The Vanguard Group Inc. - Held NMS Stocks and Options Order Routing Public Report

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3rd Quarter, 2020

July 2020

S&P 500 Stocks

Summary

	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
1	100.00	64.95	6.94	18.10	10.01

Venues

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Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	42.62	43.37	43.36	42.70	37.16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	27.62	26.50	28.35	28.98	31.92	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	15.93	16.95	14.23	14.01	13.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	13.83	13.18	14.06	14.31	16.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Vanguard Brokerage Services does not receive any payment for order flow, to include any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration in return for the routing of customer orders.

VIRTU Americas LLC (NITE

Vanguard Brokerage Services does not receive any payment for order flow, to include any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration in return for the routing of customer orders.

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UBS SECURITIES LLC (UBSS

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July 2020

Non-S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	66.73	7.08	15.40	10.79

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	37.07	37.13	38.73	37.92	34.38	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	33.86	32.83	35.68	36.72	35.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	21.36	23.17	17.28	16.52	19.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	7.71	6.87	8.31	8.84	10.87	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

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July 2020

Options

Summary

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Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	0.22	34.12	63.41	2.24

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	48.42	54.58	48.93	48.40	40.13	63,824.8000	18.7905	57,377.1500	18.9052	362.5200	18.9801	4,285.4500	17.3297
Susquehanna (SUSQ)	30.27	27.85	30.47	30.15	31.07	27,073.8100	14.5399	8,971.3900	14.3756	16,033.0200	14.9513	17.5500	2.0968
Citigroup Global Markets Inc. (SBSH)	11.21	9.58	10.71	11.31	16.29	44.8700	32.7518	8,489.8300	18.6832	13,657.8000	18.6274	1,511.2000	18.6499
WOLVERINE EXECUTION SERVICES, LLC (WEXX)	10.10	7.99	9.89	10.14	12.51	9,954.3000	14.9718	6,404.1000	14.9615	18.0000	15.0000	1,267.2000	15.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Vanguard Brokerage Services routes orders in exchange listed options to one or more market Participants with the objective of obtaining best execution; As detailed above, Vanguard Brokerage Services receives compensation for directing options order flow to specific market participants

Susquehanna (SUSQ):

Vanguard Brokerage Services routes orders in exchange listed options to one or more market Participants with the objective of obtaining best execution; As detailed above, Vanguard Brokerage Services receives compensation for directing options order flow to specific market participants

Citigroup Global Markets Inc. (SBSH):

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WOLVERINE EXECUTION SERVICES, LLC (WEXX):

Vanguard Brokerage Services routes orders in exchange listed options to one or more market Participants with the objective of obtaining best execution; As detailed above, Vanguard Brokerage Services receives compensation for directing options order flow to specific market participants

August 2020

S&P 500 Stocks

Summary

Ì	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
İ	100.00	65.54	6.84	16.98	10.65

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	43.09	43.85	43.07	42.38	39.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	26.15	25.00	27.28	27.72	29.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
UBS SECURITIES LLC (UBSS)	18.29	18.02	18.52	18.67	19.21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	12.47	13.13	11.13	11.23	11.22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Vanguard Brokerage Services does not receive any payment for order flow, to include any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration in return for the routing of customer orders.

VIRTU Americas LLC (NITE):
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August 2020

Non-S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	66.60	7.10	15.42	10.87

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	37.11	37.13	38.36	37.41	35.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	33.47	32.51	35.34	36.59	33.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	20.88	22.60	17.08	16.28	19.34	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	8.54	7.76	9.22	9.72	11.16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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August 2020

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	0.16	34.77	63.00	2.07

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	52.43	60.82	52.62	52.42	48.87	65,628.4700	18.8589	61,399.2600	18.9330	131.4800	18.9180	4,269.1100	18.5187
Susquehanna (SUSQ)	34.35	28.57	34.44	34.32	34.04	28,410.4200	14.5500	10,728.8300	14.7091	16,774.2000	14.9209	106.2000	15.0000
WOLVERINE EXECUTION SERVICES, LLC (WEXX)	10.30	8.42	10.15	10.32	12.43	9,744.0000	14.9733	6,449.2500	14.9927	13.6500	15.0000	1,220.2500	15.0000
Citigroup Global Markets Inc. (SBSH)	2.92	2.19	2.79	2.94	4.66	1.0000	25.0000	1,378.2800	16.3905	2,400.2700	16.9666	272.8200	18.7119

Material Aspects:

Citadel Securities LLC (CDRG):

Vanguard Brokerage Services routes orders in exchange listed options to one or more market Participants with the objective of obtaining best execution; As detailed above, Vanguard Brokerage Services receives compensation for directing options order flow to specific market participants

Susquehanna (SUSQ)

Vanguard Brokerage Services routes orders in exchange listed options to one or more market Participants with the objective of obtaining best execution; As detailed above, Vanguard Brokerage Services receives compensation for directing options order flow to specific market participants

WOLVERINE EXECUTION SERVICES, LLC (WEXX):

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Citigroup Global Markets Inc. (SBSH):

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September 2020

S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders	
100.00	63.44	6.71	19.09	10.76	

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	42.54	43.18	42.79	42.25	39.14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	24.02	22.72	25.28	25.53	28.18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	22.14	22.03	21.75	22.09	23.14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	11.30	12.07	10.18	10.13	9.54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Vanguard Brokerage Services does not receive any payment for order flow, to include any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration in return for the routing of customer orders.

VIRTU Americas LLC (NITF)

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LIBS SECURITIES LLC (LIBSS)

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September 2020

Non-S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	66.00	6.74	16.04	11.21

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	36.98	36.82	38.29	37.84	35.97	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VIRTU Americas LLC (NITE)	31.02	29.88	33.90	34.28	31.31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
G1 Execution Services, LLC (ETMM)	21.19	23.11	17.50	16.47	18.80	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS SECURITIES LLC (UBSS)	10.81	10.19	10.31	11.41	13.92	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

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September 2020

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders	
100.00	0.18	34.62	62.97	2.23	

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	53.84	57.32	53.98	53.89	50.11	66,740.7300	18.8240	60,283.0100	18.8816	483.3600	18.9404	3,436.3400	18.2048
Susquehanna (SUSQ)	35.81	35.37	35.83	35.71	38.29	28,697.8600	13.3284	10,655.1200	14.1974	18,103.5900	14.9474	143.7000	15.0000
WOLVERINE EXECUTION SERVICES, LLC	10.34	7.31	10.19	10.39	11.59	9,218.5500	14.9090	6,975.3000	14.9575	14.7000	15.0000	1,206.3000	15.0000

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
(WEXX)													
Citigroup Global Markets Inc. (SBSH)	0.01	0.00	0.00	0.01	0.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Material Aspects:

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