		,	1	1					r									
Hightower																		
Securities does not						HIGHTOWER SECURITIES, LLC - Held NMS												
receive payment for						Stocks and Options Order Routing Public												
order flow.	2nd Quarter, 2022					Report												
April 2022 S&P 500 Stocks																		
Summary																		
,							Non-Marketable											
	Non-Directed		Market Orders as %		Marketable Limit		Limit Orders as % of		Other Orders as %									
Total Non-Directed Orders	Orders as % of All Orders	Total Market Orders	of Non-Directed	Total Marketable Limit Orders	Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders	Non-Directed Orders	Total Other Orders	of Non-Directed									
Orders 34	100.00				0.00	Total Non-Marketable Limit Orders	Orders 5.88		23.53									
34	100.00	29	70.59	0	0.00		5.00	1	23.53									
Venues																		
												Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for		Net Payment
											Net Payment	Market	Paid/Received for	Marketable Limit	Paid/Received for	Non-Marketable	Net Payment	Paid/Received for
Venue - Non-	Non-Directed	Non-Directed			Marketable Limit		Non-Marketable	Non-Marketable			Paid/Received for	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable		Paid/Received for	Other Orders(cents
directed Order Flow	Orders	Orders(%)	Market Orders	Market Orders(%)	Orders	Marketable Limit Orders(%)	Limit Orders	Limit Orders(%)	Other Orders	Other Orders(%)	Market Orders(USD)		Orders(USD)	hundred shares)		per hundred shares)		
Citadel Securities																		
LLC(CDRG) VIRTU Americas,	10	28.57	9	37.50	0	0.00	0	0.00	1	12.50	0	0	0	0	0	0	0	0
LLC(NITE)		22.86		4.17		0.00		0.00	,	87.50								
Jane Street Capital,	°	22.00	· ·	4.17		0.00	,	0.00		87.30		,	' ·	- "		'l	- "	<del>'</del>
LLC(JNST)	6	17.14	6	25.00	0	0.00	0	0.00	0	0.00	0	0	0	0		0	0	. 0
G1 Execution Services, LLC(ETMM)		14.29		20.83	_	0.00	, ,	0.00		0.00							1 _	1
Two Sigma	,	14.25	, ,	20.83	-	0.00	1	0.00	1	0.00	<u> </u>	1 "	1	<del>                                     </del>	<del>                                     </del>	1	<del>  "</del>	+
Securities,											1			1	1	1	1	
LLC(SOHO)	3	8.57	3	12.50	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0
Choe EDGX US														_	_			
Equities Exchange(EDGX)		2.86		0.00	_	0.00	, .	33.33	_	0.00						, ,		
Extrininge(EDGA)	1	2.86		0.00	0	0.00	1	33.33	1	0.00	1	1	· · · · · ·	1	1	1	1	1
														1	1	1		
NASDAQ Execution														1				
Services, LLC(NSDQ) New York Stock	1	2.86	0	0.00	0	0.00	1	33.33	0	0.00	0	0	0	0	0	0	0	0
Exchange(NYSE)	١,	2.86		0.00	0	0.00	, ,	33.33	0	0.00			ا ا					
April 2022	•	2.00		0.00	Ü	0.00	1	33.33		0.00		,		-		1	,	1
Non-S&P 500 Stocks																		
Summary							Non-Marketable											
	Non-Directed		Market Orders as %		Marketable Limit		Limit Orders as % of		Other Orders as %									
Total Non-Directed			of Non-Directed		Orders as % of Non-		Non-Directed		of Non-Directed									
	Orders	Total Market Orders	Orders			Total Non-Marketable Limit Orders	Orders	Total Other Orders	Orders									
51	100.00	39	76.47	1	1.96	5	9.80	•	11.76									
Venues 51	100.00	39	76.47	1	1.96	5	9.80	6	11.76									
	100.00	39	76.47	1	1.96	5	9.80	6	11.76			Net Payment		Net Payment		Net Payment		
	100.00	39	76.47	1	1.96	5	9.80	6	11.76			Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for		Net Payment
Venues			76.47	1		5			11.76		Net Payment	Paid/Received for Market	Paid/Received for	Paid/Received for Marketable Limit	Paid/Received for	Paid/Received for Non-Marketable		Paid/Received for
Venues Venue - Non-	Non-Directed	Non-Directed			Marketable Limit		Non-Marketable	Non-Marketable			Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venues  Venue - Non- directed Order Flow	Non-Directed			Market Orders(%)	Marketable Limit	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable		Other Orders(%)		Paid/Received for Market Orders(cents per	Paid/Received for	Paid/Received for Marketable Limit	Paid/Received for	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE)	Non-Directed	Non-Directed	Market Orders		Marketable Limit Orders		Non-Marketable Limit Orders	Non-Marketable	Other Orders		Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities	Non-Directed	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG)	Non-Directed	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) LLC(CDRG) New York Stock	Non-Directed	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%) 100.00	Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE)	Non-Directed	Non-Directed Orders(%)	Market Orders	Market Orders(%) 28.21 35.90	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Paid/Received for	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution	Non-Directed	Non-Directed Orders(%) 28.13 21.88	Market Orders  11 14	Market Orders(%)  28.21  35.90  0.00	Marketable Limit Orders 1 0	Marketable Limit Orders(%) 100.00 0.00	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%) 0.00	Other Orders	Other Orders(%) 100.00 0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CORG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM)	Non-Directed	Non-Directed Orders(%)	Market Orders  11 14	Market Orders(%) 28.21 35.90	Marketable Limit Orders 1 0	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%) 100.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, Jane Street Capital,	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15	Market Orders  11 14 0	Market Orders(%)  28.21  35.90  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00	Non-Marketable Umit Orders	Non-Marketable Limit Orders(%) 0.00 61.11	Other Orders	Other Orders(%)  100.