William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report Generation Date: 2021-07-26 22:18:39.253 GMT -0400 Year: 2021

ear: 2021	Quarter: 2

April 2021				S&P 500 Stocks									
Summary		Marketable Limit Orders as	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										
100.00%	96.25%	0.22%	2.36%	Non-Directed Orders									
/enues - Non Directed Orders													
enues - Non Directed Orders													
									Net Payment Paid/Received				Net Payment Paid/Receive
				Non-Marketable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per		Marketable Limit Orders				
enue/enue	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 share
itadel Securities LLC (CDRG)	33.76%	34.03%	27.78%	38.62%	2.15%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.000
irtu Americas LLC (NITE)	32.61%	32.98%	22.22%	33.33%	2.15%	0.0000	0.0000		0.0000	0	0.0000	0	0.000
Vall Street Access (VNDM)	32.53%	32.98%	50.00%	28.04%	1.08%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.000
learpool Execution Services,										-			
LC (CPEM) Iew York Stock Exchange	1.09%	0.00%	0.00%	0.00%	93.55%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.000
NYSE)	0.01%	0.00%	0.00%	0.00%	1.08%	0.0000	0.0000	0	0.0000	0	0.0000	-27	-26.923
April 2021				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										
100.00%	92.86%	1.40%	5.32%	0.42%									
enues - 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		Net Payment Paid/Received Non-Marketable Limit Orders	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)	hundred shares)	(USD)	(cents per hundred shares)	(USD)	(cents per hundred shares)	Other Orders (USD)) hundred shares)
Citadel Securities LLC (CDRG)	34.38%	34.04%	44.90%	37.81%	31.82%	0.0000	0.0000	0	0.0000	0	0.0000	0	0.0000
Wall Street Access (VNDM)													
Virtu Americas LLC (NITE)	33.60% 31.84%	33.87% 32.09%	27.21% 27.89%	31.90% 30.29%	18.18% 9.09%	0.0000 0.0000		0	0.0000	0		0	
Clearpool Execution Services,													
LLC (CPEM)	0.17%	0.00%	0.00%	0.00%	40.91%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
April 2021				Option Contracts									
Summary				.,									
Non-Directed Orders as	Market Orders as Percent of Non-		Non-Marketable Limit Orders as Percent of Non-Directed										
Percent of All Orders	Directed Orders	Orders	Orders	Non-Directed Orders									
100.00%	64.85%	12.13%	22.72%	0.30%									
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	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders		Other Orders (cents per
Venue National 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 hundred shares)	Other Orders (USD)) hundred shares)
LLC	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
May 2021				S&P 500 Stocks									
Summary													
Non-Directed Orders as	Market Orders as Percent of Non-	Marketable Limit Orders as Percent of Non-Directed	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%	95.68%	0.47%	2.08%	1.76%									
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	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders		d Other Orders (cents per
Venue Virtu Americas LLC (NITE)	Non-Directed Orders (%) 34,73%	Market Orders (%)	Marketable Limit Orders (%) 21.21%	(%) 32.41%	Other Orders (%) 4.07%	for Market Orders (USD)	hundred shares)	(USD)	(cents per hundred shares)	(USD)	(cents per hundred shares) 0.0000	Other Orders (USD)	
Citadel Securities LLC (CDRG)						Ü		-		-	*****	-	
citadel Securities LLC (CDNG)	33.60%	34.13%	36.36%	36.55%	0.81%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wall Street Access (VNDM)	29.99%	30.45%	42.42%	31.03%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Clearpool Execution Services,	1.000				05.404			0	0.0000			0	
LLC (CPEM)	1.68%	0.00%	0.00%	0.00%	95.12%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
May 2021				Non-S&P 500 Stocks									
Summary			Non-Marketable Limit Orders										
Non-Directed Orders as	Market Orders as Percent of Non-		as Percent of Non-Directed										
Percent of All Orders		Orders											
100.00%	90.93%	2.22%	6.14%	0.71%									
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	Non-Marketable Limit Orders		d Other Orders (cents per
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		Marketable Limit Orders	Non-Marketable Limit Orders		Net Payment Paid/Received Other Orders (USD)	d Other Orders (cents per
Venue Citadel Securities LLC (CDRG)	36.00%	35.65%	Marketable Limit Orders (%) 45.03%	(%) 40.08%	16.39%		for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD)	Marketable Limit Orders (cents per hundred shares) 0.0000	Non-Marketable Limit Orders (USD)	Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)	Other Orders (cents per hundred shares)
Venue Citadel Securities LLC (CDRG) Virtu Americas LLC (NITE)			Marketable Limit Orders (%) 45.03%	(%) 40.08%			for Market Orders (cents per hundred shares)	Marketable Limit Orders (USD)	Marketable Limit Orders (cents per hundred shares)	Non-Marketable Limit Orders (USD)	Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)	Other Orders (cents per hundred shares)

