William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report Generation Date: 2023-10-06 13:5956.287 GMT-0400 Year- 2023 Quarter: 3

July :	2023				S&P 500 Stocks
Summ	mary				
			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%	97.19%	0.87%	1.64%	0.30%
Venue	ues - Non Directed Orders				

				on-Marketable Limit Orders		Net Payment Paid/Received 1	or Market Orders (cents per	Marketable Limit Orders	Net Payment Paid/Received N Marketable Limit Orders No	n-Marketable Limit Orders N	Ion-Marketable Limit Orders	Net Payment Paid/Received	Net Payment Paid/Received 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 hundred shares)	Other Orders (USD)	hundred shares)
Wall Street Access (VNDM)	33.93%	34.04%	31.34%	29.92%	26.09%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG) Virtu Americas LLC (NITE)	33.19% 32.88%	33.06% 32.90%	40.30% 28.36%	37.01% 33.07%	34.78% 39.13%	0.0000 0.0000	0.0000 0.0000	0	0.0000 0.0000	0	0.0000 0.0000	0	0.0000 0.0000

July 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 o
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Order
100.00%	94.84%	1.57%	3 38%	0.219

									Net Payment Paid/Received Net P				Net Payment Paid/Received
				on-Marketable Limit Orders		Net Payment Paid/Received 1	or Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders Non-N	1arketable Limit Orders No	on-Marketable Limit Orders	Net Payment Paid/Received	Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%) Ma	arketable 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)
Citadel Securities LLC (CDRG)	33.75%	33.49%	45.11%	35.54%	38.89%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	33.60%	33.77%	27.82%	31.71%	27.78%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
Wall Street Access (VNDM)	32.64%	32.74%	27.07%	32.75%	27.78%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
BOFA Securities, Inc. (MLCO)	0.01%	0.00%	0.00%	0.00%	5.56%	0	0.0000	0	0.0000	0	0.0000	-28	-27.5282

July 2023				Option Contracts
Summary				
		Marketable Limit Orders as	Non-Marketable Limit Orders	
Non-Directed Orders as Mar	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%	72.73%	8.10%	15.98%	3.19%

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-Mark	etable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders N	on-Marketable Limit Orders	Net Payment Paid/Received	Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%) Marketable Lim	nit 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:
Citadel Securities LLC - William Blair did not receive payment for order flow from CDBG for these trades.
Virtu Americas LLC - William Blair did not receive payment for order flow from CDBG 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 MYSC for these trades
BOR'A Securities, Inc. - William Blair did not receive payment for order flow from MYSC for these trades
BOR'A Securities, Inc. - William Blair may be charged feet of orders securities of 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 any execution fees and rebates incurred for routing the orders with an additional routing fee.

Α	ugust 2023				S&P 500 Stocks
Sı	ummary				
			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%	97.35%	0.73%	1.75%	0.17%

				on-Marketable Limit Orders		Net Payment Paid/Received f	or Market Orders (cents per	Marketable Limit Orders		on-Marketable Limit Orders 1	Non-Marketable Limit Orders	Net Payment Paid/Received	Net Payment Paid/Received Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%) Mark	ketable 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)
Wall Street Access (VNDM)	33.51%	33.74%	22.00%	28.33%	8.33%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	33.34%	33.36%	30.00%	34.17%	25.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG)	33.15%	32.90%	48.00%	37.50%	66.67%	0	0.0000	0	0.0000	0	0.0000	0	0.0000

August 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%	94.19%	1.94%	3.66%	0.21%

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Year: 2023	Quarter: 3												
Venues - Non Directed Orders	s												
				Non-Marketable Limit Orders		Not Payment Paid/Received	Net Payment Paid/Received for Market Orders (cents per	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received Non-Marketable Limit Orders	Net Payment Paid/Received	Not Daymont Daid/Received	Net Payment Paid/Receive Other Orders (cents p
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)		hundred shares)		(cents per hundred shares)		(cents per hundred shares)		hundred share
Citadel Securities LLC (CDRG)	34.58%	34.16%	50.32%	37.54%	23.53%	0	0.0000	0	0.0000	0	0.0000	0	0.000
Virtu Americas LLC (NITE)	32.84%		27.10%	30.03%	41.18%	0	0.0000	0			0.0000		0.000
Wall Street Access (VNDM)	32.58%	32.78%	22.58%	32.42%	35.29%	0	0.0000	0	0.0000	0	0.0000	0	0.000
August 2023				Option Contracts									
Summary			Non-Marketable Limit Orders										
Non-Directed Orders as Percent of All Orders 100.00%		Percent of Non-Directed Orders 6.62%	as Percent of Non-Directed Orders 19.65%	Other Orders as Percent of Non-Directed Orders 3.36%									
		0.02%	19.05%	3.30%									
Venues - Non Directed Orders	S												
							Net December Only (December)	Net Develope Deid/Deseived	Not December 0-14/0	Net Payment Paid/Received	Net Develope Delid (Deserting		Net Payment Paid/Receiver
Venue	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		Non-Marketable Limit Orders		Net Payment Paid/Received	
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:	m Blair did not receive payment for o	order flow from CDRG for there	trador										
Virtu Americas LLC - William B	Blair did not receive payment for ord	er flow from NITE for these tra	des.										
Wall Street Access - William BI National Financial Services LLf	Blair did not receive payment for ord LC - William Blair did not receive pays	er flow from VNDM for these tr nent for order flow from NFSC	rades. for these trades										
Ctb 2022				C0 D 500 Ct -									
September 2023 Summary				S&P 500 Stocks									
	s Market Orders as Percent of Non-		Non-Marketable Limit Orders as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	s Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	6 97.17%	1.00%	1.78%	0.05%									
Venues - Non Directed Orders	s												
				Non-Marketable Limit Orders		Net Payment Paid/Received	Net Payment Paid/Received for Market Orders (cents per	Net Payment Paid/Received Marketable Limit Orders	Net Payment Paid/Received Marketable Limit Orders	Net Payment Paid/Received Non-Marketable Limit Orders	Net Payment Paid/Received Non-Marketable Limit Orders	Net Payment Paid/Received	Net Payment Paid/Received Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)		(cents per hundred shares)		(cents per hundred shares)		hundred shares)
Citadel Securities LLC (CDRG)	37.26%	36.91%	44.00%	51.88%	50.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	36.63%	36.82%	34.67%	27.07%	50.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wall Street Access (VNDM)	26.11%	26.27%	21.33%	21.05%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
September 2023				Non-S&P 500 Stocks									
Summary			Non-Marketable Limit Orders										
Non-Directed Orders as Percent of All Orders	Market 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%		1.06%	2.54%	0.13%									
Venues - Non Directed Orders	s												
				Non-Marketable Limit Orders						Net Payment Paid/Received Non-Marketable Limit Orders			Net Payment Paid/Received
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)		(cents per hundred shares)		hundred shares)
Citadel Securities LLC (CDRG)	37.17%	37.07%	47.78%	34.72%	72.73%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	36.49%	36.60%	33.33%	34.26%	27.27%	0	0.0000	0			0.0000		0.0000
Wall Street Access (VNDM)	26.34%	26.33%	18.89%	31.02%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
September 2023				Option Contracts									
Summary		Marketable Limit Orders as	Non-Marketable Limit Orders										
Non-Directed Orders as Percent of All Orders	s Market Orders as Percent of Non-	Percent of Non-Directed Orders	as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders 100.00%		7.72%	Orders 16.19%	Non-Directed Orders 4.87%									
Venues - Non Directed Orders	•												
Non Directed Orders													
									Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received		Net Payment Paid/Received
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)		for Market Orders (cents per hundred shares)	Marketable Limit Orders		Non-Marketable Limit Orders		Net Payment Paid/Received	Other Orders (cents per 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.

Virtu 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.

National Financial Services LLC - William Blair did not receive payment for order flow from VNDM for these trades.