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM)	Non-Directed	Non-Directed Orders(%) 28.13 21.88	Market Orders  11 14 0	Market Orders(%)  28.21  35.90  0.00	Marketable Limit Orders	Marketable Limit Orders(%) 100.00 0.00	Non-Marketable Umit Orders	Non-Marketable Limit Orders(%) 0.00	Other Orders	Other Orders(%) 100.00 0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LIC(INTE) Citadel Securities LL(CCORG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INTE) Clobe EDGX US Equities	Non-Directed	Non-Directed Orders(%) 28.12 17.15 12.50 9.38	Market Orders  11 14 0 8	Market Orders(%)  28.21  35.90  0.00  20.51  15.38	Marketable Limit Orders	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 1 11	Non-Marketable Limit Orders(%) 0.00 61.11 0.00	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(PNTE) Citadel Securities LLLC(CDNG) New York Stock Exchange(NYSE) GI Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Cobe EDGX US Equities Exchange(EDGX)	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15	Market Orders  11 14 0 8	Market Orders(%)  28.21  35.90  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00	Non-Marketable Limit Orders  0 0 1 11	Non-Marketable Limit Orders(%) 0.00 61.11	Other Orders	Other Orders(%)  100.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU America, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(LORG) Choc Exchange(SVSE) Choc Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE)	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15 12.55 9.38	Market Orders 11 14 0 8 8 6 6 0 0	Market Orders(%) 28.21 35.90 0.00 20.51 15.38	Marketable Limit Orders	Marketable Limit Orders(%)  100.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 1 11 0 0 4	Non-Marketable Limit Orders(%) 0.00 0.00 61.11 0.00 0.00	Other Orders	Other Orders(%) 100.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLLC(DIRG) New York Stock Eachange(NYSG) Services, LLC(ETMM) Service	Non-Directed	Non-Directed Orders(%)  28.13  21.86  17.19  12.50  9.38  6.25	Market Orders  11 14 0 8 6	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12	Non-Marketable   Limit Orders(%)	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU America, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(LORG) Choc Exchange(SVSE) Choc Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE) Exchange(SVSE)	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15 12.55 9.38	Market Orders  11 14 0 8 6	Market Orders(%) 28.21 35.90 0.00 20.51 15.38	Marketable Limit Orders	Marketable Limit Orders(%)  100.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12	Non-Marketable Limit Orders(%) 0.00 0.00 61.11 0.00 0.00	Other Orders	Other Orders(%) 100.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMIM) Jane Street Capital, LLC(LIST) Clobe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE Arca(ARCA)	Non-Directed	Non-Directed Orders(%)  28.13  21.86  17.19  12.50  9.38  6.25	Market Orders  11 14 0 8 6	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12	Non-Marketable   Limit Orders(%)	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CORG) New York Stock Exchange(NYSE) GENERAL LLC(ETMM) Jame SMC Capital, LCC Cope EDGX Equities Exchange(EDGX) NYSE Arcs(ARCA) NASDAQ Execution	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15 12.56 9.38 6.25 1.56	Market Orders 11 14 0 0 8 6 6 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 2.22 5.56	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMIM) Jane Street Capital, LLC(LIST) Clobe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE Arca(ARCA)	Non-Directed	Non-Directed Orders(%)  28.13  21.86  17.19  12.50  9.38  6.25	Market Orders 11 14 0 0 8 6 6 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable   Limit Orders(%)	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Choe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(INSDQ) April 2022 Option Contracts	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15 12.56 9.38 6.25 1.56	Market Orders 11 14 0 0 8 6 6 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 0 12 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 2.22 5.56	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jame Street Capital, LLC(CMS) LC(LCTMM) Jame Street Capital, LLC(CMS) LC(LCTM) VIRTURATION VIRT	Non-Directed	Non-Directed Orders(%) 28.13 21.88 17.15 12.56 9.38 6.25 1.56	Market Orders 11 14 0 0 8 6 6 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable Umit Orders  0 0 11 0 0 12 13 14 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 2.22 5.56	Other Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Choe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(INSDQ) April 2022 Option Contracts	Non-Directed   18	Non-Directed Orders(%) 28.13 21.88 17.15 12.56 9.38 6.25 1.56	Market Orders  11 14 0 8 8 6 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00	Marketable Limit Orders  1  0  0  0  0  0  0  0  0  0  0 0	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable timit Orders  0 0 11 11 0 0 1 11 1 1 1 1 1 1 Non-Marketable	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 2.22 5.56	Other Orders 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(INITE) CItadel Securities LLC(CDRG) New York Stock Exchange(MYSE) G1 Execution Services, LLC(ETMM) Jame Street Capital, LLC(INST) Choe EDGX US Equities LC(INST) American(AMEX) NYSE Arca(ARCA)  NASDAQ Execution Services, LLC(INSDQ) April 2022 Option Contracts Summary	Non-Directed   Orders	Non-Directed Orders(%) 28.13 21.88 17.15 12.56 9.38 6.25 1.56	Market Orders 11 14 0 0 8 8 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00	Marketable Limit Orders  1 0 0 0 0 0 0 0 Marketable Limit	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 1 1 1 1 Non-Marketable Limit Orders as % of	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 2.22 5.56	Other Orders 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Clobe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts	Non-Directed   Orders	Non-Directed Orders(%) 28.11 21.86 17.15 12.56 9.38 6.25 1.56 1.56	Market Orders  11  14  0  8  6  0  0  0  0  Market Orders as % of Non-Directed	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable timit Orders  0 0 11 11 0 1 11 1 1 Non-Marketable timit Orders as % of Non-Directed	Non-Marketable Limit Orders(%) 0.00 61.11 0.00 0.00 22.22 5.56 5.56	Other Orders  6  0  0  0  0  0  0  0  0  0  0  0  0	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Clobe EDGX US Eachange(EDGX) NYSE American(AMEX) NYSE Arcal(ARCA) ANSDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders 4	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.11   21.88   17.15   12.50   9.36   1.56	Market Orders  11  14  0  8  6  0  0  0  0  Market Orders as % of Non-Directed	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-	Marketable Limit Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Non-Marketable Limit Orders  0 0 11 0 0 1 1 1 1 Non-Marketable Limit Orders as % of	Non-Marketable Limit Orders(%) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Other Orders  6  0  0  0  0  0  0  0  0  0  0  0  0	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Clobe EDGX US Eachange(EDGX) NYSE American(AMEX) NYSE Arcal(ARCA) ANSDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders 4	Non-Directed Orders  18 14 11 8 6 1 1 1 1 Non-Directed Orders as % of All Orders	Non-Directed   Orders(%)   28.11   21.88   17.15   12.50   9.36   1.56	Market Orders 11 14 0 0 8 8 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable	Marketable Limit Orders  1 0 0 0 0 0 0 Marketable Limit Orders as % of Non-	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders(%) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Other Orders  6  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Paid/Received for Market Orders(cents per	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Clobe EDGX US Eachange(EDGX) NYSE American(AMEX) NYSE Arcal(ARCA) ANSDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders 4	Non-Directed Orders  18 14 11 8 6 1 1 1 1 Non-Directed Orders as % of All Orders	Non-Directed   Orders(%)   28.11   21.88   17.15   12.50   9.36   1.56	Market Orders 11 14 0 0 8 8 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable	Marketable Limit Orders  1 0 0 0 0 0 0 Marketable Limit Orders as % of Non-	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders(%) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Other Orders  6  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Padd/Received for Market Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit	Paid/Received for Marketable Limit Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0  0  0  0  0	Paid/Received for Non-Marketable	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0  0  0  0 0 0	Paid/Received for	Paid/Received for Other Orders(cents
Venue - Non- directed Order Flow VIRTU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(JNST) Clobe EDGX US Eachange(EDGX) NYSE American(AMEX) NYSE Arcal(ARCA) ANSDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders 4	Non-Directed Orders  18 14 11 8 6 1 1 1 1 Non-Directed Orders as % of All Orders	Non-Directed   Orders(%)   28.11   21.88   17.15   12.50   9.36   1.56	Market Orders 11 14 0 0 8 8 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable	Marketable Limit Orders  1 0 0 0 0 0 0 Marketable Limit Orders as % of Non-	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders(%) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Other Orders  6  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD) 0	Padd Received for Market Orders(cents per human de shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  0  0  0  0  0	Paid/Received for Marketable Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 Net Payment	Paid/Recived for Constitution of Constitution	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 New York of the Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for	Paid/Received for Other Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow VIRTU Americas, LLC(INITE) CITAGEI Securities LLC(CDRG) New York Stock Exchange(INYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INST) Choe EDGX US Exchange(EDGX) NYSE American(AMEX) NYSE American(AMEX) NYSE ArcafARCA) NASDAQ Execution Services, LLC(INSDQ) April 2022 Option Contracts Summary  4 Venues	Non-Directed   18	Non-Directed   Orders/(%)   28.13   21.88   17.15   12.56   9.38   6.25   1.56   1.5	Market Orders 11 14 0 0 8 8 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non- Directed Orders 0.00	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 12 13 14 15 16 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment	Padd Received for Market Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for  One Paid Payment Paid/Received for  Net Payment Paid/Received for	Paid/Received for Marketable Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for  Paid Received for  Paid Received for  Paid Received for  Paid Received for	Paid /Received for Mon-Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment	Paid/Received for One Paid Received In Comment
Venue - Non- directed Order Flow ViRTU Americas, LLC(NITE) CITAGE Securities LLC(COMO) Services, LLC(ENGI) Anne York Stock Exchange(NYSC) Jane Street Capital, LLC(INST) Annested Company Services, LLC(ETMI) Annested Capital, LLC(INST) NYSE Arcal(ARCA) NASDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders  4 Venues  Venue - Non-	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.86   17.15   12.50   9.38   6.25   1.56	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable Limit Orders  0	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 1 Non-Marketable Limit Orders as % of Mon-Orders 1 50.00	Non-Marketable   Umit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow Virtu Americas, LLC(NITE) Citadel Securities LLC(CDMG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INST) Choe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE American(AMEX) NYSE American(AMEX) NYSE American(AMEX) TOTAL Non-Directed Orders  4 Venues  Venue - Non- directed Order Flow	Non-Directed   Orders   18	Non-Directed   Orders/(%)   28.13   21.88   17.15   12.56   9.38   6.25   1.56   1.5	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable Limit Orders  0	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non- Directed Orders 0.00	Marketable Limit Orders(%)  300.00 0.00 0.00 0.00 0.00 0.00 0.00	Non-Marketable Limit Orders  0 0 11 0 0 12 13 14 15 16 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Non-Marketable Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for  One Paid Payment Paid/Received for  Net Payment Paid/Received for	Paid/Received for Marketable Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for  Paid Received for  Paid Received for  Paid Received for  Paid Received for	Paid /Received for Mon-Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow ViRTU Americas, LLC(NITE) Citadel Securities LLC(COME) New York Stock Exchange(NYSC) General Securities LLC(COME) New York Stock Exchange(NYSC) Services, LLC(ENIM) American(AMEX) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Total Non-Directed Orders  Venues  4 Venues  Venue - Non- directed Order Flow Liddel Securities Lidead Secu	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.88   17.15   12.50   1.50	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  1.00  Total Marketable Limit Orders  Market Orders(%)	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow ViRTU Americas, LLC(INITE) Citadel Securities LLC(CDRG) New York Stock Exchange(INYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INST) Choe EDGX US Equities Exchange(EDGX) NYSE American(AMEX) NYSE American(AMEX) NYSE American(AMEX) NYSE American(AMEX) Total Non-Directed Orders  4 Venues  Venue - Non- directed Order Flow	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.86   17.15   12.50   9.38   6.25   1.56	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  0.00  Total Marketable Limit Orders  0	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Umit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(ents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow VIRTU Americas, LLC(INTE) CItadel Securities LLC(CDRG) New York Stock Exchange(INYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INT) Choe EDGX US Exchange(EDGX) NYSE American(AMEX) NYSE Arca(AMEX) NYSE Arca(AMEX) NYSE Arca(AMEX) Option Contracts Summary  Total Non-Directed Orders  4 Venues  Venue - Non- directed Order Flow Citadel Securities LLC(CDRG) Wolverine	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.88   17.15   12.50   1.50	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  1.00  Total Marketable Limit Orders  Market Orders(%)	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(ents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow ViRTU Americas, LLC(NITE) CITAGE Securities LLC(CORG) New York Stock Exchange(NYSE) GENERAL CORTION Services, LLC(ETMM) Inner Street Capital, LCC(INST) NYSE Exchange(EGX) NYSE Exchange(EGX) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(NSDQ) April 2022 Option Contracts Summary Venue - Non- directed Order Flow Citadel Securities LLC(CORG) Venue - Non- directed Order Flow Citadel Securities LLC(CORG) Wolverine Execution Services	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.88   17.19   12.56   19.38   17.19   1	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  1.00  Total Marketable Limit Orders  0  Market Orders(%)  50.00	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(ents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow VPNEU Americas, LLC(NITE) Citadel Securities LLC(CDRG) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(INST) Choe EDGX US Equities Exchange(EDGX) NYSE American(AMMEX) NYSE Arca(AMACX) NYSE Arca(AMACX) NYSE Arca(AMACX) Orders  Venue - Non- directed Order Flow Citadel Securities LLC(CDRG) Venue - Non- directed Order Flow Citadel Securities LLC(CDRG) Wolverine Execution Services	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.88   17.15   12.50   1.50	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  1.00  Total Marketable Limit Orders  Market Orders(%)	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(ents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Venue - Non- directed Order Flow Virtu Americas, LLC(NITE) Citadel Securities LLC(CORG) Services, LLC(CIMITE) Citadel Securities LLC(CORG) Services, LLC(CIMITE) Citadel Securities LLC(CORG) Services, LLC(CIMINE) Services, LLC(CIMINE) Services, LLC(CIMINE) NYSE Arca(ARCA) NASDAQ Execution Services, LLC(NISDO) April 2022 Option Contracts Summary  Venue - Non- directed Order Flow Citadel Securities LLC(CORG) Wolverine Execution Services	Non-Directed   Orders   18	Non-Directed   Orders(%)   28.13   21.88   17.19   12.56   19.38   17.19   1	Market Orders  11  14  0  8  6  0  0  0  Market Orders as % of Non-Directed Orders  50.00	Market Orders(%)  28.21  35.90  0.00  20.51  15.38  0.00  0.00  1.00  Total Marketable Limit Orders  0  Market Orders(%)  50.00	Marketable Limit Orders  1 0 0 0 0 0 0 0 0 0 0 0 Marketable Limit Orders as % of Non-Directed Orders 0.00	Marketable Limit Orders(%)   100.00   0.00	Non-Marketable Limit Orders  0 0 11 0 0 11 1 1 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 50.00	Non-Marketable   Limit Orders(%)	Other Orders  6  0  0  0  0  0  0  0  0  0  0  Other Orders as % of Non-Directed Orders  0.00	Other Orders(%)  100.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00	Paid/Received for Market Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pad/Received for Market Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  Net Payment Paid/Received for Paid/Received for Marketable Limit Net Payment Paid/Received for Marketable Limit Narketable Limit Narketabl	Paid/Received for Marketable Limit Orders/cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for Marketable Limit Orders/cents per point orders per per paid for the paid of the pai	Paid/Received for On-Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 Net Payment Paid/Received for	Pald/Received for Other Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

