



# ALPHA BOOK

NOVEMBER 2022



### CRYPTO IS WAKING UP

After a lull, November is shaping up to become a volatile month. Our market analysis discusses the bullishness that's slowly returning in crypto land. Are we in for an earth-shattering bear rally? We also talk about which assets we are long the layer 1 has information to disclose about Saga, its ambitious phone project.

In this issue's deep dive, our analyst Paul Hoffman discusses a topic every serious crypto investor should get familiar with sooner rather than later: the differences between monolithic, modular, and semi-modular blockchains. What are the trade-offs? And what does the future hold? Is now the time to place your bets?

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# KEY INSIGHTS

- ③ Our report on monolithic, modular, and semi-modular blockchains suggests a bright future for fully modular blockchains. Our analyst is convinced that modular tech beats monolithic tech on a long enough time horizon. As to when to invest, new tech is often embraced with much excitement, which tends to wear off – particularly once the first hiccups occur. It seems best to wait for that to happen before investing, as the chances of hiccups are high with all new and ambitious projects. The price for exposure will be much lower after that happens.
- ③ Our proprietary model printed a long signal for BTC on both the daily and the weekly. We had not seen a long signal on the weekly in over a year.
- ③ We do not think it makes sense to argue whether the bottom is in. Maybe it is, maybe it isn't. What matters is that the move we expect seems eminently tradeable.
- ③ The Nasdaq's recent strength under pressure is the most bullish sign we have seen this year. We are long ETH, BTC, SOL, and SUSHI (in order of size). We will derisk if Nasdaq bulls get euphoric, as too large a move up runs counter to the Fed's interests.
- ③ Our invalidation is at a full retrace of the recent Amazon move.
- ③ The technical dynamics behind the recent momentum tell us not to fade it. If macro behaves, this move should have legs.
- ③ We believe the market is poorly positioned for upside potential during the fast-approaching Solana conference and news about its ambitious phone project. The conference may still become a sell-the-news event depending on whether the market starts positioning bullishly in the coming days.

- ETH is currently much stronger than BTC, and we expect this to remain the case for the coming year.
- We are keeping part of our LUNC short open. Our bet on the predictability of stupidity remains valid, and although we expect a sudden 'scam pump', we feel safe shorting without leverage. For now, the short is a decent, partial hedge to our long exposure to other projects, especially since funding rates have returned to normal.
- If momentum wanes, not only will less profitable miners be forced to capitulate, other, more profitable miners may get attacked by wealthier competitors, who might cause a coordinated breakdown by dumping their coins in an attempt to put them out of business. We believe the chance of such a coordinated attack happening is no mere tail risk, as the prize money is enormous.



## PERFORMANCE CHECK: HOW DID WE DO?

Accountability isn't the most poetic of words, but we think crypto needs to hear it more often. Each month, we look back at the calls from our previous issue. We are, to our knowledge, the only research company to do so, hoping more people in the space will follow.

- 🟢 ETH indeed remained much stronger than BTC.
- 🟢 We said it would be wise to sell the Merge in the \$1700s. This was correct and protected us from a 33% drop.
- 🟢 "Sell the news, but be open to buying the pullback [for the longer term]." This turned out correct. After a 33% drop, ETH bounced the same amount from a little under \$1200.
- 🟢 The expected derisking by Merge traders going into the FOMC meeting indeed came to pass, and taking profit turned out to be the smart thing to do.
- 🟢 We were right to believe the Nasdaq and the S&P had locally topped.
- 🟢 As for the Nasdaq, the June lows indeed offered some support and relief before price fell deeper. However, we did expect a much deeper drop than the 5% that followed.
- 🟢 An easy call: macro indeed stayed in the driver's seat. There was no decoupling. ETH, BTC, and all crypto markets crashed as hot CPI numbers came in.
- 🟢 We were right to wait for the CPI numbers to come in before buying, as the crypto markets collapsed right after.
- 🟢 As expected, BTC and ETH broke \$20k support, and we saw less buy pressure than before. However, there was still enough buy pressure, which we had not expected.
- 🟢 Lastly, we started live trading on Twitter (@CapturFi). In September, we shorted LUNC – and are glad to have done so. More on that later. Follow our Twitter to stay up-to-date.

