

Bitcoin's Crashing? That Won't Stop Arbitrage Traders From Raking in Millions

Alexander Osipovich and Eun-Young Jeong

One of the oldest tactics on Wall Street is going viral in the world of digital currencies.

The strategy, called arbitrage, is simple: **If something trades at different prices in multiple places, buy it where it is cheap and sell where it is dear.** Traders call that “capturing the arb.”

It is tough to find arbitrages in regulated securities markets these days, but not in the world of cryptocurrencies, where bitcoin trades on more than **100 exchanges** around the globe and hundreds of other currencies trade in venues few people have heard of.

Stefan Qin, a 21-year-old Australian based in California, has built a business out of that. In 2016, he founded [Virgil Capital](#), a hedge fund specializing in cryptocurrency arbitrage. He put his studies at San Francisco's Minerva Schools on hold to run the fund, which returned about 500% last year after fees and now manages \$23.5 million.

Its secret sauce: an algorithm called **Tenjin** that monitors prices on around 40 exchanges world-wide and swoops in to trade when it sees an opportunity. The fund was up nearly 12% after fees in January, Mr. Qin said, even as bitcoin sank 28%, according to Coindesk.

Mr. Qin expects to keep making money [even if bitcoin tumbles further](#). “The market is incredibly irrational right now, and it's poised for a **correction**,” he said by phone from Davos, Switzerland, which he visited last month to meet with prospective investors. A former high-school math whiz, Mr. Qin hopes to finish his college degree eventually but has no immediate plans to resume his studies.

Out of Line

Bitcoin's price can vary across different exchanges. At times, such spreads have widened into the thousands of dollars.

Note: Based on daily prices at midnight U.K. time.

Source: Cryptoquote.io



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It is difficult to estimate how much money cryptocurrency arbitrageurs might be making. But hedge funds, high-frequency traders such as Chicago-based [DRW Holdings](#) LLC and even amateur enthusiasts are all giving it a shot, traders say.

[The price of bitcoin](#) can diverge between exchanges due to glitches or network traffic jams that slow transfers between users. Even national holidays can cause price gaps, by preventing exchanges from receiving wire transfers of dollars.

At times of heavy bitcoin trading in recent months, price differences between exchanges have widened to 10% or more, or thousands of dollars, and in some cases persisted for days, market observers say.

By comparison, studies have shown price gaps in U.S. stocks last a fraction of a second and are typically just a penny per share.

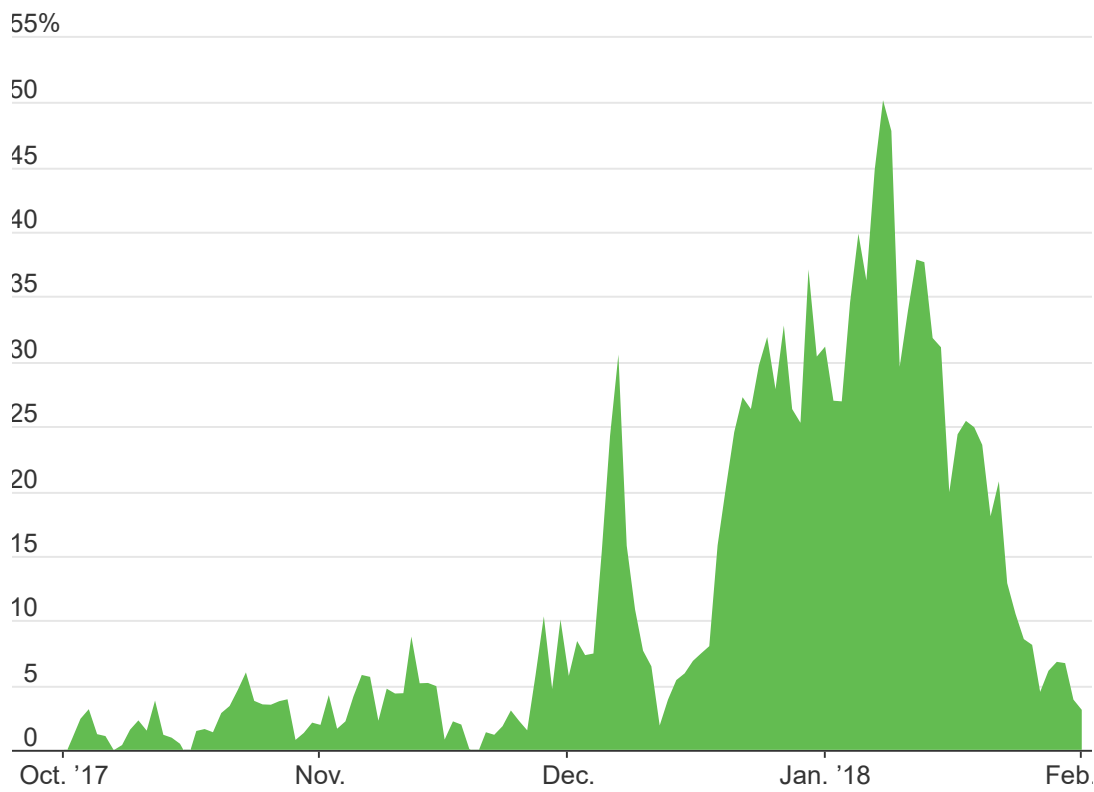
Far-flung factors including local legal regimes can affect bitcoin's price. One of the best-known arbitrage opportunities in cryptocurrency circles is the "kimchi premium," in which South Korean exchanges tend to have abnormally high prices due to Korean investors' enthusiasm for bitcoin and capital controls that limit the movement of money out of the country. The nickname refers to a popular Korean pickled-cabbage dish.



'Kimchi Premium'

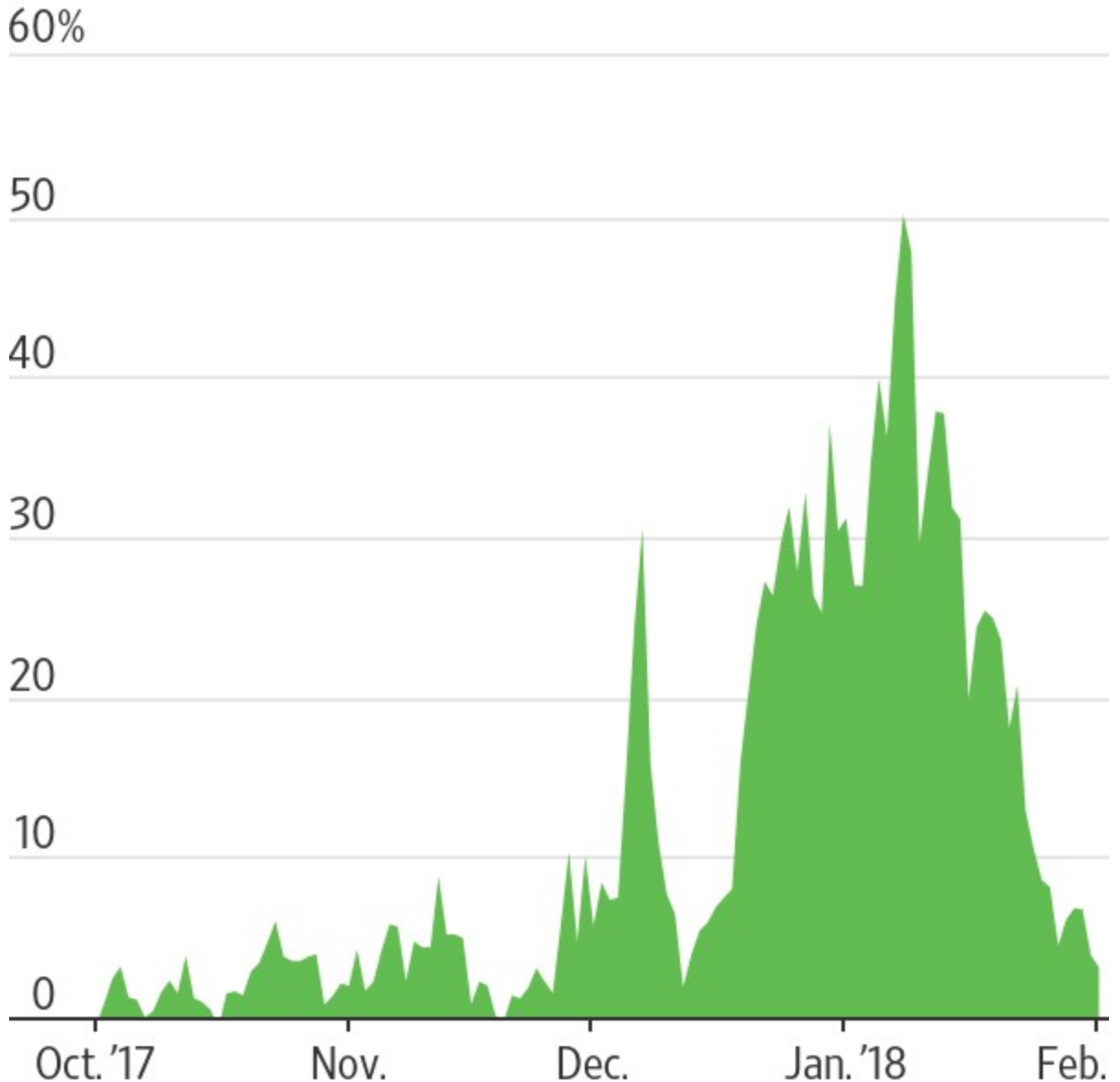
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Source: CryptoCompare.com