S&P 500 Stocks																1		
Summary																		
Total Non-Directed			Market Orders as % of Non-Directed	Total Marketable	Marketable Limit Orders as % of Non-		Non-Marketable Limit Orders as % of Non-Directed		Other Orders as % of Non-Directed									
Orders 53	Orders 100.00	Total Market Orders	Orders 75.47	Limit Orders	Directed Orders	Total Non-Marketable Limit Orders	Orders 11.32	Total Other Orders	Orders 11.32									
53	100.00	40	75.47	1	1.05	, .	11.32		11.32									
Venues																		
											Net Payment	Net Payment Paid/Received for Market	Net Payment Paid/Received for	Net Payment Paid/Received for Marketable Limit	Net Payment Paid/Received for	Net Payment Paid/Received for Non-Marketable	Net Payment	Net Payment Paid/Received for
Venue - Non- directed Order Flow VIRTU Americas.	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Paid/Received for Market Orders(USD	Orders(cents per hundred shares)	Marketable Limit Orders(USD)	Orders(cents per hundred shares)	Non-Marketable Limit Orders(USD)	Limit Orders(cents per hundred shares)	Paid/Received for Other Orders(USD)	Other Orders(cents per hundred shares)
LLC(NITE)	19	29.69	16	40.00		50.00	0	0.00	2	33.33							0	
Citadel Securities LLC(CDRG)																		
LLC(CDRG)	17	26.56	12	30.00	1	50.00	0	0.00	4	66.67		0	0	0		0	0	0
NASDAQ Execution Services, LLC(NSDQ)	12	18.75	0	0.00		0.00	12	75.00	0	0.00								
G1 Execution																		
Services, LLC(ETMM)	7	10.94	7	17.50		0.00		0.00		0.00								اه
Choe EDGX US																		
Equities Exchange(EDGX)	4	6.25	0	0.00		0.00	4	25.00		0.00	,							ا، ا
Jane Street Capital,												1		1		1	Ī	Ĭ
LLC(JNST) Two Sigma	4	6.25	4	10.00	(	0.00	0	0.00	0	0.00	(		0	0	0	0	0	0
Securities,										1								
LLC(SOHO)	1	1.56	1	2.50		0.00	0	0.00	0	0.00		0	0	C	0	0	0	0
May 2022						1		<u> </u>		t		1						$\vdash$
Non-S&P 500 Stocks																		
Summary						1	Non-Marketable			+		1		<del>                                     </del>				$\vdash$
Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders	Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders	Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders									
34	100.00				2.94		0.00		2.94									
Venues																		
Venue - Non-	Non-Directed	Non-Directed			Marketable Limit		Non-Marketable	Non-Marketable			Net Payment Paid/Received for	Net Payment Paid/Received for Market Orders(cents per	Net Payment Paid/Received for Marketable Limit	Net Payment Paid/Received for Marketable Limit Orders(cents per	Net Payment Paid/Received for Non-Marketable	Net Payment Paid/Received for Non-Marketable Limit Orders(cents	Net Payment Paid/Received for	Net Payment Paid/Received for Other Orders(cents
directed Order Flow Citadel Securities	Orders	Orders(%)	Market Orders	Market Orders(%)	Orders	Marketable Limit Orders(%)	Limit Orders	Limit Orders(%)	Other Orders	Other Orders(%)	Market Orders(USD	hundred shares)	Orders(USD)	hundred shares)	Limit Orders(USD)	per hundred shares)	Other Orders(USD)	per hundred shares)
LLC(CDRG)	11	28.95	10	31.25		100.00	0	0.00	0	0.00			0	0			0	
VIRTU Americas,																	_	
LLC(NITE)	10	26.32	9	28.13		0.00	0	0.00	1	20.00		0	0	0	-	0	0	0
G1 Execution									_									
Services, LLC(ETMM)	9	23.68	9	28.13		0.00	0	0.00	0	0.00	1	0	0		-	- 0	0	0
BlockCross(BLKX)	4	10.53	0	0.00		0.00	0	0.00	4	80.00		0	0	c	0	0	0	. 0
Jane Street Capital, LLC(JNST)		10.53		12.50		0.00		0.00		0.00				, ا		, ,	Ι .	ا ا
May 2022	*	10.33	-	12.30	`	0.00		0.00		0.00	,		•					-
Option Contracts																		
Summary  Total Non-Directed	Non-Directed		Market Orders as % of Non-Directed	Total Marketable	Marketable Limit Orders as % of Non-		Non-Marketable Limit Orders as % of Non-Directed		Other Orders as % of Non-Directed									
Orders	Orders	Total Market Orders	Orders	Limit Orders	Directed Orders	Total Non-Marketable Limit Orders	Orders	Total Other Orders	Orders									
2	100.00	1	50.00	0	0.00	1	50.00	-	0.00	1		-			-	-		
Venues																		
Venue - Non- directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other 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)
Dash Financial Technologies																		
LLC(DASH)	1	50.00	1	100.00		0.00	o	0.00		0.00							。	o
Wolverine Execution Services																		
LLC(WEXX)	1	50.00	0	0.00		0.00	1	100.00		0.00				0				
June 2022																		
S&P 500 Stocks						1							<del>                                     </del>		<del>                                     </del>			$\vdash$
Summary																		
Total Non-Directed Orders	Non-Directed Orders as % of All Orders	Total Market Orders	Market Orders as % of Non-Directed Orders	Total Marketable Limit Orders	Marketable Limit Orders as % of Non- Directed Orders	Total Non-Marketable Limit Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Total Other Orders	Other Orders as % of Non-Directed Orders									
34	100.00		67.65	0	0.00		14.71		17.65									
Venues						<u> </u>		-		+		1	-	-	-			+
												Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for	Net Payment	Net Payment Paid/Received for		Net Payment
Venue - Non- directed Order Flow	Non-Directed Orders	Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)	Net Payment Paid/Received for Market Orders(USD	Market Orders(cents per hundred shares)	Paid/Received for Marketable Limit Orders(USD)	Marketable Limit Orders(cents per hundred shares)	Paid/Received for Non-Marketable Limit Orders(USD)	Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Paid/Received for Other Orders(cents per hundred shares)

