# LFAC - Held NMS Stocks and Options Order Routing Public Report

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### 4th Quarter, 2022

### October 2022

#### S&P 500 Stocks

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	16.19	0.08	0.82	82.92

Venue -	Non-	Market	Marketable	Non-	Other	Net Payment	Net Payment Paid/	Net Payment Paid/	Net Payment Paid/	Net Payment Paid/	Net Payment Paid/	Net Payment	Net Payment Paid/
Non-directed Order Flow	Directed Orders (%)	Orders (%)	Limit Orders (%)	Marketable Limit Orders (%)	Orders (%)	Paid/Received for Market Orders(USD)	Received for Market Orders(cents per hundred shares)	Received for Marketable Limit Orders(USD)	Received for Marketable Limit Orders(cents per hundred shares)	Received for Non- Marketable Limit Orders(USD)	Received for Non- Marketable Limit Orders(cents per hundred shares)	Paid/Received for Other Orders(USD)	Received for Other Orders(cents per hundred shares)
Citadel Securities (CDRG)	34.49	28.38	42.86	0.00	36.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	24.29	20.48	28.57	0.00	25.27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	22.22	18.28	0.00	0.00	23.23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC. (JNST)	12.63	9.74	28.57	0.00	13.30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	1.05	1.00	0.00	0.00	1.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Goldman Sachs & Co. LLC (SGMT)	0.54	3.06	0.00	0.00	0.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS ATS (UBSA)	0.52	2.84	0.00	0.00	0.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	0.50	0.43	0.00	0.00	0.51	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Barclays Capital Inc./ Le (LATS)	0.46	2.77	0.00	0.00	0.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Credit Suisse Securities (USA) (FBCO)	0.39	2.35	0.00	0.00	0.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.39	2.28	0.00	0.00	0.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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)
Intelligent Cross LLC (INCR)													

## October 2022

### Non-S&P 500 Stocks

#### Summary

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Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	29.98	0.15	0.20	69.67

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)
Intelligent Cross LLC (INCR)	10.48	10.73	0.00	0.00	10.43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Goldman Sachs & Co. LLC (SGMT)	9.08	10.92	0.00	0.00	8.33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Credit Suisse Securities (USA) (FBCO)	7.97	8.65	3.81	1.07	7.71	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Barclays Capital Inc./Le (LATS)	7.94	9.06	0.00	0.00	7.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
J.P. Morgan Securities LLC (JPMS)	7.92	9.19	0.00	0.00	7.41	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IEXX (IEXX)	7.77	6.23	11.90	7.83	8.43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EBX LLC (EBXL)	6.85	5.77	0.00	0.00	7.35	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nasdaq Execution Services, LLC (INET)	6.82	6.11	5.24	17.08	7.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS ATS (UBSA)	6.36	6.26	0.00	0.00	6.43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities (CDRG)	4.84	4.48	15.71	1.07	4.98	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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)
Morgan Stanley (MSPL)	4.24	5.94	0.00	0.00	3.53	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	3.38	3.02	9.52	0.00	3.53	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	3.13	2.73	10.95	0.00	3.30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Merrill Lynch, Pierce, Fenner (MLIX)	2.49	4.73	0.00	0.00	1.54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
KCG AMERICAS LLC (KCGM)	2.18	2.97	0.00	0.00	1.85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## October 2022

### 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
0.00	0.00	0.00	0.00	0.00

#### Venues

Venue - Non- directed Order Flow	Non- Directed Orders Orders (%) (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)	
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### Material Aspects:

