TFTC 450

[00:00:00]

**Marty:** Theo, welcome to the show. Thanks for inviting me. Well, I'm very excited for this conversation. I think this is a very interesting topic. I was just explaining to you before we hit record, but I think, uh, diving into the piece that you wrote for Axiom is going to be very fascinating because I do think, uh, this type of financialization of Bitcoin and doing it in a Bitcoin native way.

It's something that's going to become more prominent as we move forward. But before we dive into, uh, the paper you wrote, orange is the new green, the emergence of Bitcoin money market funds. Once you explain a little bit about yourself, how you found Bitcoin, uh, and why you decided to write this particular research paper.

**Théo:** Yeah. Um, so I was trained as a data scientist, um, and it's in that capacity that I first learned about blockchain [00:01:00] originally, um, basically solving a technical problem for my employer. And, um, I jumped into the bandwagon, uh, during the 2016, 2017 bull run at the time, not really understanding what I was doing.

I understood, uh, Bitcoin, like really superficially on a technical level. And then, um, a couple of months later, I was, um, uh, in vacation in Japan and I lost, uh, my wallet. And I was faced with, um, a really simple problem is that, um, Japan is a really expensive country, I was staying there for, um, three weeks more, and I didn't have any cash, I didn't, I lost my credit card, so...

I had to phone the credit card company to find a solution and they basically told me that either they would send me a Western Union, um, [00:02:00] up to a thousand dollars, which is really little to spend three weeks in Japan. And it would cost me like something like 150 or they would ship me a new credit card and it would take five days.

But, um, I have no solution to manage, uh, uh, the cost of living in the meantime. And I remembered I had, uh, Bitcoin, I was in the tech capital, uh, um, in Southeast Asia, basically. And so I figured I could find a way to exchange Bitcoin for cash. So, um, I just find, uh, found a Bitcoin ATM. Um, getting got in touch with the guy managing the, the, the ATM and decided to do a peer to peer exchange for a physical yen, um, enough to cover all my expenses for three weeks.

And then it basically hits me, um, uh, in a really practical way that it was the best [00:03:00] way to send value across the globe. And then, uh, it's basically at that moment that I decided to delve more into the subjects and, uh, try to learn anything I could find about it. I was not properly trained in finance and economics.

So, uh, it's at that time that I. enters this rabbit hole, um, discovering the Austrians at the same time the Bitcoin standards was released. Uh, I was totally, uh, convinced by safety instances, then join, uh, his online academy as an early member. And yeah. And so for the Past four years, I've been an independent consultant, um, basically helping my, uh, uh, clients to better understand Bitcoin, develop products.

Um, And, um, I'm currently stopping that to, I am, I'm looking for a [00:04:00] job doing research in the industry. Um, that's about it.

**Marty:** Well, this paper is indicative of the quality of the research that you do. I don't think it will be very hard for you to find a job in the industry. Um, which provides us a good jumping off point to jump into it.

Uh, the concept of Bitcoin emerging as a new type of money market fund or money market funds that are native to Bitcoin emerging. Uh, and really what this type of product would do is solve the trade off that many Bitcoiners face right now. They like Bitcoin, the asset, the hard asset. The fact that there will only ever be 21 million Bitcoin, that it's a great long term store of value.

Uh, and for those Who want to go, uh, get off, or get on Xero, excuse me, and live encapsulated under a full Bitcoin standard. Individually, they run into this problem of the volatility, which doesn't make it, uh, very [00:05:00] viable if you want to hold short term cash balances. Uh, the volatility. Can make, uh, can introduce a lot of uncertainty if you're trying to pay bills or do things, whether you're an individual or a company like.

And so the concept of a money market fund, uh, natively on Bitcoin can sort of help solve this particular problem. Um, before we dive into the dynamics of how you would actually build this on Bitcoin, I think it's important to understand how money market funds work in the incumbent Financial system, why they exist and why they're becoming more popular right now, uh, in this high interest rate environment.

So before we dive into Bitcoin, I guess let's explain the nature and the landscape of the money market fund solutions that exists today and competing products that individuals and companies use depending on where the market is at any given point in time.

**Théo:** Yeah, sure. Uh, [00:06:00] so basically a money market fund is a piggy bank for financial institutions.

Many funds and other kind of financial institutions basically don't like depositing large sums of money into a bank. First, because there is a counterparty risk. And second, because it's most of the time it's yields, uh, lower. rates than what you could get, um, at, um, the left end of the yield curve. So with short term rates, and so a money market fund is a really simple fund in which, uh, the fund manager will hold short term dated, um, securities, usually treasury bills with really low maturity, like three months, six months bills.

And it'll issue shares on demand against those assets. So it's not fractionally reserved. It's just [00:07:00] like a simple balance sheet with, on the asset side, a lot of short-term dated securities. And because they are short, uh, term, they don't, uh, have downside effects of, uh, suffering losses when there are, uh, rate height, uh, rate hikes.

Like now because there is basically no duration effect. So if, for example, you hold a 20 year, uh, bonds, uh, right now, you have suffered a lot of losses because, uh, with a new bond insurance, I higher rates. Um, existing bonds. Um, so future cash flows you will get, uh, um, rapidly depreciating in value, but with short term bonds, you can just help them to maturity because it's only like three months or six months.

And so the the value of the bonds doesn't fluctuate much and so it gives a [00:08:00] good place for Financial institutions to store cash balance on a short term basis until they need this cash and deploy it in whatever assets, uh, say choose and currently with the rate hikes, uh, your typical money market funds would yield something like For 5.