Citadel Securities																		
LLC(CDRG)	13	30.23	12	52.17	,	0.00	0	0.00	1	16.67		) (	0		0			0
VIRTU Americas,																		
LLC(NITE)	12	27.91	5	21.74		0.00	) 2	14.29		83.33		) (	0		0			0
NASDAQ Execution																		
Services, LLC(NSDQ)	7	16.28		0.00	) (	0.00	7	50.00		0.00		) (			۱ ،	1		ا ا
			_						1	-			1					
G1 Execution																		
Services, LLC(ETMM)	4	9.30		17.39		0.00	, ,	0.00		0.00		,			۱ ،			ا ا
New York Stock		3.30		17.33	<u> </u>	0.00	,	0.00	`	0.00		<u> </u>	,					- 1
Exchange(NYSE)	,	6.98		0.00		0.00		21.43		0.00								
Jane Street Capital,	3	0.98	u u	0.00	,	0.00	3	21.4:	'	0.00	'	4	, ,	-	- 0	-	-	- 0
		4.65		8.70		0.00	.  .	0.00		0.00			.			l .	l .	
LLC(JNST) Cboe EDGX US		4.03		8.70	, ,	0.00	, ,	0.00	'	0.00		,	, ,	-				0
Equities		2.33		0.00		0.00		7.14		0.00				l .		l .	l .	ا ا
Exchange(EDGX)	1	2.55	U	0.00	, ,	0.00	1	/.14		0.00	'	1	0	-	0	-	-	0
Members														l .		l .	l .	ا ا
Exchange(MEMX)	1	2.33	U	0.00	, ,	0.00	1	7.14		0.00	'	, ,	0	-	0			0
June 2022																		
						-		-	1	1	1	-						
1			1	1	1		1	1	1	1	1		1			1	1	
Non-S&P 500 Stocks		1				1			ļ	ļ	ļ	1						
Summary						-		1	1	1	1	1						
							Non-Marketable											
	Non-Directed		Market Orders as %		Marketable Limit		Limit Orders as % of	1	Other Orders as %			1		1		1	1	
Total Non-Directed	Orders as % of All		of Non-Directed	Total Marketable	Orders as % of Non-		Non-Directed	1	of Non-Directed	1	1		1			1	1	
Orders	Orders	Total Market Orders	Orders	Limit Orders	Directed Orders	Total Non-Marketable Limit Orders	Orders	<b>Total Other Orders</b>	Orders									
27	100.00	19	70.37	0	0.00	3	11.11		18.52	!								
Venues																		
												Net Payment		Net Payment		Net Payment		
												Paid/Received for	Net Payment	Paid/Received for	Net Payment	Paid/Received for		Net Payment
														Marketable Limit		Non-Marketable	N-4 D	Paid/Received for
1																		
Venue - Non-	Non-Directed	Non-Directed			Marketable Limit		Non-Marketable	Non-Marketable			Net Payment	Market Orders(cents per	Paid/Received for		Paid/Received for		Net Payment	
	Non-Directed	Non-Directed	Market Orders	Market Orders(%)	Marketable Limit	Marketable Limit Orders(%)	Non-Marketable	Non-Marketable	Other Orders	Other Orders(%)	Paid/Received for	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow		Non-Directed Orders(%)	Market Orders	Market Orders(%)	Marketable Limit Orders	Marketable Limit Orders(%)	Non-Marketable Limit Orders	Non-Marketable Limit Orders(%)	Other Orders	Other Orders(%)		Orders(cents per				Limit Orders(cents		
directed Order Flow Citadel Securities		Orders(%)	Market Orders		Orders		Limit Orders	Limit Orders(%)			Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG)			Market Orders	Market Orders(%) 52.63	Orders	Marketable Limit Orders(%)	Limit Orders			Other Orders(%)	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas,		Orders(%) 32.43	Market Orders	52.63	Orders (	0.00	Limit Orders	Limit Orders(%)		9 40.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG)		Orders(%)	Market Orders		Orders (		Limit Orders	Limit Orders(%)			Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas,		Orders(%) 32.43	Market Orders	52.63	Orders (	0.00	Limit Orders	Limit Orders(%)		9 40.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE)		Orders(%) 32.43	Market Orders	52.63	Orders (	0.00	Limit Orders	Limit Orders(%)		9 40.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE)  NASDAQ Execution		Orders(%) 32.43 18.92	Market Orders	52.63 21.05	Orders	0.00	Limit Orders	Limit Orders(%) 0.00	3	60.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE)  NASDAQ Execution Services, LLC(NSDQ)		Orders(%) 32.43	Market Orders  10 4	52.63	Orders	0.00	Limit Orders	Limit Orders(%)	3	9 40.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock		32.43 32.43 18.92	Market Orders  10 4	52.63 21.05	Orders  (c)	0.00	Umit Orders  0 0	0.00 0.00 0.00 33.33	5	60.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE)  NASDAQ Execution Services, LLC(NSDQ)		Orders(%) 32.43 18.92	Market Orders  10 4	52.63 21.05	Orders  (c)	0.00	Umit Orders  0 0	Limit Orders(%) 0.00	5	60.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CNRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE)		32.43 32.43 18.92	Market Orders  10 4	52.63 21.05	Orders  (c)	0.00	Umit Orders  0 0	0.00 0.00 0.00 33.33	5	60.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CNRG) VIRTU Americas, LLC(NITE)  NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE)  G1 Execution		32.43 32.43 18.92 13.51	Market Orders  10  4	52.63 21.05 0.00	Orders	0.00 0.00 100.00 0.00	Umit Orders  0 0 0 4 0 5	Umit Orders(%) 0.00 0.00 33.33		60.00 0.00	Pald/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM)		32.43 32.43 18.92	Market Orders  10  4	52.63 21.05	Orders	0.00	Umit Orders  0 0 0 4 0 5	0.00 0.00 0.00 33.33		60.00	Pald/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDNB) VIRTU Americas, LLC(NITE)  NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE)  G1 Execution Services, LLC(ETMM) Jane Street Capital,		32.43 32.43 18.92 13.51 13.51	Market Orders  10 4 0 0	52.63 21.05 0.00 0.00	Orders  3 (	0.00 0.00 100.00 0.00	Umit Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Umit Orders(%) 0.00 0.00 33.3: 41.6:	)	0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE)  NASDAQ Execution Services, LLC(NSQQ) New York Stock Exchange(NYSE) G1 Execution Services, LLC(EMIM) Jane Street Capital, LLC(LNST)		32.43 32.43 18.92 13.51	Market Orders  10  4	52.63 21.05 0.00	Orders  3 (	0.00 0.00 100.00 0.00	Umit Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Umit Orders(%) 0.00 0.00 33.33	)	60.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NTE) NASDAQ Execution Services, LLC(NSOQ) New York Stock Exchange(NYS) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(NST)		32.43 32.43 18.92 13.51 13.51 8.11	Market Orders  10  4  0 0 3 3	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (c)	0.00 0.00 100.00 0.00 0.00	Limit Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 0.00		0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NTE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(ETMM) Jane Street Capital, LLC(LNST) Members Exchange(MXS)		32.43 32.43 18.92 13.51 13.51	Market Orders	52.63 21.05 0.00 0.00	Orders  (c)	0.00 0.00 100.00 0.00	Limit Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Umit Orders(%) 0.00 0.00 33.3: 41.6:		0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security Citadel Security URITU Americas, LLC(INTE) NASDAQ Execution Services, LLC(INSDQ) New York Stock Exchange(IVSS) GI Execution Services, LLC(ETMM) Jame Street Capital, LLC(INST) Members Exchange(MEMX)		32.43 32.43 18.92 13.51 13.51 8.11	Market Orders 10 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (c)	0.00 0.00 100.00 0.00 0.00	Limit Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 0.00		0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(ETMM) Jane Street Capital, LLC(LINTE) Members Exchange(MEM) Clobe EDGX US Equition		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders 10 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security Citadel Security UKITU Americas, LLC(INTE) NASDAQ Execution Services, LLC(INSDQ) New York Stock Exchange(INYS) G1 Execution Services, LLC(ETMM) Jame Street Capital, LLC(INST) Members Exchange(IMEMX) Exchange(IMEMX)		32.43 32.43 18.92 13.51 13.51 8.11	Market Orders 10 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	0.