# THE PATIENT ASKED FOR ORANGE JUICE

MONTHLY MARKET ANALYSIS – READING TIME: 9 MINUTES

By Sander Kok

We are long and strong. Wait – what’s going to happen, exactly, on the macro front? Shouldn't we know first? – Well, no.

We don't care if the bottom is in, as long as the move is tradeable. Bull trap? Who cares? No one knows what macro will look like in a few months. Not even Powell, and definitely not Lagarde. Sometimes it seems as if every pundit just follows the other. Indeed, these past months we have seen more than a few original thoughts fossilize into clichés. Others were never original to begin with or were so self-evident that they were on everyone's mind. For instance: the cure of raising rates may be worse than the disease. That may well be true. We don't know – no one knows. No one knows if the cure will even work. It typically should, but this time the patient has other substances flowing through his bloodstream. The good news is, since last week's big tech earnings reports, it may not even matter. The patient is showing signs of life and that's all we need to know. That's why we are long.

The health of a patient is best measured by the suffering he can endure. The markets endured a lot of suffering. For a brief moment, last week's horrifying earnings of Meta and Amazon seemed to deliver the fatal thrust. But right after AMZN dropped 21% in mere minutes – burning \$200 billion in the process – the patient opened his eyes and asked for a glass of orange juice.

I'm talking about the Nasdaq – and by extension about most risk assets. Now that's strength: the absence of weakness under pressure. Compare that to last January, when Netflix's earnings turned out poor. NFLX dropped 20% – so did BTC. ETH dropped 30%. This time: Nasdaq flat, then up. Then everything up.

## Bullish sign

The patient's current strength under pressure is the most bullish sign we have seen this year. We closed most of our shorts and added to our ETH,



Figure 1: Bedridden Bitcoin mustering strength to sit up.



Figure 2: Our proprietary model printed a long signal (green dot) on the BTC daily (seen here) as well as on the weekly.

BTC, SOL, and SUSHI long positions – in order of size. The LUNC short is still open but trimmed down to half its size. (We'll discuss these in detail below.)

Now, if the patient becomes euphoric before the FOMC event on November 2<sup>nd</sup>, we will review our bull bias and derisk. The last thing the Fed wants right now is people celebrating presumed dovishness, which runs counter to its interests. In that case, we may well get to see Powell spoil the party, as happened last month. Although the recent display of strength made us bullish, we are ready to respond quickly if Powell shows up at the press conference with his big deflator.

### Model tells us to long

Those who read the above paragraph carefully may have noticed we wrote that we *added* to our long positions. So when did we open them? Well, a couple were open from June, if you remember from earlier Alpha Books, but we went king-size on the Friday before the earnings day that followed a week



later. On that Friday, the 21<sup>st</sup>, our proprietary model printed a long signal for BTC, so long we went [Fig. 2]. It wasn't just the model that made us press the green button, of course – although its calls have been near flawless over the past two years; there was also the wonderful fact that the Fed – dare we say it? – indeed seemed a bit more dovish regarding the terminal rate, causing late shorters to find themselves on the wrong side of the trade and having to close their positions by buying. The upside momentum brought the price back into the lower time-frame range that had seemed broken to the downside only moments earlier.

For two days and nights, bulls had their way with bears. Surprisingly, so much capital was liquidated in just FTX's BTCERP instrument that one started to wonder if the data was correct. \$600 million on one exchange in one day, surely that was an error – stale liquidations being cleared away or something. Except it wasn't. The following day, the orgy went on with an even higher amount of capital sacrificed in the bull bonfire. As the earnings day approached, things took a bearish turn as hedgers started to, erm, hedge. BTC retraced almost 50% of the rally by earnings day. And that's where we added as Nasdaq remained flat upon the Amazon news.

None of this is financial advice, but since BTC and ETH have been in a range for a long time and volatility had died out almost altogether, we would not fade this move. Add to that the fake-out we described above, which typically leads to continued momentum toward the other side. You could say that already happened, as we even smashed through the other end of the range, but that's exactly the point: BTC smashed through, meaning the range should be no more; it is now an ex-range. If momentum wanes in the coming weeks and we return to the same levels, it's safe to call this another fake-out, and we will likely once more see momentum push us in the other direction. But let's not get ahead of ourselves. A break-out is not a fake-out unless proven

otherwise, and momentum favors the bulls. So does R:R. If macro behaves, this break-out should have legs. Besides, our model also printed a reversal signal on the weekly. That's a first in over a year.

## **Miners**

Apart from macro, the crypto markets are threatened by another risk – that of miners capitulating. We have heard this alarm sound all too often throughout 2022, and often with good reason, we might add, as miners indeed capitulated back in June. Unfortunately for bulls, the fear is still relevant and should be taken as seriously as ever. Around 78.2k BTC (\$1.6 billion at the time of writing) is currently held in miner treasuries at risk. Back when bitcoin was worth \$60k, that was a lot of sell pressure to stomach. At around \$20k, it's even more. This does not have to be a problem; we just need BTC to become more valuable. That may sound like a joke, but, of course, the fact of the matter is miners need their mined bitcoin to be worth more than their energy costs in order to survive. It is as easy as that. So, this break-out better have legs. If it doesn't, distressed miners will have to sell into weak demand, and we all know how that ended up the last time. The invalidation of our bull thesis is a full retrace of the Amazon move. If that happens, we will probably close all positions, set stink bids at ridiculous levels, and go on holiday.

## **Shark attack**

Here is a shower thought: if momentum were to stall, that could invite a coordinated attack. Something like this: two or more sharklike miners, perhaps with help from another shark, cause a breakdown by dropping their coins at the right moment, putting out of business a decent chunk of the competition, for which it is harder to survive at the then-current price/energy cost ratio. The result is cheaper energy costs for the surviving miners going

forward and the chance to buy back the coins at deeply discounted prices. We can't say much about the likelihood of this happening, but it *could* happen. Which is not to say it's merely a tail risk. Considering the prize money, it is bound to happen at one point.

### BTC and ETH

With that paranoid thought behind us, let's go look at some charts. The monthly ones are finally looking bullish. Not all of them. But the more influential ones do, most notably the S&P and Nasdaq. BTC and ETH look bullish as well, revealing hints of a reversal. The ETH/BTC chart could hardly look any stronger [Fig. 3]. We haven't heard the word flipping for a while, but the current ETH/BTC market structure suggests we'll soon see ETH revisit its 2018 highs. The ETH market cap would exceed that of BTC's at 0.177. That's still a bit far away – 130%, to be precise – so Bitcoin has some time on the clock to stop being a risk asset and start being the inflation hedge it promised to be. If that were to happen in the current high-inflationary environment, we probably wouldn't see a flipping for a while. Ethereum bulls might rebut here that, since the Merge, ether is also deflationary (when used). It is now 'ultra-sound money', which



Figure 3: ETH is much stronger than BTC, and we expect the former to beat the latter in the coming year(s).

means it's a direct competitor to Bitcoin's 'digital gold' value proposition. That is true. But ETH bulls need something more than it being true – they need the narrative to take hold among investors. And for now, the inflation-hedge narrative is still fastened to Bitcoin. There is also the little issue with potential censorship on the Ethereum blockchain, with, for now, almost all validators complying with the wishes of the morally infallible Office of Foreign Assets Control. When it comes to being an inflation hedge, which is essentially about safety, you don't want your hedge to be merely digital gold – you also want it to be unseizable by, for instance, the government. And not just for ideological reasons either; you want it to be unseizable because a society that experiences hyperbitcoinization or hyperethereumization is likely to try and redirect your BTC or ETH profits to the state.

### SOL and the Solana phone

The SOL chart below is presented for two reasons. First, it is a beautiful chart that, like all things of beauty, merits further inspection. SOL ranged, then faked-out, reclaimed the range, and now seems poised to go up. Second, Solana has a conference coming up, so there will be upside risk, and we don't believe the market is positioned accordingly.

There will be news on the so-called *Saga* – Solana's ambitious phone project. The conference offers an attractive opportunity to announce a release month



or even date – and if said month or date is not much later than what the market expects, the price of SOL will likely pump. When the phone was announced in June last year, delivery would be in "early 2023", and, according to the website, that promise hasn't yet been walked back on. Now, these things do tend to get pushed a month or so before the expected

