Competition is a linchpin of successful free market economies. It drives innovation, promotes efficient use of resources, and increases choice for consumers. It is no less critical to the success of our equity capital markets. But trends of the past decade have seen a sharp increase in costs to trade on exchanges, a sharp decrease in the number of exchange broker members, and a steady erosion in the ability of smaller or new firms to compete for business.

It's all in the (not so easy to find) data

Unlike trading data, which can be traced back in time to uncover historical trends, information on the number of exchange members is not easy to find. Exchanges publish files on their websites that can be downloaded at any point in time to identify current broker members. When IEX first launched in 2012, we pulled files on exchange broker membership to help assess the number of potential broker members we might have some day. The chart below compares broker membership figures disclosed in 2012 to current exchange membership totals in 2021 for three of the largest exchanges (normalizing for duplication and for cases where the same firm appears to be trading through multiple market participant IDs).

The alarming reduction in broker members on exchange is equally clear when you consider changes in the number of exchange market makers, which have an outsized influence in setting market prices. For example, according to a regulatory filing in 2005,[ii] at the time of the stock market crash in 1987, there were 55 specialist firms (now known as Designated Market Makers, or DMMs) trading on the floor of the New York Stock Exchange. Merger, consolidation, and attrition reduced that number to 25 in 2000, and cut it again to seven in 2005. Today, there are just three left standing. Based on a Wall Street Journal report about an acquisition last year, just one of those firms now oversees trading for a majority of all stocks listed on NYSE.

The high and rising cost to trade

This constriction on competition is not hard to understand when you consider the rising costs to trade on exchanges. The large exchange companies are careful not to reveal the revenues each exchange receives for technology and data services, making it difficult to quantify fee increases by individual exchanges, but there is plenty of evidence of the overall trend. For example, a <u>detailed analysis</u> by SIFMA found that NYSE fees for various proprietary market data products increased 1,100% from 2010 to 2018. And individual members have disclosed the fees they pay exchanges for market data, connectivity and other products, which are often in the millions of dollars per firm annually.[ii] As one example, in 2020, IEX paid nearly \$4,000,000 for market data and access to other exchanges, and that total does not include any transaction costs for orders sent to those markets.

When you consider the impact of any increase in exchange costs coupled with declining membership, the potential impact on individual firms becomes clear. To illustrate, using a simple calculation of average cost per member, if fees charged by an exchange increased just

20%, a decline in membership of 40% would result in a doubling of average costs per member. Exchanges avoid the transparency that would allow for more precise estimates.

The overall pattern is the same — higher costs, spread among a shrinking base of firms. And these are just the explicit costs. Firms willing to quote on exchanges are often exposed to losses from latency arbitrage strategies, costs that have been well documented by IEX and others.

Seeking growth with fewer customers

Over the years, exchanges increasingly have come to rely on data and technology subscription revenues in preference to trading fees. Wall Street analysts like subscription revenues, provided they are growing, because they can be more easily forecast than trading volumes. For certain, exchanges have succeeded in growing those revenues, but their version of this model is very different from successful subscription businesses in other parts of the economy.

Take Netflix as one example. From 2012 to 2020, Netflix increased revenues for its streaming service from \$3.6 billion to \$25 billion, and it <u>increased</u> the number of subscribers from 30.3 million to 203 million. Over the same time-period, the average cost per subscriber went from about \$118 to \$123 — a 5-dollar difference (an increase of just over 4% per subscriber).

By contrast, the largest U.S. exchange companies seem intent on squeezing more and more revenue out of subscribers, which is consequently shrinking the base of members they can charge. That places an even greater burden on those that remain and raises the barrier for any potential new entrants. The apparent result is to discourage, rather than encourage, free market competition.

Looking ahead

A core part of the SEC's mission is to promote competition. The Securities Exchange Act of 1934 contains 30 references to competition as a key consideration that guides the Commission's own rules and its review of those of the exchanges and other self-regulatory entities. The legislation that mandated the creation of a national market system includes a finding that the public interest depends on assuring "fair competition among brokers and dealers, among exchange markets, and between exchange markets and [non-exchange markets]."[iii]

The good news is that the Commission is paying attention. In recent years, it has ramped up scrutiny of exchange data and technology price hikes, and it has <u>adopted new rules</u> that would increase competition for market data. The three large

exchange companies <u>quickly sued</u> to block the implementation of those rules, but there is no indication the Commission is changing course, and Chairman Gensler in <u>early remarks</u> has made clear he is looking closely at how the existing market structure affects competition. This focus is welcome as the Commission sets its agenda for regulatory reform this year and beyond.

[i] Securities Exchange Act Release №34–52969, File No. SR-NYSE-2005–38 (December 16, 2005).

[iii] See for example https://www.sec.gov/comments/sr-nyse-2016-45/nyse201645-1447140-130076.pdf, detailing Wolverine Trading's costs for NYSE market data and connectivity.

[iii] 15 U.S.C. §78k-1(a)(1)(C)(ii).

About IEX

Launched in 2016, the Investors Exchange is a stock exchange working to protect investors. In just three years, the Investors Exchange has grown to be one of the Top 10 largest exchange operators, globally, by notional value traded. To learn more about the exchange and other IEX businesses visit www.iextrading.com or search IEX.

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