Why Markets Should Stay Open

Published on March 19, 2020

Scott W. Bauguess

Director, Program on Financial Markets Regulation, McCombs School of Business

Dispelling the ostrich theory of market regulation

Closing your eyes is a natural response to being scared. My kids do it during movies. And when I was a kid, I was taught that Ostriches do it when they sense danger. But the head-sand bury is a myth. [1] It is no more true than the misguided belief that closing exchanges will make everything better during times of market uncertainty and negative news.

Yet this is what some commentators are calling for. CNBC featured an op-ed yesterday by one of its anchors titled: "Coronavirus is restricting market efficiency — We need a two-week trading holiday." [2] The writer asks, "How many times will the circuit breakers need to be triggered for governments and policymakers to seriously consider shutting markets? Two weeks might give everyone a chance to focus on the underlying problem."

Yesterday also featured Treasury Secretary Mnuchin announcing that shorter trading days was one option being considered. He said: "we may get to the point where we shorten the hours, if that is what they [exchanges] need to do." [3]

These are both bad ideas.

It is important to recognize that asset valuations change whether or not trading occurs. Owners of stocks and bonds reassess their perceptions every time new information arrives, which is 24/7 in a global economy. Their valuations adjust when markets are closed. And the longer we wait to let them express their views through trading, the larger the potential disconnect between the last known price and the true market price.

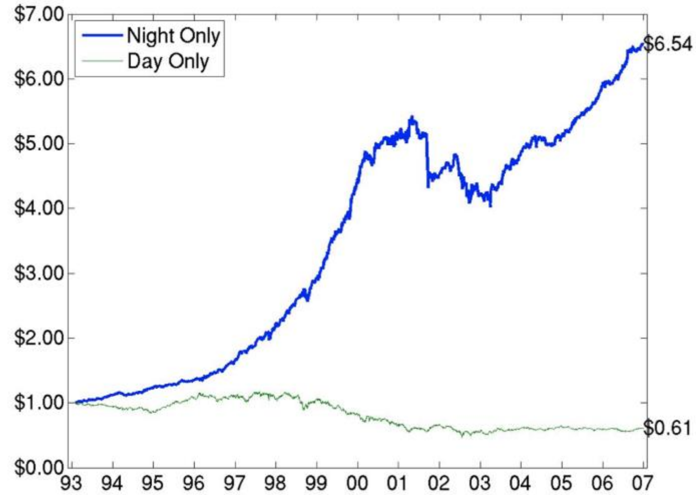
This could have profound consequences. Market closures prevent investors, regulators, political leaders, and ordinary citizens from learning about the well being of the economy. Trading reflects people putting their money whether their mouth is. There is no better way to survey economic developments than through market prices. Their absence will allow the coronavirus response to become untethered from economic reality. That would be a terrible outcome.

While shortening the trading day is a less a less bad idea than closing markets altogether, which the Secretary said was not being considered, it is unlikely to mitigate declining economic conditions. And it could very well make the situation worse, by making markets even more volatile than they already are.

Information production occurs when markets are closed

Making trading days shorter could increase volatility

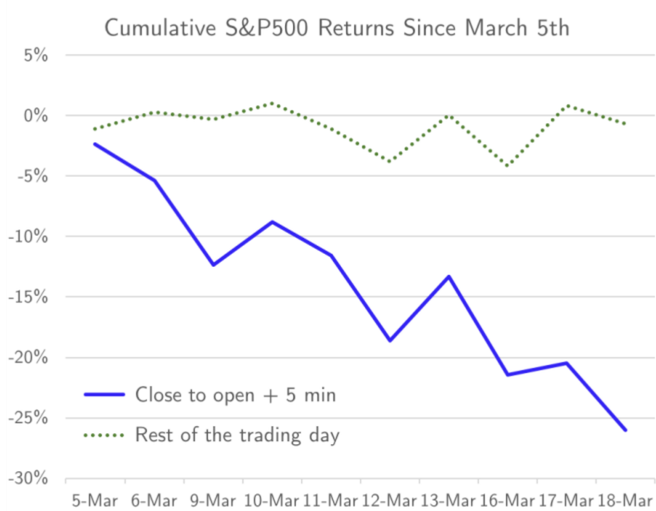
You can see this from the data. Academic research has long-studied how information processing is related to stock valuations. One paper finds that the vast majority of S&P 500 returns occurs overnight, between the market close and next day open. [4]



This is perhaps not too surprising given that companies often wait until after the close to make price-moving announcements. Add to this that normal trading hours occupy barely one-quarter of our breathing hours: 9:30 a.m. to 4:30 p.m.. Global news events such as they are today do not map to US trading hours. By the time morning rolls around, there is a lot of new information to get priced.

A similar effect can be seen over the past two weeks. Since last Monday, 94% of the S&P 500 return has accrued during the opening 5 minutes of each trading day. Moreover, the volatility of returns during this period is 60% higher than returns over the rest of the day. [5]

These results are consistent with traders reconciling overnight information at the open, and long-standing research showing that intraday trading volume and volatility is U-shaped: highest at the open and close. [6]



Shorter trading days would likely increase intraday volatility. While there is no precedent to establish such an empirical fact, the effect has been shown in models [7], and is otherwise intuitive given that trader-specific information can only be impounded in prices by interacting with other traders. If less time is given for this activity, then it is reasonable to predict that trading could become even more aggressive, and result in even more volatility.

Why does this matter?

The volatility effects of compressing the trading day could itself engender further volatility.

In a recently published paper, former SEC Chief Economist Larry Harris and a co-author explain how extraordinary growth in short volatility strategies poses a risk to financial markets. [8] They estimate that a whopping $1.5 trillion in AUM is backing strategies that sell or short equities when market volatility rises. And the associated trading, when coordinated, engenders further increases in volatility and selling activity.

Risk parity funds represent the largest footprint among the various strategies. As the name implies, these funds target an equal risk exposure across all asset classes. If volatility increases in one asset class, like with equities in recent weeks, fund managers liquidate their positions and reallocate to less volatile securities in another asset class.

A recent (and must read) article by the Wall Street Journal explains how it works. [9] Fund managers follow preset algorithms to make computerized trades, and if things get wild, they let their algorithms help make it wilder. They quote one manager as saying: "We need to cut position size when market volatility pops," followed by "It can feel awkward, but we know we're doing the right thing from a risk perspective." And another saying: "It's very clear what I have to do when risk rises. I have to reduce exposure."

These are 'dumb' strategies that do not require human judgement once established. While still at the SEC I spoke about the risk of these rule-based strategies, highlighting how they could unintentionally engender mechanical herding. [10] Unless a human steps in with new instructions, trading algorithms will pursue these preset strategies at any consequence.

We could be seeing the effects today. And the first warning signs may have been sent on February 5, 2018, when a spike in market volatility caused two inverse-VIX exchange traded products to fail. Back then there was concern that these ETPs accounted for a significant portion of the realized volatility, but the SEC never made known whether it studied the event, and if so, the findings.

Once the current market volatility settles, don't be surprised if there is a call for increased focus on risk parity funds (and their close cousins). Their designs are in many ways reminiscent of the portfolio insurance strategies that exacerbated the 1987 market crash. And if they are found to have exacerbated market conditions, questions will center on what to do about it. This won't be an easy issue to resolve.

For now, it is important to recognize that a shorter trading day could make things worse, not better. Markets should continue regular operations unless there is a physical reason that they cannot. But if regulators want to pursue a different length trading day, they should start by extending it. This would be less risky, and could yield insights into how volatility is affected by the length of the trading day generally.

Let's extinguish any thought of a trading holiday

A good way to end is to reemphasize that regulators have on several occasions made clear that markets should continue their operations, volatile times notwithstanding. This comes from both the Treasury Secretary and the Chairman of the SEC, Jay Clayton. And they are welcome declarations.

But that doesn't mean we should feel comfortable. If markets continue to be volatile, and the singing gets loud enough, regulators have been known to change their tune.

That some of the singers are market commentators from major news outlets is concerning. And many of the op-eds that I'm reading, including the one cited earlier, make statements without basis, are not supported by facts, and do not reflect an understanding of how a market economy works. That is both disappointing and dangerous.

The Coronavirus might be scary, but it is not the time to close our eyes to its effects.

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[1] Thanks to the San Diego Zoo for helping dispel what I was sure to be a childhood

mischaracterization of the truth (and for the cute picture). See, https://animals.sandiegozoo.org/animals/ostrich

[2] Julianna Tatelbaum, "Op-Ed: Coronavirus is restricting market efficiency — We need a two-week trading holiday," March 17, 2020, found at: https://www.cnbc.com/2020/03/16/coronavirus-is-restricting-market-efficiency.html

[3] See CNBC recording of presidential news conference, found at: https://www.cnbc.com/2020/03/17/treasury-secretary-mnuchin-says-financial-markets-will-stay-open-but-could-shorten-trading-hours.html

[4] Cliff, Michael, Michael Cooper, Huseyin Gulen, 2008, "Return Differences between Trading and Non-trading Hours: Like Night and Day," working paper found at https://ssrn.com/abstract=1004081. See related research, Branch, Ben and Aixin Ma and Ma, 2012, "Overnight Return, the Invisible Hand Behind Intraday Returns?" Journal of Applied Finance and Dong, Lou, Christopher Polk, Spyros Skouras, "A tug of war: Overnight versus intraday expected returns," Journal of Financial Economics.

[5] Analysis includes the first 5 minutes of trading in the market close (over-night) return on account of difficult to establish open prices as evidence by the three market-wide trading halts. Intraday trading data from Yahoo Finance.

[6] This is a well known and long established fact. See, e.g., Gerity, Mason and J. Harold Mulhering, 1994, "Price formation on stock exchanges: the Evolution of Trading within the day," Review of Financial Studies, found at: https://academic.oup.com/rfs/article-abstract/7/3/609/1602468

[7] Hong, Harrison and Jiang Wang, 2000, "Trading and Returns under Periodic Market Closures," Journal of Finance, found at: http://www.columbia.edu/~hh2679/jf-closure.pdf

[8] Bhansali, Vineer and Larry Harris, 2018, "Everybody’s Doing It: Short Volatility Strategies and Shadow Financial Insurers," Financial Analysts Journal. Found at: https://ssrn.com/abstract=3071457

[8] Banerji, Gunjan and Gregory Zucerkman, Why are markets so volatile? It's not just the coronavirus. Wall Street Journal, March 16, 2020. Found at: https://www.wsj.com/articles/why-are-markets-so-volatile-its-not-just-the-coronavirus-11584393165?mod=searchresults&page=1&pos=2

[10] At that time I have the remarks, and before the Larry Harris and Vineer Bhansali introduced their paper, I called the financial stability concern largely theoretical. See "Market Fragility and Interconnectedness in the Asset Management Industry," June 2017, found at: https://www.sec.gov/news/speech/bauguess-keynote-buy-side-risk-usa-2017-062017