## William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report

Generation Date: 2023-01-06 15:23:45.830 GMT -0400

loar.	2022	Quarter: 4

Year: 2022	Quarter: 4												
October 2022				S&P 500 Stocks									
ımmary		Manufacture I inside Onders and	Non-Marketable Limit Orders										
Non-Directed Orders as	Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed										
Percent of All Orders	Directed Orders 98.26%	Orders 0.18%		Non-Directed Orders 0.42%									
enues - Non Directed Orders													
enues - Non Directed Orders													
							Not Daymont Daid/Received	Not Payment Baid/Received	Net Payment Paid/Received	Not Daymont Daid/Received	Not Daymont Daid/Received		Net Payment Paid/Received
				Non-Marketable Limit Orders			for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders 1	Non-Marketable Limit Orders	Non-Marketable Limit Orders		Other Orders (cents per
renue rirtu Americas LLC (NITE)	Non-Directed Orders (%) 33.55%	Market Orders (%) 33.51%	Marketable Limit Orders (%) 10.00%	(%) 41.94%	Other Orders (%) 30.43%	for Market Orders (USD) 0.0000		(USD) 0	(cents per hundred shares) 0.0000	(USD)	(cents per hundred shares) 0.0000		hundred shares) 0.0000
Vall Street Access (VNDM)													
Citadel Securities LLC (CDRG)	33.24% 33.22%	33.25%	40.00%	27.42%	43.48%	0.0000	0.0000			0			0.0000
	33.22%	33.25%	50.00%	30.65%	26.09%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
October 2022 Jummary				Non-S&P 500 Stocks									
Non-Directed Orders as	Market 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		Non-Directed Orders									
		1.10%	2.40%	0.16%									
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
/enue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)		for Market Orders (cents per hundred shares)		(cents per hundred shares)		(cents per hundred shares)	Net Payment Paid/Received Other Orders (USD)	
Citadel Securities LLC (CDRG)	34.14%	33.71%		44.71%	36.36%	0.0000				0			0.0000
Wall Street Access (VNDM)													
rirtu Americas LLC (NITE)	33.01% 32.85%	33.22% 33.07%		29.41% 25.88%	36.36% 27.27%	0.0000				0		0	0.0000 0.0000
October 2022				Option Contracts									
Summary			Non-Marketable Limit Orders										
	Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed										
Percent of All Orders 100.00%	Directed Orders 66.84%	Orders 8.83%		Non-Directed Orders 0.56%									
		8.83/8	23.77%	0.30%									
/enues - Non Directed Orders													
				Non-Marketable Limit Orders		Net Develope Deld/Deselved	Net Payment Paid/Received for Market Orders (cents per	Net Payment Paid/Received Marketable Limit Orders	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	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)			(cents per hundred shares)		(cents per hundred shares)		hundred shares)
National Financial Services LLC (NFSC)	100.00%	100.00%	100.00%	100.00%	100.00%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
Material Aspects:													
Citadel Securities LLC - William	Blair did not receive payment for o	rder flow from CDRG for these	trades.										
	lair did not receive payment for orde lair did not receive payment for orde												
National Financial Services LLC	- William Blair did not receive payn	nent for order flow from NFSC t	for these trades										
November 2022				S&P 500 Stocks									<del></del>
Summary		Marketable Limit Orders as	Non-Marketable Limit Orders										
	Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed										
Percent of All Orders 100.00%	Directed Orders 98.57%	Orders 0.29%		Non-Directed Orders 0.09%									
Venues - Non Directed Orders													
venues - Non Directed Orders													
				Non-Marketable Limit Orders		Net Payment Paid/Received	Net Payment Paid/Received for Market Orders (cents per		Net Payment Paid/Received  Marketable Limit Orders 1			Net Payment Paid/Received	Net Payment Paid/Received Other Orders (cents per
/enue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)			(cents per hundred shares)		(cents per hundred shares)		
Citadel Securities LLC (CDRG)	33.96%	34.03%	40.00%	27.03%	16.67%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	33.23%	33.21%	30.00%	36.49%	33.33%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wall Street Access (VNDM)	32.79%	32.76%	30.00%	36.49%	33.33%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	0.01%	0.00%	0.00%	0.00%	16.67%	0	0.0000	0	0.0000	0	0.0000	-4	-7.3790
-,,	0.0270	0.00%	0.00%		10.07%		0.0000		0.0000		0.0000		7.3730
November 2022 Summary				Non-S&P 500 Stocks									
			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%	95.18%	1.08%	3.60%	0.14%									
enues - Non Directed Orders	<u> </u>												
							Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received		Net Payment Paid/Received
	New Div. 10 1	Maril 10 1	Mandratable II II O I III	Non-Marketable Limit Orders	OF 01	Net Payment Paid/Received	for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders 1	Non-Marketable Limit Orders	Non-Marketable Limit Orders	Net Payment Paid/Received	Other Orders (cents per
Venue Citadel Securities LLC (CDRG)	Non-Directed Orders (%)		Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)			(cents per hundred shares)	(USD)	(cents per hundred shares)		
Citadel Securities LLC (CDRG)  Virtu Americas LLC (NITE)	33.41% 33.31%	33.22% 33.34%		33.33% 33.05%	28.57% 57.14%	0				0			0.0000 0.0000
· · · · · · · · · · · · · · · · · · ·	33.31%	33.34%	20.04%	33.05%	37.14%	U	0.0000	U	0.0000	U	0.0000	U	0.0000