5 percent on an annualized basis, which is more than you would get, uh, holding any kind of, uh, fixed income trade, uh, securities with the same level of risk as it is assessed, uh, in the traditional financial world. And it's way more than you would get, uh, with, um, at a deposit account in the traditional bank.

So, um, over the past 18 months, something like that, um, a lot of capital has poured, um, into money market. And, um, [00:09:00] yeah, interest for them has grown. And we also witness the emergence. Of with new FinTech coming in of like consumer solutions that will allow you to you as an individual as retail to put, um, some of your capital in this, uh, with basically to click through an app.

And so, yeah, uh, the current, basically the current macro environments, um, makes it an attractive proposition and historically it's also has been, uh, piggy bank for, uh, financial institutions. So they have always been quite large, uh, in terms of, uh, assets and the management.

**Marty:** Yeah. And really diving into the concept of duration mismatch, which you touched on a bit, I think in the paper you highlight a really important.

Um, example of that, which is the UK guilt markets, [00:10:00] uh, earlier this year, late last year where they had their, it was earlier this year, time flies, um, where they had their duration mismatch and almost took the whole UK pension system under. And so I think to highlight the problems in a high interest rate environment and what led to the turmoil in the guilt markets would be, uh, worthwhile to jump into as well.

**Théo:** Yeah, of course. Uh, so I think it was, yeah, late last year. Um, so basically, um, new governments, uh, in England, uh, in the UK, excuse me, um, put forward a new budget, uh, with a lot of tax cuts. So. Um, it's worried, uh, fixed income investors. So they decided to sell a lot of bonds. And then, uh, it triggered a kind of, uh, reflect, reflect, [00:11:00] reflexive events whereby, um, a lot of, uh, bonds were sold.

And, um, um, I must mention that, um, a lot of the Pension institutions in the UK used this kind of bonds, so long term gilts, as collateral to fund their operations through schemes called LDI. And so, when the rates skyrocketed, it collapsed the value of the bonds. And because they have... pledged so much of those bonds as collateral, they faced margin calls.

Uh, so basically their lenders, uh, told them, yeah, your collateral value is depreciating. Uh, we need you to post more collateral, uh, in order for us to, um, keep the loans going. And Um, the problem was that most of their books is also [00:12:00] comprised of, uh, long term guilds. And so they had to sell, uh, more guilds, uh, at a moment where the value was already depreciating fastly, um, and to raise cash in order to meet their margin requirements.

And so it created this kind of, uh, feedback loop whereby, um, lower guild prices led to lower guild prices and rendered, uh, the guild markets, uh, illiquid because most of the institutions that were used to buy those guilds were all selling at the same time. And so, um, the markets, uh, teased on the brink of collapse and then the Bank of England, uh, stepped in and bought a lot of, uh, a lot of those deals to backstop, uh, um, the market drawdown, mostly because, um, not doing so would have been, uh, [00:13:00] um, basically, uh, horrible for the pension industry and would have wiped out a lot of British savings because Uh, most of people retirements, uh, are managed by those funds.

And so, um, basically, uh, they, they were at the risk of collapse. And so the important thing I think here to understand is that, um, had this kind of financial orthodoxy for the past 40 years that. Um, government securities are the more the most liquid instruments. So, um, most financial institutions, uh, whereas it is banks or other financial institutions use that as collateral to fund their daily operations.

But, uh, since, uh, the COVID episodes and inflation taking back, uh, banks and central banks around the world [00:14:00] decided to, uh, hike rates, which, um, depreciates the market value of those securities. And because Most of the financial institutions use that as collateral for their borrowings, uh, to finance their operations.

Um, we have this kind of, uh, uh, effects where, um, the lower value of those bonds creates, uh, illiquidity events as, uh, those institutions, uh, are faced with margin calls, uh, which force them to sell more of those bonds. And it was kind of a wake up call for central bankers, a lot of central bankers and the BIS commented afterwards because it made them understand that, okay, we have to fight inflation by tightening monetary policy.

But the problem is that, uh, by doing that, we risk, uh, basically [00:15:00] nuke our own bond markets, um, on which all liquidity relies, uh, in the current system. So, they are kind of stuck between a rock and a hard place. Uh, with the peril on inflation on the one side and risk of this kind of liquidation cascades rendering, um, what is supposed to be the most liquid, uh, markets in the world totally illiquid, uh, in a really short timeframe.

**Marty:** Yeah, it's the big problem with these markets that are liquid until they're not. When they're not, things start freaking out, and we saw this duration mismatch lead to a bunch of turmoil in our banking system here in the U. S. with SVB, Signature Bank, particularly First Republic. As well, um, so this problem isn't just isolated to these pension plans, this use of treasuries, whether they be UK [00:16:00] gilts or US treasury bonds, as liquid assets on bank balance sheets or pension balance sheets works until it doesn't.

**Théo:** Yeah, and it's it's worth mentioning. It's not a UK problem. It's a global problem. It's just that in the U. S. following the SVB episode you mentioned, basically, U. S. regulators have, um, find a a way to, uh, More, um, like roundabout way to address this with the BTFP program. So basically they told, uh, all financial institutions in the U.

S. Uh, okay. Um, so we know you are underwater because you are holding the securities that we basically nuked due to our, uh, monetary tightening. So we will put in place this facility, uh, in which you can deposit those bonds. And we will lend against it at collateral value not at market value. So, um, basically um, it's [00:17:00] It's a way to keep liquidity going without by The losses the national losses that the bank faced.

And since it has been enforced, um, the BTFP has not decreased, uh, in, um, loans and, uh, yeah, one could make the argument that. Uh, there is no reason it would in the future because, uh, the problem is ongoing and, um, we are in this weird situation, uh, where, um, central bankers told us, yeah, we will, um, tighten monetary policy to try to stifle inflation.

But at the same time, uh, we will give, uh, liquidity against, um, uh, depreciating. Because, um, we have to, to keep, uh, the markets going. And so it's kind of, [00:18:00] uh, swatching the typing effects, uh, um, in to some extent.

**Marty:** Yeah, it's a bit of a catch 22, if you will. And I, I mean, this just highlights one of the inherent risk of the fiat system run on debt.

And again, using these debt instruments as liquidity providers or um, sort of liquid assets on your balance sheet, it's, this is one of the big risks that exist out there. You're completely beholden to the whims of the central bankers at any given point in time and what they decide to do in regards to.

interest rate policy or the expansion or tightening of their balance sheets. That's one of the risks that exists. It makes it hard for capital allocators to put their money in yield bearing instruments with some form of certainty. And then another emerging risk, it's probably more emerging and more recognized over the [00:19:00] last two years, particularly is this risk of confiscation and the weaponization of the monetary rails.

Um, to simply just cut people off from accessing dollars or, uh, liquid treasury assets and so. Um, I think that's another important risk to highlight here and describe, um, in the context of purveying the field and trying to figure out where the safest places to put your money are.

**Théo:** Yeah. Yeah. It's a good thing.

Um, one thing we, we didn't address here is the overindictedness of our governments. And so, um, the problem with that is that, uh, in order to pay back those debts, uh, they don't have, uh, uh, Many solutions. Either you have like a big surge in real growth with which can only happen, uh, with a lot of productivity gains.

[00:20:00] Let's, for example, say tomorrow we have a clean, um. Uh, net producing energy fusion or stuff like that, but it's really unlikely you can also Inflate the debt away. Uh, but of course once you let inflation run, uh, you risk, uh Getting into hyperinflation and it's really difficult to put the genie back in the bottle Uh once you left it out Um, and you can also use another expedient, which is called financial repression.

And basically it's financial jargon to say We will rob People slowly through maintaining bond yields below inflation. So basically maintaining, um, negative real bond yields for a long period of time. And the problem with that is that when [00:21:00] you do that, you give a really important incentive to people to Take their capital and invest it elsewhere not in government securities, but in a different monetary zone or in different asset classes, so usually Historically speaking when we had financial regression.

We also had capital controls and in this perspective If i'm a regulator or a treasury official it would make sense for me to Limit what you can do with your capital And to try to lean on financial institutions to force them to buy as much government securities as they can and to, um, try to lean, uh, politically or geopolitically, uh, on my allies to buy, uh, my, my government securities and stuff like that.

Um, and so this combined with the fact that, [00:22:00] um, servicing, uh, those debts, uh. Uh, became, um, ever more difficult, uh, with rate hikes because, um, it raises the interest expense on the outstanding stock of debt. Um, you have a compelling, uh, uh, case for governments, um, uh, seizing private wealth just to bail out self altering regimes.

And in some sense, uh, it's what we have witnessed, um, uh, over the past two years. And I would argue even more, um, first in a more geopolitical context with, um, So seizure of Russian assets by, uh, European member states, Switzerland and the US, uh, which is basically a default on your debt. Um, also you had, um, a lot of, uh, hints, uh, about, uh, regulators, uh, being keen on, uh, [00:23:00] severing some, uh, crypto on runs.

Uh, maybe to, uh, avoid what I just described, uh, um, in terms of capital flights, uh, from the domestic markets to, uh, elsewhere in the context of financial repression, uh, that was, uh, through operation, uh, Chalkpoint 2. 0. A subject, um, that has been, um, masterfully explained by, um, Dunberg and also Nick Carter, um, earlier this year.

So basically it was, um, the FDIC telling to, uh, the different bank, uh, That were, um, in turmoil, uh, at, uh, during March, the March, uh, April episodes that, uh, they would serve as an example because they were banking a lot of crypto startups and individuals and. that basically the FDIC doesn't like that. Um, you also have, [00:24:00] um, Iran and other countries being kicked out of SWIFT.

Um, also during the COVID pandemics, you had, uh, global dollar shortages and you had a lot of People in the government, um, talking about, uh, basically weaponizing, um, uh, Fed swap lines, that is, uh, lending facilities to other sovereign states for, um, their short term, uh, dollar funding, uh, requirements. So, um, in effect, for example, Um, saying to Russia and China, we won't allow you to have access to those, uh, swap lines.

But, uh, for example, Denmark or France is okay because, um, it's our allies. And so, uh, for capital allocators around the world, it means that they have to manage another risk that was quite, uh, absent from the landscape over the past four [00:25:00] decades, which is a government seizure and, uh, more broadly, uh, financial repression, which in a really broad way can be described as, um, you will have less liberty to decide where you will put your money, uh, if it stays, uh, on shore in regulated, uh, vehicles.

**Marty:** Yeah, I mean, we're seeing a great example of this today with the announcement of Chase Bank. Uh, preventing their customers in the United Kingdom from accessing, uh, Bitcoin exchanges, crypto exchanges more broadly. I'm not sure if you saw that. No, I haven't seen that. Yeah. So it's only in the UK. There's a lot of screenshots going around.

Everybody's trying to say that Chase is. Banning all of their customers from accessing Bitcoin and crypto exchanges, but it seems like it's isolated to the UK and I imagine that's stemming from some [00:26:00] UK regulation that is just making its way through the market. But again, it acutely highlights what you just described, which is this, this push for.

Um, financial repression and access to this network that if it does succeed, um, if it continues to succeed, will, um, prove to be a bit of a thorn in the side of the ass of the people that, that want to contain and retain control of the monetary and financial system. Um, so yeah,

**Théo:** the fight is here. You could also extend the reasoning with, um, stablecoin providers because issuers, because, um, if, uh, I am in the situation of the U.

S. Treasury right now, um, I could also decide to, uh, strike a bargain with the U. S. D. C. and U. S. D. T. of this world and say to them, um, Okay. Um, I don't [00:27:00] like your products, but, um, you are quite helpful to me because you buy that so much, uh, of my debts. So I don't want to, um, basically shut you down and all these debts to hit the markets at the same time.

But, um, I will, uh, define, uh, how You can operate. Maybe I will ask you to censor some addresses or to collaborate with different agencies to fight against different risks and yada, yada, yada. But in exchange, um, you will, um. pledge to only buy, um, uh, U. S. Treasuries and even by the maturity. I tells you to buy and this will give a regulatory framework.

Maybe a lot of people in crypto will cheer about that thing. Yes, stable points are recognized [00:28:00] as something legitimate. Whereas it's also you. Um, helps, um, the government sustain its debts because, uh, it's a, um, huge marginal buyer of treasuries.

**Marty:** Yeah. It's a demand driver. And it's really interesting because Tether particularly, it's probably one of the most profitable companies on the planet right now when you consider the size of the company, its burn rate, and how much money it's printing just by holding treasuries.

Uh, on its balance sheet to, uh, to provide this, the stable coin in tether. Yeah. And I, in,

**Théo:** in a high rate environment, it's a deal of the century. It's like you can use the capital of the customers to earn yield on it at the rate of, uh, 5% per.

**Marty:** Yeah, and they're just rolling that into [00:29:00] Bitcoin or a good portion of that into Bitcoin.

That scenario, the potential scenario that you just laid out, has me thinking in my mind like, does Tether have this super position where, yes, they are one of the biggest, or a large driver of demand for these treasuries to hold on their balance sheets to ensure that they have, uh, one-to-one stability with Tether at the end of the day, but they're using that to roll into the sovereign.

Currency in Bitcoin that they also hold on their balance sheet And if the government were to come to them and say hey, we're gonna let you do this, but you have to censor these transactions it's a really interesting scenario because I could see tether bending the knee to that but also continuing to transition their profits in the Bitcoin and creating this somewhat superposition where Um, they sort of weaponize the government to accumulate a bunch of Bitcoin and help aid the transition to a Bitcoin standard at the same time.

It's not really [00:30:00] a question there. It's just something that I think about because I do think the meme around stable coins and the fact that they are a overwhelming majority of the volume on these crypto networks. And. The individuals and people who think that this is the killer app of crypto Are being a bit naive Considering what you just explained which is if the government knocks on your door and says hey you have to do this that and the other thing particularly around censorship of Particular users it sort of defeats the purpose of why Bitcoin exists in the first place and why people LARP about Decentralized cryptocurrencies existing, being separate from the state, if we have these stable coins that are heavily dependent on fiat architecture and systems that, that are centralized points of failure, um, it's all for naught at the end of the day.

**Théo:** [00:31:00] Yeah. One last thing is that, um, Taser guys were less naive than their competitors, I think. So they structured in a way where they rely less on, um, the U. S. banking system. Um, whereas I think, uh, the low hanging fruit for what I described is more like U. S. D. C., which, uh, decided to take the, uh, regulated approach in the U.

S., um, I will... Basically, uh, be nice with the regulators and they will help me, uh, um, uh, have a flourishing business. Um, but they could also find out that, uh, the bigger problem for the government is, uh, solvability, solvency, excuse me. And so that's, um, they would, uh, uh. Basically be leaned on by the government to buy more treasuries, [00:32:00] whereas, uh, harder to lean on Taser, um, due to their structure.

Um, although it's not impossible at all.

**Marty:** Completely agree. And USDC seems pretty keen on bending the knee and trying to appease the government to the best of their abilities and say, hey. We want to be the regulated stable coin. We'll do whatever you ask. We just want to make sure that we're getting that flow and the fees that come from that flow, which is not the, the approach I would take or one, I think is an overall benefit for humanity in the long run, but that's what Jeremy Allaire and circle have decided to do.

Um, but I think we've done an incredible job of laying out the problem right now. Uh, whether you're an individual or a company, uh, you want the ability to. Put your money in yield bearing instruments, uh, that will, that will allow you to increase the, um, the size [00:33:00] of your balance sheet at relatively low risk.

Um, however, we live in this environment where governments are severely over indebted, uh, increasing the amount of debt that they have. And then on top of that, getting. Increasingly Orwellian and using their ability to censor and prevent people from interacting with each other to dictate what happens throughout the financial system that they control.

So enter Bitcoin and attempting to replicate the yield that exists in these money market funds and other instruments, but then also provide the added benefit of being a non sovereign currency that doesn't have the ability to expand its monetary units or for a central authority to control what happens within the network.

And so I think, uh, in the paper you do a really good job of laying out. Um, sort of the primitives of these types of products, uh, that have been built or not [00:34:00] necessarily even built, just certain, um, functionalities of the industry, whether it be on BitMEX that have been leveraged to create sort of these synthetic products.

