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This Texas Finance Professor Sifts Data for Signs of Rigged Markets

John Griffin, who discovered the Bitcoin-Tether connection, seeks to expose "the fruitless deeds of darkness."

Griffin *Photographer: Bobby Scheidemann for Bloomberg Businessweek*

By Matt Robinson, and Nick Baker
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At the height of Bitcoin mania in December, when the price of the digital currency was climbing toward $20,000, finance professor John Griffin started digging into 2 terabytes of trading data—equal to a tenth of all the text housed by the Library of Congress.

His findings rocked cryptocurrency markets. Griffin and Amin Shams, his co-author and a doctoral student, zeroed in on an obscure and controversial cryptocurrency, Tether. Its price is pegged to $1. Part of the idea is that crypto traders can use Tethers as convenient stand-ins for U.S. dollars.

Griffin and Shams noticed that when Bitcoin fell to certain levels, purchases using Tether would flood in to stabilize prices. After crunching the data, they concluded this fit a pattern consistent with someone, or a group of people, trying to manipulate Bitcoin prices. The two researchers made the startling claim that half the gains in Bitcoin last year can be attributed to Tether. The results of their June paper were picked up around the world, helping to send the prices of digital assets lower. J.L. van der Velde, chief executive officer of Tether Ltd., said in a statement in June that the company's digital currency can't be used to artificially prop up Bitcoin.

The Bitcoin paper wasn't the first time Griffin had pointed at market data to say something was fishy. The University of Texas at Austin professor has drawn ire on Wall Street for his previous work on ratings companies, investment banks, and, last year, a paper alleging the finance industry's favorite volatility benchmark, the VIX, was rigged. He revels in the idea that his academic work has an impact beyond academia. "I not only want to understand the world, but make it better," he says.

Griffin's work has found an eager readership among watchdogs. In the years after the financial crisis, he worked with the U.S. Department of Justice in its investigations into mortgage fraud. He met with the Commodity Futures Trading Commission in June about another paper of his, a meeting he declined to discuss with *Bloomberg Businessweek*.

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Wall Street's watchdogs can use all the help they can get these days. The Securities and Exchange Commission faces a hiring freeze, unable to replace investigators who've left its enforcement division in the past year. Congress cut the budget of the CFTC in March, forcing the regulator of derivatives to seek staff buyouts to deal with the shortfall. "It's incredibly helpful to have an expert" of Griffin's caliber, says John Reed Stark, a former attorney in the SEC's enforcement division.

Built like a linebacker, the 6-foot-2-inch Griffin, 48, lifts weights regularly, often with Shams. "I know it's a good day if he brings a piece of paper to the gym," such as a graph or data to discuss, Griffin says of his research partner. But when Griffin talks about data, his professorial side emerges. "The data leaves footprints, and it leaves tracks," he says. "And sometimes it speaks."

Griffin began his career tackling the kind of esoteric issues finance professors typically write about. An early paper was titled "Are the Fama and French Factors Global or Country Specific?" But he found the work unfulfilling. He became unhappy even though he had a tenure-track job. "I had all the boxes checked, but I wasn't a happy person, and I started to question what the purpose was in my life," he says. He decided to focus his research on financial evil. He says a Bible passage from Ephesians spoke to him: "Have nothing to do with the fruitless deeds of darkness, but rather expose them."

Some targets of his research say he's not exposing misdeeds but misreading data about markets in which he has little experience.

Griffin and Shams wrote last year that a monthly auction used to close out futures contracts on Cboe Global Markets Inc.'s VIX index is being gamed. Cboe rejects that, saying in a letter to customers this year that "the academic paper's analysis and conclusions are based upon a fundamental misunderstanding about how VIX derivatives are traded and settled."

The VIX is famous as a barometer of fear–it shows how volatile investors expect the stock market to be, based on their trading in S&P 500 options. But the index is more than just a gauge to stare at and worry about; you can also trade futures linked to it. Some schemers, according to Griffin and Shams, were trading S&P 500 options in a way designed to artificially boost or depress the VIX, which could make previous VIX futures bets more profitable.

Their paper argued that S&P 500 options volume spikes at suspicious times, but only in contracts used to price the VIX. Those options trades wouldn't make sense, they argued, unless they were part of an effort to manipulate the market. Cboe said in its letter that the market behavior Griffin and Shams considered suspicious is consistent with normal and legitimate trading.

Griffin isn't convinced by Cboe's explanations. "There is no doubt we understand how the market works," he says. Meanwhile, he fears the VIX paper turned into a how-to guide for would-be manipulators. He says people at banks, whom he wouldn't identify, contacted him asking for the appendix to the paper, which describes in detail how the suspected manipulation could work.

A long list of plaintiffs have sued Cboe over the alleged manipulation. Griffin says he currently doesn't plan to work with any of them, despite requests to do so. However, he wouldn't rule out the possibility that he could get paid for offering his time as a consultant in the future.

With each publication, Griffin gets more attention. The paper on alleged Bitcoin fraud has been downloaded more than 20,000 times on the Social Science Research Network, making it one of the most popular on the site in the past year. The SEC cited it when rejecting a Bitcoin exchange-traded fund, which would make it far easier for investors to trade in crypto. The watchdog said there was still reason to worry that the underlying Bitcoin market can be manipulated.