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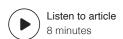
CRYPTOCURRENCIES COVER

Crypto's Future Is Even More Exciting, and Maybe More Volatile, Than Its Present

By Daren Fonda Follow Updated May 27, 2022 5:46 pm ET / Original May 27, 2022 3:28 pm ET



Illustration by Jason Lyon



Few areas in the tech world are quaking like crypto. Bitcoin BTCUSD +3.92% and other cryptocurrencies have lost \$1.6 trillion of value since the market peaked last November. Tighter monetary policy and fears of a recession are weighing not only on stocks but also, in the case of crypto, on an asset whose hype has long exceeded its real-world uses. The recent collapse of a major "stablecoin," which wiped out \$40 billion in a few weeks, isn't instilling confidence in the crypto ecosystem, either.

Still, Bitcoin, the most recognizable cryptocurrency, is up fivefold from its prepandemic days, and the industry has expanded to legions of other blockchains, tokens, and apps. The crypto market, worth \$1.2 trillion, now encompasses decentralized finance, or DeFi, platforms for trading and lending; nonfungible tokens, or NFTs, that grant owners some property rights for things like art or video; and stablecoins, which are supposed to act like crypto dollars, holding a peg to a U.S. dollar with the backing of reserve assets.

The Starring Role in the Web 3 Dream. Then, the Wake Up Call Came.

Tether, Emerging Markets, and the Stablecoin War

How a Digital Token Failed to Hold Up When Everything Else Fell

The Fed Is Pondering Its Own Crypto. The Problem: Politics.

Commentary: The U.S. Needs Digital Cash, Not Just Digital Currency

Yet despite its vast technological and financial potential, the crypto industry is finding it tough to break into the mainstream, as investors retrench into safer assets while regulators bear down with more rules.

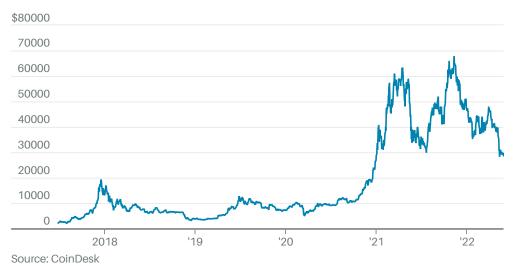
Is crypto facing an existential crisis? Or, as the bulls argue, is this a cyclical blip for a technology that will revolutionize markets, transform global commerce, and even form the basis for a new version of the internet called Web3? We asked a panel of industry experts to weigh in at our first-ever crypto roundtable.

Our panelists included Dan Morehead, founder and CEO of Pantera Capital, a crypto hedge fund firm; Eswar Prasad, an economist at Cornell University and author of the book *The Future of Money*; Alkesh Shah, head of digital asset strategy at Bank of America; and Lisa Shalett, chief investment officer at Morgan Stanley Wealth Management. The roundtable took place in mid-May. An edited version of the discussion follows.

Fasten Your Seatbelts

Even with its plunge this year, Bitcoin is up fivefold from its prepandemic days.

Bitcoin USD



Barron's: Bitcoin is down 60% from peak prices, and it's looking like another "crypto winter." In the prior one, Bitcoin lost 82% of its value and took three years to return to its previous high. Is this cold stretch comparable?



Illustration by Jason Lyon

Alkesh Shah: This asset class is correlated with risk assets like technology, and that sector has corrected due to factors like rising interest rates and inflation. For us to see a crypto winter, we would need to see people leaving the ecosystem—less institutional and corporate engagement, less developer activity. Instead, we're seeing the opposite, with more institutional, corporate, and developer activity. Our view is, it's not a crypto winter. It's a consolidation period for a risk asset.

Eswar Prasad: It's not acting like a unique asset class. The factors that seem to be driving other risky assets, including the path of inflation, interest rates, and liquidity conditions, all seem to be driving crypto. And there aren't any fundamental valuation models to underpin crypto, especially currencies like Bitcoin with no intrinsic value. The Nasdaq Composite **COMP** +3.33% is down about 30% from its high, and crypto is off 60%. That indicates crypto is going to be much more volatile, with a lot more upside and downside risk.



Alkesh Shah, top crypto analyst at Bank of America Photograph by Guerin Blask

Lisa Shalett: I wouldn't say that the asset class is in a "winter." But it's in a severe bear market, and questions will have to be answered for it to revisit previous highs. The vulnerability around use cases is increasingly fraught. We've seen huge problems with stablecoins—one of the fundamental use cases for crypto. The lack of regulation and true collateralization has been unveiled, and it has exposed risks, not only to regulators but also to participants.

Dan Morehead: We've been doing this for 10 years and have seen six big cycles. The weighted average bearmarket loss has been 61%, and we hit

62%. It has been going on for 110 days, which is about average for a bear market. This is the first bear market in Bitcoin history in which it has given back more than 100% of the previous bull market, and the first time we've had a new low after a bear market. All

"For us to see a crypto winter, we would need to see people leaving the ecosystem...Instead, we're seeing the of those things make me think we're closer to the end than the beginning.

One of the largest stablecoins, an "algorithmic" coin called TerraUSD USTUSD +15.41%, recently collapsed, wiping out an estimated \$40 billion in the token and a related crypto called LUNA LUNAUSD +13.56%. The largest stablecoin, Tether USDTUSD 0.00%, has been trading slightly under \$1. Does this call into question the use for stablecoins as assets that can be relied on to hold their full value?

opposite."

— Alkesh Shah, Bank of America

Shah: There are strong use cases for stablecoins. The economies of a "metaverse" will probably be powered by stablecoins. A retailer might have a digital catalog on a platform powered by a Meta or Microsoft, and could be paid in a stablecoin, with the transaction settled across borders in real time. If you use fiat currency today, it may settle in two to five days. If you have a view that the metaverse is in the first innings, you have to believe in stablecoins.

Prasad: There is a rich irony embedded in fiat-currency-backed stablecoins. The whole point of Bitcoin was to get away from trusting intermediaries such as central banks, commercial banks, or credit-card providers. But to work as reliable mediums of exchange, stablecoins need a centralized validation mechanism. They need to be backed by exactly what Bitcoin was trying to get away from—fiat currencies.

Ultimately, stablecoins meet some important demands of payment systems, domestically and across borders, and when we think about a metaverse. But I worry about whether stablecoins can be trusted to hold their value. Yes, they are collateralized, but who knows what the quality of that collateral is. We had problems with money-market funds, which were supposed to be safe, during the global financial crisis. It's worrying if an entire financial ecosystem gets built on stablecoins.

Shah: The Terra failure will probably accelerate regulation. Eswar is right: It's not what Bitcoin's developers envisioned, but it is programmable money, and you could do all sorts of things with it. PayPal Holdings [ticker: PYPL] and Silvergate Capital [SI] are considering the launch of their own stablecoins, but we need a regulatory framework.

Morehead: The stablecoins that we work with are backed and audited, like <u>USD Coin</u>, or USDC. It would be better if stablecoins were regulated, and I think that will be the

model in the future. But the demise of Terra doesn't say anything about the broader promise of stablecoins or blockchains. Pets.com's failure didn't mean that the internet was stupid. It meant that one business model didn't work.

A migrant who wants to send money across the border doesn't want to speculate on the price of Bitcoin. They just want to send a payment instantaneously to someone with a smartphone. Banks and money-transfer businesses charge high fees and profit from exchange rates for a cross-border transfer. Stablecoins are incredibly advantaged over money-movement systems like Swift, which are antiquated, slow, and expensive. So, there is a use case for nonvolatile money, like a USDC stablecoin.

But stablecoins are backed by fiat money that is being debased. Inflation is around 8%. That is going to prompt a lot of people to want to save in things other than a fiat currency. Bitcoin and volatile currencies will have different uses than stablecoins.



Lisa Shalett, chief investment officer of Morgan Stanley Asset Management Photograph by Guerin Blask

Processing Bitcoin transactions, or mining, consumes a huge amount of electricity—equal to the amount consumed by countries like Norway in a year—because of the laborious "proof of work" system. More mining is now done with renewable fuels, but a large chunk still relies on fossil fuels, making Bitcoin environmentally controversial.

What's the outlook?

Prasad: My Cornell colleague Ari Juels, who devised proof of work in a 1999 paper, rues its use with Bitcoin. It's incredibly clever, but it is inefficient and environmentally destructive.

This notion that proof-of-work mining creates jobs, especially with renewable energy, is a mirage if you think about the opportunity cost of energy, which can be put to better use. Blockchain protocols like "proof of stake" are much more energy-efficient for

"We think blockchain technology will be transformative and ultimately add value to a portfolio. So, we advocate processing transactions and securing a network. But with Bitcoin, I don't see any incentives for the network to shift.

Shah: Outside of Bitcoin, most other blockchains are acting as operating systems with applications on top, and they are moving away from proof of work. Mining can help spur renewable-energy investment. With renewables, there are periods of time when you have significant excess energy. If you can monetize that excess energy and use that to fund further investment, you will actually do more renewable projects.

Since mining can be turned on and off in under 60 seconds, and the profit margin for mining is around 70%, even at today's prices, it is a hugely profitable business for a utility. There is a scenario in which every utility that wants to do renewables has a mining arm, because it is something that will help balance the grid and not waste as much energy.

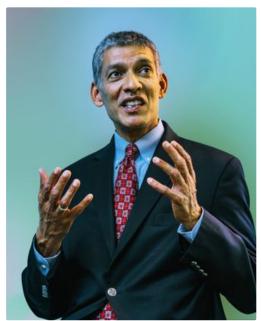
Prasad: The evidence doesn't support the idea that Bitcoin mining will lead to more renewable-energy production. Yes, mining operations can be switched off in under 60 seconds, but given the huge investments that miners undertake in their equipment, they are on full-blast, 24/7, to be economically viable and maximize profits. Even miners who are ostensibly relying largely on renewables are using renewable resources for much less than half of their energy needs because the mining devices are run nonstop and need a steady supply of electricity.

Morehead: Bitcoin mining consumes an estimated 0.5% of the world's energy. You can argue about whether that's too much. But everything has a cost. ESG [environmental, social, and governance] has three letters in it. Definitely, the environment is one of the letters. But then there's an S and a G. Bitcoin and other blockchains are delivering value in social and governance to literally billions of people. You have to weigh that against the environmental costs.

It's way too easy to say, oh, Bitcoin's an ESG killer, when people have all kinds of other things in their portfolios. Aluminum production takes 3% of all the world's electricity. And old-school gold is the ultimate trifecta in ESG horribleness. It's strip-mined in the world's worst kleptocracies, using cyanide leaching production techniques. Unless a company has divested itself from gold, it's super hard to say that Bitcoin is in the negative.

exposure."

Lisa Shalett, Morgan Stanley



Eswar Prasad, economics professor at Cornell, and the author of The Future of Money
Photograph by Stephen Voss

Are all the resources devoted to Bitcoin supporting something without intrinsic value?

Morehead: Gold doesn't have much intrinsic value, either. It is used for dental fillings and some welding in satellites, or whatever. But the main use of gold is just to own it. It has been working for 5,000 years. People trust it, and it's not that volatile. I think digital gold, Bitcoin, will be similar to that. It's going to take decades to get it there. But the fact that gold doesn't have any kind of physical property that makes it do anything doesn't make it bad, either.

Prasad: Dan makes a good point that

blockchain technology can have tremendous benefits in terms of improving the S and G in the ESG model. But there is no reason why you need to have proof-of-work mining for blockchain technology. It is not the most efficient way to do it. Just because gold has terrible environmental consequences, that doesn't translate into a case for digital gold.

"It's going to take a lot to convince the SEC to move forward on a Bitcoin ETF under Chairman Gary Gensler."

Eswar Prasad, Cornell University

Shalett: I want to come back to this idea that Bitcoin, as a pure financial commodity, is going to face growing demand. I want to push back on that. This idea that Fidelity has advanced—that Bitcoin is a viable asset class for 401(k) participants—is going to face extraordinary regulatory pushback. There is no way that the [Department of Labor] is going to permit Fidelity to push this agenda. There are going to be a lot of people on the other side of that discussion. [The DOL has cautioned companies, including Fidelity, against including Bitcoin in 401(k) plans.] Erisa, the law overseeing 401(k)s, restricts clients' access to wealth-creating asset classes that have very high levels of stability in the alternatives world. So, why accept this kind of asset class that has no intrinsic value, no real use case, and a volatility that is four to five times that of equities?

The second-largest blockchain, Ethereum, is planning a network upgrade in

August, aiming to make it much faster, less costly, and more scalable as it switches to a proof-of-stake system. Will that be a game changer for the crypto ecosystem?

Shah: What's attractive about Ethereum is the actual cash flows. Last year, \$10 billion of fees were paid to network operators for processing transactions on the Ethereum blockchain. There's cash flow here, even if we don't yet have a model for figuring out the intrinsic value.

Think about Ethereum like an operating system for applications, projects, stablecoins, NFTs. In the past, when you had an operating system like Windows, a company owned it and collected royalties from PC makers. With Ethereum, 70% of the transaction fees will be used to burn tokens, kind of like share buybacks, and 30% will go to stakers—people who own the tokens and use them to help secure the network.

At some point, we will be able to forecast transaction fees for applications and projects on the network. Does this upgrade change everything for Ethereum and the applications on top of it? It makes it more attractive. But there is probably room for other blockchains optimized for other things, like Avalanche or Solana. There probably isn't room for the 35 to 40 "layer 1" networks that exist today. But there's room for three to five.