Thank you. Money market funds and how we can actually institutionalize that or not even institutionalize it Just make it more legitimate and productize it more moving forward So jumping into how Bitcoin fixes this problem how people have attempted to do it In the past and how it may look in the future.

**Théo:** Yeah, so As, as we mentioned at the beginning, um, Bitcoin is, uh, an exceptional, um, place to, for your long term savings because it's monetary policy somewhat guarantees that you will get a real positive return in the long run. But, uh, it's monetary policy is also the thing that make it so volatile.

Something cannot grow that much without, um, [00:35:00] showcasing that much volatility. Uh, in the short term, and so, um, you can still benefit, uh, from Bitcoin, for example, and you don't want, uh, to hold Bitcoin in the long term, just, um, by understanding that, uh, such appreciation and volatility is your friend. And what I mean by that is that, um, using derivatives on Bitcoin, um, and more specifically perpetual swaps, uh, which has been invented by BitMEX in 2016, uh, you can, uh, have your cash and carry arrangements whereby...

Um, you will short the dollar value of your Bitcoin holdings, um, which gives you a stable, uh, um, uh, balance in dollar, uh, whatever the, the price of Bitcoin does. Because, um, if the price of Bitcoins, for example, rises, then, uh, the value of your shorts, [00:36:00] uh, will, uh, plummet. But, um, your collateral in Bitcoin will appreciate, uh, proportionately.

Um, Conversely, if the price of Bitcoin drops, uh, your short will thwart the depreciation of your collateral. And The interesting thing, um, about, uh, this market is that, um, basically Bitcoin returns have been, uh, so off the charts for, um, the past seven years that, um, the future prices Almost always trades higher than the spot prices.

And this means that by shorting Bitcoin that you held at the same time, you get a stable dollar value plus some... Yields, uh, what's called the premium through basis trade. So maybe I should explain, uh, um, in more depth, [00:37:00] what's, uh, perpetual swaps are. So usually, uh, when you have a spot markets and a future market on top of this, you will have, uh, different contracts that, uh, have different expiry dates.

So a future contracts, basically it's just a contract that say. Um, I will have, uh, the ability, uh, I will be, excuse me, I, I will be shipped this commodity, this asset, uh, uh, in the future at a certain date. Um, and I buy it now to have the underlying in the future. And, um, Bitcoin being the first asset in history that trades around the clock, the guy at BitMEX, uh, decided to, um, change, uh, the way, uh, uh, future contracts are structured to create a novel instrument called perpetual swaps and perpetual swap is basically a perpetual swap.

Future contract [00:38:00] without an expiry date. Um, you can maintain a position for as long as you like and every eight hours, um, you will have A peer to peer payment between long and short reflecting the spread between the futures and the spot prices which mechanically will correct, um, annihilate the spreads, the spreads on, uh, between both markets.

And this means that, for example, when the, um, uh, perpetuals are trading higher than the spots, uh, which is, uh, the case most of the time, uh, by being short, uh, uh, Bitcoin. Um, you will get, uh, um, um, a positive payments, uh, a small payments every eight hours, uh, almost consistently, uh, conversely, if you are long Bitcoin, you will [00:39:00] pay, uh, basically to borrow.

Uh, uh, and and gain leverage on your Bitcoin and, um, in most markets, uh, um, spots prices and future prices tend to fluctuate with spots prices sometimes, uh, below, uh, uh, future of prices and future prices sometimes below spot prices, uh, with Bitcoin, what the article I wrote for Axiom shows is that At least 72% of the time, uh, it's in contango, meaning that, uh, perpetual prices are higher than spot prices.

And I tried to, um, outline the performance of the trade. So let's say, for example, that you would have put, um, um, a hundred dollars in, uh, this trade, um, since perpetual, uh, [00:40:00] have been launched, uh, in 2016. It would have yields, um, something like 140 percent uh, over this period, uh, and remember this is with the stable dollar balance.

So it's totally comparable to, um, um, government securities or something like that. Uh, because, um, it's stable in dollars, uh, you don't really bear any risk, um, uh, except from, uh, the counterparty risk with the exchange, which we will, um, talk more about later. And, um, you would get, um, so something like 20 percent annualized, which is, um, Completely off the charts, uh, um, compared to, um, traditional benchmarks.

So money market funds, uh, long dated treasuries and stuff like that. Um, another thing I tried to calculate is, uh, what would [00:41:00] happen if, uh, an individual decided, um, uh, like randomly at any point in time to, uh, use this trade as a cash balance. So I don't want exposure to Bitcoin anymore. Uh, I will short the value of my Bitcoin, um, um, at a random time.

So I calculated the returns of, um, all possible portfolio for this trade. That is, uh, any entry point and any exit points, like you don't try to actively. Maximize the value you would get. You, you are just like looking for stability, uh, at any given moment. And if we look at the distribution of these returns, um, we also looked at, we also see that, uh, basically, uh, any position held, um, um, over the current cycle.

So since the last Alvin, uh, would have maintained a stable value. [00:42:00] And, uh, would have yielded, uh, on average, something like 10 percent with really low volatility, which is, uh, by comparison, way better than, um, any, uh, return you would get from a money market fund or a deposit facility at a bank or, uh, through fed fund rates or any other, um, benchmark that you can think of.

Yeah. It's pretty

**Marty:** stunning when you look at. The numbers, which I'm doing now, it's, I'm looking at the, uh, the chart you have in the paper and then the sharp ratio of 3. 79, which is pretty, pretty astounding when you benchmark it against every other thing that exists in the fiat world.

**Théo:** Another thing that I didn't mention in the piece is that this Sharpe ratio is more or less in line with the Sharpe [00:43:00] ratio of the S& P 500 over the same time span, which somehow demonstrates That's, um, it's, it's looks legitimate, like if it were, uh, too high, um, as you would get with something like, uh, UST and Luna or stuff like that, um, you should be worried because, um, it could indicate Kate that, um, the yield that you get is really not sustainable.

Whereas in this case, uh, the yield you get is just demands for traders that want to leverage on Bitcoin because. Um, it has been a profitable trade, uh, even though a lot of people, uh, uh, lost search their shirts trying doing that. And so, uh, what we are describing, because I, I know it can sound like a crypto defying, uh, perpetual motion [00:44:00] machine, but, uh, in some sense, it's a really healthy kind of yield because it's just, um, someone buying your exposure on Bitcoin.

It's not like you lend some money to somebody else. It's not that you count on somebody generating some returns, so that you would get a share of it. It's just... As long as there are people that want to be long Bitcoin, and there are more people that want to be long Bitcoin than short Bitcoin, you will find people that won't buy this volatility from you.

And then, uh, you would have this arrangement where you could get a stable dollar balance with a yield on top of that.

**Marty:** Yeah, and it really makes sense. I mean to take a step back and to try to break this down in layman's terms the Fundamental thesis [00:45:00] behind the trade is that there are many people out there who think that we're still in the early phases of bitcoins Monetization and so they want long exposure to that and sometimes leveraged Long exposure to that and there's another subset of the market that wants to lock in some stable value of the Bitcoin that they hold And so another way to express or explain this trade is the people that want to lock in The stable value are lending out to the people that want to go levered long That are making what I would argue is a smart bet that bitcoins going to continue monetizing and accruing in value and for providing the service of lending Their exposure to these people who are going long, they're getting a yield in return as people make money on that long trade.

Is that correct?

**Théo:** Yeah, exactly. You can also look at this through the lens of monetary policy, um, like Since the 80s and the introduction of, uh, floating exchange rates, [00:46:00] um, most, uh, money managers, um, are always looking for, um, basically a positive cash and carry by looking at foreign bond markets. With, uh, different countries having different monetary policies, um, there is always, there are always, uh, bond markets that have higher real rates than others.

So, let's say, for example, I'm, um, a Japanese pension manager. And, uh, currently I can get like 5. 5 percent by holding U. S. Treasuries. Um, and something like 0. 5 percent by holding JGBs, Japanese Government Bonds. So, what I would do is that I would buy, uh, U. S. Treasuries. And I would hedge my currency risk, uh, and I would still get something like maybe two or three percent, uh, once I've accounted for [00:47:00] the cost of hedging.

And I have to hedge because my liabilities are to, uh, Japanese nationals, so they want their pension paid in Japanese yen. So if there is, for example, tremendous depreciation of the dollars against the yen, Uh, I could be in some trouble if I don't edge, um, and if you look at Bitcoin as a new continent of sorts, a new monetary zone, it has the best of all monetary policy because you don't have central planners, uh, it have, um, uh, scheduled issuance.

Uh, and you know what the supply will be at any point in time. And so it's only logical that it commands real rates higher than any competitors and so in the same manner than money managers have been used to Put their capital in one monetary zone or the other depending on which has the sounder monetary [00:48:00] policy.

What time forecasting is that now they will put it in the Bitcoin monetary zone and as they did in the past, they will age, they will edge their currency risk. That is, they will age against the volatility of Bitcoin and say, we'd be better served doing that because the yield they would get is higher than Yield they would get on, um, uh, foreign bond markets.

**Marty:** Yeah. I know we touched on it briefly because BitMEX sort of figured this out, but I think it's important to really dig in and highlight the benefit that the fact that Bitcoin trades 24 7, 365, and the liquidity profile that those. Perpetually open markets to use a pun here. Um, it provides to individuals, businesses, sovereigns alike.

Like it's almost going to be impossible to [00:49:00] resist getting exposure to this type of product due to that liquidity profile profile provided by the fact that Bitcoin is just always running.

**Théo:** Yeah, yeah, that's so on. Uh, really important point is that, uh, as we mentioned before, like, um, future of contracts usually have an expiry date.

And also, like, if I buy a hedge, um, uh, to shield myself again, volatility of the foreign currency, um, this, uh, um, edge has an expiration too. And so, um, I constantly need it. to manage my position. That is, uh, when a contract expires, I will have to buy another contract. And unfortunately for the manager, um, these contracts can trade at different premiums depending on, uh, what the market thinks they are worth.

Uh, another problem with that. Is that [00:50:00] because you have a lot of different contracts trading in parallel, it fragments liquidity. Um, whereas with the perpetual markets, what we can, uh, observe, um, um, in the data is that most of, uh, the capital going into, uh, Bitcoin futures go into perpetuals. And so it's.

Basically acts as a selling point for people that want a future exposure on Bitcoin. And so it gathers capital and liquidity more efficiently than traditional futures contract or even traditional financial markets. world. And with the other benefits that, um, you can peg and unpeg your Bitcoin, uh, basically whenever you want.

Um, in the piece, I use the example of, um, the, the failure of SVB, uh, uh, you mentioned [00:51:00] earlier, Marty. Um, So imagine, for example, you learn that the bank is failing when the market is closed and it's Friday and it won't open before Monday. Um, if you are in the traditional financial world, uh, you cannot take any position.

