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

Generation Date: 2020-10-06 13:20:16.200 GMT -0400

Year: 2020 Quarter: 3

Teal: 2020	Quarter. 5												
July 2020				S&P 500 Stocks									
Summary													
New Pirested On 1	Marilan Orders or Brosses Co.		Non-Marketable Limit Orders as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	Market Orders as Percent of Non- Directed Orders	Orders	as Percent of Non-Directed Orders	Non-Directed Orders									
100.00%	95.97%	0.26%	2.76%	1.00%									
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			for Market Orders (cents per	Marketable Limit Orders			Non-Marketable Limit Orders		Other Orders (cents per
Venue	Non-Directed Orders (%)		Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)		(USD)	(cents per hundred shares)			Other Orders (USD)	hundred shares)
Virtu Americas LLC	34.00%	33.89%	10.53%	38.89%	37.50%	0	0.0000	0	0.0000		0.0000	0	0.0000
Vandham Securities Corp Citadel Securities LLC	33.64% 32.37%	33.77% 32.35%	42.11% 47.37%	30.30%	27.78% 34.72%	0		0	0.0000 0.0000		0.0000 0.0000		0.0000 0.0000
Citadei Securities LLC	32.37%	32.35%	47.37%	30.81%	34.72%	U	0.0000	U	0.0000	0	0.0000	U	0.0000
July 2020				Non-S&P 500 Stocks									
Summary													
			Non-Marketable Limit Orders										
	Market Orders as Percent of Non-		as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders 100.00%	Directed Orders 93.47%	Orders 1.42%	Orders 4.85%	Non-Directed Orders 0.25%									
100.00%	55.4/76	1.4270	4.03%	0.25%									
Venues - Non Directed Orders													
				Non-Marketable Limit Orders		Not Downsont Date (Darret	Net Payment Paid/Received for Market Orders (cents per	Net Payment Paid/Received Marketable Limit Orders		Net Payment Paid/Received	Net Payment Paid/Received Non-Marketable Limit Orders	Not Downsont Date (Darret	Net Payment Paid/Received
Venue	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)			(cents per hundred shares)	Net Payment Paid/Received Other Orders (USD)	Other Orders (cents per hundred shares)
Vandham Securities Corp	33.59%	33.75%	18.75%	34.03%	50.00%	0		(030)	0.0000		0.0000	0	0.0000
Virtu Americas LLC	33.51%	33.64%	26.79%	33.51%	25.00%	0		0	0.0000		0.0000	0	0.0000
Citadel Securities LLC	32.84%	32.62%	54.46%	31.15%	25.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Clearpool Execution Services,													
LLC - CPEM	0.01%	0.00%	0.00%	0.26%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Clearpool Execution Services,	0.01%	0.00%	0.00%	0.26%	0.00%	0	0.0000		0.0000	0	0.0000	0	0.0000
LLC - CPGX CBOE EDGX U.S. Equities	0.01%	0.00%	0.00%	0.20%	0.00%	U	0.0000	U	0.0000	U	0.0000	U	0.0000
Exchange	0.01%	0.00%	0.00%	0.26%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Clearpool Execution Services,													
LLC - NLAX	0.01%	0.00%	0.00%	0.26%	0.00%	0		0	0.0000		0.0000	0	0.0000
Aspen Trading, L.L.C.	0.01%	0.00%	0.00%	0.26%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
July 2020				Option Contracts									
Summary													
			Non-Marketable Limit Orders										
	Market Orders as Percent of Non-		as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders 100.00%	Directed Orders 47.62%	Orders 14.12%	Orders 37.83%	Non-Directed Orders 0.44%									
100.00%	47.02/6	14.12/0	37.03/0	0.44/6									
Venues - Non Directed Orders													
											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 (USD)	for Market Orders (cents per hundred shares)	Marketable Limit Orders (USD)			Non-Marketable Limit Orders (cents per hundred shares)	Other Orders (USD)	Other Orders (cents per hundred shares)
National Financial Services,	Non-Birected Gracis (70)	Warket Orders (70)	Warketable Little Orders (70)	(70)	Other Orders (70)	TOT WATKET OTGETS (OSD)	nunui cu sitaresj	(030)	(cents per nunureu snares)	(030)	(cents per nunureu situres)	Other Orders (OSD)	nunureu snares,
LLC	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
August 2020				S&P 500 Stocks									
Summary				Sai Soo Stocks									
			Non-Marketable Limit Orders										
	Market Orders as Percent of Non-		as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	96.08%	0.39%	3.18%	0.35%									
Venues - Non Directed Orders													
										Net Payment Paid/Received			Net Payment Paid/Received
Venue	Non-Directed Orders (%)	Market Orders (9/)	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)			Non-Marketable Limit Orders (cents per hundred shares)	Net Payment Paid/Received Other Orders (USD)	Other Orders (cents per hundred shares)
Citadel Securities LLC	33.71%	33.67%	47.83%	32.28%	42.86%	O O		(03D)	0.0000		0.0000	Other Orders (USD)	0.0000
Vandham Securities Corp	33.19%	33.34%	30.43%	30.16%	23.81%	0		0	0.0000		0.0000		0.0000
Virtu Americas LLC	33.09%	32.99%	21.74%	37.57%	33.33%	0		0	0.0000	0	0.0000	0	0.0000

