Exchanges at Goldman Sachs
Crypto Volatility: What’s the Outlook for Digital Assets?
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Allison Nathan, Host
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Allison Nathan: The meltdown in cryptocurrencies is raising alarm bells about the future of digital assets — or is it?

I’m Allison Nathan and this is Exchanges at Goldman Sachs.

[music break]

Fears over soaring prices and slowing economic growth have sent investors fleeing from risk assets, notably cryptocurrencies.

To help us understand the drivers, evolution and the outlook for crypto and the broader digital assets ecosystem,
I'm sitting down with Matthew McDermott, global head of digital assets at Goldman Sachs, to discuss the evolution and future of the space.

Matt, welcome back to the program.

**Mathew McDermott:** Thank you for having me.

**Allison Nathan:** So crypto assets are notoriously volatile—we all know that. But, last week was especially wild, even amid the immense volatility we saw across assets. We did see crypto assets underperforming. So, what do you make of this underperformance?

**Mathew McDermott:** You know, it certainly was a wild week. That's one thing is certain. What we need to remember though, this is still an emerging asset class with a large number of retail participants. So I think everyone's aware of the volatility in this marketplace. Seeing moves like this in this environment doesn't come as a huge surprise, but you know to your point, crypto definitely highlighted its more risk-on correlation in the way it behaved last week. And perhaps a little less than the
inflationary hedge that has been much muted across you know the media previously.

The move so far has been correlated to the broader macro market moves. I think no asset class that certainly has a discounted cash flow has escaped the stress implied by inflationary pressures. Although we've definitely seen more extremes across the crypto market over kind of the last week. Implied realized volatility of bitcoin and the crypto market, in general, have historically been more than double those in equities.

And, for instance, you know even since the start of this year and, as mentioned, we've definitely seen a much high correlation of crypto to U.S. equities. I wouldn't know that you know bitcoin has been trending in line with the NASDAQ in terms of its year-to-date losses which are around 30%.

The other point I think, which is kind of worth mentioning, is we also have seen certainly since the beginning of the year that volatility in the more traditional market—rates, FX, equities, commodities have definitely increased quite materially over that six-month period. Bitcoin conversely,
you know, has actually drifted lower, which is for a number of reasons, potentially kind of more institutional kind of involvement in the market.

This changed obviously kind of last week, in part because of the macro backdrop, as mentioned, but also the idiosyncratic events in and around TerraUSD had a profound impact.

**Allison Nathan:** So, you just mentioned TerraUSD. That led to a lot of the volatility that we saw last week. It's the fourth largest stablecoin and as its name suggests, it's supposed to protect somewhat from volatility. So, could we see others follow? What do you make of that situation?

**Mathew McDermott:** I think it's important not to group all stable coins in the same bucket. The mechanisms that underride these can vary significantly. Some are fully asset-backed, including fiat only. Some algorithmic like TerraUSD.

And just to make it clear for the listener, the algorithmic stablecoin is a token that relies on algorithms to regulate supply and demand, in order to pay this price, and what
we saw last week is obviously breaking in that paper to quite a dramatic effect. And then there are stablecoins they kind of merge a combination of the two.

We still see regulated, transparent and fully back stablecoins have huge potential for this space. I think what we've seen recently, will help give rise to consolidation and additional regulation, which we welcome, as a regulated bank.

**Allison Nathan:** So let's take a step back and look at crypto assets, as part of the digital assets ecosystem. So we talk so much about cryptocurrencies, but there are other digital assets in the mix. So what do digital assets include?

**Mathew McDermott:** The way we define digital assets, and not only includes cryptocurrency but also natively issued or digitally represented traditional assets and digital money which all move on the blockchain.

The most obvious blockchain that people are familiar with is the bitcoin blockchain, but there are many others. And we're starting to see more emerge across the market, which we can touch upon later. But these allow applications to be
actually built upon them that allow us to experiment from gaming, NFT, you know, even the metaverse, but also from a financial perspective.

I'd say the one other piece I would mention in the context of digital assets is digital currency. So this is a digital representation of currency that is on-chain. And what I mean by that is most people would probably consider currency at this stage to be digital, but it still settles in the traditional rails. You know, in certain, the traditional way. So that typically is the market hours of UK, US, or wherever.

While blockchain potentially [UNINTEL] allows all of this to happen on a 24-hour basis, seven days a week, 365 days a year.

**Allison Nathan**: Right. And just to clarify, when we say we're moving on a blockchain rail and it's 24/7, you're essentially saying that you don't need intermediaries to facilitate these types of transactions. The technology embeds that.
Mathew McDermott: That's exactly right. And, you know, there are different flavors of distributed ledger technology. You have the private distributor ledgers which a lot of development is presently being developed on. But then you also have the public blockchains. And so they're completely decentralized. And that, to your point, is the key thing.

So you do not rely on intermediaries, and this is one of the key benefits of the underlying technology. You remove that central focal point.

Allison Nathan: Interesting. And so with all that in mind, every time I talk to you it feels like this market is exploding evermore. More and more investors getting involved. How have changes in how crypto is traded helped facilitate the growth that we're seeing in the market?

