

HFT is cheating?

Debunking populist rhetoric on high frequency trading



The flawed argument that the market is rigged by high frequency trading (HFT) firms is omnipresent in the media. Those who criticize HFT would benefit from the advice Shakespeare's Polonius gave to his son, Laertes, "This above all to thine own self be true."

There are a number of ways that I believe the common arguments against HFT to be flawed:

First, it is incorrect to label HFT market making, statistical and index arbitrage, relative value trading, as well as most institutional algorithms and group each of these alongside proprietary trading. While fundamentally different than conventional trading, HFT can't be referred to as cheating, particularly when the traders are heavily regulated and must abide by the rules of the stock exchanges they are connected to. Neither should market makers be viewed in this light, as they have always played a critical role in our capital markets. They provide instantaneous liquidity to those that need it, while attempting to earn the bid offer spread. Before decimalisation, that spread was almost ten times larger. This meant that human traders could earn enough profit from the spread that they could manage their quotes manually, making for a much slower market than today. The fact that computer algorithms have replaced humans in this function actually turned out to be a good thing.

A history lesson reinforces this exact point. Some 15 years ago, many experts predicted that decimalisation would kill market making, and therefore, liquidity. I remember a conversation with former Treasury Secretary Robert Rubin where he made such a prediction. He argued accurately that human market makers could not make markets profitably in a one cent tick size structure. He reasoned that the natural spread of many stocks would be wider than the new tick size resulting in more volatile and faster moving spreads. Rubin's conclusion turned out to be incorrect, of course, because of the power of automation. What we did not realise back then, was that the combination of automated market making and the higher volumes incentivised by lower spreads would more than compensate for the inability of human market makers to succeed. Thus, the entire notion that HFT is, a priori, a bad thing is clearly misguided, as the modern market makers have contributed to much lower trading costs for investors.

Second, co-location and direct feeds are not cheating, and, in my opinion, are more effective and fundamentally fair than what they replaced: the floors of NYSE and NASDAQ. Both were exclusive clubs that conferred massive advantages for those lucky enough to be members, and neither allowed new competitors to enter without a fight. Before the order handling rules and decimalisation that ushered in the modern era, NASDAQ was rife with corruption, evidenced by the 1996 settlement, which revealed that market makers had colluded to keep posted bid offer spreads artificially wide. Worse still, market makers used closed systems to trade with each other inside the spread while holding client orders. Once executed at a superior price, they would capture that profit by filling the client order at the inferior quoted price.

The NYSE was better in some respects, but worse in others. Every stock had only one official market maker called the specialist. The specialist controlled the opening price, the closing price and had to approve every trade consummated. In addition, the specialist was for a long time the only person with the ability to see the entire order book in a stock. While there was more regulatory oversight of the NYSE specialists than there was at NASDAQ, pre 1996, they had significant structural advantages. In addition, the specialist knew which firm submitted each order, whether done on the floor or via the electronic DOT system. As a result, the floor brokers had a strong profit motive to stay on the specialist's good side and they tended to entertain them lavishly. In addition, floor brokers coveted the booths closest to the key specialist posts, but those were typically kept by the same firms for years and rarely changed hands. In short, not only did firms with a floor presence have advantages over those who did not, there were also differences among the firms on the floor. Compared to this, a fully egalitarian, co-location structure that allows all firms to participate equally is a major improvement.

Third, I believe the assertion that HFTs cheat ignores the realities of today's market. Firms labeled as HFT are not on a quest for a connectivity advantage over their competitors. Rather, they cannot afford to be at a disadvantage. While market makers have always needed to invest more in technology and market access than firms that do not make

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markets, they typically do not like the “arms race” of ever-faster communication methods. They have no choice but to pay the extremely high costs of the fastest available connections to exchanges to avoid losing money to competitors. In the words of game theory, it is a classic “prisoner’s dilemma”, where firms that make markets would be happy to compete on the basis of internal intelligence and engineering alone. The only winners in this game are the exchanges.

Finally, the above assertions overlook their alternative: creating even more advantages for those lucky enough to lease the closest datacenter space available, which would likely be completely unregulated. My prediction is that banning co-location, which is built to confer no advantage to any participant willing to pay for it, would be replaced by a land grab. Firms would build data centers across the street from exchanges. They could, in turn, either lease servers and network connections to trading firms based purely on economics, or restrict a premium location for their own use or the use of an exclusive group of firms. This stands in stark contrast to the current set up where exchanges, under the oversight of the SEC, must ensure that, within any offered service level, all users of the service are treated equally.

The bottom line is that fear-mongering is not a substitute for factual analysis. The only way to truly understand the impact of various technology changes to our market is to measure the actual cost of execution. As I have repeatedly written, there are two key points to stress every time someone asserts wrongdoing:

The debates about “Maker Taker”, co-location, and other perceived conflicts of interest are directly related to routing decisions, yet there is continued resistance to overhaul routing disclosure rules.

Retail execution quality has improved significantly over the past decade, but most pundits argue that institutional trading costs have not fallen as far. Despite this, there is little momentum towards expanding the disclosure of institutional trading costs.

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