## November 2022

### S&P 500 Stocks

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	12.05	0.02	0.66	87.27

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Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities (CDRG)	34.62	33.86	33.33	0.00	34.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	27.60	27.79	0.00	0.00	27.79	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	21.77	21.00	66.67	0.00	22.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC. (JNST)	13.13	13.64	0.00	0.00	13.16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	1.13	1.35	0.00	0.00	1.11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	0.53	0.79	0.00	0.00	0.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.22	0.00	0.00	19.39	0.11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INTL FCSTONE SECURITIES INC. (INTL)	0.20	0.11	0.00	0.00	0.21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nasdaq Execution Services, LLC (INET)	0.16	0.17	0.00	8.16	0.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX (EDGX)	0.12	0.00	0.00	18.37	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SKNY (SKNY)	0.09	0.00	0.00	14.29	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## November 2022

### Non-S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	27.31	0.27	0.75	71.67

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities (CDRG)	34.52	34.26	42.37	1.82	34.94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	27.58	28.08	23.73	0.00	27.69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	22.04	21.94	20.34	0.00	22.32	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC. (JNST)	13.05	13.15	10.17	0.00	13.17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	0.94	1.07	1.69	0.00	0.90	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	0.47	0.52	1.69	0.00	0.45	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX (EDGX)	0.36	0.00	0.00	46.67	0.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STATE STREET GLOBAL MARKETS, L (PULX)	0.29	0.78	0.00	0.00	0.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INTL FCSTONE SECURITIES INC. (INTL)	0.26	0.17	0.00	0.00	0.30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nasdaq Execution Services, LLC (INET)	0.18	0.00	0.00	18.79	0.05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.15	0.00	0.00	15.76	0.04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## November 2022

### Options

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	40.00	0.00	60.00	0.00

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
CES (CES1)	80.00	100.00	0.00	66.67	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GEB (GEB1)	10.00	0.00	0.00	16.67	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WOLVERINE EXECUTION SERVICES, (WEXX)	10.00	0.00	0.00	16.67	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## December 2022

### S&P 500 Stocks

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	16.83	0.03	0.39	82.74

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Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities (CDRG)	35.19	33.90	60.00	0.00	35.60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	27.09	27.29	0.00	0.00	27.19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	23.61	25.15	20.00	0.00	23.41	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC. (JNST)	11.26	10.88	20.00	0.00	11.39	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	1.13	1.49	0.00	1.72	1.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	0.53	0.48	0.00	0.00	0.54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
INTL FCSTONE SECURITIES INC. (INTL)	0.49	0.64	0.00	0.00	0.46	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange (NYSE)	0.26	0.00	0.00	29.31	0.18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.24	0.00	0.00	24.14	0.17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Execution Services, LLC (INET)													
CBOE EDGX (EDGX)	0.13	0.00	0.00	32.76	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEMX (MEMX)	0.05	0.00	0.00	12.07	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## December 2022

#### Non-S&P 500 Stocks

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	37.26	0.26	1.89	60.60

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities (CDRG)	32.72	30.63	39.39	0.21	34.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas (NITE) (NITE)	24.67	22.38	25.76	0.41	26.82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	22.78	21.03	21.21	0.00	24.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC. (JNST)	10.27	9.51	9.09	0.00	11.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	0.92	0.92	0.00	0.00	0.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
J.P. Morgan Securities LLC (JPMS)	0.89	2.38	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NYSE Arca (ARCA)	0.77	1.34	0.00	13.17	0.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IEXX (IEXX)	0.71	1.02	0.00	16.67	0.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CBOE EDGX (EDGX)	0.69	0.00	0.00	35.80	0.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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)
EBX LLC (EBXL)	0.65	1.70	0.00	0.00	0.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STATE STREET GLOBAL MARKETS, L (PULX)	0.61	1.17	0.00	0.00	0.29	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## December 2022

## Options

#### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	73.68	0.00	26.32	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)
CES (CES1)	52.63	57.14	0.00	40.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GEB (GEB1)	21.05	28.57	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Dash Financial (DFIN)	10.53	0.00	0.00	40.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities (CDRG)	5.26	7.14	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MORGAN STANLEY & CO. LLC (MSCO)	5.26	0.00	0.00	20.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Susquehanna Capital Group (SUSQ)	5.26	7.14	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects: