## William Blair Sell Side - Held NMS Stocks and Options Order Routing Public Report Generation Date: 2020-07-29 15:32:30.847 GMT-0400 Year: 2020

ear: 2020	Quarter: 1

January 2020				S&P 500 Stocks									
Summary		Marketable Limit Orders as	Non-Marketable Limit Orders										
	s Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed										
Percent of All Order: 100.009		Orders 0.37%	Orders 2.05%	Non-Directed Orders 1.06%									
		0.3770	2.03/0	1.00%									
Venues - Non Directed Order	rs												
							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 Virtu Americas LLC	Non-Directed Orders (%) 33.49%	Market Orders (%)	Marketable Limit Orders (%) 25.93%	(%) 39.07%	Other Orders (%) 20.51%	for Market Orders (USD) 0	hundred shares) 0.0000	(USD)		(020)	(cents per hundred shares) 0.0000	Other Orders (USD)	hundred shares) 0.0000
Vandham Securities Corp.	33.47%	33.46%	33.33%	30.46%	41.03%	0	0.0000	0			0.0000	0	0.0000
Citadel Securities LLC Clearpool Execution Services.	33.03%	33.01% 0.00%	37.04% 3.70%	30.46%	38.46% 0.00%	0	0.0000	0		0	0.0000	0	0.0000
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January 2020				Non-S&P 500 Stocks									
Summary		Marketable Limit Orders as	Non-Marketable Limit Orders										
	s Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Order: 100.009		Orders 2.51%	Orders 5.48%	Non-Directed Orders 0.59%									
		2.32/0	3.40/0	0.3370									
Venues - Non Directed Order	rs						Net Develope Deid (Deselved	Net Develope Deid (Deselved	Net Payment Paid/Received	Net December Deld (December)	Net Course to Id (Constitut		Net Payment Paid/Received
				Non-Marketable Limit Orders		Net Payment Paid/Received	for Market Orders (cents per		Marketable Limit Orders			Net Payment Paid/Received	Other Orders (cents per
Venue	Non-Directed Orders (%)		Marketable Limit Orders (%)	(%)	Other Orders (%)	for Market Orders (USD)	hundred shares)	(USD)			(cents per hundred shares)	Other Orders (USD)	hundred shares)
Citadel Securities LLC Virtu Americas LLC	33.67% 33.24%	33.17% 33.53%	44.60% 28.64%	35.70% 30.54%	46.00% 32.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Vandham Securities Corp.	33.09%	33.30%	26.76%	33.76%	22.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
January 2020				Option Contracts									
Summary				Option Contracts									
			Non-Marketable Limit Orders										
Non-Directed Orders a: Percent of All Order:	s Market Orders as Percent of Non- s Directed Orders	Percent of Non-Directed Orders	as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders									
100.009		7.27%	50.87%	0.66%									
Venues - Non Directed Order													
venues - Non Directed Order	rs						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				Other Orders (cents per
Venue National Financial Services	Non-Directed Orders (%) 100.00%	Market Orders (%) 100.00%	Marketable Limit Orders (%) 100.00%	100.00%	Other Orders (%) 100.00%	for Market Orders (USD)	hundred shares) 0.0000	(020)	(cents per hundred shares) 0.0000	(USD)	(cents per hundred shares) 0.0000	Other Orders (USD)	hundred shares) 0.0000
February 2020				S&P 500 Stocks									
February 2020 Summary				S&P 500 Stocks									
Summary	A Marshart Control on the Control of Marshart		Non-Marketable Limit Orders										
Summary  Non-Directed Orders a:	s Market Orders as Percent of Non- s Directed Orders	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of									
Summary	s Directed Orders		as Percent of Non-Directed	Other Orders as Percent of									
Non-Directed Orders a: Percent of All Orders 100.009	S Directed Orders 6 96.93%	Percent of Non-Directed Orders	as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders									
Summary  Non-Directed Orders a:  Percent of All Orders	S Directed Orders 6 96.93%	Percent of Non-Directed Orders	as Percent of Non-Directed Orders 2.33%	Other Orders as Percent of Non-Directed Orders 0.31%					Net Payment Paid/Received	Net Payment Paid/Received	Net Payment Paid/Received		Net Payment Paid/Received
Non-Directed Orders a Percent of All Order 100.009 Venues - Non Directed Order	S Directed Orders % 96.93%	Percent of Non-Directed Orders 0.43%	as Percent of Non-Directed Orders 2.33%	Other Orders as Percent of Non-Directed Orders 0.31%	Obbor Order (M)		for Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders	Non-Marketable Limit Orders		Other Orders (cents per
Non-Directed Orders a: Percent of All Orders 100.009	S Directed Orders 96.93%  S Non-Directed Orders (%) 33.84%	Percent of Non-Directed Orders 0.43% Market Orders (%) 33.93%	as Percent of Non-Directed Orders 2.33% Marketable Limit Orders (%) 31.25%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03%	Other Orders (%) 30.43%	Net Payment Pald/Received for Market Orders (US) 0	for Market Orders (cents per hundred shares) 0.0000		Marketable Limit Orders (cents per hundred shares) 0.0000	Non-Marketable Limit Orders (USD) 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Net Payment Paid/Received Other Orders (USD) 0	Other Orders (cents per hundred shares) 0.0000
