

# Vanguard Brokerage Services - Held NMS Stocks and Options Order Routing Public Report

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1st Quarter, 2021

January 2021

## 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	53.31	5.22	36.58	4.88

### 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 (CDRG)	42.84	43.98	43.29	42.21	34.59	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	24.56	24.90	24.66	23.94	25.41	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	23.97	20.33	23.23	27.56	37.68	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	8.63	10.80	8.81	6.29	2.32	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna International Group, LLP (SUSQ)	0.00	0.00	0.00	0.00	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Svc. (WEXX)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

### Material Aspects:

Citadel Securities (CDRG):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

UBS Securities LLC (UBSS):

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Virtu Americas, LLC (NITE):

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G1 Execution Services, LLC (ETMM):

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Wolverine Execution Svc. (WEXX):

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## January 2021

### 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	55.69	5.94	33.73	4.64

#### 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 (CDRG)	36.57	35.94	37.60	37.71	34.59	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	32.19	28.97	34.98	36.15	38.60	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	19.21	24.44	17.27	12.65	6.61	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	12.02	10.65	10.15	13.48	20.20	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Group, Options (CDEL)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
E*Trade Capital Markets, LLC (ETRD)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Svc. (WEXX)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

#### Material Aspects:

Citadel Securities (CDRG):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf)

Virtu Americas, LLC (NITE):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf)

G1 Execution Services, LLC (ETMM):

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UBS Securities LLC (UBSS):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf)

## January 2021

### 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	0.09	17.22	76.83	5.86

#### 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 (CDRG)	66.57	63.32	66.35	66.41	69.40	484	18.9405	93,275	18.9754	98,435	18.8834	4,489	18.9984
Susquehanna International Group, LLP (SUSQ)	25.64	32.29	27.21	25.43	23.78	14,525	14.8421	10,753	13.3983	31,512	14.0559	468	15.0000
Wolverine Execution Svc. (WEXX)	7.78	4.39	6.44	8.16	6.83	38	15.0000	5,687	14.9960	9,146	14.7183	1,257	14.9253

#### Material Aspects:

Susquehanna International Group, LLP (SUSQ):

[https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf](https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf)

## February 2021

### 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	51.87	5.37	38.42	4.34

#### 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 (CDRG)	43.73	45.14	44.23	42.74	34.92	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	24.30	20.56	23.66	28.02	37.05	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	24.24	24.59	24.15	23.64	25.55	0	0.0000	0	0.0000	0	0.0000	0	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)
G1 Execution Services, LLC (ETMM)	7.73	9.71	7.96	5.61	2.47	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Svc. (WEXX)	0.00	0.00	0.00	0.00	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna International Group, LLP (SUSQ)	0.00	0.00	0.00	0.00	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000

### Material Aspects:

Citadel Securities (CDRG):

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Virtu Americas, LLC (NITE):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4ddf76d/Material%20Aspects%20Equities.pdf)

UBS Securities LLC (UBSS):

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## February 2021

### 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	53.88	6.07	35.55	4.49

#### 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 (CDRG)	42.80	43.66	43.36	42.19	36.52	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	36.39	34.54	38.13	38.44	40.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	12.97	12.12	10.44	13.74	20.51	0	0.0000	0	0.0000	0	0.0000	0	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)
G1 Execution Services, LLC (ETMM)	7.84	9.68	8.07	5.64	2.97	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Group, Options (CDEL)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

#### Material Aspects:

Citadel Securities (CDRG):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

Virtu Americas, LLC (NITE):

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[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

## February 2021

### 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	0.08	16.01	78.51	5.40

### 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 (CDRG)	61.50	66.19	62.95	60.96	65.07	297	18.9757	92,144	18.9785	107,184	18.9443	4,425	18.0381
Susquehanna International Group, LLP (SUSQ)	32.08	29.54	31.45	32.41	29.19	18,437	14.9449	13,263	13.8911	45,843	14.7178	181	8.1046
Wolverine Execution Svc. (WEXX)	6.41	4.27	5.59	6.63	5.74	32	15.0000	5,515	14.9516	9,422	14.9895	1,218	14.8175

#### Material Aspects:

Susquehanna International Group, LLP (SUSQ):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf)

## March 2021

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### 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	52.14	5.24	38.19	4.44

### 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 (CDRG)	43.81	45.24	44.78	42.69	35.54	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	24.52	20.73	23.27	28.49	36.41	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	23.98	24.32	23.88	23.38	25.23	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	7.69	9.70	8.07	5.44	2.82	0	0.0000	0	0.0000	0	0.0000	0	0.0000

### Material Aspects:

Citadel Securities (CDRG):

[https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

Virtu Americas, LLC (NITE):

[https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

UBS Securities LLC (UBSS):

[https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

G1 Execution Services, LLC (ETMM):

[https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/SP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.karngroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/SP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

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## March 2021

### 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	54.85	5.68	35.44	4.03

## 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 (CDRG)	42.64	43.38	43.44	42.01	37.04	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Virtu Americas, LLC (NITE)	35.37	33.09	37.36	38.04	40.13	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC (UBSS)	14.12	13.77	11.21	14.50	19.51	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	7.87	9.75	7.99	5.45	3.32	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Citadel Group, Options (CDEL)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Wolverine Execution Svc. (WEXX)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Susquehanna International Group, LLP (SUSQ)	0.00	0.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

## Material Aspects:

Citadel Securities (CDRG):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/CDRG/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

Virtu Americas, LLC (NITE):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/NITE/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

UBS Securities LLC (UBSS):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/UBSS/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

G1 Execution Services, LLC (ETMM):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/NONSP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/NONSP500/ETMM/e7dfb6de341e057e7d51abc3bede6d1f4dddf76d/Material%20Aspects%20Equities.pdf)

## March 2021

## 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	0.07	15.39	78.95	5.59

## 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)
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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 (CDRG)	61.25	64.75	63.27	60.68	63.82	340	17.9762	106,489	18.9094	123,442	18.8879	4,294	17.5826
Susquehanna International Group, LLP (SUSQ)	32.37	29.12	30.95	32.75	30.93	18,727	14.9332	14,351	14.2631	46,441	14.5209	60	2.5536
Wolverine Execution Svc. (WEXX)	6.37	6.13	5.78	6.57	5.25	35	15.0000	6,233	14.9845	8,634	14.9225	1,184	15.0000

**Material Aspects:**

Susquehanna International Group, LLP (SUSQ):

[https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD\\_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf](https://nms606.kargroup.com/api/606stats/public606/606/report/VGRD_ALL/material/2021Q1/O/SUSQ/74d4083636bc0c887185bb158b9fb8a305b27ace/Material%20Aspects%20Options.pdf)