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

William Blair Sell Side Generation Date: 2020-10-06 13	- Held NMS Stocks and C 3:20:16.200 GMT -0400	Options Order Routing	g Public Report										
Year: 2020 (	Quarter: 3												
August 2020				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%	90.22%	2.90%	6.45%	0.44%									
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 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	33.64%	33.59%	41.94%	30.85%	30.30%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas LLC	33.36%	33.12%	32.26%		36.36%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Vandham Securities Corp	32.98%	33.28%	25.81%	32.09%	30.30%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA)													
LLC	0.01%	0.00%	0.00%	0.00%	3.03%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
	0.0170	0.0070	0.00%	0.0070	3.0370	· ·	0.0000	9	0.0000		0.0000	•	0.0000
August 2020				Option Contracts									
-				Option Contracts									
Summary													
			Non-Marketable Limit Orders										
	Market Orders as Percent of Non-		as Percent of Non-Directed										
Percent of All Orders		Orders											
100.00%	48.58%	15.53%	35.71%	0.19%									
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-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 (%)	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)
National Financial Services,													
LLC	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
September 2020				S&P 500 Stocks									-
•				3&1 300 3tocks									
Summary		Manhatable Unit Onders	Non-Marketable Limit Orders										
	Market Orders as Percent of Non-		as Percent of Non-Directed										
Percent of All Orders		Orders											
100.00%	97.76%	0.33%	1.83%	0.08%									
Venues - Non Directed Orders													
											Net Payment Paid/Received		Net Payment Paid/Received
				Non-Marketable Limit Orders			for Market Orders (cents per	Marketable Limit Orders			Non-Marketable Limit Orders		
Venue	Non-Directed Orders (%)		Marketable Limit Orders (%)		Other Orders (%)			(USD)			) (cents per hundred shares)		hundred shares)
Citadel Securities LLC	33.48%	33.53%			62.50%	0		0					0.0000
Vandham Securities Corp	33.32%			32.26%	12.50%	0		0					0.0000
Virtu Americas LLC	33.20%	33.12%	30.30%	38.17%	25.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
September 2020				Non-S&P 500 Stocks									
Summary													
54y		Marketable Limit Orders as	Non-Marketable Limit Orders										
Non-Directed Orders as	Market Orders as Percent of Non-		as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	92.68%	2.50%											
100.0070	32.00%	2.50%	1.50%	0.2370									
Venues - Non Directed Orders													
venues - Non Directed Orders							Not Doumont Doid / Dossius d	Not Doumont Daid /Dossinad	Not Doument Daid / Desaised	Not Doument Daid /Dessived	Net Payment Paid/Received		Net Payment Paid/Received
				Non-Marketable Limit Orders		Not Downsont Doid /Do!	for Market Orders (cents per				Non-Marketable Limit Orders	Not Down out Doid /Do ' I	
Vanua	Non Diseased Only (0/)	Market Onders (0/)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (0/)	for Market Orders (USD)	for Market Orders (cents per hundred shares)	(USD)	(cents per hundred shares)	(USD)	(cents per hundred shares)	Other Orders (USD)	Other Orders (cents per hundred shares)
Venue	Non-Directed Orders (%)	Market Orders (%)			Other Orders (%)	. ,		( <i>)</i>		. ,			
Citadel Securities LLC	33.82%	33.48%			29.63%	0		0		0			0.0000
Virtu Americas LLC	33.11%				37.04%	0		0					0.0000
Vandham Securities Corp	33.07%	33.18%	33.08%	30.72%	33.33%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
September 2020				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%	41.18%	15.58%		0.29%									
/enues - 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				Non-Marketable Limit Orders		Other Orders (cents per
		Market Orders (9/)	Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)			(cents per hundred shares)		) (cents per hundred shares)		hundred shares)
/enue	Non-Directed Orders (%)	IVIAI KEL UTUEIS (76)											

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Generation Date: 2020-10-06 13:20:16.200 GMT -0400 Quarter: 3

Year: 2020

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