Non-Directed Orders a Percent of All Order 100.009 Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC	S Directed Orders % 96.93% SS Non-Directed Orders (%) 33.44% 33.46%	Percent of Non-Directed Orders 0.43% Market Orders (%) 33.93% 33.24%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08%	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Non-Directed Orders a Percent of All Order 100.009 Venues - Non Directed Order Venue Vandham Securities Corp.	S Directed Orders 96.93%  S Non-Directed Orders (%) 33.84%	Percent of Non-Directed Orders 0.43% Market Orders (%) 33.93%	as Percent of Non-Directed Orders 2.33% Marketable Limit Orders (%) 31.25%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03%	30.43%	for Market Orders (USD) 0	for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000		Other Orders (cents per hundred shares) 0.0000
Non-Directed Orders Percent of All Order 100,009 Venues - Non Directed Order Venue Vandham Securities Corp. Citadal Securities LLC February 2020	S Directed Orders % 96.93% SS Non-Directed Orders (%) 33.44% 33.46%	Percent of Non-Directed Orders 0.43% Market Orders (%) 33.93% 33.24%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08%	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order  Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC	S Directed Orders % 96.93% SS Non-Directed Orders (%) 33.44% 33.46%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%	as Percent of Non-Directed Orders 2.33% Marketable Limit Orders (%) 31.25% 43.75% 25.00%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89%	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Summary  Non-Directed Orders  Percent of All Order 100,009  Venues - Non Directed Order  Venue Vandham Securities Corp. Citadal Securities LLC  February 2020 Summary	S Directed Orders % 96.93% SS Non-Directed Orders (%) 33.44% 33.46%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 32.26%  Marketable Limit Orders as	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89%	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Summary  Non-Directed Orders  Percent of All Order 100,009  Venues - Non Directed Orders  Venue Vandham Securities Corp. Citadel Securities LLC  February 2020 Summary  Non-Directed Orders  Percent of All Order	s Directed Orders (%) 96.93%  s   Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non-s Directed Orders as Percent Orders (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (8) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders . 0.31%  Non-Marketable Limit Orders . (%) 31.03% 39.08%  Non-S&P 500 Stocks  Other Orders as Percent of Non-Directed Orders	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC  February 2020 Summary Non-Directed Orders a	s Directed Orders (%) 96.93%  s   Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non-s Directed Orders as Percent Orders (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	Percent of Non-Directed Orders 0.43% Market Orders (%) 33.93% 33.24% 32.84% Marketable Limit Orders as Percent of Non-Directed	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000
Summary  Non-Directed Orders  Percent of All Order 100,009  Venues - Non Directed Orders  Venue Vandham Securities Corp. Citadel Securities LLC  February 2020 Summary  Non-Directed Orders  Percent of All Order	s Directed Orders (%) 96.93%  s   Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non-s  Directed Orders (%) 92.63%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (8) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders	Other Orders as Percent of Non-Directed Orders . 0.31%  Non-Marketable Limit Orders . (%) 31.03% 39.08%  Non-S&P 500 Stocks  Other Orders as Percent of Non-Directed Orders	30.43% 47.83%	for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Marketable Limit Orders (USD) 0 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Other Orders (USD) 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000 0.0000
Summary  Non-Directed Orders a Percent of All Order 100,009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadal Securities LLC  February 2020 Summary  Non-Directed Orders a Percent of All Order 100,009	s Directed Orders (%) 96.93%  s   Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non-s  Directed Orders (%) 92.63%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (8) 31.25% 43.75% 25.05%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%	Other Orders as Percent of Non-Directed Orders (9) 31.03% 39.08% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (0.75%)	30.43% 47.83%	for Market Orders (USD) 0 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Other Orders (USD) 0 0 0	Other Orders (cents per hundred shares) 0.0000 0.0000 0.0000
Summary  Non-Directed Orders a Percent of All Order 100,000  Venues - Non Directed Order Venue Vandham Securities Corp. Citade Securities LC Virtu Americas LLC February 2020 Summary Non-Directed Orders a Percent of All Order 100,000  Venues - Non Directed Orders A	s Directed Orders (%) 96.93%  s 96.93%  Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non- 5 Directed Orders (%) 92.63%  s Non-Directed Orders (%)	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.26%  Marketable Limit Orders as Percent of Non-Directed Percent Orders Percent Order Perce	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) Marketable Limit Orders (%)	Other Orders as Percent of Non-Directed Orders (9) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (0.75%) Non-Marketable Limit Orders (9) (9)	30.43% 47.83% 21.74% Other Orders (%)	for Market Orders (USD) 0 0 0 0 0 Net Payment Paid/Received for Market Orders (USD)	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares)	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Paid/Received Marketable Limit Orders (USD)	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares)	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares)	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)	Other Orders (cents per hundred shares) 0.0000 0.00
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue - Non Directed Order Venues - Non Directed Order Venues - Non Directed Order Non-Directed Orders a Percent of All Order Venue	\$ Directed Orders (%)    Non-Directed Orders (%)   33.84%   33.46%   32.70%     Market Orders as Percent of Non-S   Directed Orders (%)   92.63%     Non-Directed Orders (%)   34.65%   34.65%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 32.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 30.58%	Other Orders as Percent of Non-Directed Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (%) 75% Non-Marketable Limit Orders (%) 31.47% 31.47%	30.43% 47.83% 21.74% 0ther Orders (N) 62.73%	for Market Orders (USD) 0 0 0 0 0 Net Payment Pald/Received for Market Orders (USD)	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000  Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD) 0 0 0 0 0	Other Orders (cents per hundred shares) 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000000
Summary  Non-Directed Orders a Percent of All Order 100,000  Venues - Non Directed Order Venue Vandham Securities Corp. Citade Securities LC Virtu Americas LLC February 2020 Summary Non-Directed Orders a Percent of All Order 100,000  Venues - Non Directed Orders A	s Directed Orders (%) 96.93%  s 96.93%  Non-Directed Orders (%) 33.84%  33.46%  32.70%  s Market Orders as Percent of Non- 5 Directed Orders (%) 92.63%  s Non-Directed Orders (%)	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.26%  Marketable Limit Orders as Percent of Non-Directed Percent Orders Percent Order Perce	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) Marketable Limit Orders (%)	Other Orders as Percent of Non-Directed Orders (9) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (0.75%) Non-Marketable Limit Orders (9) (9)	30.43% 47.83% 21.74% Other Orders (%)	for Market Orders (USD) 0 0 0 0 0 Net Payment Paid/Received for Market Orders (USD)	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares)	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Paid/Received Marketable Limit Orders (USD)	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares)	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)	Other Orders (cents per hundred shares) 0.0000 0.00
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC February 2020 Summary Non-Directed Orders Percent of All Order 100.009  Venues - Non Directed Orders Venues - Non Directed Order Venue - Non Directed Order Venue - Non Directed Order Citadel Securities LLC Vandham Securities LLC Vandham Securities Corp.	s Directed Orders (%) 96.93%  s 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  s Market Orders as Percent of Non-s Directed Orders (%) 92.63%  Non-Directed Orders (%) 33.46% 33.40% 33.81%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.26%  Marketable Limit Orders as Percent of Non-Directed Percent Orders (Non-Directed Percent Percent Orders Percent	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders 0.75% Non-Marketable Limit Orders (%) 31.47% 30.40%	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC  February 2020 Summary Non-Directed Orders a Percent of All Order Venues - Non Directed Order	s Directed Orders (%) 96.93%  s 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  s Market Orders as Percent of Non-s Directed Orders (%) 92.63%  Non-Directed Orders (%) 33.46% 33.40% 33.81%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.26%  Marketable Limit Orders as Percent of Non-Directed Percent Orders (Non-Directed Percent Percent Orders Percent	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11%	Other Orders as Percent of Non-Directed Orders (9) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (75%) Non-Marketable Limit Orders (8) 31.47% 38.13% 38.13%	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venues - Non Directed Order Vandman Securities Corp. Citadel Securities LLC Virtu Americas LLC Summary Non-Directed Orders a Percent of All Order Venues - Non Directed Order	s	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 32.