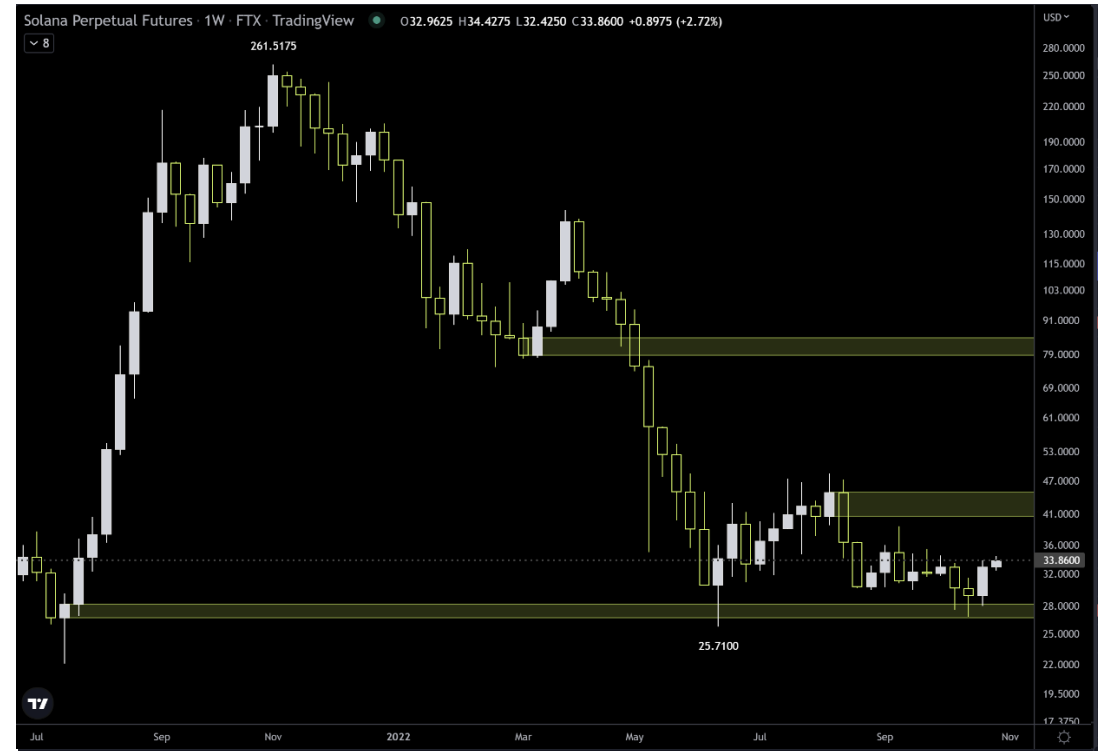


Figure 4: SOL had been ranging for months before faking-out and switching bullish before the conference.

delivery, so if you ordered, I wouldn't get my hopes up, even more so with the supply-chain shortages, but if the delivery isn't postponed, or if it gets pushed back only to the second quarter, I expect investors to happily press the buy button. If, however, SOL pumps going into the conference, I expect sell pressure to overcome any new buy pressure and the conference becoming a sell-the-news event. As for the longer term, the Saga phone is said to do much good for Solana and its ecosystem. It may also do wonders

for crypto adoption. Going by Solana-believers, the phone is a true game-changer – it looks primed to help crypto as much as hair powder helped men with limp and lifeless hair.

## LUNC

Not all charts look good, thankfully. If that were any different, it would mean scarce liquidity being spread thin over many assets, and we've seen how that worked out for the crypto markets in the past. Some charts look weak by comparison. LUNC, for example [Fig. 5]. We are keeping our (leverageless) short open and feel confident doing so, even though we expect a very unexpected scam pump at one point. Our LUNC short is a bet on the predictability of stupidity. The market gives you two or three of these easy trades a year – you know, to make up for its repeated, undesired lovemaking through the rear side. This is one of them. You'd be unthankful not to take it. That said, we did gradually slim down our king-size short position by 50% (after having sold 70% at the bottom, which we live posted on Twitter) as a rising tide will likely lift even the most rickety of boats. We expect to be using the profits to short again higher up. The remaining LUNC position also serves as a hedge for part of the ETH, BTC, and SOL long positions we added to in October. ♦ Sander Kok



Figure 5: The LUNC chart may look handsome but it reveals weakness in comparison to other crypto charts. Its fundamentals are doomed, which its community has slowly begun to realize. Another push up would be a blessing for those who didn't short higher up as we did. Traders should not use high leverage on this volatile asset, though.



