

Even Robots Are Joining the Bitcoin Craze as Quants Seek an Edge

By **Dani Burger**

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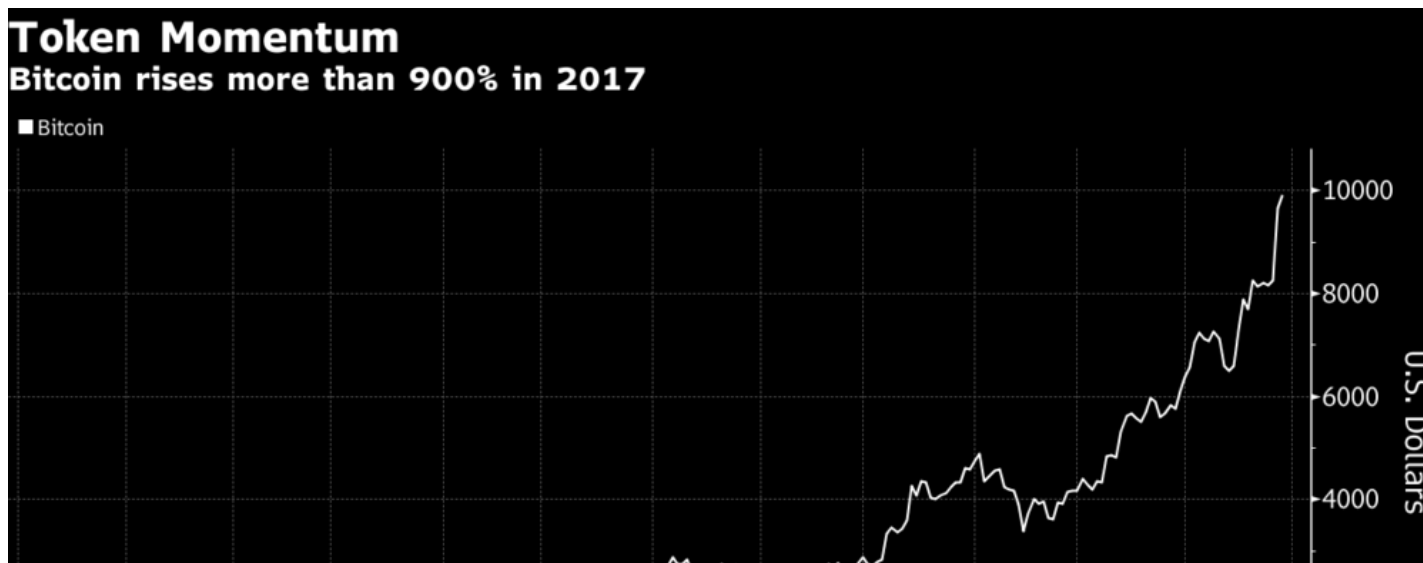
- Researchers say momentum, carry, value factors work in tokens
- Systematic trend-followers begin to invest in cryptocurrencies

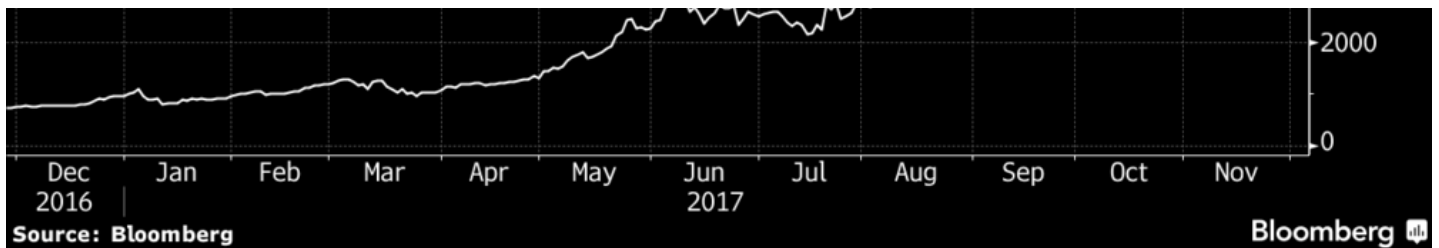
Quant blended with cryptocurrency sounds like a cocktail poured in hell. But behind closed doors, a few intrepid souls in the investing world are starting to drink it.

Part academic exercise, part arranged marriage of Wall Street fads, a handful of theorists and traders are looking at what investment factors like momentum and value can tell you about -- yep -- the price of bitcoin. Factors, the wiring behind [smart beta](https://www.bloomberg.com/news/articles/2017-03-20/why-not-everyone-thinks-smart-beta-s-a-smart-idea-quicktake-q-a) exchange-traded funds, already revolutionized equities, proving that groups of stocks with traits like cheapness and low volatility return more than the market as a whole.

That discovery was a gold mine, launching \$700 billion in smart beta ETFs, so it's no surprise people want to turn it loose elsewhere. A more abstract motive hearkens to the foundation of quantitative investing. It's the idea that no matter where you look -- stocks, bonds, ICO tokens -- mental mistakes by investors cause the same trading opportunities to arise in every market.

In the theory camp is Stefan Hubrich, the director of asset allocation research at T. Rowe Price Group Inc., who set out to publish the first academic paper linking factor anomalies to blockchain assets. After building models and analyzing data, Hubrich says he can show that factor investing beats a simple buy-and-hold strategy in digital tokens.





“Our results should not be taken as an endorsement of cryptocurrencies as an asset class,” Hubrich [wrote](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3055498) [in his Oct. 28 research](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3055498). “Instead, we view our findings as an intriguing confirmation of the efficacy of the underlying factors themselves.”

Too Little Data

One reason bitcoin and its peers are a tempting laboratory for academic quants is how different they are from traditional assets. Stocks may bounce around, but they’ve got nothing on cryptocurrencies, where jarring price swings, flash crashes and cataclysmic exchange malfunctions happen regularly. If concepts like value and momentum stand in that jungle, researchers reasoned, it would help confirm that behavioral biases operate everywhere.

It’s been something of a cause for Cliff Asness, the founder of AQR Capital Management, to prove that factors aren’t just for the stock market. In 2013, long before the bitcoin craze, he published a paper that found tilts like value, momentum and carry work across asset classes, geographies and time periods. Asness said in November that while still early, it’s not unreasonable to apply the same logic to cryptocurrencies.

While it may not be unreasonable, at present too little data exists to prove tradable risk factors exist in bitcoin, says Campbell Harvey, an adviser at Research Affiliates and Man Group and professor at Duke University. It’s a little too convenient, Harvey says, to declare the momentum factor may be at work in bitcoin, something everyone knows has done nothing but rise in 2017.

‘Operational Hurdles’

“I would not really call any of the factors applied to cryptos, factors,” Harvey said. “That said, given these are relatively young markets, it makes sense that there could be some inefficiency in the pricing.”

[Your Guide to the Many Flavors of Quant: QuickTake Scorecard](https://www.bloomberg.com/news/articles/2017-10-17/your-guide-to-the-many-flavors-of-quant-quicktake-scorecard) [in his Oct. 28 research](https://www.bloomberg.com/news/articles/2017-10-17/your-guide-to-the-many-flavors-of-quant-quicktake-scorecard)

Doug Greenig has more concrete goals. The University of California-educated math doctorate and former chief risk officer at Man AHL, started his London-based CTA, a type of quantitative fund that bets on price patterns, called Florin Court Capital in January 2015. Then, in April, he converted his \$522 million firm solely to exotic assets on April 17.

Why? Because unlike trendless, crowded and calm developed markets, Greenig saw value in chasing assets like European electricity and, yes, bitcoin.

“It just makes sense to be involved even though the operational hurdles for an institutional-grade fund are considerable,” Greenig said. “My perspective, in short, is that cryptocurrencies are an interesting asset class, with low correlations to the traditional asset classes and strong

historical trending behavior.”

Momentum Strategy

The change seems to be working. From April through the end of October, Florin Court has returned 15.5 percent, compared with 0.2 percent for the Societe Generale AG CTA index.

Greenig says he’s one of the first CTAs to incorporate bitcoin. The strategy is momentum, adding bullish bets as the cryptocurrency picks up steam. His preferred method of obtaining exposure is [Bitcoin Investment Trust](#), which trades over-the-counter.

Hurdles for investing in cryptocurrencies are like those in the other weird things Greenig trades, like finding counterparties, minimizing operational risk and keeping up fiduciary responsibility. But the beauty of bitcoin, he said, is that it’s so sentiment driven: Interest begets interest, making momentum a powerful strategy.

“The trending behavior of bitcoin has been strong in the past, and CTA momentum models seem to work as expected,” Greenig said. “The maturity of the market has grown, and we expect eventually to see more participation by systematic players.”

Three Factors

According to Hubrich, three factors work in the major digital currencies: value, carry and momentum. The philosophical challenge is finding a way to replicate [those traits](https://www.bloomberg.com/news/articles/2016-12-07/buffett-soros-and-the-role-of-robotic-logic-in-investing-riches) <<https://www.bloomberg.com/news/articles/2016-12-07/buffett-soros-and-the-role-of-robotic-logic-in-investing-riches>>. They’re reasonably straightforward in stocks, say, measuring value through a company’s price-earnings ratio.

To find a crypto corollary, Hubrich gets creative. He translates value to mean the token’s market value versus the dollar volume of blockchain transactions. For momentum, Hubrich uses a four-week horizon because of limited historical data, rather than the 12 months typically used for equities.

“This is a very volatile and young asset class, and we’re bound to learn much more over time,” Hubrich said. “Momentum is more than 100 years old, but it’s very early days for cryptocurrencies.”

Though Hubrich’s study was an academic exercise, Michael Paritee of Serrada Capital uses a similar value ratio to invest in cryptocurrencies. Paritee founded Serrada in 2006, and launched the Digital Asset fund in September, which blends discretionary and systematic strategies to invest in cryptocurrencies. That includes evaluating a token’s market cap to transaction volume ratio, he said.

“We saw a lot of opportunity to trade something we love doing -- volatility, because that’s how we like to make money and traditional markets have gotten harder and harder in the last couple years,” Paritee said. “There’s technical reasons to be involved in crypto, there’s ideological reasons to be involved in crypto, but we see a real business opportunity for hedge funds and asset managers in this space.”

