The Superficial Allure of Crypto

Cryptocurrencies cannot deliver their claimed benefits, and instead pose grave risks that policymakers must curb

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IN THE 14 YEARS since Bitcoin emerged, proponents have made promises that crypto will revolutionize money, or payments, or finance—or all of the above. These promises remain unfulfilled and look increasingly unfulfillable—yet many policymakers have accepted them at face value, supporting crypto experimentation as a necessary step toward some vague innovative future. If this experimentation were harmless, policymakers could let it be, but the ills of crypto are significant. Given these negative impacts, policymakers must train a more critical eye both on crypto assets themselves and on their underlying databases (known as blockchains) to determine whether crypto can ever deliver on its promises. If it cannot, or is even unlikely to, deliver, there must be strong regulation to rein in the negative consequences of crypto experimentation.

Among its negative impacts, the rise of crypto has spurred ransomware attacks and consumed excessive energy. Bitcoin's blockchain relies on a proof-of-work validation mechanism that uses about as much energy as Belgium or the Philippines; the Ethereum

blockchain keeps promising to shift from proof of work to the more energy-efficient proof of stake, but this never seems to happen.

A crypto-based financial system would perpetuate, and even magnify, many of the problems of traditional finance. For example, the amount of leverage in the financial system could be multiplied through a potentially unlimited supply of tokens and coins serving as collateral for loans; rigid self-executing smart contracts could deprive the system of the flexibility and discretion so necessary in unexpected and potentially dire situations. More generally, the crypto ecosystem is extremely complex, and that complexity is likely to be a destabilizing force (both because complexity makes it hard to assess risks even when there's plenty of data and because the more complex a system is, the more susceptible it is to "normal accidents," when a seemingly minor trigger cascades into significant problems). So any crypto-based financial system would likely be subject to regular destabilizing booms and busts.

Crypto's complexity arises from attempts at decentralization—by distributing power and governance in the system, there is theoretically no need for trusted intermediaries like financial institutions. That was the premise of the initial Bitcoin white paper, which offered a cryptographic solution intended to allow

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payments to be sent without involving any financial institution or other trusted intermediary. However, Bitcoin became centralized very quickly and now depends on a small group of software developers and mining pools to function. As internet pioneer and publisher Tim O'Reilly observed, "Blockchain turned out to be the most rapid recentralization of a decentralized technology that I've seen in my

lifetime." Although the Bitcoin white paper's promise of decentralization did not deliver, the underlying complexity of the technology that tried to do so remains—which is also true of crypto writ large.

Over the spring and summer of 2022, we saw a number of other purportedly decentralized crypto players stumble and fail—and as they did so, it became abundantly clear that there were intermediaries calling the shots. A stablecoin is a type of crypto asset designed to maintain a stable value, and as the Terra stablecoin lost its peg to the dollar in May 2022, holders looked to founder Do Kwon's Twitter feed for guidance. Before Terra failed, it received an attempted rescue package of crypto loans from a nonprofit established by Kwon. The loaned crypto was allegedly deployed to allow some of Terra's largest holders—commonly referred to as "whales"—to redeem their Terra stablecoins at close to par value, while smaller investors lost nearly everything. In the crypto market turmoil that followed the failure of Terra, multiple episodes showed the power of founders and whales in platforms ostensibly administered by decentralized autonomous organizations. Many crypto proponents were quick to criticize the affected platforms, saying that they were never really decentralized in the first place and that only the "truly decentralized" deserved to survive. All of crypto, however, is centralized to varying degrees.

