# Alpaca Securities LLC - Held NMS Stocks and Options Order Routing Public Report

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4th Quarter, 2020

# October 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
I	100.00	36.35	16.44	45.76	1.45

#### 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)
Wolverine Securities, LLC	59.22	56.03	66.18	60.80	10.10	3,327.54	20.0000	1,020.19	20.0000	2,365.24	20.0000	46.26	20.0000
Virtu Americas, LLC	11.25	12.31	7.55	9.59	79.02	1,212.36	20.0000	77.66	20.0000	146.90	20.0000	95.88	7.2541
Citadel Execution Services	29.53	31.65	26.27	29.61	10.87	2,443.19	20.0000	205.29	20.0000	321.02	20.0000	240.53	20.0000

#### Material Aspects:

Wolverine Securities, LLC:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Wolverine Securities LLC. Alpaca Securities receives payment from Wolverine Securities LLC for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

Virtu Americas, LLC:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Virtu Americas, LLC. Alpaca Securities receives payment from Virtu Americas, LLC for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

Citadel Execution Services:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Citadel Execution Services Alpaca Securities receives payment from Citadel Execution Services for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

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# October 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
I	100.00	19.00	30.72	30.72	2.90

#### 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)
Wolverine Securities, LLC	58.86	49.98	72.06	68.14	19.20	21,849.13	15.6570	4,506.31	13.9052	7,028.19	16.3669	213.39	11.1574
Virtu Americas, LLC	13.89	16.12	8.57	9.01	63.85	9,407.91	17.6249	1,602.442	17.0146	4,540.82	17.5940	669.74	9.7725
Citadel Execution Services	27.25	33.90	19.37	22.86	16.95	17,445.46	17.5195	3,377.31	15.9287	9,260.70	17.2060	529.51	16.1509

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#### Virtu Americas, LLC:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Virtu Americas, LLC. Alpaca Securities receives payment from Virtu Americas, LLC for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

#### Citadel Execution Services

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# October 2020

# **Options**

Summary

	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
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#### Venues

Venue - Non- Directed Orders (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	 •		 		 							
I Flow I I I I I I I I I I I I I I I I I I I	Non- directed	Directed		Marketable	 Paid/Received for Market	Received for Market Orders(cents per	Received for Marketable Limit	Received for Marketable Limit	Received for Non- Marketable Limit	Received for Non- Marketable Limit	Paid/Received for Other	Received for Other Orders(cents per

Material Aspects:

# November 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
I	100.00	28.54	15.13	55.23	1.10

#### 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)
Wolverine Securities, LLC	59.76	57.08	64.49	62.07	5.08	2,067.92	20.0000	590.41	20.0000	1,623.88	20.0000	15.61	20.0000
Virtu Americas, LLC	11.12	11.79	9.34	9.67	79.55	735.28	20.0000	101.61	20.0000	143.34	20.0000	96.39	8.5672
Citadel Execution Services	29.13	31.13	26.16	28.25	15.37	1,419.14	20.0000	192.03	20.0000	382.36	20.0000	104.97	20.0000

Material Aspects: Wolverine Securities, LLC:

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Virtu Americas, LLC:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Virtu Americas, LLC. Alpaca Securities receives payment from Virtu Americas, LLC for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

Citadel Execution Services:

The net payment amounts represent the total amount of payments received by Alpaca Securities LLC from Citadel Execution Services Alpaca Securities receives payment from Citadel Execution Services for directing equity order flow to this venue. The payment varied based upon the price of the equity security at the time of order execution.

# November 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	42.72	15.91	38.72	2.66

#### 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)
Wolverine Securities, LLC	58.92	53.70	72.49	62.08	15.57	13,834.94	16.6170	4,492.39	11.9742	5,361.63	13.2997	271.52	17.3235
Virtu Americas, LLC	13.55	14.34	8.88	11.11	64.27	12,169.94	12.7546	2,439.45	17.1949	4,001.09	11.5874	609.22	11.7295
Citadel Execution Services	27.53	31.96	18.63	26.81	20.16	19,953.51	11.3944	2,828.37	12.8970	7,500.97	9.3771	3,088.92	19.2926

# Material Aspects: Wolverine Securities, LLC:

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#### Virtu Americas, LLC:

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## Citadel Execution Services:

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# November 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
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#### Venues

Venue - Non- directed Order Flow	Non- Directed Orders Orders (%) (%)	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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Material Aspects:

# December 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	53.09	9.42	36.86	0.63		

#### 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)
Wolverine Securities, LLC	59.29	57.08	64.49	62.07	5.08	2,576.23	20.0000	759.12	20.0000	1,965.40	20.0000	82.08	20.0000
Virtu Americas, LLC	11.21	11.79	9.34	9.67	79.55	1,820.50	20.0000	237.59	20.0000	364.32	20.0000	194.34	11.4304
Citadel Execution Services	29.50	31.13	26.16	28.25	15.37	2,945.83	20.0000	407.30	20.0000	659.13	20.0000	117.56	20.0000

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# December 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		
1	100.00	43.88	12.13	41.41	2.57		

#### 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)
Wolverine Securities, LLC	56.21	51.47	71.50	58.59	26.50	17,926.12	16.9487	6,147.69	10.5832	7,942.80	15.3565	463.31	14.1545
Virtu Americas,	14.15	15.09	9.68	12.18	51.15	15,110.792	13.1682	3,418.33	15.1025	6,317.05	11.4641	1,045.28	11.8021

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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Citadel Execution Services	29.64	33.44	18.82	29.23	22.35	27,311.41	13.2010	5,835.96	14.2367	12,717.52	11.7835	2,335.30	13.5451

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# December 2020

# **Options**

Summary

## Venues

Venue - Non- directed Order Flow	Non- Directed Orders (%)  Market Orders (%)	Marketable Limit Orders (%)			Other Orders (%) Net Payme Paid/Receive Market Orders(US)	for Received for Market Orders(cents per	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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Material Aspects: