William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report Generation Date: 2023-07-209455-5.790 GMT-0400 Year- 2023 - Quarter: 2

ar: 2023	Quarter: 2

ear: 2025 Qua	ter: 2												
pril 2023				S&P 500 Stocks									
mmary		Marketable Limit Orders as	Non-Marketable Limit Orders										
Non-Directed Orders as Ma Percent of All Orders	ket Orders as Percent of Non- Directed Orders	Percent of Non-Directed Orders	as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders									
100.00%	98.43%	0.32%	1.20%	0.05%									
ues - Non Directed Orders													
				Non-Marketable Limit Orders			Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Net Payment F	Paid/Received		Net Payment Paid/Receive
ue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	for Market Orders (USD)	for Market Orders (cents per hundred shares)		(cents per hundred shares)	Non-Marketable Limit Orders Non-Marketable (USD) (cents per hu	e Limit Orders indred shares)	Net Payment Paid/Received Other Orders (USD)	Other Orders (cents p
Americas LLC (NITE)	33.79%	33.85%	25.93%	31.68%	25.00%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.00
Street Access (VNDM)	33.29%	33.37%	33.33%	26.73%	50.00%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.00
del Securities LLC (CDRG)	32 91%	32.79%	40.74%		25.00%	0.0000	0.0000	0			0.0000	0	0.00
	32.51%	32.79%	40.74/6	41.30/0	23.00%	0.0000	0.0000		0.0000		0.0000	0	0.00
ril 2023				Non-S&P 500 Stocks									
nmary		Marketable Limit Orders as	Non-Marketable Limit Orders										
	ket Orders as Percent of Non-		as Percent of Non-Directed										
Percent of All Orders 100 00%	Directed Orders 95.05%	Orders 0.70%	Orders 3.91%	Non-Directed Orders 0.34%									
	33.03/6	0.70%	3.51/6	0.34/6									
nues - Non Directed Orders													
							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Net Payment F	Paid/Received		Net Payment Paid/Receive
110	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders (USD)	for Market Orders (cents per hundred shares)		Marketable Limit Orders (cents per hundred shares)	Non-Marketable Limit Orders Non-Marketable (USD) (cents per hu		Net Payment Paid/Received Other Orders (USD)	Other Orders (cents p hundred share
idel Securities LLC (CDRG)													
	34.38%	34.29%	35.85%	36.95%	26.92%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.000
all Street Access (VNDM)	33.15%	33.12%		33.90%	34.62%	0.0000	0.0000	0			0.0000	0	0.000
u Americas LLC (NITE)	32.47%	32.59%	32.08%	29.15%	38.46%	0	0.0000	0	0.0000	0	0.0000	0	0.000
ril 2023				Option Contracts									
nmary		Marketable Limit Orders as	Non-Marketable Limit Orders										
Non-Directed Orders as Ma	ket Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	53.25%	13.16%	29.17%	4.42%									
nues - Non Directed Orders													
							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Net Payment F	Paid/Received		Net Payment Paid/Receive
				Non-Marketable Limit Orders			for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders Non-Marketable	e Limit Orders		Other Orders (cents pe
ional Financial Services	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)	(USD) (cents per hu	indred shares)	Other Orders (USD)	hundred shares
(NFSC)	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.000
terial Aspects:													
adel Securities LLC - William Bla	r did not receive payment for o	rder flow from CDRG for these	trades.										
rtu Americas LLC - William Blair	id not receive payment for orde	er flow from NITE for these tra-	des.										
'all Street Access - William Blair o ational Financial Services LLC - W													
ay 2023 mmary				S&P 500 Stocks									
			Non-Marketable Limit Orders										
Non-Directed Orders as Ma Percent of All Orders	ket Orders as Percent of Non- Directed Orders	Percent of Non-Directed Orders	as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders									
100.00%	97.87%	0.17%		Non-Directed Orders 0.61%									
nues - Non Directed Orders													
							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Net Payment F	Paid/Received		Net Payment Paid/Receive
nue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders (USD)	for Market Orders (cents per hundred shares)	Marketable Limit Orders (USD)	Marketable Limit Orders (cents per hundred shares)	Non-Marketable Limit Orders Non-Marketable (USD) (cents per hu	e Limit Orders	Net Payment Paid/Received Other Orders (USD)	Other Orders (cents pe
tu Americas LLC (NITE)	34.11%	33.99%	40.00%	42.50%	33.33%	0	0.0000	0		0	0.0000	0	0.000
adel Securities LLC (CDRG)	33.33%	33.45%	40.00%	26.67%	27.78%	0	0.0000	0	0.0000	0	0.0000	0	0.000
all Street Access (VNDM)	32.55%	32.56%	20.00%	30.83%	38.89%	0	0.0000	0	0.0000	0	0.0000	0	0.000
ay 2023				Non-S&P 500 Stocks									
mmary													
Non-Directed Orders as Ma	ket Orders as Percent of Non-		Non-Marketable Limit Orders as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	94.78%	0.79%	3.80%	0.63%									
nues - Non Directed Orders													
							Net December Deld/December d	Net Develope Deid (Deserved	Net Develope Deid (Deserved	Net Payment Paid/Received Net Payment F	0-14/0		Net Payment Paid/Receive
				Non-Marketable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per	Marketable Limit Orders		Non-Marketable Limit Orders Non-Marketable		Net Payment Paid/Received	Other Orders (cents pe
nue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)	(USD) (cents per hu	indred shares)	Other Orders (USD)	hundred share:
all Street Access (VNDM)	33.82%	33.87%	27.78%	35.76%	22.81%	0	0.0000	0	0.0000	0	0.0000	0	0.000
adel Securities LLC (CDRG)								_					
tu Americas LLC (NITE)	33.66% 32.51%	33.60% 32.54%	40.28% 31.94%	33.14% 31.10%	38.60% 36.84%	0	0.0000	0		0	0.0000	0	0.000
FA Securities, Inc. (MLCO)	0.01%	0.00%	0.00%	0.00%	1.75%	0	0.0000	0	0.0000	0	0.0000	-9	-17.367
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William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report

Generation Date: 2023-07-28 09:45:56.790 GMT -0400 Year: 2023 Quarter: 2

Option Contracts				May 2023
				Summary
	Non-Marketable Limit Orders	Marketable Limit Orders as		
Other Orders as Percent of	as Percent of Non-Directed	Percent of Non-Directed	Market Orders as Percent of Non-	Non-Directed Orders as
Non-Directed Orders	Orders	Orders	Directed Orders	Percent of All Orders
4.21%	20.50%	9.77%	65.52%	100.00%

Venues - Non Directed Orders

							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Net Payment Paid,	/Received	Net Payment Paid/Received
				Non-Marketable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders Non-Marketable Lin	mit Orders Net Payment Paid/Recei	ved Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)	(USD) (cents per hundre	ed shares) Other Orders (L	SD) hundred shares)
National Financial Services												
LLC (NFSC)	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0.0000

Material Aspects:
Citadel Securities LLC - William Blair did not receive payment for order flow from CDRG for these trades.

Urade securines LLC - William Blair did not receive payment for order flow from NIE for these trades.

Virtua Americas LLC - William Blair did not receive payment for order flow from NIE for these trades.

Val Street Access - William Blair did not receive payment for order flow from NIEM for these trades.

Val Street Access - William Blair and not receive payment for order flow from NIEM for these trades.

National Financial Services LLC - William Blair and not receive payment for order flow from NIST for these trades

BOYA Securities, Inc. - William Blair may be charged fees for orders executed in Alternative Trading Systems. Orders routed further by MLCO are sent to exchanges which incur fees and rebates based on the exchange rules, as approved by the SEC, and are non-negotiable.

MLCO may pass to William Blair and execution fees and rebates incurred for routing the orders with an additional routing fee.

0.34%

June 2023				S&P 500 Stock
Summary				
		Marketable Limit Orders as	Non-Marketable Limit Orders	
Non-Directed Orders as	Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Order
100.00%	98.05%	0.65%	0.95%	0.349

Venues - Non Directed Orders

Venue	Non-Directed Orders (%)	Market Orders (%)	No Marketable Limit Orders (%)	n-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders (USD)		Marketable Limit Orders	Net Payment Paid/Received Marketable Limit Orders N (cents per hundred shares)	on-Marketable Limit Orders N		Net Payment Paid/Received Other Orders (USD)	
Wall Street Access (VNDM)	33.50%	33.60%	31.34%	28.57%	22.86%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG) Virtu Americas LLC (NITE)	33.34% 33.16%	33.23% 33.16%	32.84% 35.82%	40.82% 30.61%	42.86% 34.29%	0	0.0000 0.0000	0	0.0000 0.0000	0	0.0000 0.0000	0	0.0000 0.0000
lune 2023				Non-S&P 500 Stocks									

Summary				
		Marketable Limit Orders as	Non-Marketable Limit Orders	
Non-Directed Orders as	Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders
100.00%	04 119/	1 500/	4 120/	0.200/

Venues - Non Directed Orders

Venue	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 Marketable Limit Orders (cents per hundred shares)		Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares)		Net Payment Paid/Received Other Orders (cents per hundred shares)
Citadel Securities LLC (CDRG) Virtu Americas LLC (NITE)	33.62% 33.27%	33.559 33.439		33.18% 30.88%	51.85% 11.11%	0	0.0000	C	0.0000	0	0.0000	0	0.0000 0.0000
Wall Street Access (VNDM)	33.11%	33.029	6 30.38%	35.94%	37.04%	0	0.0000	C	0.0000	0	0.0000	0	0.0000

June 2023 Summary				Option Contracts
Summary				
		Marketable Limit Orders as	Non-Marketable Limit Orders	
Non-Directed Ord	lers as Market Orders as Percent of Nor	 Percent of Non-Directed 	as Percent of Non-Directed	Other Orders as Percent of
Percent of All C	Orders Directed Order	s Orders	Orders	Non-Directed Orders
10	0.00% 69.65	6 7.68%	19.95%	2.82%

Venues - Non Directed Orders

							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received		Net Payment Paid/Received
			N	on-Marketable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders	Net Payment Paid/Received	Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%) Marketabl	le Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)	(USD)	(cents per hundred shares)	Other Orders (USD)	hundred shares)
National Financial Services													
LLC (NFSC)	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000

Material Aspects
Citade Securities LLC - William Blair did not receive payment for order flow from CDRG for these trades.
Virtua Americas LLC - William Blair did not receive payment for order flow from NITE for these trades.
Wall Street Access - William Blair did not receive payment for order flow from VNDM for these trades.
Wall Street Access - William Blair did not receive payment for order flow from VNDM for these trades.
National Financial Services LLC - William Blair did not receive payment for order flow from NSTC for these trades