5394	30,005.30	48.3177	0.00	0.0000
ISE GMNI EXCHANGE (GMNI)	3.76	0.00	1.28	9.26	0.00	0.00	0.0000	9,616.39	51.1510	3,101.64	39.7646	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	4.03	0.00	5.86	0.05	0.00	0.00	0.0000	24,734.48	44.5666	73,134.05	49.4149	0.00	0.0000
NASDAQ OPTIONS MARKET (XNDQ)	2.02	0.00	1.27	3.69	0.00	0.00	0.0000	53,538.84	48.5393	22,389.43	58.6111	0.00	0.0000
BOX OPTIONS EXCHANGE	2.47	0.00	3.60	0.00	0.00	0.00	0.0000	3,322.85	44.3047	736.30	61.3583	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)
(XBOX)													
MIAX EMERALD, LLC (EMLD)	3.95	0.00	1.52	9.33	0.00	0.00	0.0000	4,591.83	51.5936	1,134.14	27.6620	0.00	0.0000
MIAX PEARL, LLC (MPRL)	8.67	0.00	8.43	9.27	0.00	0.00	0.0000	19,361.65	49.1412	13,246.18	66.8999	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXX)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	1,911.91	50.3134	11.91	0.0000	0.00	0.0000
CBOE BATO OPTIONS EXCHANGE (BATO)	15.24	0.00	17.61	10.11	0.00	0.00	0.0000	81,942.14	47.5027	16,747.53	38.6779	0.00	0.0000
CBOE GLOBAL MARKETS INC. (XCBO)	1.00	0.00	1.09	0.03	0.00	0.00	0.0000	27,611.71	49.2187	91,777.43	52.9282	0.00	0.0000
ISE MERCURY, LLC (MCRY)	0.00	0.00	0.01	0.00	0.00	0.00	0.0000	158.81	39.7025	7.44	0.0000	0.00	0.0000

Material Aspects:

MIAX XMIO, LLC (XMIO):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

NYSE AMEX OPTIONS (AMXO):

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ISE (XISE):

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NYSE ARCA OPTIONS (ARCO):

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CBOE EDGO OPTIONS EXCHANGE (EDGO):

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ISE GMNI EXCHANGE (GMNI):

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NASDAQ OMX PHLX (XPHL):

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NASDAQ OPTIONS MARKET (XNDQ):

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BOX OPTIONS EXCHANGE (XBOX):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

MIAX EMERALD, LLC (EMLD):

Note regarding Payment for Order Flow Practices The Firm, in its efforts to seek best execution, routes client orders to national securities exchanges, alternative trading systems (ATSs), including electronic communications networks (ECNs) and other market centers. The Firm may accept payment for order flow for these client orders from the executing broker who is responsible for market access

MIAX PEARL, LLC (MPRL):

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NASDAQ OMX BX OPTIONS (XBXO):

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CBOE BATO OPTIONS EXCHANGE (BATO):

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CBOE GLOBAL MARKETS INC. (XCBO):

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ISE MERCURY, LLC (MCRY):

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