Prasad: Proof of stake is going to be a game changer for the blockchain-based financial ecosystems. Not only will it substantially reduce the transaction fees by increasing the throughput of transactions, but it also is much more scalable. It's much more efficient in terms of processing times, and that is going to undergird significant changes in blockchain architecture.



Dan Morehead, CEO of Pantera Capital, a crypto assetmanagement company Photograph by Guerin Blask

But the governance issues for these decentralized architectures are going to be equally important. When you think about the governance of something like Ethereum, whether we might actually have centralization rather than decentralization is an important issue.

If you think about many blockchains proliferating, ultimately some of them will end up

winning the race. Regulation might be necessary to prevent these decentralized architectures from leading to more concentration, rather than more decentralization and competition.

Morehead: There's not going to be one blockchain. There's not going to be 50. There's going to be half a dozen, each with different features. That's why we think there's a place for something as powerful as Ethereum, but also Ripple for transactions and Bitcoin as digital gold. The web is not one company. There's a dozen important web companies. The new blockchains are much more scalable—Polkadot and Solana are two that are built to be very scalable. While it's frustrating that it is so expensive to do a Bitcoin transaction, I don't think that in a few years' time there will still be a problem.

If you're going to invest in crypto, what's the best way to do it? And does it have a place in a portfolio as an alternative asset when it appears so highly correlated to tech?

Morehead: Using Bitcoin as a proxy for our industry, it has grown at an 11-year rate of 2.5 times a year. We are in a short-term bear market here. But anyone who has owned Bitcoin for three years has made money. The internet itself is 50 years old. We have decades more to go. And it has historically had a low correlation with the <u>S&P 500</u> index.

We will come to a place where investors decide to invest in things that aren't interestrate sensitive—like commodities, gold, oil, agricultural commodities, and things like blockchain assets. Obviously, it hasn't happened for digital assets in the past three or four months. But I think that's what will happen.

Shalett: We're huge advocates of the crypto ecosystem. We think blockchain technology will be transformative and ultimately add value to a portfolio. So, we advocate exposure. But you probably want to do it in a highly diversified way, across the asset-class spectrum, from folks who are in mining, exchanges, custodial services, and such. A way we do that is through hedge funds or private investment vehicles for accredited investors. Crypto probably has a place in portfolios to a maximum of 5% for clients who understand exactly what they own.

Prasad: It's hard to make the case against holding, say, 2% to 3% of your portfolio in crypto, because even if the value of those assets goes to zero, you're not out very much. But the upside could be enormous. My worry is about many investors who are latching on largely because of bandwagon effects and the fear of missing out. I worry about many people who seem to be putting their life savings or a large part of it in crypto assets without fully understanding the risks.

"There's not going to be one blockchain.
There's not going to be 50. There's going to be half a dozen, each with different features."

— Dan Morehead, Pantera Capital **Shah:** There are so many choices as the sector matures; you don't have to just buy the sector. There's a handful of public companies today, but that's only because we're beginning this tech cycle. Look at the amount of venture-capital money flowing in—\$25 billion last year, up from \$3 billion in 2020, on track for \$30 to \$40 billion this year. There are 278 private companies valued above \$100 million, 118 above \$500 million. As you think about those companies going public, you'll probably have, within three years, a \$1 trillion sector.

Morehead: The four major blockchains that we're excited about are Ethereum, Polkadot, Solana, and NEAR. The important point is that the vast majority of interesting tokens out there aren't cryptocurrencies—they're like crypto companies that are replacing traditional companies. There are more than 4,000 publicly traded companies in the U.S. We could easily have more than 4,000 tokens.

The Securities and Exchange Commission has approved Bitcoin futures exchange-traded funds. What is the prospect for approval of a Bitcoin ETF that owns the coin directly rather than through futures contracts?

Prasad: It's going to take a lot to convince the SEC to move forward on a Bitcoin ETF under Chairman Gary Gensler. One issue from the regulatory perspective is that even if the risks are made clear, the fact that products are approved by regulators gives them some legitimacy, which convinces retail investors to believe these markets are overseen in a way that the risks can be contained. There is a compendium of issues that will make regulators take a long, deep breath before they move forward on this.

Morehead: The SEC has been using an extreme standard for Bitcoin relative to other crazy ETFs that exist. SEC Commissioner Hester Peirce makes the argument that the SEC has approved commodity ETFs, like one for palladium, that are based on unregulated spot markets. Bitcoin trades \$70 billion a day on hundreds of exchanges in dozens of countries. It is way too big to be manipulated.

Even if there are some issues with data feeds or market manipulation, they are orders of magnitude smaller than the wealth destruction that has been caused by the <u>Grayscale Bitcoin Trust</u> [GBTC]. Retail investors were buying that at an 83% premium, and now it's at a 37% discount. I can't see how it serves the public good to allow that and not have a Bitcoin ETF.

