

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

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4th Quarter, 2020

October 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
0.60	0.00	72.68	27.32	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)
NASDAQ - ALL MARKETS (XNAS)	11.23	0.00	11.59	10.76	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	7.21	0.00	8.73	5.27	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	25.25	0.00	22.09	29.30	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	32.51	0.00	29.76	36.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEXG)	3.14	0.00	5.59	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	9.56	0.00	8.51	10.90	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	1.96	0.00	2.95	0.69	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	1.91	0.00	3.40	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)	1.20	0.00	2.13	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX	0.46	0.00	0.81	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)
BX (XBOS)													
NASDAQ OMX PSX (XPSX)	0.03	0.00	0.05	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:

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 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 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 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

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

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 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

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

October 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
0.51	0.00	72.68	27.32	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)	28.03	0.00	24.84	37.28	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	10.29	0.00	12.01	5.32	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	2.21	0.00	2.97	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	10.57	0.00	12.38	5.33	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEGX)	3.80	0.00	5.11	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	22.17	0.00	16.31	39.15	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	10.13	0.00	13.20	1.25	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	3.65	0.00	4.88	0.09	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	2.68	0.00	3.61	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.99	0.00	1.32	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX PSX (XPSX)	0.28	0.00	0.38	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE NATIONAL, INC. (XCIS)	0.09	0.00	0.12	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
LONG-TERM STOCK EXCHANGE, INC. (LTSE)	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

NYSE ARCA (ARCX):
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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

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 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 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

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

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

NASDAQ OMX PSX (XPSX):
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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

LONG-TERM STOCK EXCHANGE, INC. (LTSE):
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

October 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
98.89	0.00	72.68	27.32	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 (XISE)	0.08	0.00	0.10	0.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE GLOBAL MARKETS INC. (XCBO)	1.49	0.00	1.69	0.04	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	7.57	0.00	10.14	0.75	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
MIAX XMIO, LLC (XMIO)	3.53	0.00	4.86	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)	12.23	0.00	12.95	10.42	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
ISE GMNI EXCHANGE (GMNI)	3.03	0.00	0.74	9.16	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	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
MIAX PEARL, LLC (MPRL)	9.54	0.00	9.37	10.09	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OPTIONS MARKET (XNDQ)	1.44	0.00	0.96	2.68	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGO OPTIONS EXCHANGE (EDGO)	0.07	0.00	0.09	0.01	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
MIAX EMERALD, LLC (EMLD)	3.06	0.00	0.73	9.33	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
BOX OPTIONS EXCHANGE (XBOX)	2.25	0.00	3.10	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA OPTIONS (ARCO)	19.08	0.00	14.91	30.40	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE AMEX OPTIONS (AMXO)	10.03	0.00	13.80	0.05	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
ISE MERCURY, LLC (MCRY)	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:

ISE (XISE):

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):

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NASDAQ OMX PHLX (XPHL):

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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

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 payment for order flow for these client orders from the executing broker who is responsible for market access

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

NASDAQ OMX BX OPTIONS (XBXO):
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MIAX PEARL, LLC (MPRL):
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NASDAQ OPTIONS MARKET (XNDQ):
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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

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

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

NYSE ARCA OPTIONS (ARCO):
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NYSE AMEX OPTIONS (AMXO):
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):
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

November 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
0.43	0.00	83.73	16.27	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)	31.90	0.00	29.41	40.85	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	6.82	0.00	8.58	0.49	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	9.59	0.00	11.20	3.78	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	7.40	0.00	6.49	10.65	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	3.05	0.00	3.90	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)	1.92	0.00	2.46	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	27.09	0.00	25.13	34.14	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.71	0.00	0.90	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)	3.29	0.00	4.20	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEXG)	3.91	0.00	5.00	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

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 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

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 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 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

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

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

November 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
0.53	0.00	83.73	16.27	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)	3.15	0.00	4.06	0.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	10.60	0.00	12.42	4.37	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	3.55	0.00	4.59	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)	3.53	0.00	4.55	0.05	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEXG)	2.93	0.00	3.78	0.01	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE	28.03	0.00	24.14	41.32	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)
(BATS)													
CBOE EDGX OPTIONS EXCHANGE (EDGX)	10.11	0.00	12.83	0.84	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	28.52	0.00	26.03	37.02	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	1.68	0.00	2.17	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	5.17	0.00	3.98	9.24	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE NATIONAL, INC. (XCIS)	0.02	0.00	0.02	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX PSX (XPSX)	0.02	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

Material Aspects:

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

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

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

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 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

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

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

November 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
99.04	0.00	83.73	16.27	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 ARCA OPTIONS (ARCO)	27.40	0.00	24.22	44.10	0.00	0.00	0.0000	74,284.77	26.8855	87,560.57	25.2846	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	1,731.75	61.8482	47.04	47.0400	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	10.37	0.00	12.00	2.03	0.00	0.00	0.0000	15,253.97	46.7913	21,174.39	50.6564	0.00	0.0000
CBOE GLOBAL MARKETS INC. (XCBO)	1.23	0.00	1.39	0.02	0.00	0.00	0.0000	17,315.12	49.7561	27,339.49	52.9835	0.00	0.0000
CBOE EDGO OPTIONS EXCHANGE (EDGO)	0.05	0.00	0.06	0.01	0.00	0.00	0.0000	4,193.31	44.6097	6,917.51	50.4928	0.00	0.0000
ISE GMNI EXCHANGE (GMNI)	1.59	0.00	0.70	6.21	0.00	0.00	0.0000	14,005.44	59.5976	4,118.55	41.1855	0.00	0.0000
MIAX XMIO, LLC (XMIO)	4.45	0.00	5.32	0.01	0.00	0.00	0.0000	4,022.56	52.2410	10,141.35	53.6579	0.00	0.0000
MIAX EMERALD, LLC (EMLD)	1.24	0.00	0.34	5.92	0.00	0.00	0.0000	5,788.45	57.8845	1,453.51	28.5002	0.00	0.0000
BOX OPTIONS EXCHANGE (XBOX)	0.01	0.00	0.02	0.00	0.00	0.00	0.0000	5,916.95	56.3519	263.75	65.9375	0.00	0.0000
CBOE BATO OPTIONS EXCHANGE (BATO)	6.53	0.00	6.39	7.29	0.00	0.00	0.0000	85,553.04	53.5041	18,777.01	49.1545	0.00	0.0000
MIAX PEARL, LLC (MPRL)	8.98	0.00	9.48	6.47	0.00	0.00	0.0000	17,588.53	49.4060	10,318.29	50.8290	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)
NASDAQ OPTIONS MARKET (XNDQ)	1.06	0.00	0.61	2.96	0.00	0.00	0.0000	63,445.88	51.4983	34,442.50	61.5045	0.00	0.0000
ISE (XISE)	0.18	0.00	0.19	0.12	0.00	0.00	0.0000	16,329.26	28.2513	3,156.66	22.7098	0.00	0.0000
NYSE AMEX OPTIONS (AMXO)	9.36	0.00	11.18	0.01	0.00	0.00	0.0000	7,415.07	49.7656	1,093.12	29.5438	0.00	0.0000
ISE MERCURY, LLC (MCRY)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	433.15	61.8786	17.57	0.0000	0.00	0.0000

Material Aspects:

NYSE ARCA OPTIONS (ARCO):

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 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

NASDAQ OMX PHLX (XPHL):

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

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

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 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

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

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

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

MIAX PEARL, LLC (MPRL):

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 OPTIONS MARKET (XNDQ):

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 (XISE):

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):

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):

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

December 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
0.36	0.00	87.22	12.78	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)	3.54	0.00	4.41	0.03	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	3.15	0.00	3.93	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
INVESTORS EXCHANGE (IEGX)	3.20	0.00	3.99	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)	9.52	0.00	11.43	1.80	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	23.12	0.00	22.80	24.41	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	10.17	0.00	8.55	16.75	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.44	0.00	0.55	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	21.53	0.00	20.74	24.74	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	20.04	0.00	18.87	24.82	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	2.36	0.00	2.94	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)
NASDAQ OMX PSX (XPSX)	0.00	0.00	0.01	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000

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

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 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

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

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 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 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

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

December 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
1.23	0.01	87.22	12.78	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)	1.08	0.00	3.03	0.06	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATS OPTIONS EXCHANGE (BATS)	21.91	0.00	17.04	24.78	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NEW YORK STOCK EXCHANGE, INC. (XNYS)	1.94	0.00	4.66	0.53	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX BX (XBOS)	0.43	0.00	0.93	0.18	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE ARCA (ARCX)	23.50	0.00	21.00	25.14	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGA OPTIONS EXCHANGE (EDGA)	1.45	0.00	4.04	0.10	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE BATY OPTIONS EXCHANGE (BATY)	1.47	0.00	3.57	0.39	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
CBOE EDGX OPTIONS EXCHANGE (EDGX)	10.33	0.00	13.53	8.77	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE MKT LLC (XASE)	11.13	0.00	7.49	13.21	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ - ALL MARKETS (XNAS)	23.95	0.00	22.23	25.18	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NYSE NATIONAL, INC. (XCIS)	0.01	0.00	0.03	0.00	0.00	0.00	0.0000	0.00	0.0000	0.00	0.0000	0.00	0.0000
NASDAQ OMX PSX (XPSX)	0.04	0.00	0.13	0.00	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

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):

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NASDAQ OMX BX (XBOS):

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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 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 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 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 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

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 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

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

December 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
98.41	0.00	87.22	12.78	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 GLOBAL MARKETS INC. (XCBO)	0.54	0.00	0.59	0.08	0.00	0.00	0.0000	18,396.36	52.2624	53,481.56	52.4844	0.00	0.0000
NASDAQ OMX PHLX (XPHL)	11.68	0.00	12.91	2.74	0.00	0.00	0.0000	24,921.42	46.0655	48,259.12	49.9060	0.00	0.0000
ISE (XISE)	0.16	0.00	0.17	0.07	0.00	0.00	0.0000	10,698.49	20.3007	4,433.22	24.4929	0.00	0.0000
BOX OPTIONS EXCHANGE (XBOX)	0.04	0.00	0.04	0.00	0.00	0.00	0.0000	6,129.25	53.2978	518.75	64.8438	0.00	0.0000
NYSE ARCA	25.75	0.00	23.87	39.47	0.00	0.00	0.0000	75,703.20	26.2950	104,589.34	24.9141	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)
OPTIONS (ARCO)													
NYSE AMEX OPTIONS (AMXO)	10.45	0.00	11.89	0.01	0.00	0.00	0.0000	9,875.84	47.7094	1,325.70	28.8196	0.00	0.0000
CBOE EDGO OPTIONS EXCHANGE (EDGO)	0.10	0.00	0.11	0.02	0.00	0.00	0.0000	4,446.45	45.3719	14,969.89	51.9788	0.00	0.0000
MIAX EMERALD, LLC (EMLD)	0.99	0.00	0.21	6.72	0.00	0.00	0.0000	6,927.55	56.7832	1,851.05	29.3817	0.00	0.0000
NASDAQ OPTIONS MARKET (XNDQ)	0.82	0.00	0.52	2.99	0.00	0.00	0.0000	61,202.94	49.4369	31,616.91	58.4416	0.00	0.0000
CBOE BATO OPTIONS EXCHANGE (BATO)	8.25	0.00	8.30	7.85	0.00	0.00	0.0000	85,327.12	52.2518	20,849.00	47.4920	0.00	0.0000
ISE GMNI EXCHANGE (GMNI)	1.03	0.00	0.23	6.86	0.00	0.00	0.0000	12,480.19	54.7377	4,370.49	38.6769	0.00	0.0000
MIAX PEARL, LLC (MPRL)	10.38	0.00	10.82	7.17	0.00	0.00	0.0000	15,930.34	48.1279	13,458.46	54.9325	0.00	0.0000
NASDAQ OMX BX OPTIONS (XBXO)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	2,016.95	54.5122	55.62	55.6200	0.00	0.0000
ISE MERCURY, LLC (MCRY)	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	365.37	60.8950	19.82	0.0000	0.00	0.0000
MIAX XMIO, LLC (XMIO)	5.52	0.00	6.28	0.03	0.00	0.00	0.0000	6,889.35	55.1148	25,402.74	53.1438	0.00	0.0000

Material Aspects:

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

NASDAQ OMX PHLX (XPHL):

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ISE (XISE):

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BOX OPTIONS EXCHANGE (XBOX):

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NYSE ARCA OPTIONS (ARCO):

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NYSE AMEX OPTIONS (AMXO):

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CBOE EDGO OPTIONS EXCHANGE (EDGO):

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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 OPTIONS MARKET (XNDQ):

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CBOE BAT0 OPTIONS EXCHANGE (BATO):

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ISE GMNI EXCHANGE (GMNI):

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MIAX PEARL, LLC (MPRL):

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NASDAQ OMX BX OPTIONS (XBXO):

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ISE MERCURY, LLC (MCRY):

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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