James J. Angel, Ph.D., CFP®, CFA
Associate Professor of Finance
Georgetown University[1]
McDonough School of Business
Washington DC 20057
angelj@georgetown.edu
+1 (202) 687-3765

May 13, 2024

Securities and Exchange Commission
100 F St. NW
Washington, DC 20549-9303
Rule-comments@sec.gov

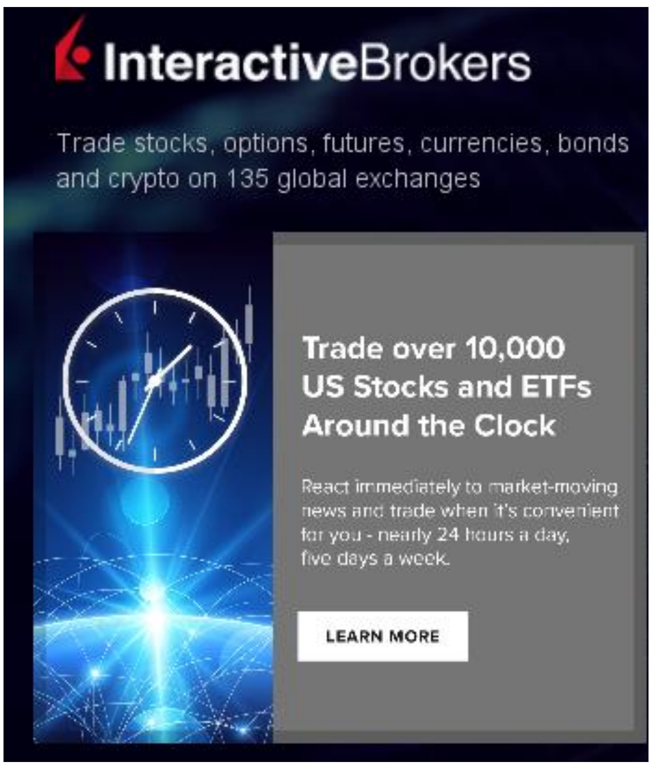
Re: 24X Exchange
File No. 10-242

Dear SEC:

[1] All opinions are strictly my own and do not necessarily represent those of Georgetown University or anyone else. I am very grateful to Georgetown University for financial support. Over the years I have served as a Visiting Academic Fellow at the NASD (predecessor to FINRA), served on the boards of the EDGX and EDGA stock exchanges, served as Chair of the Nasdaq Economic Advisory Board, and performed consulting work for brokerage firms, stock exchanges, other self-regulatory organizations, government agencies, market makers, industry associations, and law firms. I am the academic director for the FINRA Certified Regulatory and Compliance Professional (CRCP®) program at Georgetown University. I've also visited over 85 stock and derivative exchanges around the world. As a finance professor, I practice what I preach in terms of diversification and own modest and well-diversified holdings in most public companies, including brokers, asset managers, market makers, and exchanges.

I read with great interest the comment letter of accounting professor Ed deHaan together with Ph.D. student Andrew Glover.[2] The gist of their comment letter is that retail investors are stupid and that the SEC should therefore restrict retail access to financial markets to prevent retail investors from hurting themselves.

I note that their comment letter does NOT explicitly oppose granting exchange registration to 24X. Indeed, 24-hour trading is already here on automated trading systems, so rejecting the 24X application would not restrict retail access to overnight trading at all. As previously discussed in my last comment letter: Since we already have 24-hour trading, it is best that it be on regulated national securities exchanges.[3] This will create the highest level of investor protection.[4]



[2] https://www.sec.gov/comments/10-242/10242-461951-1209114.pdf
[3] https://www.sec.gov/comments/10-242/10242-455511-1167614.pdf
[4] Likewise, the quibbles from a competitor (that runs a SIP and could easily extend its hours) about the impact of trading when the SIP is closed again ignore the fact that 24-hour trading is already here. https://www.sec.gov/comments/10-242/10242-463511-1223235.pdf

The authors also include a link to a paper of theirs that is forthcoming in an accounting (not finance) journal. A less-than-careful reader could misinterpret their comment letter as reporting the results of a study on extending trading hours. However, their paper does not look at changes in trading hours or even overnight trading. The paper uses IRS data from 2010 through 2019 and finds that investors in western time zones reported more capital gains than investors in eastern time zones during those years.

This effect can also be seen in counties straddling time zone boundaries. They use a clever identification strategy that looks at differences between two counties that are right next to each other but happen to be across a time zone boundary. Presumably, the investors on the western side of the boundary have one less hour of "social time" to trade because they would have to get up one hour earlier in clock time. Of course, they have the exact same number of total hours to trade. The authors find that "Retail investors just to the west of a border have 2.9 percentage points higher capital gains per year."

Care should be taken in using the results of the deHaan-Glover paper in regulatory decision making. Their study does not directly measure the impact of changes in trading hours. Indeed, everyone in the US has access to the same number of trading hours. They appear to reason that since investors like to sleep, western investors miss the early hours of trading when markets are more volatile and less "efficient."[5]

As the authors discuss in their paper, numerous studies have documented a home-bias effect: People tend to invest in companies located closer to home. This means that people in the western US are more likely to invest in companies headquartered in the west such as Apple, Google, Microsoft, and Facebook. How much of the western-investors-did-better result can be attributed to home bias? It is plausible that western investors engaged in home bias and thus invested in the western-based big tech companies that were the big winners in the last decade. The study does not have the data to answer that question.

As the authors honestly admit in the paper,

[5] The authors also look at proxies for retail trading around earnings announcements and find differences between eastern and western based firms, but that has little to do with whether or not to approve 24X.

> "However, this design tenuously assumes that traders living across the U.S. are similar across factors that determine investment performance. Data show significant differences in population characteristics across time zones, which undermines the credibility of our full sample analyses."[6]

Furthermore, the social-time effect of the time-zone boundary may push even those close to a time-zone boundary to focus their home bias (and thus investing results) similar to those in the rest of the time zone.[7]

There are other limitations with the study, which the authors readily admit in the paper. The paper uses reported "capital gains" from IRS Statistics of Income (SOI) by county.[8] The capital gains in the paper are based on taxable gains reported to the IRS, and that includes gains and losses on bonds, employee stock options, commodities, and real estate in addition to stocks. Gains and losses in non-taxable accounts are not in the data. These induce a degree of measurement error.

Their results can be interpreted in other ways as well. Perhaps those on the western side of a time zone boundary have to wake up earlier in terms of clock time. This "early to bed, early to rise, makes a man healthy, wealthy, and wise" syndrome might be part of the reported effect.

<u>"Trading too much" shows a misunderstanding of the many social benefits of trading.</u>

The comment letter also feeds into a common misunderstanding of the role of stock trading in our society that should not go unchallenged. Stock market trading not only produces the joint goods of matching buyer with seller and revealing price, but also produces entertainment. Is there any other industry (other than sports) that is guaranteed to be in the news every day? It is a well-known phenomenon that stocks with high volatility do not deliver returns consistent with that volatility.[9] Some investors like to "play the market" and they thus pay for that entertainment. Entertainment is a socially valuable activity that is a large part of

---

[6] Here the authors are referring to the full sample that includes all of the counties in the relevant time zones and not just those that are across the border from each other. The cross-border analysis was intended to control for this.
[7] This would explain how the regression coefficient for the cross-border part of the study is roughly similar to the regression coefficient for the full-sample study that includes all of the counties in a time zone.
[8] https://www.irs.gov/statistics/soi-tax-stats-county-data . Documentation for 2019, the last year used in the study, can be found at https://www.irs.gov/pub/irs-soi/19incydocguide.docx
[9] For but one of the many papers in this area, see Bali, Turan G., Nusret Cakici, and Robert F. Whitelaw. "Maxing out: Stocks as lotteries and the cross-section of expected returns." *Journal of Financial Economics* 99.2 (2011): 427-446.

the US economy. The US media and entertainment industry account for over $600 billion in annual revenue.[10]

Some investors have a preference for lottery-like payoffs, in which small gains or losses won't affect their lifestyle much, but a big payoff could be life changing. That can be a perfectly rational decision even knowing that the expected returns lower than other investments.

The deHaan-Glover paper starts with a quote comparing the stock market with a casino. Although both casino gambling and stock trading are very risky, there is a world of difference. In a casino, the gambler has no legitimate expectation of coming out ahead. The laws of probability are on the side of the house. In the stock market, investors who do their homework have a legitimate expectation that they will come out ahead. The less sophisticated retail investors may not make as much as the more sophisticated ones (DUH!), but they still, on average, can expect to make money.

It is far better for those with a gaming itch to scratch that itch in our stock market than in a casino. Such gaming investors bring in capital to the market, and this promotes investments that grow the economy. Their close attention to corporate activities leads them also gather and share additional information that benefits the price discovery process as well as corporate governance. Their risk-taking willingness to take long-shot bets on unproven and risky new ventures are part of what funds our future growth. Furthermore, their trading activity helps to promote liquidity in the market that benefits all investors including stodgy old buy-and-hold people like me. [11]

Respectfully submitted,

James J. Angel,

Georgetown University

---

[10] The US International Trade Administration estimates that US media and entertainment industry is over $600 billion per year. https://www.trade.gov/media-entertainment

[11] To their credit, the authors allude to this. They write "As mentioned, it is possible that retail investors' utility from trading exceeds their financial losses. From an overall market perspective, a potential positive externality is that retail investors provide liquidity that improves price efficiency."