# DEEP DIVE | BLOCKCHAIN TYPES

READING TIME: 8 MINUTES | By Paul Hoffman

Monolithic blockchains, modular blockchains, and layer 2s are 2022's crypto buzzwords. But what is a monolithic blockchain, and how is it different from a modular blockchain? Isn't a modular blockchain just a monolithic blockchain with a layer 2? In this article, I unpack these concepts and review how they relate. I propose a more closely defined and specific definition of monolithic and modular blockchains, and I propose that a blockchain with a layer 2 stack is not a modular blockchain but a semi-modular blockchain. I will also briefly describe the Celestia blockchain and demonstrate that a native modular blockchain has properties a semi-modular blockchain does not own. This fact underlines the important differentiation between a modular and semi-modular blockchain. Finally, I will provide an actionable investment thesis regarding modular blockchain architecture.

Bitcoin is a monolithic blockchain. It means that consensus, the execution of transactions, and the blockchain data all live on the base layer. Every single transaction, including the mining and broadcasting, happens within the main Bitcoin blockchain architecture.

A modular blockchain is fundamentally different. It is designed so that separate elements of the architecture – say the consensus and data availability logic – occur in one part of the architecture, and other logic occurs in another. This design allows for high transaction throughput, for example.

A semi-modular blockchain is a blockchain such as Ethereum, which was initially designed as a monolithic blockchain, but with the addition of a "layer 2", has taken on certain aspects of a modular blockchain. This is because

certain elements of the architecture do not live on the main chain. However, given that the main chain, also known as "layer 1" still encompasses all the required blockchain architecture, Ethereum should be considered a semi-modular blockchain. I will touch on this point in more detail below.

## The blockchain trilemma

First, to demonstrate the significance of monolithic, modular, and semi-modular blockchains, layer 2s and blockchain architectural design, let's come to grips with the blockchain trilemma. This term was coined by Vitalik Buterin and describes the fact that every blockchain must weigh the importance of three fundamental principles: scalability, security, and decentralization.

Summarizing: scalability refers to how much a network can grow in the future while maintaining similar transaction speed and output. Security is about how safe a blockchain is against hacking or social coercion (controlling >51% of the network), and decentralization refers to how many nodes/miners can effectively contribute to the safety of the blockchain.

Let's touch on a few examples. Bitcoin is very secure and highly decentralized, but it is very slow. It is secure and decentralized because everyone can run a node and because the total computing power allocated to Bitcoin is considerable (it's in fact the most powerful computing network in the world) and because of this high level of decentralization and

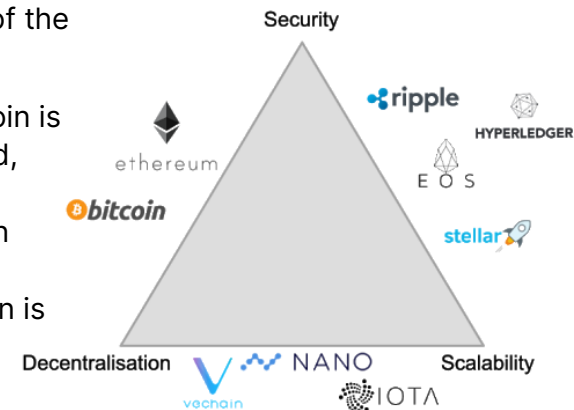


Figure 6: The blockchain trilemma is not new, as you can tell by this nearly five-year-old image. (Courtesy Quai Network.)

computing power allocation, it is practically impossible to 51% attack or socially coerce.

The downside to Bitcoin is that it's slow and thus not scalable. Its network gets congested as usage increases. This scalability issue is equally real for Ethereum. By extension, the lack of scalability comes with the same downside. Whenever the demand for Ethereum transactions grows, the network becomes slow and expensive – the latter caused by the increased competition for block space. Hence it does not scale.

A network such as Solana, on the other hand, is highly scalable and secure, but many times more centralized. Its scalability and security come from its Proof-of-History consensus protocol. Long story short, such a consensus protocol makes the blockchain very fast, but it requires a lot of computing power. Given the setup costs to fulfill this requirement, Solana's decentralization is vastly inferior to Ethereum's.

To put this perspective into numbers. Solana currently sits at just over 4,400 transactions per second and 2,094 validators. On the other end of the spectrum, Ethereum has more than 422,000 validators but averages out at roughly 10 transactions per second. Transactions on Ethereum can cost up to \$20 (currently \$0.80), while Solana's are a mere \$0.00025.