You cannot edge yourself until monday and when monday's markets open it will be a rush because Everybody will do the same thing. So you will uh, you will pay uh, uh, a premium Because you will rush into the same trade as anyone. Um, and as everybody and uh with bitcoin It's totally different because, uh, you could, for example, uh, learn, uh, of the news and decide to unpack your Bitcoin, uh, at once and, um, basically making a directional bet on the fact that Bitcoin will benefit, uh, from this event and [00:52:00] pumps through the turmoil in the banking system and, um, decide to repack your Bitcoin, uh, an hour afterwards, uh, if you want.

And so. Because Bitcoin settles around the clock and because it can be traded at many venues and it doesn't have a market authority that decides when trading begins and when it stops and what is the current price and stuff like that, you have this kind of flexibility where you can be shielded Uh, against, um, a lot of, uh, risks, uh, that you cannot, uh, acquire, um, insurance against, uh, through traditional, uh, channels.

**Marty:** Yeah. And so, like, if you see a run on the bank or you believe there's going to be one, you can unpeg that trade, benefit from the value appreciation of Bitcoin. In reaction to some stress in that market. And then when you want to get back to a stable [00:53:00] value of just repeg do it instantly. Yeah.

**Théo:** And also from a really practical standpoint, uh, you can pay people on Sunday, which you cannot do through the banking system.

If, for example, um, you send me a bill and, um, you want to be paid at once, I can just send you Bitcoin, uh, on a Sunday morning and you will get it in about 10 minutes and then you can decide to pay it against the dollar as soon as you received it. And to all practical, to all practical extents, uh, you just got, uh, a dollar value on a Sunday when the bank is closed in 10 minutes, uh, across the Atlantic.

**Marty:** And now, this is where things get really interesting, because the perpetual swap trade that we've been describing was made famous on BitMEX, uh, it's been replicated in other exchanges, um, but to a certain [00:54:00] extent, I mean, I think BitMEX is actually, An example of doing things the right way. They create a whole circular Bitcoin economy and Bitcoin leveraged trading desk.

You couldn't put dollars in, there's no dollar accounts, and they leveraged multi sig, multi jurisdictional, multi sig most importantly to ensure that they were able to facilitate trades 24 7, 365, and even when a couple of their co founders were were in prison, it proved to be very hard. The authorities that be to prevent BitMEX from from actually providing the services they they provide, which is very good to see.

Um, but still, even in that set up, there are some single points of failure, and it's definitely risky in some regards in terms of where. Pressure can be applied, um, but it is certainly a, a, an improvement on the [00:55:00] incumbent system, but we can still move further down the spectrum of ensuring that these types of products are not only, uh, yield bearing, but are, as Caesar resistant, seizure resistant as possible.

And this is by leveraging some of Bitcoin's native properties that can allow you to create these types of products without a bitmex being involved at all. Yeah.

**Théo:** One risk that we left out in the current discussion is counterparty risk. Because, um, if I were to peg, uh, my Bitcoin, uh, in central fashion, For example, um, at FTX, uh, in, uh, October 2, 022, uh, I would have nothing left.

And so you are always, uh, assuming a counterparty risk because, um, to enter such a trade, you have to deposit margin at an exchange. Um, and there is... [00:56:00] Nowhere around that, like, uh, they won't let you short Bitcoin unless you are collateral. But, um, you can, uh, have the same kind of arrangements where, um, you will, uh, short or long Bitcoin directly through, um, uh, discrete log contracts, which are, um, basically an equivalence of what is usually termed smart contract on DeFi platforms.

But that can be done on Bitcoin, either on Lightning or on the main chain. So to explain rapidly what To this, uh, discrete log contract is, um, basically, um, it's, um, an off chain agreement between two parties, um, that will, um, define a payout contingent on some [00:57:00] external events, uh, um, And that is enforceable unilaterally, even if the other party doesn't cooperate.

So let's say, for example, that, um, me and Marty bet on the outcome of the Super Bowl. Um, then we can, um, exchange, uh, pre signed Bitcoin transaction. Where, um, I will build a transaction that will spend some Bitcoin, uh, to Marty and he will, um, build a transaction that will spend some Bitcoin to me. If we agree on the bets, we will then fund, uh, a multisig wallet with our wage, uh, with our stakes.

And basically, the transaction, uh, um, we built, um, The specificity that the signature that we used have been tweaked, uh, using, [00:58:00] um, an external party public key, um, which is called an Oracle. Basically, the Oracle is just someone attesting to. The outcome of the event and he does not even have to know that we have made a bet or that even a bet has been made or what are the terms of this bet.

And so once the Super Bowl is finished, this oracle attestation. Um, uh, saying who's a winner is, and, uh, either me or Marty can use, um, this Oracle attestation to basically untweak the signature from the transaction we exchange the off chain pre signed transaction I described. And we can use, uh, unilaterally, the, the winning party can unilaterally Publish the correct transaction and get [00:59:00] the Bitcoin payout even if the other party says no, I don't want to pay, I disagree with the results, I don't think you won, and stuff like that.

And so, in effect, to get back to our discussion, this means that you can do future contracts on Bitcoin without, um, um, abandoning. custody of all your funds. You just have to construct a DLC that will reflect the outcome of a future contract. And there you go. You have, uh, um, uh, in the example that we gave, you can have like your Bitcoin on chain or in the lightning channel and be hedged so that, um, the Amounts of Bitcoin you own will fluctuate with regards to the Bitcoin USD price without any counterparty risk.