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26% 32.43%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 42.75% 25.00%  Non-Marketable Limit Orders 5.00%  Marketable Limit Orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11% 22.31%	Other Orders as Percent of Non-Directed Orders (3.1%) Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (7.5%) Non-Marketable Limit Orders (9.1%) 31.47% 38.13% 30.40% Option Contracts	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC February 2020 Summary Non-Directed Orders a Percent of All Orders 100.009  Venues - Non Directed Orders Citadel Securities LLC Virtu Americas LLC Citadel Securities LLC Vandham Securities LC Vandham Securities Corp. February 2020 Summary Non-Directed Orders a	s Directed Orders (%) 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  s Market Orders as Percent of Non-Directed Orders (%) 92.63%  Non-Directed Orders (%) 33.81% 33.81% 33.81% 33.81%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24%  Marketable Limit Orders as Percent of Non-Directed Market Orders (%) 34.31% 33.26% 32.43%  Marketable Limit Orders as Percent of Non-Directed	as Percent of Non-Directed Orders. 2.33%  Marketable Limit Orders (%) 3.1 25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11% 22.31%	Other Orders as Percent of Non-Directed Orders 0.31%  Non-Marketable Limit Orders (%) 31.03% 29.89%  Non-S&P 500 Stocks  Other Orders as Percent of Non-Directed Orders 0.75%  Non-Marketable Limit Orders (%) 31.47% 38.13% 30.40%  Option Contracts  Other Orders as Percent of Option Contracts	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venues - Non Directed Order Vandman Securities Corp. Citadel Securities LLC Virtu Americas LLC Summary Non-Directed Orders a Percent of All Order Venues - Non Directed Order	S Directed Orders (%)  Non-Directed Orders (%)  3.3 84%  3.3 46%  3.2.70%  S Market Orders as Percent of Non-S  Non-Directed Orders (%)  Non-Directed Orders (%)  3.3 81%  3.3 81%  3.3 81%  3.3 81%  3.3 81%  3.4 50%  3.5 Market Orders as Percent of Non-S  Directed Orders S	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 32.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26% 32.43%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 42.75% 25.00%  Non-Marketable Limit Orders 5.00%  Marketable Limit Orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11% 22.31%	Other Orders as Percent of Non-Directed Orders (3.1%) Non-Marketable Limit Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (7.5%) Non-Marketable Limit Orders (9.1%) 31.47% 38.13% 30.40% Option Contracts	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Non-Directed Order Non-Directed Orders Percent of All Order Venues - Non Directed Orders Non-Directed Orders Percent of All Order	S Directed Orders (%) 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  S Market Orders as Percent of Non-S Directed Orders (%) 34.05% 33.81% 32.13%  Market Orders as Percent of Non-S Directed Orders (%) 34.05% 35.81% 36.06%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26% 32.43%  Marketable Limit Orders as Percent of Non-Directed Orders (%) Orders Orders (%)	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 42.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11% 22.331%	Other Orders as Percent of Non-Directed Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (%) 31.13% 30.13% 30.147% 38.13% 30.147% 38.13% 30.147% 38.13% Option Contracts Other Orders as Percent of Non-Directed Orders as Percent of Non-Directed Orders (%)	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000	Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Marketable Limit Orders (USD) 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders (USD) 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Pald/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Venue Vandham Securities Corp. Citadel Securities LLC Virtu Americas LLC Summary Non-Directed Orders a Percent of All Order Venue Venues - Non Directed Orders a Non-Directed Orders a Percent of All Order	S Directed Orders (%) 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  S Market Orders as Percent of Non-S Directed Orders (%) 34.05% 33.81% 32.13%  Market Orders as Percent of Non-S Directed Orders (%) 34.05% 35.81% 36.06%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26% 32.43%  Marketable Limit Orders as Percent of Non-Directed Orders (%) Orders Orders (%)	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 42.