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Money Stuff: Crypto Market Makers Made Some Markets

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Bloomberg Opinion Money Stuff



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Crypto wash trading

In financial markets, there are people called "market makers." [1] A market maker, as the name implies, makes things called markets. But the market that a market maker makes is not, like, "the stock market." "Market," here, has a somewhat technical meaning. "Making a market," in this context, means typing into a Bloomberg message, or saying over the telephone, two numbers: the price at which the market maker is willing to buy some security, and the (somewhat higher) price at which she is willing to sell it. So a customer will say "make me a market in XYZ bonds" and the market maker will type "100 / 100.5," or say "par at a half," and that — "100 / 100.5" — is her "market." And the customer might say "sold to you at 100," and she will buy the bonds at 100 cents on the dollar, or the customer might say "I buy at 100.5," and she will sell him the bonds at 100.5 cents on the dollar. And the market maker makes her living by selling at her offer (100.5) and buying at her bid (100).

You could, with some justification, imagine a broader and more intuitive meaning of "market maker." The market maker's job is to stand ready to buy or sell XYZ bonds, whichever customers want, all the time. If customers want to sell, the market maker will buy; if customers want to buy, she will sell. By providing this service, she facilitates trading in the bonds. If the market makers all went away, there might not be much trading in the bonds: Customers who wanted to buy would have no one to buy from, and customers who wanted to sell would have no one to sell to. Perhaps that is a solvable problem: The customers who want to buy can buy from the customers who want to sell. Perhaps there can be brokers to introduce them to each other. Lots of markets operate with a broker structure, without market makers. But it is probably helpful if market makers exist. We talked yesterday about how Apollo is setting up a structured credit trading desk, i.e., a market making desk, because it can't syndicate structured bonds to investors if the bonds don't trade. In theory, the bonds could trade among the investors, without Apollo making a market in them. In practice, Apollo is setting up the desk.

So you could loosely say something like "the existence of market makers for XYZ creates a market for XYZ," where "market" is used not in the narrow technical sense but in the normal sense of, like, people are able to trade XYZ easily, and therefore they happily buy it, and therefore demand for XYZ develops and it becomes a popular and widely traded financial product. XYZ is worth more because it is liquid, and it is liquid because market makers make a market in it. And I suppose that is in some sense the job of a market maker: The more trades she does, the more popular the product she trades is, the more money she'll probably make.

Still it is not quite like people get hired as market makers in structured credit with the mandate of "you have to go create a market for structured credit." In particular, the market maker can't create trading *out of nothing*. She's ready to buy XYZ if you want to sell it, or sell it if you want to buy it, but if she has no one to trade with she's not going to do any trades.

Crypto, I often write, is in the business of quickly re-learning all the lessons of traditional finance. If you are learning a large complicated field of study very quickly, you will probably make some mistakes. I sometimes wonder if one of them is: Do crypto people think that the job of a "market maker" is to create trading activity in some crypto token, so it looks like there's a market for it? Bloomberg's Zeke Faux reports:

Three market making firms allegedly promised to gin up an avalanche of fake trades to boost the value of NexFundAl's cryptocurrency token. What they didn't know was that NexFundAl wasn't a real company. It was part of an elaborate sting operation by federal prosecutors.

Representatives of ZM Quant, CLS Global and MyTrade were among 15 crypto promoters and traders charged with market manipulation and fraud in a wide-ranging probe prompted by a tip from the US Securities and Exchange Commission, authorities in Boston said in a statement Wednesday.

The scheme involved wash trades — using accounts you control to trade assets back and forth to create the false impression of volume, the government said. According to court documents, one market maker told potential clients on a March 18 video call, "If you guys have requirements on the price, for example, like, pump the price from one dollar to two dollars, we will give you a plan." ...

The investigation started with an SEC tip about a crypto company called Saitama, which was based near Boston, Jodi Cohen, head of the FBI's Boston office, said at a press conference. Prosecutors allege Saitama used market makers to manipulate the price of its token. Six people associated with Saitama were among those charged, according to the press release.