	e - Held NMS Stocks and (22:18:39.253 GMT -0400		•										
	Quarter: 2												
/all Street Access (VNDM)	30.06%	30.29%	29.32%	30.06%	3.28%	0	0.0000	0	0.0000	0	0.0000	0	0.00
learpool Execution Services, LC (CPEM)	0.53%	0.00%	0.00%	0.00%	75.41%	0	0.0000	0	0.0000	0	0.0000	0	0.00
redit Suisse Securities (USA) LC (FBCO)	0.01%	0.00%	0.00%	0.00%	1.64%	0	0.0000	0	0.0000	0	0.0000	0	-5.70
1ay 2021				Option Contracts									
ımmary		Marketable Limit Orders as	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%		12.34%		0.84%									
nues - 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/Receiv
				Non-Marketable Limit Orders			for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders		Other Orders (cents
enue ational 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 hundred shares)	Other Orders (USD)	hundred shar
c	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.00
une 2021				S&P 500 Stocks									
ummary		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%		Orders 0.24%		Non-Directed Orders 0.49%									
enues - Non Directed Orders													
endes - Non Birected Gracis													
				Non-Marketable Limit Orders			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/Receiv Other Orders (cents p
enue	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 share
itadel Securities LLC (CDRG)	33.46% 33.40%	33.43%		40.21%	0.00%	0	0.0000	0	0.0000	0		0	0.000
irtu Americas LLC (NITE) /all Street Access (VNDM)		33.76%		28.04%	0.00%	0		0	******	0		0	0.000
learpool Execution Services,	32.66%	32.82%	38.89%	31.75%	2.70%	0	0.0000	0	0.0000	0	0.0000	0	0.000
LC (CPEM)	0.48%	0.00%	0.00%	0.00%	97.30%	0	0.0000	0	0.0000	0	0.0000	0	0.000
une 2021				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%	90.46%	1.91%		0.29%									
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 Non-Marketable Limit Orders		Net Payment Paid/Receiver
/enue	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)
itadel Securities LLC (CDRG)	34.19%	34.00%	37.37%	36.10%	23.33%	0	0.0000	0	0.0000	0	0.0000	0	0.00
Vall Street Access (VNDM)	33.16%	33.11%	31.82%	35.05%	10.00%	0	0.0000	0	0.0000	0		0	0.00
/irtu Americas LLC (NITE) Clearpool Execution Services,	32.46%	32.89%	30.30%	28.19%	20.00%	0	0.0000	0	0.0000	0	0.0000	0	0.00
LC (CPEM)	0.19%	0.00%	0.51%	0.66%	46.67%	0	-5.7474	0	0.0000	0	0.0000	0	0.000
une 2021				Option Contracts									
iummary													
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 100.00%		Orders 10.48%		Non-Directed Orders 0.92%									
		10.46%	23.36%	3.32.8									
enues - Non Directed Orders													
							Net Payment Paid/Received		41 . 0 . 0 . 1 / 0				Net Payment Paid/Receiv
				Non Marketable Limit C-1		Not Baymont Baid/Ressived						Not Daymont Daid/Dassins	
	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)		for Market Orders (cents per	Marketable Limit Orders (USD)	Marketable Limit Orders	Non-Marketable Limit Orders	Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares)	Net Payment Paid/Received Other Orders (USD)	Other Orders (cents p
enue ational Financial Services .C	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)		Other Orders (%)		for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders (cents per hundred shares)		Other Orders (cents p hundred share