The Solana and Ethereum comparison demonstrates that monolithic blockchain architecture has to weigh the importance of scalability, decentralization, and security, given that one may come at the cost of another.

## Enter Layer 2

A solution to the blockchain trilemma is introducing a second layer to the monolithic blockchain. You could consider this a second blockchain running

on top of the first blockchain. (This is not 100% factually correct, but it helps build a mental map of the layer 1/layer 2 architecture and the relationship between these.)

Adding a second layer is desirable because the layer 2 can have different blockchain trilemma priorities. The first layer can prioritize security and decentralization, while the second layer can prioritize speed. Take Ethereum's layer 2 solution Arbitrum, for example, which is capable of 4,500 transactions per second but has no built-in decentralization mechanism. However, the combination of Ethereum as a layer 1 (decentralized and secure) plus the Arbitrum layer 2 (scalable) effectively does away with the blockchain trilemma. The layer 1 and 2 architecture combo is simultaneously decentralized, secure, and scalable – no trilemma.

There are, however, two significant trade-offs. First is the concept of the bridge. A bridge is what connects the layer 1 to the layer 2. To use the layer 2, you must first send some crypto tokens from the layer 1 to the layer 2. Then, once you've finished working on the layer 2 and wish to use the tokens again on the layer 1, you must send them back. The sending back and forth takes time – on Ethereum, bridging from the layer 2 to the layer 1 takes up to a week. In a world where time is money, this is not desirable. Bridging is also a confusing and challenging user experience.

The second issue is ecosystem fragmentation. Arbitrum isn't the only layer 2 on Ethereum; there is also Optimism, dYdX, Loopring, and a host of others to consider. And given that some applications live on the Ethereum main chain, and others live on Arbitrum or Optimism, the Ethereum ecosystem is more fragmented than if all applications were to live on the main chain. This fact is significant because fragmentation is undesirable in a world where network effects determine the success of a digital product.

Therefore, a layer 2 solution is not the ultimate solution; it is essentially a band-aid for monolithic blockchain architecture. To be clear, I am not discrediting the impressive work done to build layer 2s; the point I'm making is that adding a layer 2 to a monolithic blockchain does not make it a modular blockchain outright and comes with real downsides, contrary to what some have argued.

### The native modular blockchain

A native modular blockchain is a blockchain that is built from the ground up with modularity in mind. What do I mean by modularity? Remember that Ethereum has a second layer? Well, a module is a type of second layer, the key difference being that it's directly integrated with the layer 1. This integration means there is no need for a bridge between the layer 1 and the module. In addition, the modules can communicate directly, which means the ecosystem isn't fragmented.

Finally, because the native modular blockchain is built from the ground up as a modular blockchain, it is not encumbered by legacy architecture. To understand the significance hereof, I will briefly explain three more concepts – execution, data availability, and consensus.

First execution. Whenever someone puts a transaction through or engages with a smart contract it must be executed. On a monolithic blockchain, this happens on the main chain. On a modular blockchain, this happens in a module. The result is a much "lighter" layer 1.

This lightness, in turn, affects data availability and consensus. For a blockchain to reach consensus, all the nodes on the blockchain must have access to the latest data (hence data availability). And given the fact that the layer 1 without the execution element is much lighter, data is propagated

throughout the network faster. This makes a modular blockchain much faster than a monolithic blockchain (and potentially more decentralized).

Furthermore, because the modular blockchain layer 1 can focus exclusively on data availability and consensus, and the modules themselves on execution, each component (module and layer 1) can be optimized more effectively for their respective tasks, which again allows for more scalability, and potentially decentralization and security.

Finally, an important thing to note is that a modular blockchain can circumvent the blockchain trilemma in the same way as the monolithic blockchain can. However, instead of the monolithic's layer 2s, it is the modular blockchain's individual modules that work the magic.

To help make sense of this theory crafting, here is an image of the Celestia blockchain (right). It does a good job of encapsulating the modular blockchain architecture vs. the monolithic architecture (left).



Figure 7: The Celestia blockchain (right) vs. monolithic architecture. (Courtesy: Celestia.)

Note that on the monolithic blockchain, consensus, data availability, and execution all happen on the layer 1, which is intentionally drawn thicker to represent the higher load. Contrast this to the modular blockchain, which has a much sleeker, lighter layer 1 architecture.