Investigating Saitama led authorities to cooperating witnesses who helped them set up the fake crypto firm, NexFundAl. In video calls and in Telegram chats, market makers offered to manipulate the price of NexFundAl's token.

What percentage of crypto fraud is done by the FBI? Not zero! Here is the Justice Department <u>press release</u>, saying that crypto companies "hired financial services firms ('market makers') to wash trade their tokens in exchange for payment." A traditional market maker is in the business of quoting prices to customers at which she will buy or sell an asset. A ... certain sort of crypto market maker ... is in the business of trading a crypto token back and forth with herself, in separate wallets, so that it will look like there is a lot of trading activity in the token, so that other people will want to buy the token, so that she (and her clients, the issuer of the token) can dump the tokens on rubes at inflated prices. "Ah we are in the business of creating markets for these tokens," I guess they think? "We are market makers"? Okay.

Here is the US Securities and Exchange Commission case, which calls them "so-called market makers":

"Today's enforcement actions demonstrate, once more, that retail investors are being

victimized by fraudulent activity by institutional actors in the markets for crypto assets," said Sanjay Wadhwa, Deputy Director of the SEC's Division of Enforcement. "With purported promoters and self-anointed market makers teaming up to target the investing public with false promises of profits in the crypto markets, investors should be mindful that the deck may be stacked against them."

One of the charged market makers is called Gotbit. (It's the one that *didn't* do wash trades for the FBI-backed crypto token.) From the SEC's Gotbit complaint:

Gotbit claims on its website and LinkedIn profile that it provides its clients, typically the offerors of crypto assets, with "coordinated market-making across an infinite number of exchanges" using "trading algorithms"; "a large team of traders"; and "personalized trading strategies."

What Gotbit actually provides is on-demand market manipulation. For a monthly fee, Gotbit engages in manipulative trading of its clients' crypto assets to artificially inflate their price and trading volume. Gotbit does this for the express purpose of misleading investors to believe that there is a robust market for these crypto assets, when there is often little or no genuine interest in them. That fake trading volume is reported on websites that the investing public consults when deciding which crypto assets to buy and sell, and which trading platforms to buy and sell them on.

Gotbit generates fake, daily trading volume often in the millions of dollars by essentially trading crypto assets with itself. The company's self-trading constituted most of the market activity for many of its clients' crypto assets, sometimes exceeding 90 percent of the assets' total trading volume at particular points in time. Gotbit's self-trading—often called "wash trading"—is designed to create the false impression of market interest in the crypto asset, to trigger real interest from the investing public. ... Once the public starts trading its clients' tokens, Gotbit offers to assist its clients in liquidating their token holdings, in exchange for a percentage of the proceeds.

"Unlike in the traditional, regulatorily compliant markets, in the crypto asset markets it is often the token offeror who pays these market makers a monthly fee," the SEC says: These market makers aren't in the business of serving investors by standing ready to trade crypto tokens, but in the related but different business of serving *issuers* by trading their tokens. They allegedly get paid, not to do trades that customers want, but to do lots of trades.

The SEC has an account of how Gotbit worked for one crypto issuer called Robo Inu, promoted by a woman named Vy Pham, who also helped launch Saitama. "Inspired by NASA's ambitious plan to launch Robo-dogs to Mars," says its website, "ROBO INU FINANCE aims to build an efficient circular ecosystem that brings together the best fintech resources. Join us and be a part of something revolutionary." Sure. The SEC says:

Beginning in or around February 2022, Pham and the other leaders of the Robo Inu project initiated a private Telegram group chat with several Gotbit employees, including [Fedor] Kedrov, "Vladislav Trader," "Vladimir," and "Kavi JLL," among others, to solicit their market manipulation services.

Robo Inu is a pretty good crypto name but Vladislav Trader is even better. (NexFundAl, uh, sounds like it was created by the FBI.) In a market <u>crowded with crypto tokens riffing on Shiba Inus</u>, Robo Inu's pitch about launching dogs to Mars was not enough to stand out, so it allegedly tried pumping volume instead:

Pham stated in the group chat that, despite having spent \$250,000 on "marketing," the response from investors had not been "satisfactor[y]," so she and her team were "thinking

about increasing the volume via MM" (i.e., a "market maker").

Pham said in the group chat that the purpose of hiring Gotbit to increase and maintain trading volume was "to attract people to the [Robo Inu] token." Gotbit personnel confirmed they understood that this was the purpose. Throughout the parties' relationship, various individuals representing Gotbit communicated with Pham and other leaders of the Robo nu project about ways to create investor "FOMO" through artificial trading volume. For example, one of Gotbit's employees on the Telegram group chat, "Vladislav Trader," stated that he was "trying to trigger organics"—i.e., individuals or entities other than Gotbit—"to buy" Robo Inu.

Between approximately February 2022 and June 2023, Pham and others working with her paid Gotbit approximately \$3,000 to \$6,000 per month to, among other things, manipulate the trading volume of Robo Inu through automated wash trading on Bitmart and through automated buying and selling on Uniswap. Gotbit told leaders of the Robo Inu project that it would be using a trading "bot," an automated crypto asset trading program, to execute this manipulative trading. ...

In February 2022, Kedrov told Pham and other Robo Inu project leaders in their private Telegram group chat that Gotbit could achieve "[a]ny volume you want." Kedrov recommended that Robo Inu start with \$200,000 in artificial daily volume. ...

In late March 2023, "Vladislav Trader" posted to the group chat that "organic" volume accounted for less than 10 percent of Robo Inu's total trading volume. The rest was Gotbit trading with itself through automated wash trading.

There is such a purity to crypto. Crypto tokens benefit so much from network effects and/or memes; the reason to buy pretty much any token with a Shiba Inu in its name is not "these people have a revolutionary business idea that will generate a lot of cash flows for token holders" but rather "other people are going to buy this token so it will go up." So if you want to *sell* a token with a Shiba Inu in its name, patter about "an efficient circular ecosystem" only goes so far. Saying stuff — true or not — about your business or plan or technology just isn't that useful. What you really want is *volume*, and *rising prices*; you want everyone to be able to see that a lot of people are buying your token, because *that's the thing that makes it valuable*. And that turns out to be pretty easy to fake.

A MESSAGE FROM SMARSH

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Arbitrage

I <u>wrote yesterday</u> about an apparent arbitrage in US presidential election prediction markets: Donald Trump contracts on Polymarket trade at about a 53% chance of him winning the election, while they trade on other prediction markets at more like a 49% chance.[2] If you can buy Trump at 49 elsewhere and sell him at 53 on Polymarket, you can make a quick 4-point profit.

I did not take this too seriously, and you shouldn't either. I assumed that it probably wasn't a feasible arbitrage: "I am sure there are some fees that I am not accounting for," I wrote, "and I don't know how good liquidity is on any of these places." Also Polymarket is <u>in theory</u> off-limits to US investors. Those sorts of things — trading costs, liquidity, capital constraints, etc. — are the normal explanations for differences in prices in different locations, "limits to arbitrage" that prevent people from selling the expensive contract on Polymarket and buying the cheap one on Kalshi or wherever.

But the other natural reaction you might have to seeing the same contract trade at different prices in different locations would be: Well, *are* they the same contract? What if "Donald Trump will win the election" is *worth more* — that is, has a *higher probability* — on Polymarket than it does elsewhere?

That seems implausible: There is only one presidential election, and Trump will either win it or he won't. But that might not be exactly right. There is some history of epistemic uncertainty when Donald Trump loses elections. Different prediction markets might resolve that uncertainty in different ways.

Here is Kalshi's <u>2024 Donald Trump election contract</u>, whose rules specify that "If Donald Trump or another representative of the Republican party is inaugurated as President for the term beginning January 20, 2025, then the market resolves to Yes." Here is Polymarket's equivalent (but higher-priced) <u>contract</u>, which sounds fairly similar:

The resolution source for this market is the Associated Press, Fox News, and NBC. This market will resolve once all three sources call the race for the same candidate. If all three sources haven't called the race for the same candidate by the inauguration date (January 20, 2025) this market will resolve based on who is inaugurated.

