



SuperX ATS Quarterly Statistics

SuperX is Deutsche Bank's Alternative Trading System (ATS) in the US. The SuperX ATS is a non-displayed order book for listed equities that can be accessed by clients directly, or using one of Deutsche Bank's equity trading platforms.

Q3 2020

SUMMARY STATISTICS

ADV - Shares (MM) *	24.8
ADV - Notional (MM) *	1,147.9
# Symbols traded	8,697

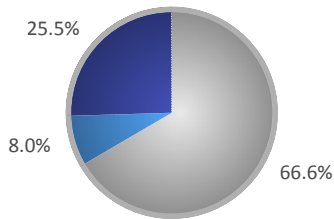
* These figures are single counted.

TRADE SIZE STATISTICS

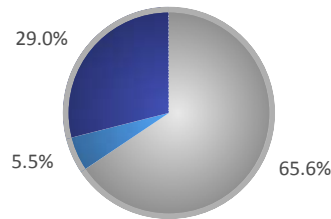
Avg Trade Size (shares)	152
% trades >= 10k shares	1.20%
% trades >= \$200k	1.40%

TRADE PRICE SUMMARY

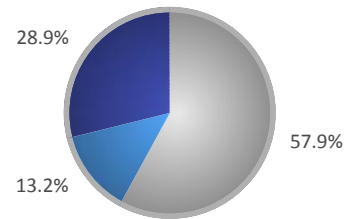
% TRADES



% SHARES



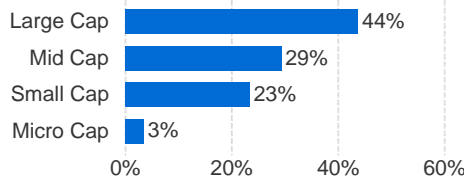
% NOTIONAL



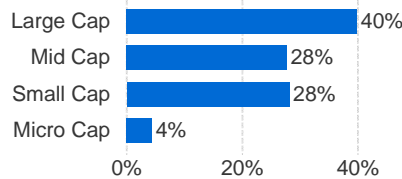
Execution Position
 NBBO
 IntraSpread
 Mid

MARKET CAP SUMMARY

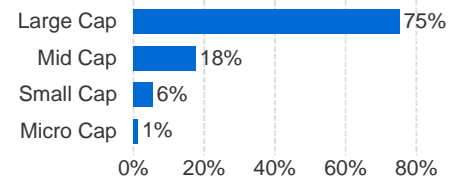
% TRADES



% SHARES

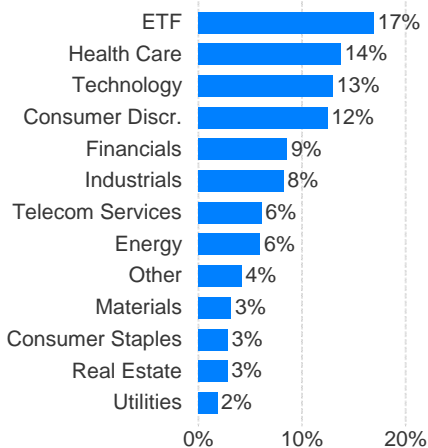


% NOTIONAL

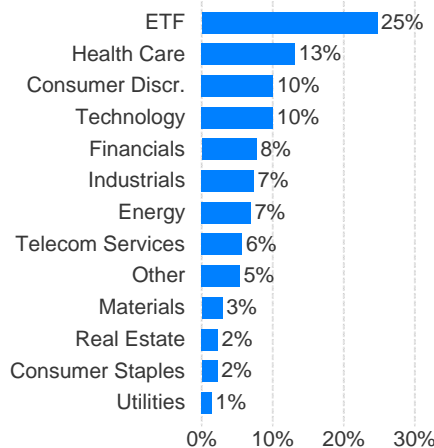


SECTOR SUMMARY

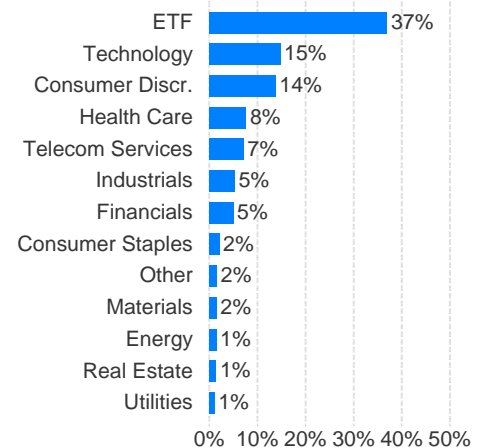
% TRADES



% SHARES



% NOTIONAL





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COUNTERPARTY TYPE SUMMARY

CounterParty Type	% Filled Shares	Average Fill Size	Spread (bps)	Spread Savings (bps)	Spread Savings (%)	Midpoint Slippage (bps)	T+20ms (bps)	T+30s (bps)	T+60min (bps)
1 Principal	0.1%	178	11.17	9.44	83.3%	3.88	-4.66	-1.07	-3.81
2 Agency	1.6%	147	7.16	5.78	80.5%	2.34	-2.28	-2.43	-5.71
3 Direct Low	61.2%	158	8.32	3.56	42.7%	-0.17	0.39	0.10	-0.27
4 Direct Medium	21.1%	131	8.19	4.28	51.8%	-0.18	-0.27	0.25	0.58
5 Direct High	16.0%	162	5.34	3.67	69.5%	0.57	-0.75	-0.40	0.72
Total	100.0%	152	7.76	3.78	50.0%	0.00	0.00	0.00	0.00

GLOSSARY

- 1 Principal: DBSI acting as principal
- 2 Agency: Agency client order flow sent from DBSI's Algorithms or Smart Order Routers, where the router or the Algorithm logic elects to route to SuperX
- 3 Direct Low: Agency client orders directly routed to SuperX that are determined by DBSI to have a low average price reversion
- 4 Direct Medium: Agency client orders directly routed to SuperX that are determined by DBSI to have a medium average price reversion
- 5 Direct High: Agency client orders directly routed to SuperX that are determined by DBSI to have a high average price reversion

% Filled Shares: percentage of shares executed against a counterparty type.

Average Fill Size: the arithmetic average of fill size across all executions.

Spread (bps): the average difference in ask and bid prices expressed in basis points.

Spread Savings (bps): the notionally-weighted difference between fill price and the far touch price at fill time expressed in basis points.

Spread Savings (%): the notionally-weighted difference between fill price and the far touch price as a percentage of the bid-ask spread.

Midpoint Slippage (bps): the notionally-weighted difference between fill price and the midpoint price of the stock expressed in basis points.

T+X (bps): the notionally-weighted difference between the midpoint price at fill +X time units and the midpoint price at fill time expressed in basis points.

The above numbers are side-adjusted.

Positive mark outs reflect that prices moved in your favor. e.g. When buying, prices increased after the trade.

Negative mark outs reflect that prices moved against you. e.g. When buying, prices decreased after the trade.



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