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Wall Street Access (VNDM) 33.28% 33,44% 20.56% 33.61% 14.29% 0 0.0000 0.0000 0 0.0000 0 0.0000

November 2022				Option Contracts
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%	62.26%	9.73%	27.66%	0.34%

### Venues - Non Directed Orders

										Net Payment Paid/Received			Net Payment Paid/Received
			Ne	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 (%) Marketa	able 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:
Citadel 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 NTE for these trades.
Wall Street Access - William Blair did not receive payment for order flow from NTDM for these trades.
Wall Street Access - William Blair did not receive payment for order flow from WNDM for these trades.
National Financial Services LLC - William Blair did not receive payment for order flow from NTDC for these trades
Credit Suisse Securities (USA) LLC - William Blair and do not receive payment for order flow from NTDC for these trades
Credit Suisse Securities (USA) LLC - William Blair and face for securities and rehards venezated in Americant was reported for routing for some face for some face securities and rehards venezated for nothing fee.

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

December 2022				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%	98.60%	0.20%	1.05%	0.159

Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders (USD)		Marketable Limit Orders	Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares)	Non-Marketable Limit Orders		Net Payment Paid/Received	
Wall Street Access (VNDM)	34.85%	34.91%	23.53%	34.83%	15.38%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Securities LLC (CDRG)	33.99%	33.97%	47.06%	32.58%	38.46%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC (NITE)	31.15%	31.12%	29.41%	32.58%	46.15%	0	0.0000	0	0.0000	0	0.0000	0	0.0000

December 2022				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
100.009	95 77%	0.97%	2 89%	0.37%

## Venues - Non Directed Orders

											d Net Payment Paid/Received		Net Payment Paid/Received
			N	on-Marketable Limit Orders		Net Payment Paid/Received for	r Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orde	rs Non-Marketable Limit Orders	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)
Citadel Securities LLC (CDRG)													
,	35.26%	35.079	47.17%	37.46%	35.00%	0	0.0000	0	0.0000	)	0.0000	0	0.0000
Wall Street Access (VNDM)	33.56%	33.679	26.42%	31.43%	42.50%	0	0.0000		0.000		0.0000		0.0000
Virtu Americas LLC (NITE)	31.18%	31.269		31.43%	42.50% 22.50%	0	0.0000	0	0.000		0 0.0000	0	0.0000
	31.10%	31.20/	20.4270	31.11/0	22.30%	· ·	0.0000	0	0.000		0.0000	0	0.0000

VII tu Milericas EEC (NITE)	31.10/0	31.20%	20.42/6	31.11%
December 2022				Option Contracts
Summary				
		Marketable Limit Orders as N		
Non-Directed Orders as Mark	et 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%	57.04%	12.45%	28.97%	1.53%

# 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
			No	n-Marketable Limit Orders		Net Payment Paid/Received 1	or Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders N	Non-Marketable Limit Orders	Net Payment Paid/Received	Other Orders (cents per
Venue	Non-Directed Orders (%)	Market Orders (%) Marketable L	imit 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 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 VMDM for these trades.

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