But then Polymarket has a link to a <u>resolution contract</u>, and a button labeled "propose resolution." Because Polymarket, <u>unlike Kalshi</u>, is not exactly a corporation with a representative who will consult some authoritative source and declare the winner — for contract purposes — of the election. Polymarket is a decentralized platform, and its method for resolving contracts is crypto-y.

Here's a sample from Polymarket's documentation on how contracts are resolved:

All market resolution is completely decentralized. A majority of markets on Polymarket are resolved via UMA's optimistic oracle, the rest (some price markets) are resolved via Pyth.

Polymarket leverages UMA's Optimistic Oracle (OO) to resolve arbitrary questions, permissionlessly. From UMA's docs:

"UMA's Optimistic Oracle allows contracts to quickly request and receive data information. The Optimistic Oracle acts as a generalized escalation game between contracts that initiate a price request and UMA's dispute resolution system known as the Data Verification Mechanism (DVM). Prices proposed by the Optimistic Oracle will not be sent to the DVM unless it is disputed. If a dispute is raised, a request is sent to the DVM. All contracts built on UMA use the DVM as a backstop to resolve disputes. Disputes sent to the DVM will be resolved within a few days - after UMA tokenholders vote on what the correct outcome should have been."

So there's a "generalized escalation game" and a possible tokenholder vote. A couple of readers emailed me along the lines of "I thought about doing this arbitrage, then I read that documentation and got confused and decided not to."

I wrote once about Polymarket's contracts:

Because it is crypto, in fact "<u>all market resolution is completely decentralized</u>" and there is a complex system of bonds and rewards to resolve questions, but it is a convenient shorthand to say "the result of the 49ers/Jets contract is determined by the official final score of the 49ers/Jets game in real life."

That is approximately correct, in the way that it is approximately correct to say "credit default swaps pay out when a company defaults, and make bondholders whole for their losses on their bonds." That is: Most of the

time, you can just think of the thing as reflecting the underlying economic intuition ("CDS is insurance for bonds," "this contract pays out if Trump wins"). But some unknowable percentage of the time, weird stuff might happen with the payout mechanism. So you can play the game at the basic level, buying the contract to bet on Trump winning (or the bonds defaulting), and that will mostly work most of the time. But there's always a chance that somebody else is playing the game at a different level, buying the contract to bet on the resolution mechanics.

One reader emailed:

I'm pretty confident that if Trump "wins" (in the way the mainstream media and most normal people would use the term) Kalshi will resolve the contracts so that my Trump Yes's pay out, and Polymarket so the Trump No's do not. ... If, however, Trump "loses," then I am again pretty confident in what Kalshi will do, but I have no idea how to estimate the risk that some major stakeholders or Trumpy-crypto-types could affect the resolution of the Polymarket contracts, which is where all of my money would be coming from. So the persistence of the arb could just be the market pricing in a roughly 3% risk of an outcome dispute that breaks the Polymarket/Kalshi symmetry on these events, which in the current climate feels not crazy?

I truly have no idea if that is right. Presumably the crypto consensus mechanism was built by smart people who want it to reliably get to the right answer. But if you think it has, like, a 5% chance of getting the weird answer, you'd pay more for the Trump contract on Polymarket than elsewhere, because that contract is worth more.

Treasury Direct

In principle, it makes a lot of sense for the government to be in the retail financial services business. The US government is the source of two important financial assets: The long-term safe assets, Treasury bonds, are liabilities of the Treasury, while the short-term risk-free information-insensitive assets, dollars, are liabilities of the Federal Reserve. And because the Fed issues the dollars, a lot of the US dollar payments infrastructure ultimately runs through the Fed.