### **Implications**

As I have demonstrated, monolithic blockchains with a layer 2 are not modular blockchains. They are semi-modular blockchains at most. The key differentiator is the overall blockchain architecture which allows for the separation of execution, consensus, and data availability. The implications of this novel architecture should not be understated.

Native modular blockchains also enable fully integrated ecosystems of connected yet independent blockchains, each running on their own execution (virtual machines, if you will). Modularity promises increased transaction throughput and potentially higher levels of decentralization and security. Additionally, each module, including the main consensus and data layer, can be upgraded without affecting other elements of the modular ecosystem – true modularity.

Modular blockchains hold incredible advantages over monolithic blockchains. It is a technological breakthrough that I strongly advise you to pay attention to. I must stress, though, that the modular blockchain architecture is yet to be battle tested. We have seen novel blockchain technology – typically bridges and smart contracts – get hacked (socially or technically) countless times, and I firmly believe that a novel concept such as native modular blockchain architecture will experience some growing pains.

### **Investment thesis**

For anyone wondering what I will do to position myself for this technology in terms of financial exposure, I will play a patient game and look for exposure a few weeks to months after release. New tech is often embraced with a lot of excitement, and when that wears off and the first hiccups occur, chances are the price for exposure will be much lower. I give this strategy a high probability of occurrence.

I ascribe a lower probability to the architecture becoming a success with quick and genuine adoption straight out of the box. However, if I'm wrong about this analysis, and key metrics do demonstrate adoption, I will look to increase exposure more quickly. In the long run, I am convinced that modular tech beats monolithic tech.

As always, key players (and their respective token unlock schedules), tokenomics, and business development will play a decisive role when it comes to the question of which modular blockchain project merits exposure. In subsequent articles I will assess several of these in more detail. ♦ Paul Hoffman



# UPCOMING EVENT RISK FOR NOVEMBER

November  
**2**

## FOMC

Federal Open Market Committee: Statement, Rate, and Press Conference

November  
**4**

## UNEMPLOYMENT

US Unemployment Rate Released (previous: 3.5%; expected: 3.6%)

November  
**10**

## CPI

US Consumer Price Index Print (expected: 0.5% m/m; core 0.6% m/m)

November  
**15**

## PPI

US Producer Price Index Print (expected: 0.4% m/m; core 0.4% m/m)

November  
**23**

## FOMC MINUTES

Last Month's Federal Open Market Committee's Meeting Minutes

# CRYPTO TWITTER SAYS

"Should I publicly blab my opinions about crypto regulation more? Feels unfair to let other people get attacked by CT [crypto Twitter, ed.] but never actually poke my own head out.

Well actually here's my moderate take on mixers and privacy that I already gave in the @coinbase podcast two months ago: [\[link to YouTube\]](#).

Another maybe-controversial take of mine is that I don't think we should be enthusiastically pursuing large institutional capital at full speed. I'm actually kinda happy a lot of the ETFs are getting delayed. The ecosystem needs time to mature before we get even more attention.

Basically, especially at this time, regulation that leaves the crypto space free to act internally but makes it harder for crypto projects to reach the mainstream is much less bad than regulation that intrudes on how crypto works internally.

The "KYC on defi frontends" idea does not seem very painful to me: it would annoy users but do nothing against hackers. Hackers write custom code to interact with contracts already. Exchanges are clearly a much more sensible place to do the KYC, and that's happening already.

Basically, there's two main classes of regulatory policy goals: (i) consumer protection, (ii) making it harder for baddies to move large

amounts of money around. The issues around (ii) are concentrated not in defi, but in large-scale crypto payments in general.

Regs on defi frontends that *could* be more helpful may include:

- (i) limits on leverage
- (ii) requiring transparency about what audits, FV or other security checks were done on contract code
- (iii) usage gated by knowledge-based tests instead of plutocratic net-worth minimum rules

Also, I would love to see rules written in such a way that requirements can be satisfied by zero knowledge proofs as much as possible. ZKPs [zero-knowledge proofs, ed.] offer lots of new opportunities to satisfy reg policy goals and preserve privacy at the same time, and we should take advantage of this!"

—Vitalik Buterin (@VitalikButerin)

*Vitalik Buterin is best known as the inventor and one of the co-founders of Ethereum.*



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