'Decentralization illusion'

Voting rights in decentralized autonomous organizations and wealth tend toward concentration in crypto even more than in the traditional financial system. In addition, decentralized blockchain technology cannot handle large volumes of transactions very well and does not accommodate transaction reversal, so it seems inevitable that intermediaries will emerge to streamline unwieldy decentralized services for users (especially because there are profits to be made by doing so). Without mincing words, economists at the Bank for International Settlements concluded that there is a "decentralization illusion" that is "due to the inescapable need for centralized governance and the tendency of blockchain consensus mechanisms to concentrate power." And of course, many of the crypto businesses that have emerged over the past decade make no pretense of decentralization: centralized

exchanges, wallet providers, and stablecoin issuers, for example, are all critical players in the crypto ecosystem. Many of these intermediaries are simply new (and often unregulated) equivalents of what already exists in traditional finance.

And so crypto users will always have to trust in people. These people are no less greedy or biased than anyone else—but they are largely unregulated (sometimes even unidentified), and in the absence of consumer protection regulation, the crypto industry's claims of furthering financial inclusion take on a more troubling cast. The crypto ecosystem is certainly rife with hacks and scams that prey on users, but at a more fundamental level, the value of crypto assets is driven entirely by demand because there is no productive capacity behind them, and so founders and early investors can profit only if they can find new investors to sell to. If they rely on traditionally underserved populations to make up that market, then the most vulnerable members of society—in both developed and developing economies—could be left holding the bag.

Even if the market for crypto assets were somehow sustainable, there are many reasons to doubt that crypto could democratize finance. For example, crypto lending platforms demand significant amounts of crypto collateral before they grant loans, so they won't help those who lack financial assets to begin with. And although stablecoins are often touted as a better payment mechanism for underserved populations, the World Economic Forum concluded that "stablecoins as currently deployed would not provide compelling new benefits for financial inclusion beyond those offered by preexisting options."

Fixing finance's flaws

To be clear, financial inclusion is a real and pressing problem, and there are also many other problems with traditional finance that need to be solved. Part of the reason crypto firms, venture capitalists, and lobbyists have been so successful in selling crypto is their very lucid and compelling indictment of our current financial system. The largest banks *did* perform terribly in the lead-up to 2008 (and some still do); lots of people *are* underserved by the current financial system; in the United States, in particular, payment processing *is* too slow.

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However, these are by and large political rather than technological problems—and if the underlying political issues aren't resolved, the new crypto intermediaries that emerge will simply perpetuate existing problems. Where technological upgrades to our current systems are indeed necessary, there are often simpler, centralized technological solutions already (as is the case with real-time payments). What is often lacking is the political will to implement those solutions.

In an era of growing political dysfunction, it is understandable that policymakers might want to believe that technology can fix things without their involvement. Unfortunately, crypto does not live up to its claims of decentralization, and crypto's booms and busts could have broad economic consequences if it is integrated with the traditional financial system and able to interrupt the flow of capital to the real economy.

To limit the fallout from crypto implosions and protect the broader economy, regulators should take steps to erect a firewall between crypto and traditional finance.

As a first priority, banks should be prohibited from issuing or trading any crypto asset, including stablecoins (which are rarely used for real-world payments; they mostly facilitate crypto investments). Such steps could be carried out within existing banking law frameworks, often without any new laws or rules. Policymakers should consider enacting new laws or rules, though, that target the crypto industry more directly. Given crypto's lack of benefits and negative impacts, an outright ban may be appropriate; if policymakers don't wish to implement a ban, crypto's negative impacts should be managed with more targeted laws or rules. Applying laws and rules to centralized crypto intermediaries would be relatively straightforward (although jurisdictional issues may arise); their application to nominally decentralized players may face a few extra hurdles. These hurdles are not insurmountable, though, because no part of crypto is entirely decentralized. People could be barred from holding governance tokens in noncompliant decentralized

autonomous organizations, for example—which would be relatively easy to enforce against the founders, venture capital firms, and whales who own the lion's share.

Ultimately, policymakers should not be swayed by dubious promises of decentralization and democratization; they should be proactive in stopping crypto's negative impacts. The architects of the future of finance have many problems to solve and should come up with the simplest and most direct solutions. Trying to retrofit crypto assets and blockchains to solve those problems will in all likelihood only make things worse.

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