But you probably hold your dollars in an account with a bank, and you probably hold your Treasury bonds at a broker or custodian, and you probably make payments with a bank's credit card. And every so often people suggest that the government should provide these services more directly, sometimes for risk reasons (your bank is more likely to fail than the Fed), but often for fairness reasons. Maybe if the government provided your bank account and let you send payments and invested your money for you, more people would have access to banking and payments and savings at lower and fairer prices than you get with a financial system driven by commercial concerns. There are fans of "postal banking," in which the Post Office gives you a bank account, and I sometimes read proposals for "central bank digital currencies" in which the Fed would give you a bank account.[3]

The Wall Street Journal has a pretty convincing rebuttal however:

People who want to move investments from their accounts on the Treasury Department's website to their brokerage accounts may have to wait as long as a year.

The website, TreasuryDirect, is dealing with a deluge of customer-service requests. The number of funded accounts on TreasuryDirect grew to more than four million last year, from 656,000 in 2019. Americans rushed to the website in recent years to buy inflation-adjusted savings bonds at yields nearing 10%.

The resulting customer-service backlog is straining the Treasury Department's antiquated system, which can require verified signatures and paper forms sent through the mail. People transferring securities from TreasuryDirect to third-party brokerages experience especially long waits because those requests are processed manually, according to people familiar with the matter.

The government does actually provide some retail financial services directly: A lot of people hold Treasury bonds in a brokerage account, but you *can* go to the <u>TreasuryDirect website</u>, buy bonds directly from Treasury, and hold them in the Treasury's own ledger. I actually do this, and if you don't, I encourage you to check it out. [4] For people my age, TreasuryDirect is a soothing relic of a simpler time on the internet. It is not, you know, a *good* website, but is is very much a *website*; everything about it screams "website." There is no mobile app. [5] For a long time you had to type in your password using a mouse and a "<u>virtual keyboard</u>," an actually famous bit of bad user interface design that they eventually got rid of.

Probably Treasury does a fine job of keeping the ledger of who owns bonds? Like I check my TreasuryDirect account periodically and it remembers me and has my bonds. But if you buy Treasury bonds on TreasuryDirect and then want to *move* them to your brokerage account, you have to, like, write a certified letter to your congressperson. It takes a *year* to move the electronic entry from Treasury's ledger to your broker's! Using paper forms!

Meanwhile in the regular financial system, driven by commercial concerns, businesses are deploying Al chatbots to instantly answer your investment questions and doing instant settlement on the blockchain,[6] because people want those things and commercial concerns drive companies to build them.

NDAs

One little hiccup in securities regulation that I <u>write about</u> from <u>time</u> to <u>time</u> is that nondisclosure agreements are illegal. I mean, not really (and not legal advice), but the US Securities and Exchange Commission has a "whistleblower protection" rule that makes it illegal to punish or threaten anyone to stop them from reporting a potential securities law violation, and it interprets that rule to mean that an NDA *itself* could be a threat to whistleblowers unless it has a paragraph explicitly saying "oh but feel free to tell the SEC about any potential securities law violations." And so companies sometimes get in trouble for sloppily written NDAs, even if those NDAs do not actually deter any whistleblowers, even if the SEC itself found out about the NDAs *from whistleblowers*. And in fact it seems like whistleblowing sloppy NDAs is itself a potentially lucrative business.

If you are a company and you have sloppy legacy NDAs, what can you do about it? What if you don't even *know*? If you have a lot of employees and have been around for a long time, what are the chances that somewhere, sometime, some former employee signed, or even saw, a policy saying "keep our information confidential" that did not immediately go on to say "except from the SEC, if it's fraud"? Do you just have to wait for the SEC to fine you?

A reader who used to work at an accounting firm sent me a mailing that he received from his old firm, saying "we would like to make sure that you are aware that nothing in any agreement, plan or policy of [the firm]" prevents him from whistleblowing to the SEC, or otherwise going to law enforcement. Just sort of a one-paragraph unilateral update to any NDA, employment agreement, severance agreement, etc., that he might or might not have, that might or might not have said "keep our information confidential." I assume that everyone who has ever worked in or near the financial services industry in the US has gotten a mailing like that, or will soon. If you don't, probably call the SEC!