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 0.00		0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(ETMM) Jane Street Capital, LLC(LINTE) Members Exchange(MEM) Clobe EDGX US Equition		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders 10	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order flow Citadel Security LLC(DIRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSQ) GI Execution Services, LLC(ETMM) Jame Sweet Capital, Members Exchange(MEMX) Exchange(MEMX) Exchange(MEMX) June 2022		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security Citadel Security UKITU Americas, LLC(INTE) NASDAQ Execution Services, LLC(INSDQ) New York Stock Exchange(INYS) G1 Execution Services, LLC(ETMM) Jame Street Capital, LLC(INST) Members Exchange(IMEMX) Exchange(IMEMX)		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders 10	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order flow Citadel Security LLC(DIRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSQ) GI Execution Services, LLC(ETMM) Jame Sweet Capital, Members Exchange(MEMX) Exchange(MEMX) Exchange(MEMX) June 2022		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(ETMM) Jane Street Capital, LLC(LGTM) Members Exchange(IMEX) Clobe EDGX US Equities Exchange(IMEX) Obe EDGX US Equities		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Limit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Clobe EDGX US Equities Exchange(EMM) June 2022 Option Contracts Summary		32.43 18.92 13.51 13.51 8.11 5.41	Market Orders 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52.63 21.05 0.00 0.00 15.79 10.53	Orders  (a)	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(DNST) Members LLC(DNST) Members Exchange(MEMOX) Coquition Option Contracts Summary	12 7 5 5 5 2 2 2 1	32.43 18.92 13.51 13.51 8.11 5.41	33 2 0	52.63 21.05 0.00 0.00 15.79 10.53	Orders	100.00 0.00 100.00 0.00 0.00	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 33.3; 41.6; 0.00 0.00		0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Open EDGX US Exchange(IMEM) Open EDGX US Exchange(IME	12 7 5 5 5 2 2 2 1 1 Non-Directed	0rders(%) 32.43 18.92 13.51 13.51 8.11 5.41 2.70	10  4  0  0  3  2  0  0  Market Orders as % of Non-Directed	52.63 21.05 0.00 0.00 15.79 10.53 0.00	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	100.00 0.00 100.00 0.00 0.00	Limit Orders  0  0  4  5  0  0  1  1  Non-Marketable Limit Orders as % of	Umit Orders(%)  0.00  0.00  33.3: 41.6:  0.00  0.00  1.6.6:	Guerral of the control of the contro	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Open EDGX US Exchange(IMEM) Open EDGX US Exchange(IME	12 7 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  () () () () () () () () () () () () ()	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Cloe EDGX US Equities Exchange(IMEM) Open EDGX US Exchange(IMEM) Open EDGX US Exchange(IME	12 7 5 5 2 2 1 Non-Directed Orders as % of All	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  3  2  0  0  Market Orders as % of Non-Directed	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Umit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Clobe EDGX US Equities Exchange(EMM) June 2022 Option Contracts Summary  Total Non-Directed Orders 0	12 7 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per	Marketable Limit	Orders(cents per	Non-Marketable	Limit Orders(cents	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Clobe EDGX US Equities Exchange(EMM) June 2022 Option Contracts Summary  Total Non-Directed Orders 0	12 7 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per) hundred shares)  (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Marketable Limit	Orders(cents per hundred shares)	Non-Marketable	Limit Orders(cents per hundred shares)	Paid/Received for	Other Orders(cents
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Clobe EDGX US Equities Exchange(EMM) June 2022 Option Contracts Summary  Total Non-Directed Orders 0	12 7 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per) hundred shares)  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Marketable Limit Orders(USD)	Orders(cents per hundred shares)	Non-Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  0  0  0  0  0	Limit Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0  Net Payment	Paid/Received for	Other Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0
directed Order Flow Citadel Securities LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) GI Execution Services, LLC(EMM) Jane Street Capital, LLC(JNST) Members Exchange(IMEM) Clobe EDGX US Equities Exchange(EMM) June 2022 Option Contracts Summary  Total Non-Directed Orders 0	12 7 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders.	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per) hundred shares)  () () () () () () () () () () () () (	Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  0  0  0  0  Net Payment	Orders(cents per hundred shares)  C  C  C  C  C  C  C  C  C  C  C  C  C	Non-Marketable Limit Orders(USD)  0  0  0  0  0  0  0  Net Payment	Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)	Other Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0  Net Payment
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(DNST) Members Exchange(MEMX) Clobe EDDX US Exchange(EDDX US Exc	Orders  12  7  5  5  3  2  2  1  Non-Directed Orders as % of All Orders  0.00	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00  Total Marketable	Orders  (a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders 0 0.00	Umit Orders(%) 0.00 0.00 33.3.3 41.6: 0.00 0.00 16.6: 8.33	Other Orders as % of Non-Directed Orders.	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD)	Orders(cents per) hundred shares)  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Marketable Limit Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Orders(cents per hundred shares)  C  C  C  C  C  C  C  C  C  C  C  C  C	Non-Marketable Limit Orders(USD)  0  0  0  0  0  0  Net Payment Paid/Received for	Limit Orders(cents per hundred shares)  0  0  0  0  0  0  0  0  0  0  0  0  0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Other Orders(cents per hundred shares)  0  0  0  0  0  0  0  Net Payment Paid(Received for Paid(Receiv
directed Order Flow Citadel Security LLC(CDRG) VIRTU Americas, LLC(NITE) NASDAQ Execution Services, LLC(NSDQ) New York Stock Exchange(NYSE) G1 Execution Services, LLC(ETMM) Jane Street Capital, LLC(DNST) Members Exchange(MEMX) Clobe EDDX US Exchange(EDDX US Exc	12 7 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0rders(%)  32.43  18.92  13.51  13.51  8.11  5.41  2.70  Total Market Orders	10  4  0  0  0  0  0  Market Orders as % of Non-Directed Orders	52.63 21.05 0.00 0.00 15.79 10.53 0.00 0.00 Total Marketable Limit Orders	Orders  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Limit Orders  0 0 0 0 4 4 5 0 0 0 1 1 Non-Marketable Limit Orders as % of Non-Directed Orders	Umit Orders(%)  0.00  0.00  33.3.3  41.6:  0.00  0.00  16.6:  8.3:	Other Orders as % of Non-Directed Orders.	0.00 0.00 0.00 0.00 0.00	Paid/Received for Market Orders(USD	Orders(cents per) hundred shares)  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Marketable Limit Orders(USD)  0  0  0  0  0  0  0  0  0  0  0  0  Net Payment	Orders(cents per hundred shares)  C  C  C  C  C  C  C  C  C  C  C  C  C	Non-Marketable Limit Orders(USD)  0  0  0  0  0  0  0  Net Payment	Limit Orders(cents per hundred shares)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Paid/Received for Other Orders(USD)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Other Orders(cents per hundred shares) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