Mathew McDermott: Yeah, look, I mean, I think that's a really good point. And I think what we've seen, even since I was last interviewed on the Exchanges podcast, was just this maturity across both the market participants and the infrastructure which I think has given A) not only confidence to many different institutional sectors but also I think has enabled, you know, many more traditional
traders to really look forward in how they trade this marketplace because of this maturity in the product suite.

And even if you just think of a couple of layers. You know, look at the hedge funds, for example. They are increasingly looking for exposure through options. One of the key drivers for that is, because they don't need to make an expression whether the market's going to go up or down, they can trade the volatility. And I think, from my perspective, this is really key because, as you think about probably 12, 18 months ago, the only thing you could really do is just take a directional view in terms of where the market goes.

Now -- and the market here is bitcoin or Ethereum, for example. Cryptocurrencies. And as the market does evolve and mature, this ability to trade the volatility and so not having to express a view necessarily I think is hugely powerful.

And that maturity also makes it more akin to existing financial instruments that have many different trading strategies that can be applied to them. And so we've started seeing this evolve as a function of that. Other sectors have
got more confidence, we see more activity from hedge funds, as I mentioned, but also asset managers, pension funds, corporates, and even from our private wealth clients. You know, they're exceedingly active, many of them, in this space.

**Allison Nathan:** And if we take a step back and I think back to other conversations we've had, inherent in our discussion was always this hesitancy from investors because it's still relatively new. Maybe it's maturing but still relatively new, relative to other asset classes they're used to. There are still security concerns, regulatory concerns. So what has really changed to help give investors more confidence in this space?

**Mathew McDermott:** Yeah, I mean, look, an awful lot has changed even since I took the job. And I think greater certainty in terms of where the regulatory process is heading. And ultimately what I mean by that, is I don't think any of us have real clarity in terms of how many of these different regulations will ultimately play out that are being proposed. But I think if I was an institutional investor seeing the whole variety of different regulators across the globe propose regulations for digital assets and
crypto, you even have the executive order in the US, there's just a lot that suggests this marketplace is here to stay.

We don't ultimately know how it will evolve, but that confidence now is really allowing people to progress in terms of their own investment and resource deployment to this space. So I think that's one key area. I think the second -- and we touched on this earlier -- is the maturing product offering. As we mentioned, there's just the maturity both across trading venues and service providers. That gives confidence naturally to maybe more traditional institutional investors. And also when you have that ability to trade in products -- be it cash derivatives, for example, that you're familiar with, you trade over the normal course -- that makes it feel a little bit more BAU. So that I think has had a very positive impact.

Allison Nathan: And just talking even a bit more broadly, digitization is changing how people trade. It's speeding up the time it takes to clear and settle securities trades. So what does this all mean for trading and the capital markets more broadly?
Mathew McDermott: We definitely believe that the underlying blockchain technology, you know, which we touched on earlier, will have a profound impact on the financial markets. Again, there's discussion around is it on the private distributed ledgers? Or do we think about the public blockchains? And the regulations will ultimately dictate how this ultimately manifests itself in the short to medium term. We're positive on both with various safeguards, you know, around that.

And so from our perspective, there are probably four key things that really drive in this and they apply to both. One is the precision of the technology. This ability to pinpoint accuracy in terms of when you want to settle. I mean, a lot of people talk about atomic settlement, but that ability to settle. So just using a really obvious example is the transaction that we were involved in last year where we worked with European Investment Bank. We had two other co-lead managers.

We did a digitally native debt issuance to a blockchain. Under French law, we were able to do that without a CSD or a custodian in its traditional form. The blockchain was a source of proof. As this was on Ethereum, basically the
actual transactions are validated by the miners on that blockchain, which are decentralized. The European Investment Bank typically had this T+5. So it traded and it settled five days later. We actually settled T+1, so one day after trading. That technology allows you to do that. So that's the first point, this precision.

The second one is thinking about risk reduction. And, you know, the most obvious example is settlement risks. In today's world, there's a lot of activity whereby assets move from one custodian to the next. And you always run the risk of settlement failure. This ability to represent the asset be it natively or through a token on the blockchain just means you eliminate that because everything's ultimately a little bit like a book movement. And so that settlement risk is significantly reduced.

The third area which I think works for many markets -- maybe not everyone -- but greater transparency. And I think that you know, over time will become ever more powerful, particularly as you start to think about some of these more rebate markets. And then fractionalization, that ability to really reduce the denominations and appeal to a
much broader universe of investors, again, probably over time.

And, yeah, the final one is kind of the economic efficiencies. So as we think through this ability to reduce the number of intermediaries, reduce costs, and also identify revenue opportunities, as someone, you know, we feel that we're really working with many others at the forefront of what this technology could do. And I think it offers cost reduction but also revenue opportunities.

**Allison Nathan:** You touched on this earlier, but if we think about digital cash and what that means for users and banks and the economy, I mean, how is it different from the experience that we're used to today? Isn't almost everything digital in that sense? So how is it different? How do you see that evolving?

**Mathew McDermott:** I think that's the key point. I mean, I don't think fundamentally it's going to be that much different. In the UK I can use something like Revolut basically to switch currencies and pay people in different countries, and it's all seamless. Appears totally digital. But then when you peel the onion back, actually when you
start to look at the payment rails by which that cash moves in the old legacy settlement systems, as you start paying cross-border, you often find that there's a number of different intermediaries involved. Suddenly, the costs increase, and there's basically a time from execution to settlement, shall we say?

And so there are just a lot of frictions that can be reduced from that process. Now, the thing about digital money is there are, like, three key categories. And I think this is really important to point out in our mind. There is one central bank digital currency. And increasingly, there are two flavors to that. You have the retail piece, and then you have the wholesale.

We've been involved in many proofs of concepts with central banks certainly on the wholesale side. Retail is a little bit more complex because of the monetary policy angle and ultimately what that can mean.

But I think it's hugely exciting the speed with which now we're seeing central banks really focus on this. And so while it's still two or three years at least away, we just continue to see development. We're having a very active
dialogue with many. I mean, I think now there are over 87 countries that are exploring, you know, the development of a central bank digital currency and are at some part of that evolution curve.

The second I would say digital currency is synthetic central bank digital currencies. And this is where you place cash on deposit at the central bank and tokenize that. A good example, you know, you refer back to the ERB transaction. But what was exciting about that trade was that we actually settled the digital debt issuance on-chain DBP versus the central bank digital currency. It was actually a synthetic central bank digital currency because it was basically tokenized cash held at the central bank. So that's just really a good obvious proof of concept that was applied there.

And we actually think that that could be one of the avenues that really expedites the use of digital cash on-chain, perhaps before we see a CBDC's more regular use.

And then the third growth area is stablecoins, as we talked about, there's been a huge amount discussed in the market about this.
**Allison Nathan**: Let's spend a minute talking about investment opportunities within digital assets. We've seen a surge of venture capital investments into crypto startups. They've really been an outlier among the sector as fears have mounted over growth and recession risk. Is this fundraising sustainable? What do you see for the future of that space?

**Mathew McDermott**: Yeah, I think this is a hotly discussed topic. I mean, I certainly would definitely defer to my colleagues in Growth Equity, you know, who, along with the Firmwide Strategy Group, we work very closely with in terms of identifying investment opportunities across the digital asset crypto marketplace. And I don't think anyone would deny the valuations. They're certainly pretty high right now. So personally, I would expect some normalization at some point. Though when that is unclear, just given there still seems to be a huge amount of capital, you know, ready to deploy.

And also there continue to be high levels of interest, you know, because people continue to see exponential growth opportunities and are keen to deploy that capital. From our perspective, we continue to identify exciting investment
opportunities, which enable us to expedite strategic objectives. But we're primarily focused around the blockchain infra, and I think that's very important, you know, as we want to like I say, accelerate our own strategic focus.

Allison Nathan: So you just touched on it during the conversation, but potential regulation clearly remains a key focus for the space. And last week’s crypto meltdown also prompted Treasury Secretary Janet Yellen to call for new regulations. So where are we on the regulatory front? Which way do you see this leaning?

Mathew McDermott: We've always been of the view that greater regulatory clarity is a key factor in order to grow this crypto marketplace. That will come as no surprise.

As you alluded, the moves last week will certainly bring more attention to the marketplace and help, I hope, accelerate some of the regulations that have been discussed globally, which we welcome and have been quite vociferous about.
We as an institution continue to actively engage with regulators globally and look forward to working together with them to build out the asset class in a transparent and regulated way, as we work closely with our clients.

As I think back to when I started and took over the team, you know, a couple of years ago, the regulation and just the whole focus from the regulators have moved on with great speed, which I think has provided a huge amount of confidence to the institutional client base.

**Allison Nathan:** So Mat, obviously we've come through this bout of volatility. Things are stabilizing now. But, there are still, as you say, lots of opportunities ahead. What are your key messages for investors right now?

**Mathew McDermott:** It's not too grandiose to say digital assets will bring about a paradigm shift in the financial markets and beyond. Clearly, there was a huge amount of volatility last week. But we continue to see a huge amount of exciting developments across the marketplace.

And as we talked about the breadth of the business, when we look at digitizing the lifecycle of assets and the profound
impact that can have on the financial marketplace, in terms of risk reduction, more efficient use of liquidity, and just general efficiencies.

We're very excited about our space. Let's not forget, you know, this time last year, we saw huge amounts of depreciation in the crypto market cap. It's not like we've not been here before.

I think what we're now starting to see is you know, the development of a maturing marketplace and so with regulations, greater transparency, I think, is only a good thing.

So we remain very excited about the opportunity, specifically around investments. I think valuations have got a little out of kilter, so perhaps we'll see some more sensible valuations in terms of investment opportunities too.

Allison Nathan: Mat, this has not been our first conversation. I'm sure it's not going to be our last conversation. We will continue to check in with you on how this space evolves.
Mathew McDermott: I greatly appreciate it. And thank you for having me and hopefully next time in person.

Allison Nathan: Thanks so much for joining us for another episode of Exchanges at Goldman Sachs. This podcast was recorded on Tuesday, May 3rd, and Monday, May 16th, 2022.

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