Banking hours

There are a lot of explanations for why junior investment bankers work long hours. Many are essentially *rational* explanations: There is a lot of work to do, you learn faster if you work a lot, clients have high expectations for service (so they need to call at all hours) and continuity (so the same person has to answer the phone), etc. Explanations of the form "bankers work long hours because it makes sense for them to work long hours."

Another popular explanation, though, involves irrational cultural replication: Junior investment bankers work long hours because senior investment bankers expect them to, and senior investment bankers expect that because *they* worked long hours as junior bankers, think it is normal and want their analysts to suffer the way they did.

Here's a good <u>Financial Times article</u> about investment banking hours that features this bit of Stockholm syndrome:

"There's a profound difference between 80, 100 and 120 hours," said one former junior investment banker. "No one has a problem working 80 hours a week, 90 even. [But] 100, you're tired, 120 is something you want to have to do [no more than] once a month or two."

There are four weeks in most months! You don't *want* to work 120 hours in more than two of those weeks? And 80 hours is fine, "no one has a problem" with that. Also here's a business school professor who tells his students whether or not they are cut out to be bankers:

"I've been trying to disabuse about a third of my students from going into it because they don't have the drive," said David Stowell, who worked in investment banking for about two decades and now teaches at the Kellogg School of Management at Northwestern University.

"It's not for everybody. But for the right kind of people, it's a remarkable 30-year career or at least a remarkable foundation."

I would like to know more about how a business school professor knows which of his students have the drive to be investment bankers. Are they the ones who do homework in business school?

Things happen

OpenAI pursues public benefit structure to fend off hostile takeovers. TD Bank Faces \$3 Billion in Penalties and Growth Restrictions in U.S. Settlement. BlackRock Is Among Suitors Exploring Purchase of Credit Firm HPS.Wall Street Pros Avoid Election Bets With Race Too Close to Call. Former Pfizer executives pull out of activist investor Starboard's campaign. Lina Khan Is Just Getting Started (She Hopes). Catastrophe Bonds Dodge Worst-Case Scenario After Milton Hits. HSBC targets senior bankers in cost-cutting plan. California's AI Safety Bill Is Dead, but the Regulation Debate Lives On. London-Listed Companies Given More Freedom to Boost Top Executives' Wages. Companies Are Scrapping or Rolling Back DEI Grants. CFA Level II Pass Rate Slumps to 47% From May's 26-Year High. Portugal seeks to become low-tax haven for young people. Mets Postseason Run Pushes Steve Cohen Toward Baseball Glory. Bankrupt Fisker says it can't migrate its EVs to a new owner's server.

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- [1] Of course in much of finance they are actually electronic trading firms.
- [2] These are the numbers I gave yesterday. At around noon today the prices are more like 54% and 50%, respectively, so a small move but a similar spread.
- [3] A direct relationship with the Fed is not a necessary feature of the CBDC idea, and the Fed's own discussion paper about CBDCs insists that any US CBDC would have to be intermediated: "The Federal Reserve Act does not authorize direct Federal Reserve accounts for individuals, and such accounts would represent a significant expansion of the Federal Reserve's role in the financial system and the economy. Under an intermediated model, the private sector would offer accounts or digital wallets to facilitate the management of CBDC holdings and payments. Potential intermediaries could include commercial banks and regulated nonbank financial service providers, and would operate in an open market for CBDC services. Although commercial banks and nonbanks would offer services to individuals to manage their CBDC holdings and payments, the CBDC itself would be a liability of the Federal Reserve."
- [4] This is obviously not investment advice; it is, like, moderately sarcastic internet aesthetics advice.
- [5] A casual app store search turned up an unofficial app that advertises: "We access TreasuryDirect.gov and load the information for you. No more virtual keyboard nonsense or website trouble!"

[6] This is also moderately sarcastic.	
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