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 30.58% 47.11% 22.331%	Other Orders as Percent of Non-Directed Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (%) 31.13% 30.13% 30.147% 38.13% 30.147% 38.13% 30.147% 38.13% Option Contracts Other Orders as Percent of Non-Directed Orders as Percent of Non-Directed Orders (%)	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	for Market Orders (USD) 0 0 0 0 0  Net Payment Paid/Received for Market Orders (USD) 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000 0.0000	Marketable Limit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 Net Payment Paid/Received Non-Marketable Limit Orders (USD) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Non-Marketable Limit Orders (cents per hundred shares) 0.0000	Other Orders (USD)  O  O  O  Net Payment Paid/Received Other Orders (USD)  O	Other Orders (cents per hundred shares) 0.0000
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Non-Directed Order Non-Directed Orders Percent of All Order Venues - Non Directed Orders Non-Directed Orders Percent of All Order	s Directed Orders (%) 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  s Market Orders as Percent of Non- s Directed Orders (%) 40.5%  Non-Directed Orders (%) 32.13%  Non-Directed Orders (%) 33.81% 32.13%  Market Orders as Percent of Non- 5 Directed Orders (%) 33.81%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26%  Marketable Limit Orders as Percent of Non-Directed Orders 9.87%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 43.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 30.55% 47.11% 47.11% 22.31%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%	Other Orders as Percent of Non-Directed Orders 0.31% Non-Marketable Limit Orders (9) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (9) 31.47% (9) 31.47% 39.40% Option Contracts Other Orders as Percent of Non-Directed Orders 1.01%	30.4% 47.83% 21.74% Other Orders (%) 26.79% 44.64% 28.57%	Net Payment Paid/Received for Market Orders (USD)  Net Payment Paid/Received for Market Orders (USD)  O  O	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares)	Marketable Limit Orders  Net Payment Pald/Received  Marketable Limit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Marketable Limit Orders  (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000  Net Payment Pald/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000  Net Payment Pald/Received Marketable Limit Orders	Non-Marketable Limit Orders  Net Payment Pald/Received Non-Marketable Limit Orders 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders 0 0 0 Non-Marketable Limit Orders	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders 0.0000	Net Payment Paid/Received Other Orders (USD) O O O O O O O O O O O O O O O O O O O	Other Orders (cents per hundred shares) 0.0000 0.00
Summary  Non-Directed Orders a Percent of All Order 100.009  Venues - Non Directed Order Non-Directed Order Non-Directed Orders Percent of All Order Venues - Non Directed Orders Non-Directed Orders Percent of All Order	S Directed Orders (%) 96.93%  Non-Directed Orders (%) 33.84% 33.46% 32.70%  S Market Orders as Percent of Non-S Directed Orders (%) 34.05% 33.81% 32.13%  Market Orders as Percent of Non-S Directed Orders (%) 34.05% 35.81% 36.06%	Percent of Non-Directed Orders 0.43%  Market Orders (%) 33.93% 33.24% 32.84%  Marketable Limit Orders as Percent of Non-Directed Orders 1.61%  Market Orders (%) 34.31% 33.26%  Marketable Limit Orders as Percent of Non-Directed Orders 9.87%	as Percent of Non-Directed Orders 2.33%  Marketable Limit Orders (%) 31.25% 42.75% 25.00%  Non-Marketable Limit Orders as Percent of Non-Directed Orders 5.00%  Marketable Limit Orders (%) 47.11% 22.31%  Non-Marketable Limit Orders as Percent of Non-Directed 5.00%	Other Orders as Percent of Non-Directed Orders (%) 31.03% 39.08% 29.89% Non-S&P 500 Stocks Other Orders as Percent of Non-Directed Orders (%) 31.47% 38.13% 30.40% Option Contracts Other Orders as Percent of Non-Directed Orders (%) 31.47% 38.13% 30.40% Option Contracts	30.43% 47.83% 21.74% Other Orders (%) 6.6.79%	Net Payment Paid/Received for Market Orders (USD)  Net Payment Paid/Received for Market Orders (USD)  0 0 0	for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received for Market Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Marketable Limit Orders  Net Payment Pald/Received  Marketable Limit Orders  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000	Non-Marketable Limit Orders (USD) 0 0 0 0 0 Net Payment Pald/Received Non-Marketable Limit Orders 0 0 0 0 Non-Marketable Limit Orders 0 0 0 Non-Marketable Limit Unders (USD)	Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000 0.0000 Net Payment Paid/Received Non-Marketable Limit Orders (cents per hundred shares) 0.0000 0.0000 0.0000	Net Payment Paid/Received Other Orders (USD)  O  O  O  O  O  O  O  O  O  O  O  O  O	Other Orders (cents per hundred shares) 0.00000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.

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

Generation Date: 2020-07-29 15:32:30.847 GMT -0400

Year: 2020	Quarter: 1
March 2020	

ummary													
		Marketable Limit Orders as	Non-Marketable Limit Orders										
Non-Directed Orders a	as Market Orders as Percent of Non-	Percent of Non-Directed	as Percent of Non-Directed	Other Orders as Percent of									
Percent of All Order	rs Directed Orders			Non-Directed Orders									
100.00	96.81%	0.56%	2.10%	0.52%									
/enues - Non Directed Orde	ers												
										d Net Payment Paid/Received			Net Payment Paid/Received
				Non-Marketable Limit Orders			for Market Orders (cents per	Marketable Limit Orders		s Non-Marketable Limit Orders			
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)	
Citadel Securities LLC	43.23%	43.19%		42.68%	46.25%	0	0.0000	0	0.0000		0.0000		0.0000
/irtu Americas LLC	42.79%	42.75%		44.24%	47.50%	0	0.0000	0	0.0000		0.0000		0.0000
Vandham Securities Corp.	13.99%	14.06%	12.79%	13.08%	6.25%	0	0.0000	0	0.0000	0	0.0000	0	0.0000
March 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	93.39%	1.71%	4.43%	0.47%									
Venues - Non Directed Orde	ers												
							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
/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	42.63%	42.35%		46.91%	52.86%	0	0.0000	0	0.0000		0.0000		0.0000
/irtu Americas LLC	41.40%	41.66%	34.38%	38.01%	47.14%	0	0.0000	0	0.0000	0	0.0000	c	0.0000
Vandham Securities Corp.	15.96%	15.99%	21.09%	15.08%	0.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000

S&P 500 Stocks

0.00%

Vandham Securities Corp. Clearpool Execution Services, LLC 0.01% 0.00% 0.01% 0.00%

March 2020 Option Contracts Summary Marketable Limit Orders as Non-Marketable Limit Orders
Percent of Non-Directed as Percent of Non-Directed Orders
Orders
7.53% 63.46% Non-Directed Orders as Market Orders as Percent of Non-Percent of All Orders Directed Orders 100.00% 28.16% Non-Directed Orders 0.85%

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 f	or Market Orders (cents per	Marketable Limit Orders	Marketable Limit Orders	Non-Marketable Limit Orders 1	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	100.00%	100.00%	100.00%	100.00%	100.00%	0	0.0000	0	0.0000	0	0.0000	0	0.0000

0.0000

0.0000

0.0000

0.0000

0

This report is for informational purposes only, and while based on information believed to be reliable, we do not guarantee its complete accuracy. Information and estimates contained in this report are subject to change without notice. This report does not endorse or recommend any particular security or market participant. William Bilair reviews though on order activity to National Financial Services for execution. Order routing methodology and handing decisions are made by National Financial. William Bilair reviews these transactions for best execution given the market volatility and order along with the properties of the properties