Shalett: Part of me worries that when an ETF vehicle is made available, it will just be one more avenue that allows investors who don't have the knowledge and sophistication to speculate. I worry that it would make the asset class even more volatile, not more efficient.

One positive for Bitcoin is that we're at the trough of a demandsupply phenomenon. The developers of Bitcoin agreed to a fixed rate of supply, and every four years the amount of supply that will be added to circulation is halved. In the next 18 to 24 months, there are going to be fundamentals around scarcity that are more advantageous. But investors and regulators are getting more knowledge of the risks in the ecosystem, and that is going to affect valuations.

What are your thoughts on Web3—the idea that we could have new networks and apps based on decentralized blockchains and tokens?

Shah: Web3 is a concept, just like software, that isn't going away. Blockchains will act as operating systems for new apps and services. Stablecoins will transfer value across borders. NFTs will potentially provide ownership of real goods in the metaverse, which will be powered by Web3.

Morehead: The whole concept of Web3 is about replacing companies like Spotify Technology [SPOT] or Airbnb [ABNB] with decentralized versions. We're excited about a range of projects that are competing with the data monopolies. An example would be Audius, which is a sharing protocol that helps recording artists get more money. The users get paid for contributions they're bringing by uploading songs. Audius already has six million monthly active users. We invest in about 80 different protocols that are doing these different business models.

We're used to massive data monopolies, like Facebook [Meta Platform; FB] and Airbnb, sucking an enormous amount of value in their verticals. Those can be decentralized. Social media, like Facebook, will probably take a decade. But ultimately, we're going to have a cooperatively owned and cooperatively governed version of the data monopolies like Facebook.

It's going to be a wonderful world, way better for everybody, because these current owners can be pretty toxic. With decentralized governance, better decisions will be made, democracy won't be destabilized, and false information about vaccines won't be sold. It's going to take a while, but that's where we're heading. It is one of the most obvious trends I've seen in my 35-year career.

Prasad: I worry that this decentralization and extensive fragmentation is not necessarily going to lead to better economic or social cohesion. I can imagine many of these technologies being co-opted by authoritarian, ostensibly benevolent governments, or

large corporations, to accrue even more economic power. While these technologies do provide a pathway to desirable objectives, such as more democratization of finance, I worry that without guardrails in place, it will not lead us to some sort of nirvana. That outcome might be subverted toward a much darker place.

Shah: There is an automatic gravitation towards centralization. And we want that. Regulators want that centralization because they want governance and want to hold somebody accountable. The next step for the web is going to be semi-decentralized. And hopefully, Web4, Web5, Web27 will move to a world where it's more decentralized. But it's going to take a long time. The beauty of these tools is, they help decentralize the current internet a little bit more.

What is the outlook for crypto regulation, and do you expect governments worldwide to crack down on this technology and trading?

Shah: It's not going to be a global regulatory framework because countries can't agree on almost anything. Hopefully, there will be certain frameworks and countries adopt them. Our long-term view is that a regulatory framework that encompasses this ecosystem, the product, software, or services, is going to be hugely beneficial.

Prasad: The moment DeFi starts touching the regulated financial institutions, the regulators will become especially concerned. Stablecoins are going to face serious regulatory oversight. And if you have a central bank digital currency, or CBDC, it's not clear what the use is for a stablecoin. We may get to a world where highly regulated stablecoins coexist with CBDCs. But if we move to a world where CBDCs become easily accessible within countries and for cross-border transactions, the use case for many stablecoins could be significantly undercut.

Shalett: I think we're going to hear a lot of noise around Erisa. Given the volatility of the crypto asset class, to think that an Erisa fiduciary is going to suggest that Bitcoin should be an option in a 401(k) menu is a bridge too far. Most 401(k) menu designs do not include things that you and I might think are mainstream—like gold or energy infrastructure assets or real estate investment trusts. To this day, there are 401(k) plans that are debating whether emerging markets should be a choice on their platform.

Investors don't really know what they're buying?

Shalett: A lot of investors don't even comprehend the elements of a Bitcoin transaction. If you're buying on an exchange, what type of an exchange is it? Where is it going to be custodied? Who's going to have access to it? Who are you actually trading against?

The vast majority of people transacting on these exchanges today couldn't answer a single one of those questions. There's no definition of "best execution." In many cases, people don't know where their assets are custodied. There are still a huge amount of questions around buying and securing a cryptocurrency asset.

We'll need another roundtable to discuss all of that. Thanks, everyone.

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