

June 11, 2019

Via Electronic Submission (<http://www.sec.gov/rules/sro.shtml>)

Brent J. Fields  
Secretary  
Securities and Exchange Commission  
100 F St, N.E.  
Washington, DC 20549-1090

Re: File No. SR-NYSEArca-2019-01: Proposal to List and Trade Shares of the Bitwise Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E

Prof. Stephen McKeon submits this letter in response to the request for public comment by the Securities and Exchange Commission (“Commission”) regarding a proposal by NYSE Arca, Inc. to list and trade shares of the Bitwise Bitcoin ETF Trust under NYSE Arca Rule 8.201-E (“Proposal”).

I support the Proposal and appreciate the opportunity to add my perspective.

I am an Associate Professor of Finance at the University of Oregon and a Partner at Collaborative Fund, an early stage venture capital firm. In both roles I focus on blockchains and cryptoassets.

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### **Surveilled market**

The heterogeneity of the reporting quality within bitcoin exchanges is a confounding factor when considering what constitutes a surveilled market.

Activity that occurs well outside the scope of regulated entities has obscured the true market size and dynamics, and the digital nature of the asset class has allowed wide dissemination of fake and/or non-economic transaction data, which finds its way into data aggregators and influences the public discourse.

Just as the Commission would ignore self-reported data on gold transactions that aren’t verifiable when determining the market size for gold, focusing on verifiable spot exchanges for bitcoin is critical when determining market size for this emerging asset. Bitwise has produced a rigorous and detailed study of exchange volume and found that only ten exchanges have real and verifiable volume. This distinction is important for the surveilled markets test, because it means that the CME futures market is of “significant size” by nearly any definition. The Proposal states:

“Over the time period covered in the Bitcoin Study, the average daily volume of the bitcoin futures market was \$91 million. While this appears tiny in relation to the reported volume of \$6 billion, it is meaningful in relation to the actual volume of \$273 million. In addition, the CME futures market is larger than all but one spot bitcoin exchange and nearly as large as the largest bitcoin exchange.” (pp 26 of 95)

The futures market for bitcoin is larger than those associated with other ETFs that have been previously approved by the Commission such as Aberdeen Standard Physical Palladium Shares ETF (formerly known as ETFS Palladium Trust prior to October 1, 2018)<sup>1</sup> (palladium futures) and Breakwave Dry Bulk Shipping ETF (freight futures)<sup>2</sup>.

Therefore, the surveillance agreement with the combined CME/CFE futures exchanges satisfies the concerns outlined in the Winklevoss Order<sup>3</sup> regarding mitigation of market manipulation.

### **Financial market innovation**

The second point I’ll address is the importance of financial market innovation. It is a topic that has a long line of literature within finance and economics academic journals and I highlight a few important studies below.

Ross (1989) and Duffie and Rahi (1995) both address the topic of incomplete markets, among others, as a motivation for new financial products. Ross states (p. 541): “The most common explanation is that markets are incomplete and that these instruments permit us to complete them. Indeed, in the original reports to the SEC that attended the setting up of the CBOT options markets, the social value of options was largely described in such terms.”

Although other factors such as monitoring, agency costs, and taxes are important for innovation, the incomplete markets argument is more relevant for a bitcoin ETF than for ETFs composed of underlying assets that are already trading on regulated securities markets. Because investors cannot access bitcoin exposure, nor close substitutes, through regulated securities markets, the market is genuinely incomplete in this regard.

Tufano’s (2003) handbook chapter is a particularly comprehensive academic synthesis of financial innovation. In addition to market completeness, Tufano highlights that transaction, search or marketing costs can stimulate innovation. The line of products generated by iterative financial market innovations “enable investors to hold broad diversified baskets for consumption smoothing, risk management and

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<sup>1</sup> See Securities Exchange Act Release No. 60971 (November 9, 2009), 74 FR 59283 (“Notice”)

<sup>2</sup> See Securities Exchange Act Release No. 82390 (December 22, 2017), 82 FR 61625 (December 28, 2017) (the “Approval Order”)

<sup>3</sup> See <https://www.sec.gov/rules/other/2018/34-83723.pdf>

speculation.” (p. 323) He continues by stating “Merton (1992) characterizes the dynamics of innovation in the financial service world using a metaphor of “financial innovation spiral” in which one innovation begets the next.”

I support the Proposal because it furthers financial market innovation, makes securities markets more complete, and hopefully, will beget further innovation in financial securities down the road.

### **The importance of trust in economic transactions**

The concept of trust is a critical component for economic trade. Arrow (1972) states (p.357) “Virtually every commercial transaction has within itself an element of trust.” Akerlof’s (1970) famous market for lemons paper offers another example of how markets suffer when participants cannot credibly determine quality and lack trust. Bitcoin spot exchanges bear the hallmark of heterogenous quality and not all market participants are willing (or able) to determine type. These would-be participants therefore choose not to engage in the market for bitcoin. However, if a product existed that was available through trusted intermediaries with whom the participants were already familiar, namely their securities brokers, it would potentially alleviate some of the market frictions associated with information asymmetry around trading venues that exists today.

An important examination of the historical evolution of trust is Zucker (1989), who studies the shift in trust producing mechanisms between 1840 and 1920. She finds that transactions prior to 1840 were largely based on trust engendered by cultural similarities and repeated interactions. However, the first wave of globalization led to societal level changes in the movement of people (global migration) and movement of goods (via railroads). These changes caused market participants to be more heterogeneous and substantially dropped the cost of transacting at distance, both of which required innovation around the mechanisms by which society produces trust in economic exchange. This led to the rise of institutions, including banks, insurers, and regulation. The Commission itself was formed shortly thereafter to produce trust in securities markets.

Over the last 20 years, the digital revolution has created another wave of globalization. Digital goods, labor, and assets can now be sent electronically to anywhere on the planet at a trivial cost, akin to the societal level shift we witnessed at the advent of the railroads. New digitally-native trust producing mechanisms will eventually rise up to meet these new demands and Bitcoin is part of this arc. However, an important point that Zucker makes in her article is that trust producing mechanisms diffuse slowly because they need to be socially validated over time.

This point is particularly important for the Proposal, because while there is a segment of the population of market participants who are comfortable with bitcoin spot exchanges, there remains a substantial segment that would prefer to access exposure to bitcoin through intermediaries with whom they are already familiar and have a trusted relationship, specifically, the institutions that intermediate transactions in regulated securities markets.

While I acknowledge that I foresee disruption in this model of trust production in the future, it is the model that is most prevalent today and the model through which most investors in the United States buy and sell investable assets. I urge you to approve the Proposal so that investors can buy and sell exposure to bitcoin through these trusted channels as well.

Sincerely,

Stephen McKeon  
Assoc. Professor of Finance, University of Oregon  
Partner, Collaborative Fund<sup>4</sup>

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#### References

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<sup>4</sup> Disclosures: Collaborative Fund has an investment in Bitwise. It pre-dated my affiliation with the fund and was deployed from a vehicle other than the one with which I am affiliated. I therefore have no direct personal economic interest in the Proposal related to that investment, and I have not been compensated for writing this letter. I am, however, long bitcoin.