# Hightower Securities LLC - Held NMS Stocks and Options Order Routing Public Report Generated on Tue Jul 05 2022 14:23:02 GMT-0400 (Eastern Daylight Time)

2nd Quarter, 2022

## April 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	85.71	14.29	0.00	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)
Citadel Securities LLC (CDRG)	50.02	50.02	50.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	21.42	16.66	50.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	14.28	16.66	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	7.14	8.33	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	7.14	8.33	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

## April 2022

#### Non-S&P 500 Stocks

#### Summary

Non-Directed Orders as % of All Orders Non-Directed		Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
---	--	--	---

	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
I	100.00	24.00	44.00	32.00	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)
Citadel Securities LLC (CDRG)	28.00	66.67	9.09	25.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	24.00	33.33	27.27	12.50	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	24.00	0.00	27.27	37.50	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	12.00	0.00	27.28	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	8.00	0.00	0.00	25.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	4.00	0.00	9.09	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Ası
--------------

# April 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	Market Orders	Marketable Limit Orders	Non- Marketable	Other Orders	Net Payment Paid/Received for	Net Payment Paid/ Received for Market	Net Payment Paid/ Received for	Net Payment Paid/ Received for	Net Payment Paid/ Received for Non-	Net Payment Paid/ Received for Non-	Net Payment Paid/Received for	Net Payment Paid/ Received for Other
directe	d Orders (%)	(%)	(%)	Limit Orders	(%)	Market	Orders(cents per	Marketable Limit	Marketable Limit	Marketable Limit	Marketable Limit	Other	Orders(cents per
Orde		` '	` '	(%)		Orders(USD)	hundred shares)	Orders(USD)	Orders(cents per	Orders(USD)	Orders(cents per	Orders(USD)	hundred shares)
Flow									hundred shares)		hundred shares)		

Material Aspects:

#### 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	100.00	0.00	0.00	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)
Citadel Securities LLC (CDRG)	30.00	30.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	20.00	20.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TWO SIGMA SECURITIES, LLC (SOHO)	20.00	20.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	10.00	10.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	10.00	10.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	10.00	10.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

		cts:

-----

# May 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
I	100.00	100.00	0.00	0.00	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)
---------------------------------------	--------------------------------	-------------------------	-----------------------------------	---	------------------------	---	---	--	--	---	---	--	--

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)
UBS SECURITIES LLC (UBSS)	50.00	50.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	25.00	25.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	25.00	25.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

# May 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 (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)	
--	--------------------------------	-------------------------	-----------------------------------	---	------------------------	---	---	--	--	---	---	--	--	--

Material Aspects:

## June 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	88.89	11.11	0.00	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)
TWO SIGMA SECURITIES, LLC (SOHO)	33.34	25.00	100.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	22.22	25.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	22.22	25.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	11.11	12.50	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	11.11	12.50	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material	Aspects:
----------	----------

\_\_\_\_\_\_

## June 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	60.00	40.00	0.00	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)
UBS SECURITIES LLC (UBSS)	40.00	33.33	50.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	30.00	50.01	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	20.00	16.66	25.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JANE STREET CAPITAL, LLC (JNST)	10.00	0.00	25.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

٧л	ate	ria	ΙΔ	en	മറ	ŀe:

## June 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 Ord Limit Orders (%		Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)	
--	---	-----------------------------------	--	---	--	---	--	--	---	---	--	--	--

Material Aspects: