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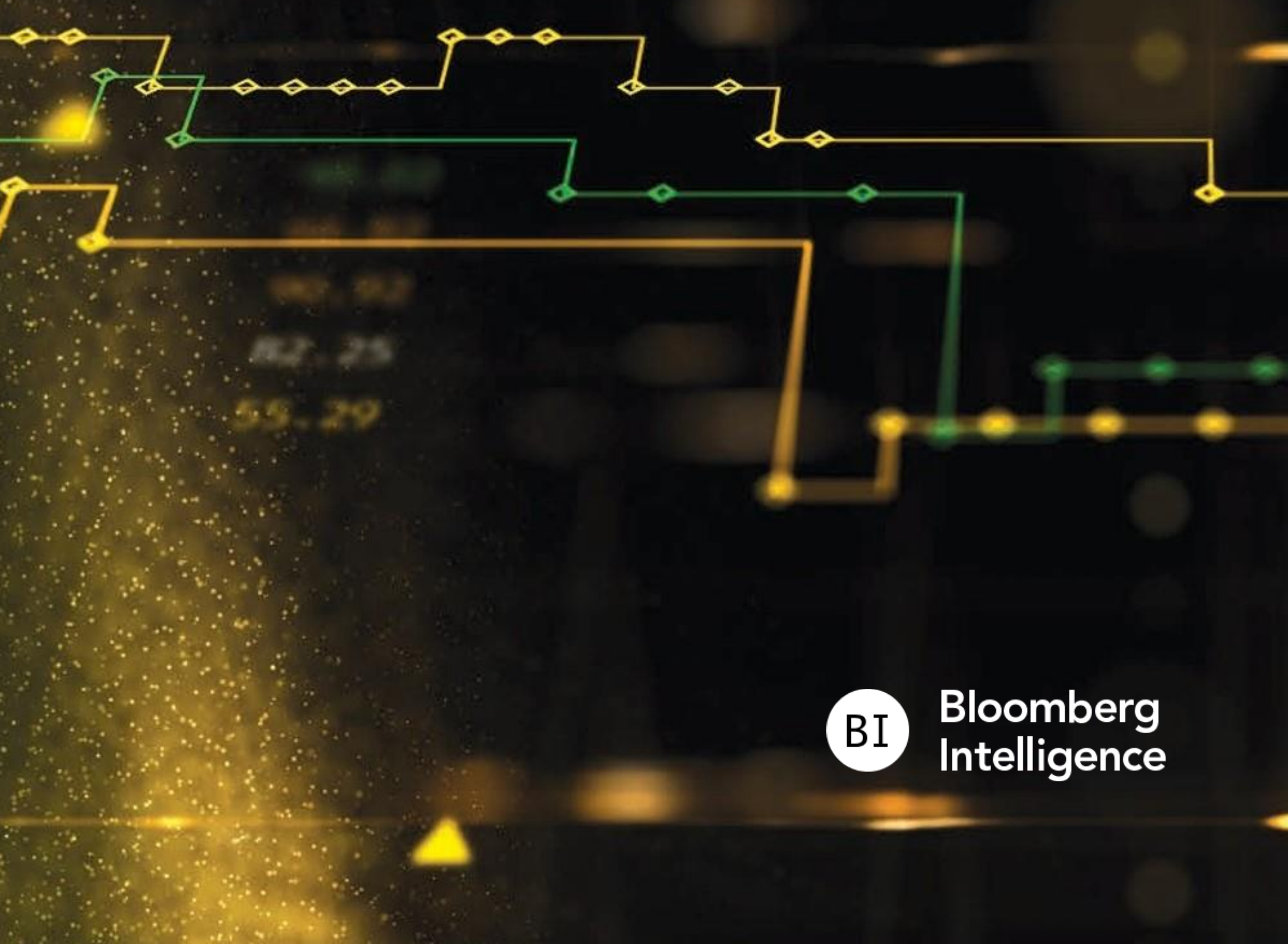
U.S. Institutional Equity Trading Study

February 2021



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21
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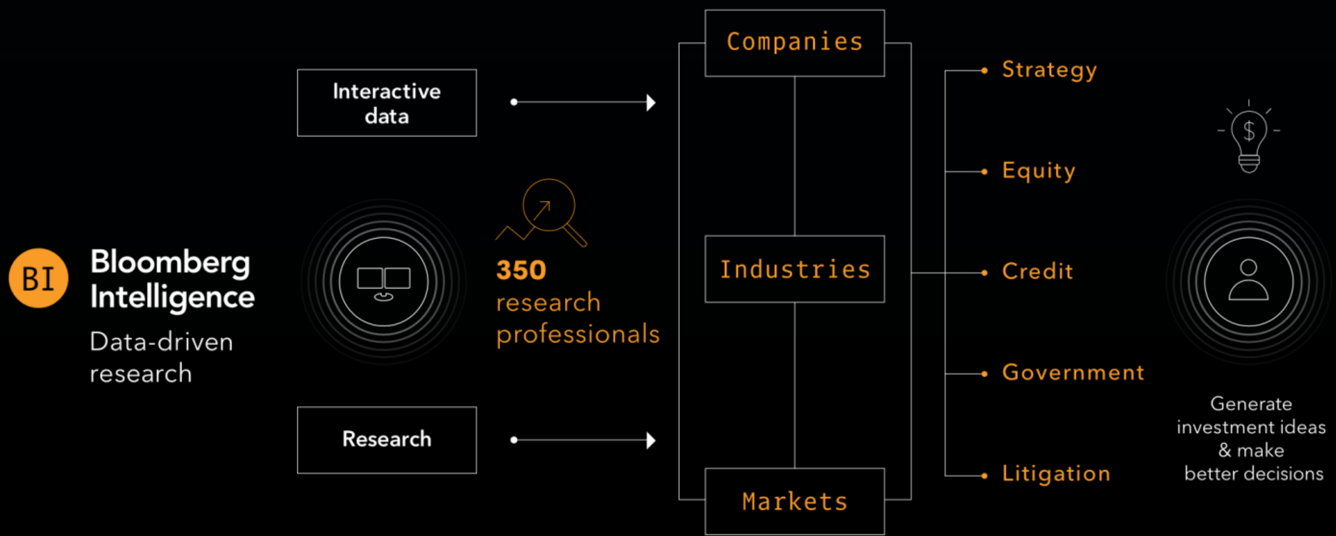


Foreword

The institutional equity trading world is caught in a transitional quandary. The transition between decades, political transitions, pre- and post-Covid-19 and between passive and active investment styles. All of these issues are creating existential money management quandaries as the industry seems to be caught with one foot in the challenges of the twenty-teens and the other on what is next. In other words, we are moving from a market where stock-picking played a subservient role in an expense-driven market, to now where active management can outperform as massive tectonic changes benefit some industries while crushing others.

Trapped within this transition are the traders who have historically maintained close relationships with not only their portfolio managers and compliance offices, but the brokers that service them. The pandemic has relocated many of these professionals now extensively working from their proverbial kitchen tables. And while phone numbers can be swapped, the industry's workflow is heavily aligned toward not only multi-channel communications but multi-venue/broker electronic order routing. All of these channels needed to be re-routed as portfolios needed to be realigned, and volumes had not only set daily and monthly records but yearly records as well. This was no easy task.

We interviewed almost 100 head and senior U.S. institutional equity traders on their trading strategies, commissions, rates, wallet share, brokers, trading channels and liquidity destinations. While most survived the work-from-home transition fairly seamlessly, the volume, how they traded and how they accessed liquidity has been altered as trading algorithms and so-called algo wheels have gained while electronic block-crossing networks were the most challenged. While algorithms have increased in importance, the relationship between the buy-side trader and the high-touch desk has also tightened as traders can only monitor so much as volatility strains not only systems but attention spans.

It would be nice to say that 2020 was an outlier, but political shifts, vaccine challenges and a resurgence of individual investors into the markets don't seem like they will be going away too quickly. This means some of the so-called temporary workflow challenges that institutional investors have experienced -- for good and bad -- may not be so short-lived. With that said, we hope this research helps you better understand the challenges and opportunities within the U.S. institutional equity trading market and better adjust to this new trading environment.

– Larry Tabb, Director of Market Structure Research, Bloomberg Intelligence

Content

Executive Summary

The Covid-19 pandemic has not only scattered the institutional trading workforce but has layered dramatic implications across the global economy, as shelter-in-place and social-distancing actions have altered the financial outlook for companies and industries alike. And yet the investment community has rallied, according to our interviews with head and senior traders, effectively working through the disruptions and deftly adapting to this new environment. This is part of a multireport study on U.S. institutional equity trading in the age of Covid-19, generated from interviews and data from 85 institutional money managers.

COVID-19 Changed The Dynamic of the Instutitonal Equities Trading Market.

The U.S. equity commission pool rose 7% in 2020, spurred by higher rates and increased volume, based on Bloomberg's U.S. Institutional Equity Trading Study, 2020. The commission pool and rates have long been in decline as passive strategies have pressured active managers to lower fees and constrain costs, forcing brokers to streamline, consolidate and for some to even fold. A consolidating industry works as long as clients don't need higher-value services such as support, capital and liquidity. Unfortunately, that's exactly what it needed during a crisis. After a decade of downward commission pressure and increased regulatory constraint, the 2020 brokerage industry lacked the capacity to facilitate crisis-level liquidity, service and calendar demands without pushing back on rates. On the positive side, these stresses enabled brokers to increase rates and their commission take as volatility, work from home and new issuance pushed U.S. institutional equity investors to pay more for trading.

Trading algorithms and algo wheels/analytics are increasingly the most essential tool in the buy-side trader's kit as the electronification of U.S. equity markets means almost every order -- even manual trades -- has to negotiate 16 exchanges, 32 alternative trading systems/dark pools, a handful of single-dealer portals and electronic market makers. This requires technological and market-structure prowess that limits who institutional investors can use for a broker. Algorithms -- and increasingly algorithmic wheels -- have become mainstays for buy-side traders, used not only to bridge liquidity pools, but increasingly to choose among myriad brokers, models and settings needed to even approach the market. Algorithms started as a way for traders to execute small, innocuous orders into an increasingly fragmented equity-exchange infrastructure.

Under pressure to reduce fees, asset managers are inclined to concentrate broker relationships in 2021, increasing the odds that some will join Lehman, Bear Stearns and other brands of yore in the history books. Our U.S. institutional equity trading study of 85 major asset managers confirms that technology and efficiency favor the top brokers with the best products, especially trading algorithms and low-touch electronic tools, as high-touch services, daily research calls and notes take a back seat. Respondents' in-house trading desks may have a fighting chance as concerns over conflicts of interest and losing key partners damp the outsourcing concept.

Despite massive liquidity and service demands, asset managers remain inclined to cut broker ties, our U.S. equity trading study shows. Being a broker continues to be difficult, as unbundling forced some to shut trade desks and turn into independent research providers, lower commissions and technology burdens have crushed others, and some never regained footing after the global financial crisis.

BI U.S. Institutional Equity Trading -2020 Methodology

In 2020, BI's market-structure analysts interviewed and surveyed head or senior U.S. equity traders from 85 institutional money managers overseeing $15 trillion, or about 55% of the sector's assets under management. Of those, 20% were large, representing traditional asset managers over $150 billion in equity AUM (hedge funds over $3 billion), 21% medium-sized ($25-$150 billion; hedge funds $500 million-$3 billion) and 59% smaller outfits below mid-tier AUM. Asset managers represented 84% of our sample, and hedge funds 16%.

U.S. Equity Commissions and Rates Rise, If Only Temporarily

The U.S. equity commission pool rose 7% in 2020, spurred by higher rates and increased volume, based on Bloomberg's U.S. Institutional Equity Trading Study, 2020. The commission pool and rates have long been in decline as passive strategies have pressured active managers to lower fees and constrain costs, forcing brokers to streamline, consolidate and for some to even fold. A consolidating industry works as long as clients don't need higher-value services such as support, capital and liquidity. Unfortunately, that's exactly what it needed during a crisis.

Rates Rise as Liquidity, Services and IPO-Calendar Demand Jump.

After a decade of downward commission pressure and increased regulatory constraint, the 2020 brokerage industry lacked the capacity to facilitate crisis-level liquidity, service and calendar demands without pushing back on rates. On the positive side, these stresses enabled brokers to increase rates and their commission take as volatility, work from home and new issuance pushed U.S. institutional equity investors to pay more for trading.

U.S. Equity Commissions Up 7%: Largest Jump in a Decade.

The U.S. institutional-equity commission pool has increased 7%, rising to $7.2 billion in 2020 from $6.3 billion in 2019. While rates only increased moderately, flow shifted to less expensive lower-touch channels, as overall increased volume bolstered the total commission pool. That said, while we expect trading volume to remain elevated at least through the beginning of 2021, we don't see a reversion back to more expensive higher-touch desks from lower-touch algorithmic services. This will likely constrain commissions into 2021.

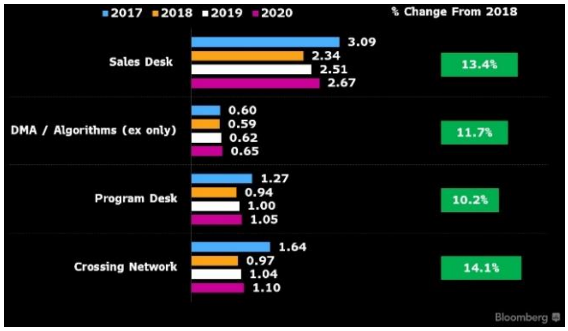
U.S. Institutional-Equity Commission Pool

Source: Bloomberg Intelligence

Rates Rise as Buy-Side Makes Demands.

The buy-side is paying more per share as overall rates ticked up. High-touch commissions increased 13.4% to 2.67 cents per share (CPS); algorithmic commissions rose 4.8% to 0.65 CPS; program trading rates inched up 10.2% to 1.05 CPS; and crossing network rates have gone up 14.1% to 1.10 CPS. All in rates, excluding algo rates, are a combination of execution fees plus any additional funds added in to cover research and services. Rates rose for three reasons: supply, demand and the IPO calendar. (Corrects algorithmic commissions.)

U.S. Institutional-Equity Commissions by Channel

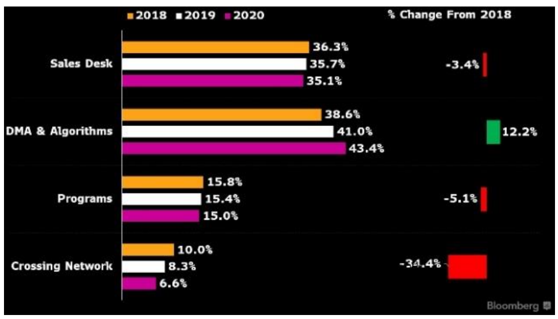


Source: Bloomberg Intelligence

More Flow Allocated to Low-Touch.

Buy-side traders have allocated a larger percentage of their orders to lower-touch channels, routing 43.4% of shares via algorithms, an increase of 12%, while reducing their high-touch flow by 3.4% to 35.1%, based on our analysis. While higher-touch volume has slowed, the real loser has been crossing networks or automated trading systems (ATS), with share dropping to 6.6% of flow from 8.3%. This was reflective of the difficulty of finding large-sized liquidity during volatile markets. FINRA's September year-to-date ATS market share declined to 9.96% vs. 13.2% for 2019.

U.S. Equity Order Flow Allocation by Channel



Source: Bloomberg Intelligence

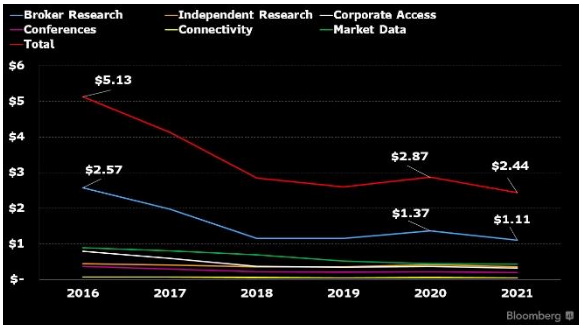
Execution and Services Gap Widening for U.S. Equities.

Brokerage commissions can be segmented into two distinct parts: execution and services. Execution fees cover the cost of trading, while the services tranche is used to pay for various non-execution-related brokerage costs, such as research, corporate access and conferences.

Services Wallet Grew to $2.87 Billion in 2020.

The increase in shares traded pushed the total that institutional equity traders spent on services 10.3% higher year-over-year to $2.87 billion of a $7.2 billion commission pool in 2020. This compensated brokers and independent research providers for their analysis, arranging meetings with corporate management, conferences, connectivity and market data. Yet the four-year downward tilt supports our view that budgets are likely to tighten 15% in 2021 as volume reverts to the longer-term trend-line.

U.S. Institutional-Equity Services Spending

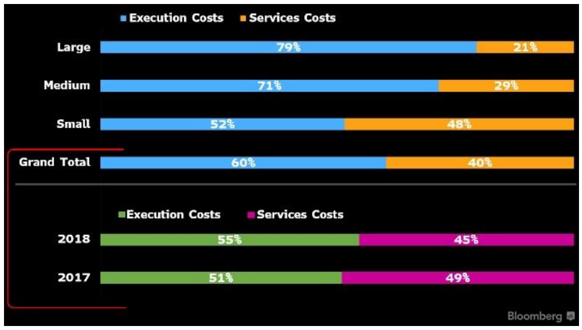


Source: Bloomberg Intelligence

Execution Now 60% of U.S. Equity Commission Wallet.

Over the past few years, we've witnessed an increasing allocation of commissions to execution and away from services. In the last three years, the overall allocation to services has dropped to 40% from 49% of total commissions. This means that for each dollar in commissions generated, the sell-side trading desks now earn 60 cents vs. 51 cents, while the services wallet has shrunk to 40 cents from 49 cents. For larger firms the outlook is worse, as services represent only 21 cents of each commission dollar.

U.S. Equity Execution vs. Services Allocation

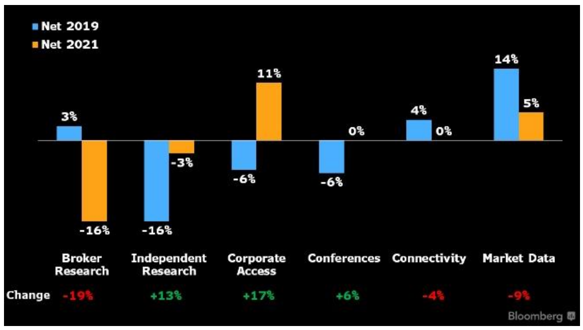


Source: Bloomberg Intelligence

Pressure on Services Continues Into 2021.

While the overall wallet will likely shrink, buy-side firms expect certain segments to perform better into 2021, namely, corporate access and market data. Corporate access, or the arranging of meetings with corporate management, was estimated to rise in 2019-21 by a net 11% of companies expecting this service to increase less those expecting it to decline. Market-data wallet allocation is also projected to increase by a net of 5% through 2021. The most significant net decline appears to be in broker research, according to the buy-side, as 16% more firms expected this budget line to be cut vs. expanded.

U.S. Equity-Services Wallet Change, 2019-21



Source: Bloomberg Intelligence

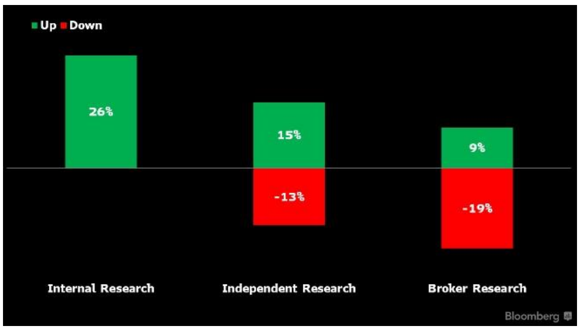
Investment-Research Demand Split: Large and All Others.

The European unbundling regulatory push, or the movement away from paying for research with commission dollars, has dramatically changed the U.S. market for investment research. While the U.S. hasn't followed Europe by strictly banning the use of commissions for footing research bills, funds have increasingly unbundled in principal, by valuing research agreements and paying for them via commission sharing agreements (CSAs), or through internal funds.

Largest Funds Turning to Proprietary Research.

While investment managers are more carefully structuring external research agreements, many funds have also increased their proprietary research. None of the buy-side traders we interviewed in our study said they were cutting internal research investments, and 26% noted an increase. The use of independent-research providers was more mixed, while the use of broker research was more likely to be reduced.

Anticipated U.S. Equity Research Usage, 2021

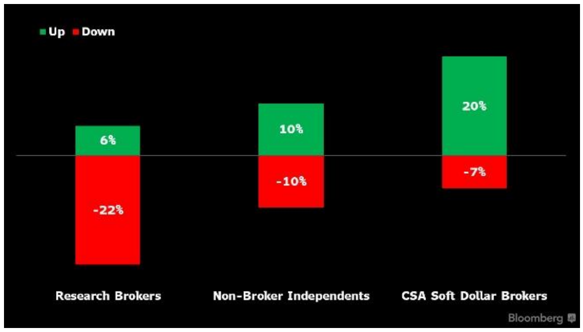


Source: Bloomberg Intelligence

More Research Funds Allocated Via CSAs.

The European move toward unbundling and negotiating research payments has gained wide acceptance in the U.S., based on our survey. Increasingly, buy-side firms are using commission sharing agreements (CSAs) to pay for their research. Twenty-percent of the buy-side companies interviewed expected to more extensively pay for research via CSAs, while only 7% said they would be using them less. This compares with a 10% increase and decrease in funds paying directly for independent research, and a decline of 22% vs. an increase of 6% for bundled broker research.

U.S. Equity Research Payment Channels, 2020



Source: Bloomberg Intelligence

Larger Research Brokers Faring Better.

The larger brokers are coming out of the Covid-19 crisis better positioned than smaller traditional and agency-only brokers. Be it fiscal strength, technology, capital or service, buy-side firms believed they would be giving more business to the larger brokers than smaller brokers, as 28% of those interviewed said they would be doing more business with larger brokers vs. only 10% who expected less.

Smaller brokers were more challenged, with 21% of funds planning on fewer transactions with these firms. Agency brokers who garnered a 14% vote that they would be more widely used compared with only 7% who believed that they would be doing less agency business.

U.S. Equity Research by Broker Size/Type

Source: Bloomberg Intelligence

Covid-19 Shakes Up U.S. Institutional Equity Trading World

The Covid-19 pandemic has not only scattered the institutional trading workforce but has layered dramatic implications across the global economy, as shelter-in-place and social-distancing actions have altered the financial outlook for companies and industries alike. And yet the investment community has rallied, according to our interviews with head and senior traders, effectively working through the disruptions and deftly adapting to this new environment. This is part of a multireport study on U.S. institutional equity trading in the age of Covid-19, generated from interviews and data from 85 institutional money managers.

Covid-19 Has Changed the Buy-Side Landscape at Least Temporarily.

If prompted prior to Covid-19, most traders and their brokers would have predicted disaster, but not only are these pros effectively managing the turbulence, many of the funds we interviewed have adapted seamlessly. Buy-side equity traders are working out of their homes, along with their portfolio managers, support staff and technology providers.

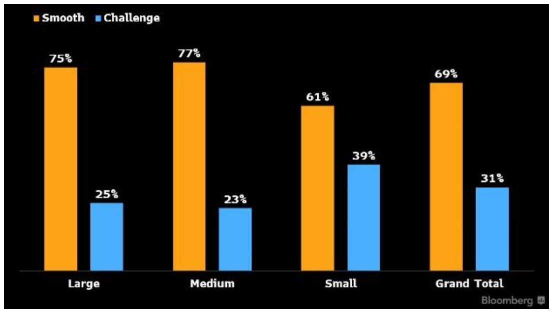
Institutional Equity Traders Handle Diaspora Well.

The investment industry has embraced electronic distribution, yet historically hasn't welcomed the disaggregation of the office, trading floors and relationships that made finance a community sport and that have been shredded by the pandemic. Within this community, buy-side traders work with portfolio managers to implement investment ideas, while the brokers work with the buy-side to provide ideas and support the execution of investment strategies. The vast majority of buy-side traders are working from home: Of firms we interviewed, 79% said that 80-100% of their offices are working remotely.

Buy-Side Continuity Planning Eased Migration Home.

T Virtually the whole equity-trading community was disrupted by Covid-19 and is now working remotely, yet our interviews suggest the process was remarkably smooth, especially given the vast need for technology, communications and support. Almost 70% of the firms we talked to said the transition from office to home was smooth. Large and midsize firms had an easier time of it, but even smaller companies' investment in business-continuity plans, remote access tools and virtual phone turrets enabled them to function efficiently from almost day one.

Difficulty of Work-From-Home Transition

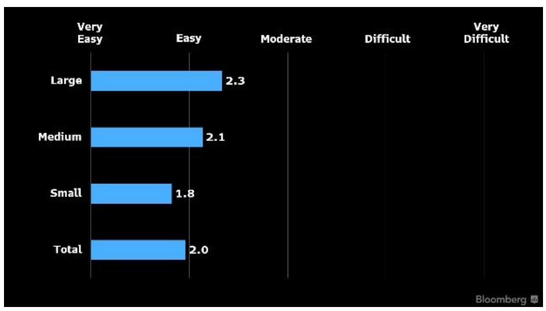


Source: Bloomberg Intelligence

Work-From-Home Transition Easier Than Expected.

Not only was the home transition smooth, but when asked to rank the transition from very easy (1) to very difficult (5), the average trader we interviewed put it at a little less than 2. The complexities of managing this type of transition can't be underestimated, and while little advance warning was given, extensive pre-work was required to facilitate remote access, virtual private networks, IP-based turrets, linkages to market-data platforms and multiscreen home technology configurations for many of the traders.

Ease of Buy-Side Traders' Home Office Transition

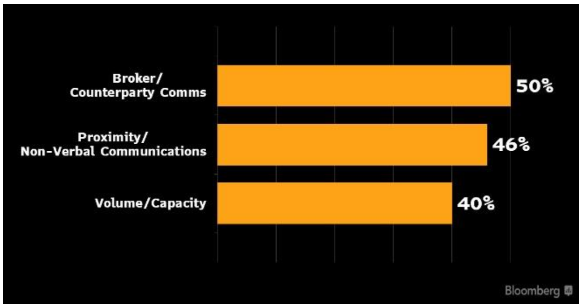


Source: Bloomberg Intelligence

Volume, Communications Were Biggest Challenges.

Though the work-from-home transition was somewhat seamless, nothing happens without a hitch. Of the many little issues traders experienced, the three most significant were maintaining Street and counterparty communications, managing internal communications and dealing with massive volume through the crisis' peaks. Buy-side traders sit at the nexus of trading ideas, markets and strategy. With most -- if not all -- linkages severed, it was surprising that the buy-side's challenges weren't greater, even as turnover neared $1 trillion in value, 55% greater than during the height of the global financial crisis.

Buy-Side Traders Largest WFH Challenges



Source: Bloomberg Intelligence

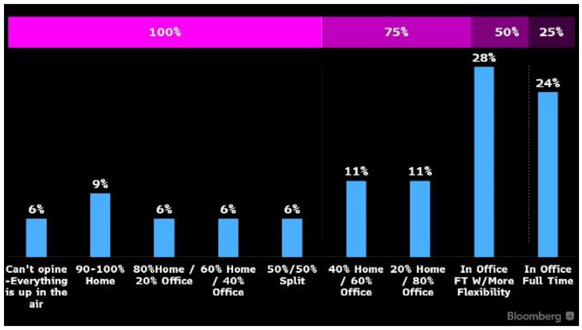
Trading From Home Is Nice, But the Office Is Still Preferred.

The office-to-home transition went well, with technology, communications, Citrix linkages and the increasing use of cloud infrastructure enabling buy-side traders to work from home with their portfolio managers, brokers and service providers. Still, most buy-side traders long to get back to the office, where community, technology, information and communications are easier.

New Trading Normal Is Back to the Office, Mostly.

Most traders we interviewed said that while they could work from home, the office was more conducive to trading. Few traders (9%), believed they would be working from home in perpetuity. Though most believed the operating model of the future would be more flexible, 52% said they'd be working at the office full-time or offering more flexibility for staff to trade at home when they had a doctor's appointment, a major home event or needed to be close to home for their family.

Buy-Side Traders' Future WFH/Office Model

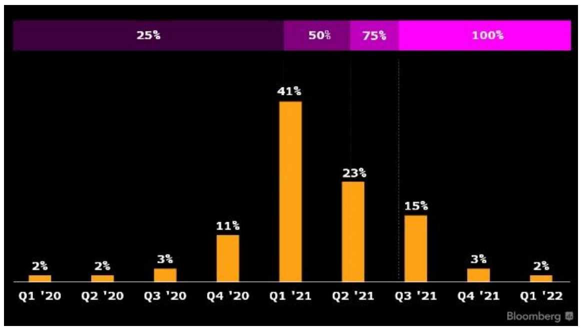


Source: Bloomberg Intelligence

Traders Believe Its Back to the Office in 2Q-3Q.

The majority of traders believe the office would be mostly back at work between 1Q-3Q21. Though the interviews took place before recent announcements of a viable set of vaccines, our traders' opinions seem to be in-line with current thinking on the timing of inoculations. Buy-side traders seemed to be aligned with the work-from-home mandates, yet many of those we interviewed were ready to head back to the office, albeit with more leeway to trade from home when needed.

When Asset Managers Will Return to Office



Source: Bloomberg Intelligence

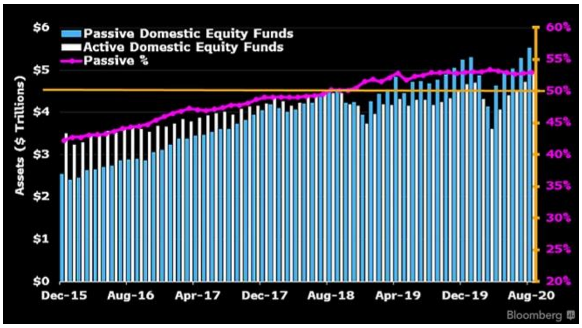
Will the Covid-19 Crisis Stem the Shift to Passive From Active?

The last decade's shift to passive funds from active has been dramatic, but recent volatility and political change fueled by Covid-19 may improve the outlook for stock pickers. From almost nothing to over 50% of equity assets under management, passive and ETF strategies have gained traction, partly due to low fees but also because active managers have struggled to beat indexes.

Passive Funds Have Overtaken Active.

Stock pickers have historically had a very hard time beating their benchmark. Last year's S&P-Dow Jones active vs. passive management study found that after 10 years, 85% of large-cap funds underperformed the S&P 500 index. This has caused the rise of passive funds and ETFs. Currently, passive funds have captured 53% of the U.S. equity market, pressuring active managers.

Active vs. Passive Mutual Fund AUM

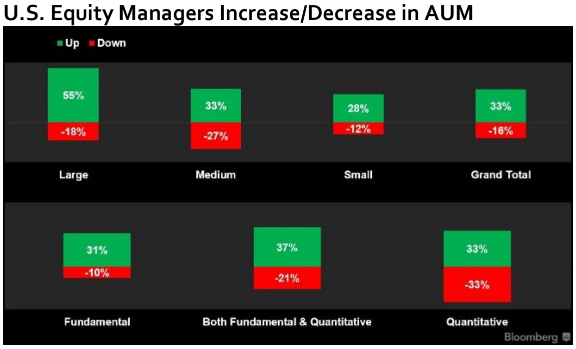


Source: Bloomberg Intelligence

Institutional Traders Think Stock Pickers Can Win.

Over 15 years of our interviews, head buy-side traders have frequently commented on the encroaching active/passive debate by advocating resurgence when volatility rises. Well, volatility arrived in 2020 and traders were right, as many have seen assets under management improve. Overall, 33% of our sample said assets increased due to recent volatility, helping larger active managers (55%) more than smaller peers. This move didn't benefit passive managers, as 31% of fundamental managers and 37% of those offering both fundamental and quantitative strategies increased assets while quantitative managers were much more split.

U.S. Equity Managers Increase/Decrease in AUM

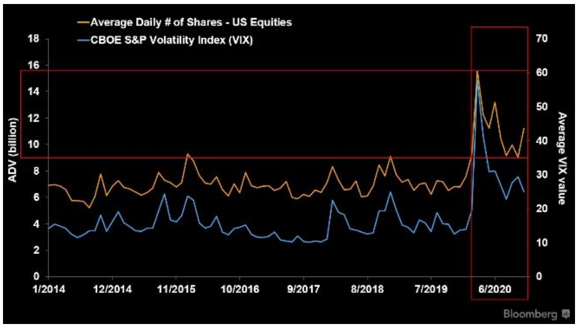


Source: Bloomberg Intelligence

Trading Volatile Markets: Hard at the Office, Even Worse at Home.

Trading from a home office is hard enough, but trading away from the office during the highest-volume months since the global financial crisis is another test altogether. The past nine months have experienced the highest monthly average daily volumes on record, and the lowest volume month during the Covid-19 crisis (October) was still higher than every month save for three dating back to the Flash Crash of April-June 2010. Trading this market from home has been no easy feat.

U.S. Equity Volume and Cboe VIX

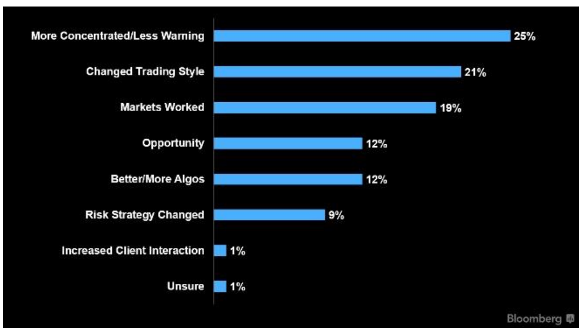


Source: Bloomberg Intelligence

Covid-19 Crisis More Volatile, Faster Than Others.

Comparing Covid-19 with the global financial (GFC) and dot.com crises uncovers a number of highlighted differences beside working from home, most significantly the surprising nature and concentration of the pandemic. Valuations were very high prior to the dot.com crash, alarming analysts. Though the GFC occurred abruptly, it too had precursors in the demise of Bear Stearns' two credit hedge funds and the sale of Bear to JPMorgan Chase. The effect the Covid-19 crisis had on markets was also shorter, as it took years for the market to recover from both the dot.com bust and GFC, while it took just seven months for the S&P 500 to regain the ground lost to the virus.

Covid-19 Volatility Challenges vs. Other Crises

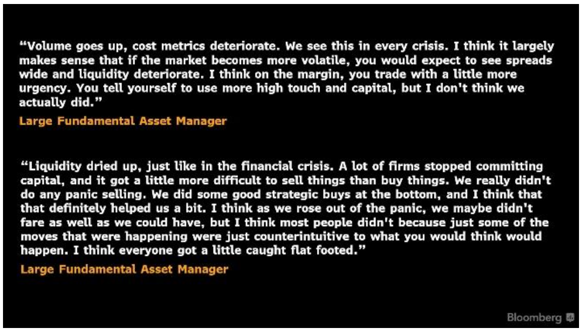


Source: Bloomberg Intelligence

Volatility Changes How Institutional Traders Work.

Volatility during the most severe period of the crisis was extreme: This crisis breached 80 on the one-day VIX, a level that went unbroken during the GFC. During times of volatility, liquidity patterns change. Spreads widen, displayed liquidity drops and traditional brokers and banks become more leery to extend execution certainty and capital. That was definitely the case during this period.

Trading in Volatile Markets Quotes


"Volume goes up, cost metrics deteriorate. We see this in every crisis. I think it largely makes sense that if the market becomes more volatile, you would expect to see spreads wide and liquidity deteriorate. I think on the margin, you trade with a little more urgency. You tell yourself to use more high touch and capital, but I don't think we actually did."
Large Fundamental Asset Manager

"Liquidity dried up, just like in the financial crisis. A lot of firms stopped committing capital, and it got a little more difficult to sell things than buy things. We really didn't do any panic selling. We did some good strategic buys at the bottom, and I think that that definitely helped us a bit. I think as we rose out of the panic, we maybe didn't fare as well as we could have, but I think most people didn't because just some of the moves that were happening were just counterintuitive to what you would think would happen. I think everyone got a little caught flat footed."
Large Fundamental Asset Manager

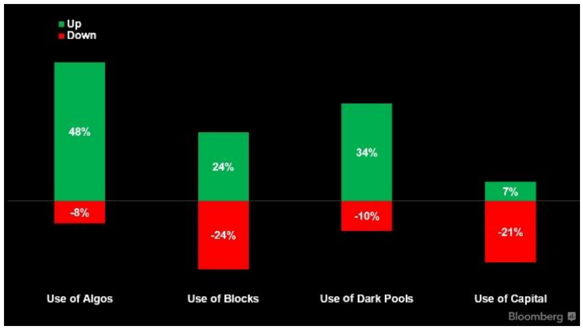
Bloomberg

Source: Bloomberg Intelligence

Volatility Increases Both Aggressiveness and Passivity.

Extreme volatility forces traders to change execution mechanisms in the hunt for large liquidity; i.e., blocks. However, blocks are harder to discover during volatile periods, as finding a large buyer isn't easy when the market is plummeting. Amid volatility, traders use dark pools more as they search for the other side of the order away from lit, public markets. When that doesn't work, traders turn to algorithms to manage orders. This certainly occurred during the pandemic, as 34% of the traders told us they increased their use of dark pools, while 48% expanded the use of algorithms. Broker capital was reduced by 21%.

Change in Use of Equity Trading Tools

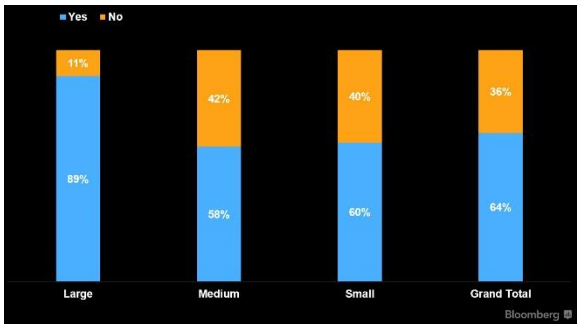


Source: Bloomberg Intelligence

Conditional Orders on the Rise.

The fragmented nature of U.S. equity markets, with over 48 regulated trading venues, make it difficult for traders to leverage hidden liquidity (non-displayed orders). Buy-side traders can send hidden orders to dark pools/alternative trading systems or exchanges, yet if they're sent using traditional hidden-order types, the orders risk being simultaneously executed. Traders are increasingly using conditional-order types in hidden liquidity pools to help them register interest in multiple pools without being exclusive to a single pool. Conditional orders are being employed by 89% of larger firms, while just 60% of smaller companies use them.

Use of Conditional Orders



Source: Bloomberg Intelligence

Algorithms, Algo Wheels and Market Structure Get More Critical

Trading algorithms and algo wheels/analytics are increasingly the most essential tool in the buy-side trader's kit as the electronification of U.S. equity markets means almost every order -- even manual trades -- has to negotiate 16 exchanges, 32 alternative trading systems/dark pools, a handful of single-dealer portals and electronic market makers. This requires technological and market-structure prowess that limits who institutional investors can use for a broker.

Algorithmic Flow Becomes Largest Channel.

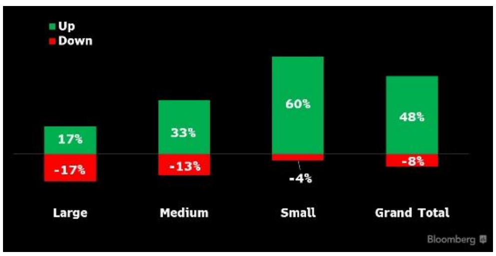
Algorithms -- and increasingly algorithmic wheels -- have become mainstays for buy-side traders, used not only to bridge liquidity pools, but increasingly to choose among myriad brokers, models and settings needed to even approach the market. Algorithms started as a way for traders to execute small, innocuous orders into an increasingly fragmented equity-exchange infrastructure.

More Buy-Siders on Algo-Trading Bandwagon.

Algorithms are gaining prominence, with buy-side respondents to our U.S. Institutional Equity Trading Study using automated tools more than ever. Small funds exploded onto the scene in 2020, with 60% citing greater use vs. 4% less; the rest stood pat. Larger funds' responses were a wash, with 17% on either side of the fence. Small and midsized funds more than made up for that, as 48% of all firms increased algo use vs. 8% that cut back.

The increase not only affirms improvement in algorithmic trading at sourcing liquidity from a fragmented market, but also firms' abilities to manage performance through "algo wheels," software that compares and selects the optimal broker or formulas.

Small, Midsize Traders Fuel Surge in Algo Use

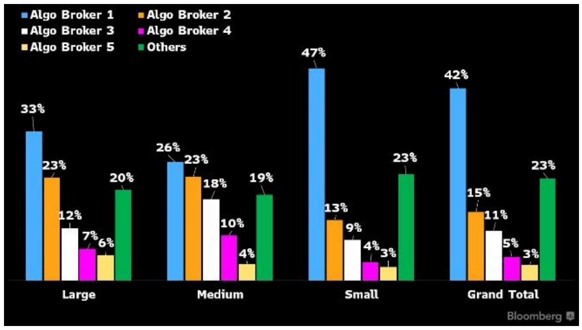


Source: Bloomberg Intelligence

Lead Algo Broker Captures 42% of Low-Touch Flow.

Though the overall commission pool is concentrated at the top, the algorithmic pot is even denser. The lead algo provider on average captures an incredibly concentrated 42% of their low-touch order flow. Even the largest buy-side firms pack orders into their lead brokers, as the largest funds allocated 33% of their flow to their top provider, 23% to the No. 2 and 12% to their third-most important provider. If a broker isn't in the top five, it stands to lose out on 77% of a funds' order flow.

Percentage of Flow to Largest Algo Brokers

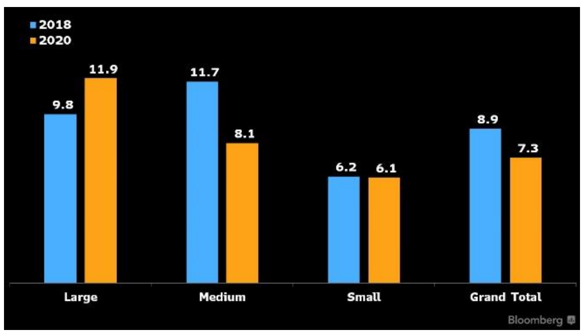


Source: Bloomberg Intelligence

Larger Buy-Side Firms Took on Algo Providers.

Though the largest buy-side brokers haven't increased their daily use of algorithmic tools like their smaller counterparts, they were more aggressive about adding providers in 2020. On average, larger firms added two more algo providers vs. 2018 to their stable of electronic brokers, tapping the resources of almost 12 apiece. Midsize brokers reduced their count by almost four, helping to explain the 18% two-year decrease industrywide, as the smallest respondents to our study held just above six.

Average Number of Algo Providers Used



Source: Bloomberg Intelligence

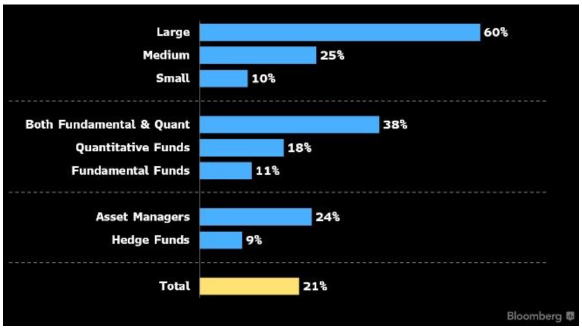
Algo Wheels Act as Battlebots in Fight for Trading Supremacy.

A trading algorithm splits a larger order into smaller pieces and executes them, but when dozen of models are employed, selecting the right algo can be confusing. Algorithmic wheels randomize algos and compare model performance. Among the questions wheels can answer: Which algorithm performs best given the name, time and trading scenario, and what happens when the broker changes the model?

Algo Wheels/Analytics Get Traction in Largest Funds.

The use of algorithmic wheels/analytics to help the buy-side streamline their trading desks is gaining appeal with bigger companies, as 60% of the larger funds we interviewed use the tools to help allocate order flow. Algo wheels enable traders to remove selection bias by randomizing model selection and measuring performance. Like A/B -- or split -- testing, algo wheels/analytics send similar orders to different brokers and measure their execution performance. These tools streamline workflow and reduce the need for traders to understand the nuances of selecting and setting the four-to-six algorithms offered by six-to-12 providers.

Percentage of Funds Using Algo Wheels

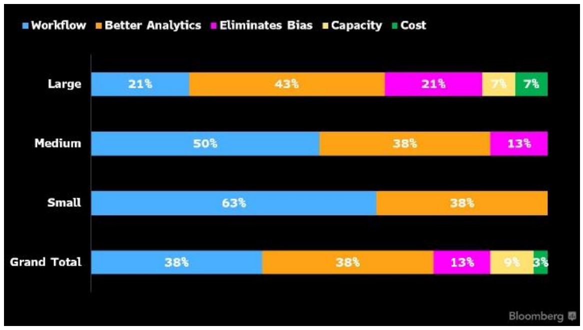


Source: Bloomberg Intelligence

Wheels Streamline Workflow, Improve Measurement.

Of the buy-side funds we interviewed, 38% said the benefits of using algo wheels/analytics came down to either improving workflow or bolstering performance measurement. Larger funds preferred the wheel/analytics' ability to help them measure performance, while smaller funds' were more partial to workflow management gains.

Benefits of Using Algo Wheels

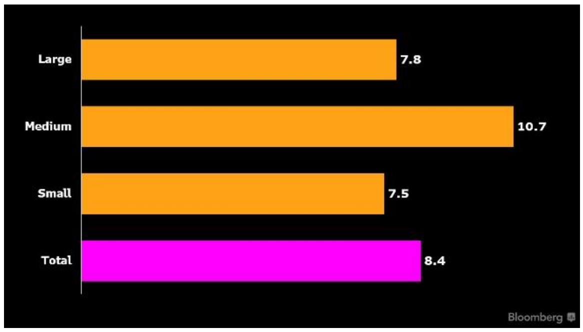


Source: Bloomberg Intelligence

Standard Wheels Engage Eight Providers.

On average, buy-side funds use 8.4 providers on their algo wheel, and while it may seem prudent to load up, many funds don't trade enough volume to employ a wide array of algorithms through this process. Using too many brokers or trading models may be at cross purposes with the overall goal of concentrating commissions with fewer brokers, as they try to preserve relationships that are beneficial within specific disciplines.

Average Number of Algos on Wheel

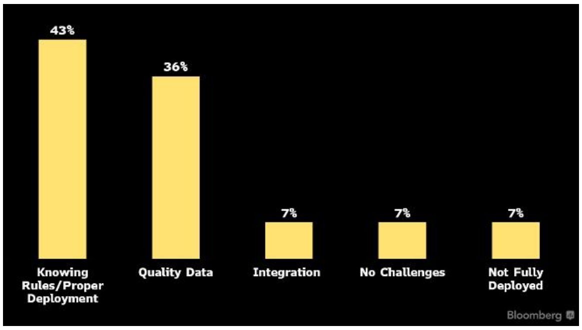


Source: Bloomberg Intelligence

Knowing When and How to Measure Algos Is Critical.

The most significant challenges of engaging a broker is knowing when to use the algo wheel. To fully engage the tool, the buy-side needs to concentrate flows in order to aggregate enough volume with each broker and model to get validating statistics on unique types of stocks during different parts of the day and amid variable liquidity conditions. Comparing the performance of two algorithms when one model is trading less-liquid names or during an inactive period won't give the fund enough reliable data to perform a valid comparison.

Challenges of Using Algo Wheel



Source: Bloomberg Intelligence

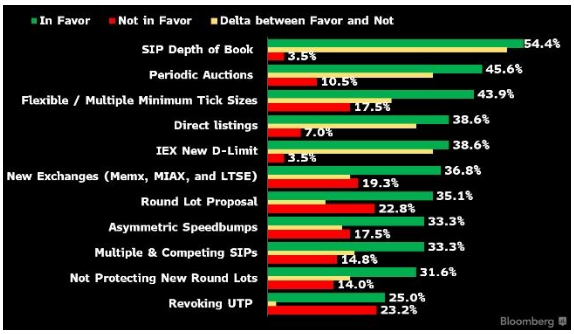
Book Depth, Consolidated Tape Are Priorities for Market Updates.

Among the many market-structure initiatives poised to rattle equity markets, buy-side traders we queried said improving and speeding the delivery of market data ranked higher, while concentrating liquidity in smaller-capitalized stocks was least important.

Data, Auctions, Tick Size Drive Structural Needs.

The most positively viewed initiatives, though heterogeneous, are the addition of multiple pricing tiers to the consolidated tape, the importation of intraday periodic auctions and the development of flexible tick sizes depending upon price and volume, the last two common in Europe's markets. Other initiatives include the ability for companies to directly list on exchanges without going through the complex IPO process, and the SEC's blessing of Investors Exchange's (IEX) new D-Limit, which enables orders to be moved out of the way when it looks like the market will move aggressively against the investor.

Buy-Side Market Structure Priorities

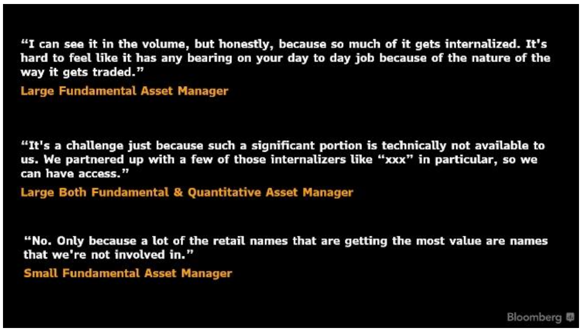


Source: Bloomberg Intelligence

Retail Flow Bypasses Most Institutional Investors.

One of the major market-structure changes brought out by the pandemic and the move toward zero commissions has been the overwhelming growth in retail trading. Though not intrinsically a market-structure change, the majority of retail order flow doesn't make it to an exchange or alternative trading system (ATS), where it can be traded against by institutional investors. This stream is intermediated by electronic wholesalers who internalize it and, for the most part, trade these orders out of their inventory and interact with the market only when they want to reduce risk.

Comments on Growth/Impact of Retail Flow

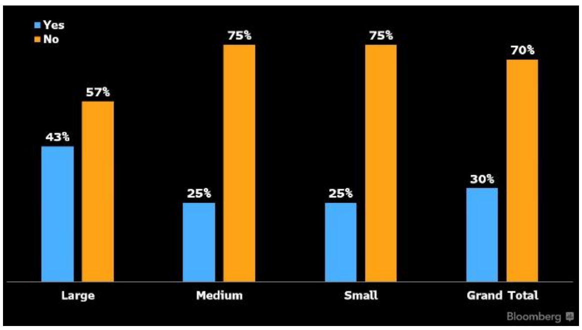


Source: Bloomberg Intelligence

Retail Internalization Doesn't Have Wide Impact.

The direct internalization of retail flow by wholesalers means that buy-side traders need to work directly with these firms for access or wait until these mostly electronic wholesalers decide to release the flow into the market. Retail investors tend to trade different names than institutions, so this internalization process only affects 30% of the buy-side traders we interviewed, with larger firms more involved than small and midsize investors.

Percent of Traders' Impacted by Increased Retail

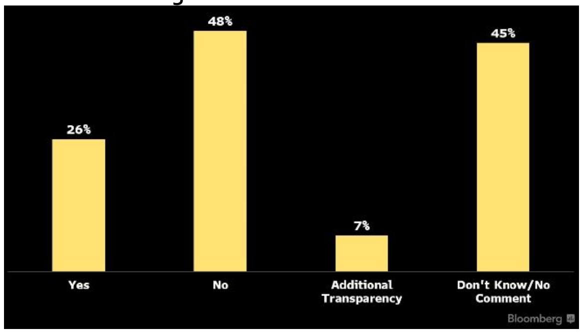


Source: Bloomberg Intelligence

Transparency, Time Will Fix Retail Challenges.

Buy-side traders aren't happy that retail flow is being intercepted and internalized by electronic wholesalers, yet only 25% of those we interviewed believe the SEC should step in, while 48% said it shouldn't. Most think retail participation will return to historic norms in time and that additional transparency would help the process, but a fairly large 45% didn't know or had no comment

Should SEC Change Retail Internalization Process?



Source: Bloomberg Intelligence

Brokers in a Box: Technology, Competition Turn Up the Pressure

Under pressure to reduce fees, asset managers are inclined to concentrate broker relationships in 2021, increasing the odds that some will join Lehman, Bear Stearns and other brands of yore in the history books. Our U.S. institutional equity trading study of 85 major asset managers confirms that technology and efficiency favor the top brokers with the best products, especially trading algorithms and low-touch electronic tools, as high-touch services, daily research calls and notes take a back seat. Respondents' in-house trading desks may have a fighting chance as concerns over conflicts of interest and losing key partners damp the outsourcing concept.

World of Hurt: Broker Lists Cut by 25%, With More on the Way.

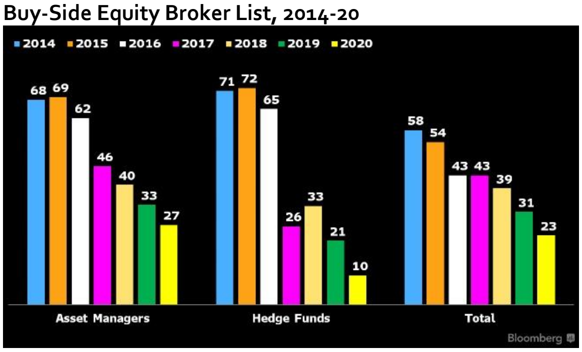
Despite massive liquidity and service demands, asset managers remain inclined to cut broker ties, our U.S. equity trading study shows. Being a broker continues to be difficult, as unbundling forced some to shut trade desks and turn into independent research providers, lower commissions and technology burdens have crushed others, and some never regained footing after the global financial crisis.

Money Managers' Broker Pool Down Eight More Slots.

BI's U.S. institutional equity trading study confirms that the brokerage world is consolidating, with the damage made more visible by Deutsche Bank, Societe Generale, HSBC and other banks restructuring their desks. Much like the disintegration of commission pool and research relationships, buy-side investment firms are using fewer brokers to execute trades, sticking only with those perceived to add value, with beauty in the eye of the beholder. The multiyear decline in the number of relationships continues, with the brokerage pool declining by 25%, or eight slots, to 23.

Our exhibit shows the decay is more aggressive among hedge funds, with traditional asset managers only paring their relationships by 18%.

Buy-Side Equity Broker List, 2014-20

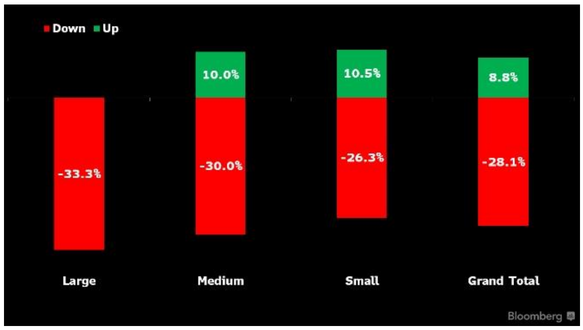


Source: Bloomberg Intelligence

Across-the-Board Declines Expected in 2021.

Reductions are being registered across large, medium and small asset managers, and on average 28% of buy-side funds expect to pare their broker lists into 2021. Only 8% of our study participants expect their lists to expand, while none of the larger funds expressed interest in pursuing additions. Based on respondents' feedback, brokers need strong electronic products and service, high-touch support and access to block liquidity to remain relevant. This is a challenge for many brokers, as developing unique electronic tools requires securing investments. Attracting such capital is increasingly difficult in a market governed by a long-term commission pool decline.

Projected Broker List Cuts 2021



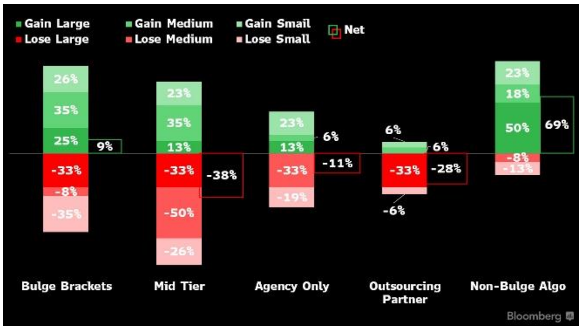
Source: Bloomberg Intelligence

Tech-Enabled Brokers: Largest Market Share Gains.

Non-bulge-bracket algorithmic brokers including Virtu Financial, Citadel Securities and Jane Street, known for their electronic capabilities, are probable market share beneficiaries as the industry relies more on electronic liquidity and tools. When respondents were asked to rank long-term views of market share gains vs. loss, the electronic brokers' net ranking was plus 69%, based on our study. The only other positive reading was for bulge brackets (plus 9%). Prospects are bleaker for smaller, outsourcing and agency brokers, all with negative readings.

The decidedly positive vs. negative view for non-bulge-bracket algorithmic providers was most widely reinforced by the largest funds, 50% of which believe these firms will gain share.

Buy-Side Perspective of Brokers' Share Gains



Source: Bloomberg Intelligence

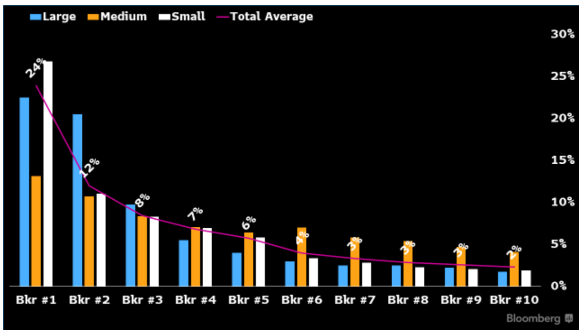
Critical to Be No. 1 Broker; Reaps Quarter of Equity Commissions.

The top broker gets 24% of a large-sized fund's equity commissions, double No. 2 and triple No. 3, and worth $1.6 million more for the top- vs. third-ranked firm and almost $2.4 million more than No. 6, based on our U.S. institutional equity trading study. Lower-ranked brokers need better product and service portfolios to seize business, with algorithms key to many respondents.

Lead Broker Snags 24% of Equity Commissions.

Capturing the largest share of a fund manager's commissions budget is the primary equity broker's reward. Our proprietary study of 85 major asset managers shows funds' lead broker captured 24% of allocations. No. 2 got 12% and No. 3 garnered 8%, while the fifth firm involved in the trade captured just 6%. Brokers lower in the pecking order earned even less.

Percentage of Equity Commission to Lead Broker



Source: Bloomberg Intelligence

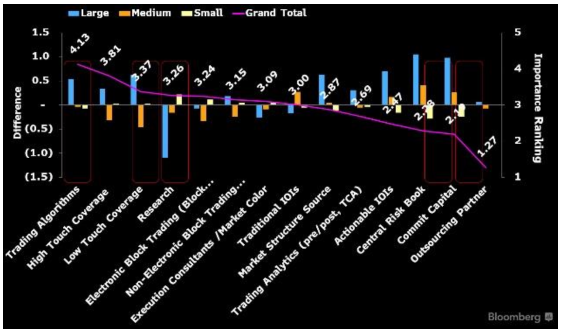
Many factors contribute to being No. 1, but trading algorithms and providing dependable high- and low-touch services are some of the keys to attracting order flow. The distribution of commissions can also change by firm type (asset manager/hedge fund), trading style (fundamental/quantitative) and size.

Algorithms: The Most Important Service.

Equity brokers offering the best trading algorithms and high- and low-touch service garner the biggest share of a large fund manager's commission wallet. Algorithms drive 43% of order flow and have become the most critical brokerage product. The importance of "algos" surpasses the value of high-touch relationships, personified by daily research calls and notes, while low-touch services provided to support electronic tools are increasingly significant. Improvements in these categories will help brokers garner more business.

Our graphic displays each service respondents identified in our study and an average 1 to 5 ranking, and segments the brokers' offerings by size in relation to the average. Bars above/below the axis chart importance vs. the mean.

Ranking of Broker Equity Trading Services

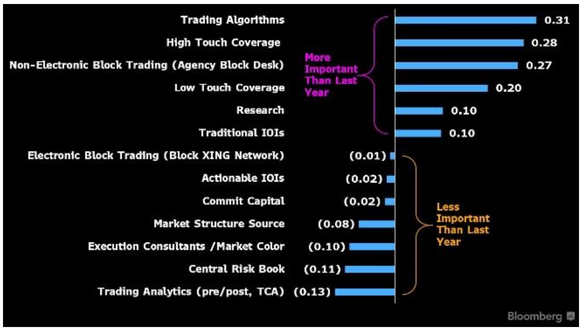


Source: Bloomberg Intelligence

Best Have Algorithms, High-Touch Coverage, Blocks.

Covid-19 has changed the demand for brokers' institutional equity trading offerings, with algorithms, high- and low-touch services and block liquidity increasingly important to buy-side traders. Execution consulting, central risk books and trading analytics are less significant for brokers to attract commissions. This change in the pecking order aligns with the volatility-driven demand for algorithms, service and liquidity since the pandemic. The decreased importance of central risk book capital, trading analytics and market color, we believe, is driven by banks' diminished desire to extend capital, plus the increased use of algo wheels and tools to help traders automatically select algorithms.

Change in Brokerage Product/Service Demands



Source: Bloomberg Intelligence

Outsourced Trading More Mind Share Than Traction; Desks Not Done.

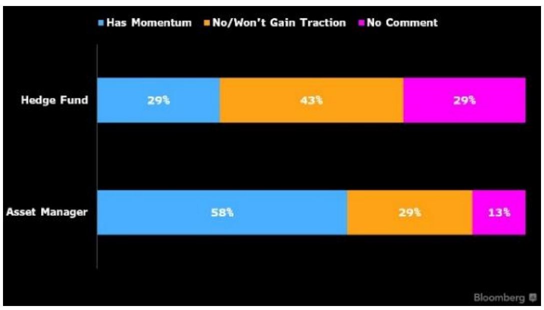
In a relationship-driven business, we find that buy-siders remain interested in the concept of outsourced trading of noncore assets, but reluctant to ditch their trade desks. Fee pressure has hit smaller players hardest, while midsized and larger funds are concerned about losing key money-making relations and the hurdles to conflict-free third-party trade execution.

Asset Managers Far More Supportive of Outsourcing.

Our buy-side sentiment study shows that asset managers are decidedly more bullish than hedge funds about the progression toward outsourcing functions traditionally performed by in-house trading desks. By a 2-to-1 margin, respondents to our study said that the outsourcing movement has legs, with the cost benefits outweighing concerns about trading conflicts. Almost 30% of asset managers don't expect outsourcing traction.

Hedge funds are less enamored of outsourced trading, as higher-fee funds have either addressed the issue, are under less cost pressure or are more core to funds' alpha strategies than peers on the asset-management side.

Where Buy-Siders Stand on Outsourcing Trades

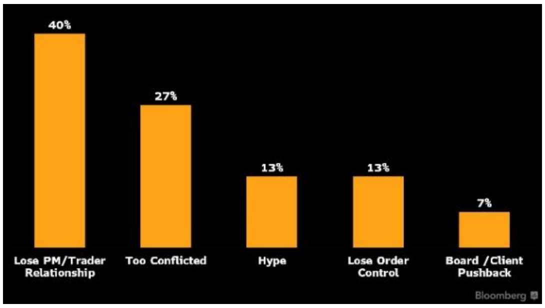


Source: Bloomberg Intelligence

Relationship Loss, Conflicts Temper Push.

The loss of linkage between the trader and the portfolio manager, followed by potential conflicts of interest, were the two biggest overhangs for our buy-side study respondents. Outsourcers act as the internal buy-side trading desk, representing the investment manager and giving them access to the buy-side's brokers, dark pools and trading strategies. This information and access, if used indiscriminately, could hurt the manager by leaking inside knowledge as well as investment and trading strategies. Conflicts of interest are also a concern because it could become difficult to know how orders are prioritized across clients.

Biggest Outsourcing Hangups for Buy-Siders?

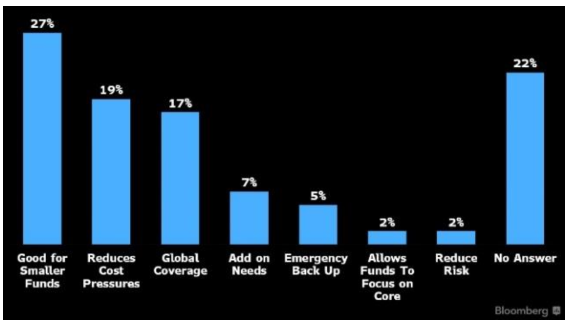


Source: Bloomberg Intelligence

Helps Smaller, Expansion-Conscious Managers Most.

It's expensive to run even a small trading desk. For instance, if we assume a hypothetical all-in rate of 2.5 cents a share and 1x turnover, a two- or three-person team with the requisite trading infrastructure and data would eat up the presumed $600,000 of commissions earned from a $1.3 billion equity manager. The broker could save much of this through outsourcing. Eliminating the trading desk offers the fund the benefit of converting an internal expense into an execution cost borne by investors through commissions. This curbs fund expenses but also reduces investors' performance.

Outsourced Trading Benefits

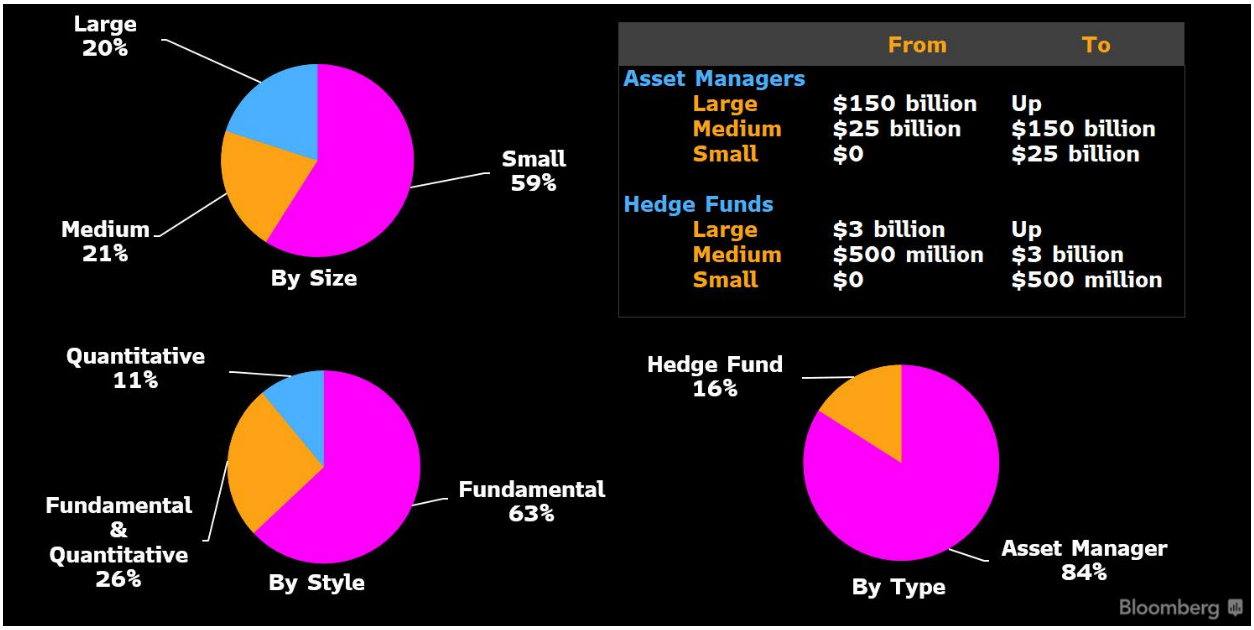


Source: Bloomberg Intelligence

Methodology

In 2020, BI's market-structure analysts interviewed and surveyed head or senior U.S. equity traders from 85 institutional money managers overseeing $15 trillion, or about 55% of the sector's assets under management. Of those, 20% were large, representing traditional asset managers over $150 billion in equity AUM (hedge funds over $3 billion), 21% medium-sized ($25-$150 billion; hedge funds $500 million-$3 billion) and 59% smaller outfits below mid-tier AUM. Asset managers represented 84% of our sample, and hedge funds 16%.

Institutional Equity Trading Study Composition



Source: Bloomberg Intelligence

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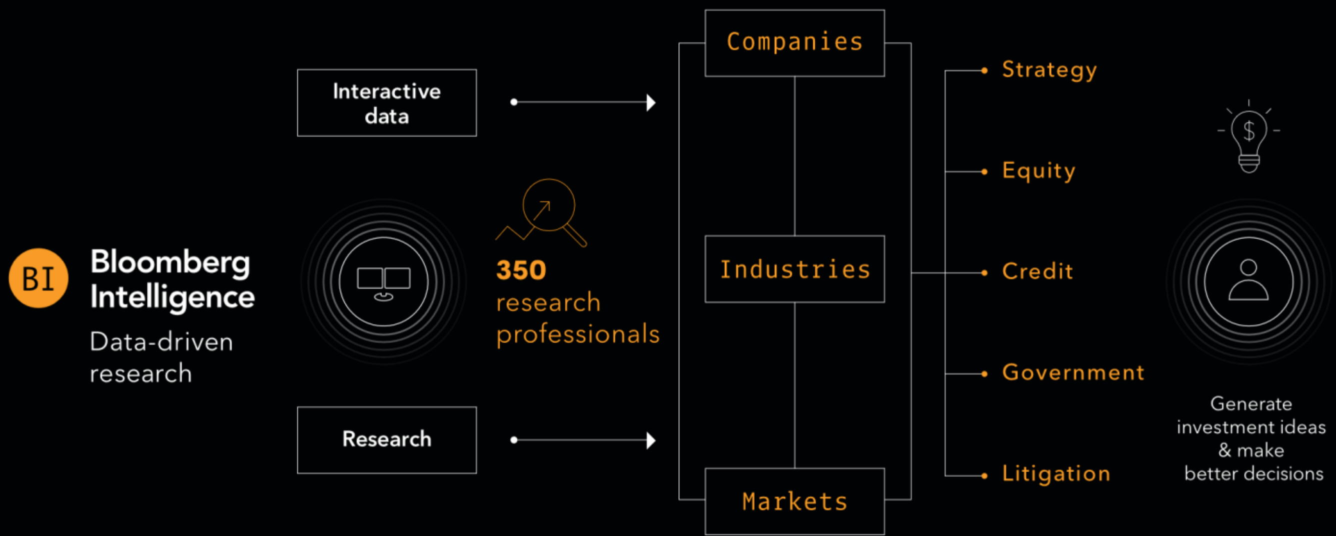

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