In early January, bitcoin and ether, the second-largest cryptocurrency, were trading more than 50% higher in South Korea than in the U.S., although by last week, the gap had narrowed to less than 5%, according to CryptoCompare.com.

Kang Ha-min, a recent college graduate in Columbus, Ohio, made several hundred dollars last year by buying ether in the U.S. and transferring it to his brother in South Korea, who sold it on a local exchange and sent him the cash. Mr. Kang used the profits to help pay for rent.

But he didn't repeat the trade. "It's cumbersome to exchange won to dollars each time, and it takes [a long time]," Mr. Kang said.

Rules require additional scrutiny by the South Korean government if a person seeks to transfer more than \$50,000 overseas in a year. Such restrictions helped the kimchi premium persist for much of 2017.

Traders say it can be **hard to cash in** on arbitrage opportunities. Even if there is a huge premium at one exchange, it may prove impossible to move bitcoin there quickly enough to capture that arb. Fees eat further into profits.

"It seems easy, but it really isn't," said Michael Moro, chief executive of Genesis Global Trading, a digital-currency trading firm. "The opportunities which look ripe are often not there."

Still, late last year, the speculative frenzy over bitcoin lifted prices at exchanges that tend to be used by smaller investors, creating an arb that many professionals exploited, traders say. One of those exchanges was San Francisco-based GDAX, which is affiliated with popular digital-wallet provider Coinbase.

BlockTower Capital, a \$150 million cryptocurrency hedge fund that does arbitrage trading alongside other strategies, bought at New York-based Gemini and sold on GDAX.

"In November and early December, that price disparity sometimes got to 5%," said the fund's chief investment officer, Ari Paul. "That's gigantic."

Rapid moves can open up other arbs. Virgil Capital enjoyed profits this year during a nosedive in Ripple, the third-largest cryptocurrency, Mr. Qin said. The price drop created dislocations in how Ripple traded against the U.S. and Canadian dollars and other digital currencies.

But the era of easy arbitrage may be coming to an end, as the digital-currency markets attract more hedge funds and high-speed firms, some traders say.

The presence of well-capitalized arbitrageurs should reduce opportunities, because any price disparities will swiftly get traded away. "It's closing because more and more people are entering the space," said Ari Lewis, co-founder of Grasshopper Capital, another cryptocurrency hedge fund. "If the market was efficient, these arbitrage opportunities and price gaps wouldn't exist."

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