Um, and hence, um, to a practical extent, you will [01:00:00] have a stable dollar, uh, balance in Bitcoin, uh, directly, uh, in a liking channel or on the main chain without, uh, abandoning custody over your Bitcoin.

**Marty:** Yeah, it's a pretty beautiful thing. It's... Insane to think that we can do this now in a completely non custodial way.

I mean, there are obviously still a couple of things that. Need to mature on the wallet side of things on the oracle side of things I mean you mentioned the oracle thing many people view that as a point of failure or a single point of failure like what if the oracle attests to a bad outcome and Bitcoiners have thought of this you can use many oracles and make sure that they're at this station is with a particular range So if you don't want to depend on an individual oracle, you can expand your oracle options that are attesting to the outcome of particular events And so I guess another really important hurdle to overcome, [01:01:00] which we should definitely talk about is in the context of non custodial DLCs, how do you envision liquidity for these types of markets to develop?

Is it going to be hard? Is it an impossible problem to solve? Um, what does, like, how can DLCs provide a similar experience to this type of strategy employed on something like a BitMEX? Where people would argue that the relative centralization of a BitMEX and their ability to create a market and maintain a market may make it harder for DLCs to achieve the same level of success.

Yeah.

**Théo:** So, um, it's a really good point when, um, you have this kind of, uh, non-custodial, uh, arrangements by definition, uh, you will have to post enough collateral, uh, within the funding transaction to cover all the outcomes of the contract. And this [01:02:00] mean capital inefficiency because. As you mentioned, um, when you do the same things through a centralized exchange, usually centralized exchanges, um, uh, keep the capital buffer in line with the net positioning of, um, uh, the participants, meaning that they don't have to keep one Bitcoin, uh, of, uh, reserves for one, uh, Bitcoin worth of contracts.

Uh, because if, for example, I'm long one Bitcoin, you are short one Bitcoin, net, uh, um, they are neutral and, uh, in DLCs, uh, it cannot work that way because as I mentioned, you have to have pledged the Bitcoin you might lose in advance. Uh, it's a price you have to pay for trustlessness. And so this, um, of course could hinder the trading experience and the UX for people using that.

Because if, for example, [01:03:00] I want to, um, um, have, uh, many DLCs in parallel, I have to lock. Uh, bitcoins in many channels or in many UTXOs, uh, um, uh, at the same time, and I cannot reuse collateral, uh, from one DLC to another, and especially if you want, if you want to roll your position, uh, which is kind of needed.

to achieve what we described in terms of getting a stable balance in dollars on Bitcoin. You would have to close your DLC, get back your collateral, and then open a new DLC. And of course, with that comes costs. Uh, because, uh, for example, uh, between the time lag, um, between the closure and the opening of the new DLC, [01:04:00] um, you won't be edged anymore.

So, um, you will have an exposure on the market, which is a risk, uh, and that entails a cost. Uh, also, uh, closing a DLC means publishing an unchanged transaction, and opening a fresh DLC also means opening a new transaction. So. It's, it, it's, it comes at a cost and especially, uh, in some fees, environments. Uh, it could be a non-negligible cost.

And if what you want is just have a stable, uh, uh, balance in dollar, like, uh, let's imagine you are like a total NOCO error. You just use some kind of FinTech app, um, to have this kind of sovereign bank accounts that gives you, um, uh, an interesting yield. Um, the user expense you want is just like, uh, always a stable value, uh, custodial of my funds.

And, uh, I don't want to understand the complexity about this. And so, um, [01:05:00] for a moment, uh, if anyone wants, uh, to, uh, do a transaction on the main chain, or, um, if a lot of DGNs are minting ordinals and uh, um, recently, Then you will be forced to pay a high fee because, uh, you don't wanna remain unpacked for too long because, um, Bitcoin volatility could, uh, um, uh, diminish your, your capital value.

And, um, it's, it's, uh, kind of a big problem, especially in the sense that, um, you can imagine that a lot of people would want to do this. This thing, when Bitcoin plummets, and so as, um, many people rush to and, uh, hike the fee on the transaction to have, um, uh, the transaction in the next block, uh, you could be forced to pay high fee to do that.

That [01:06:00] being said, uh, given, um, the, the analysis, uh, I've laid out in the piece regarding, uh, the returns of such a trade. Um, I don't think that rolling costs, uh, would be such a problem. Um, but, um, it's, it means that, um, companies that try to package, uh, this trade into a product, um, would have to find, um, solutions.

Uh, to make the user experience as seamless as possible, um, to get back on your exact questions. I, I don't really, uh, think that, um, such, uh, derivatives markets could really, um, Be competitive, um, compared to, um, derivatives markets on centralized exchanges because the trading experience like, uh, having that, [01:07:00] uh, order book depth, uh, being able to trade, uh, um, that, uh, uh, with, uh, that many counterparty and having swift liquidity and stuff like that, um, would be Kind of really, it would be really difficult to replicate in, uh, a decentralized marketplace, uh, and, um, it's kind of an important problem, uh, uh, at the moment.

Like, we don't really know how to build a purely decentralized marketplace for, um, DLC derivatives, uh, on Bitcoin. Um, Because, uh, in essence, an order book is a centralized stuff. Uh, it's just like aggregating all the trades in the same place. Uh, um, and so we, we don't have, um, uh, that good solution, uh, uh, at

But, um, uh, giving an an hint, uh, uh, uh, [01:08:00] at what it could look like, um, which, uh, I should, uh, uh, say is not a designed that I've seen, uh, uh, as of now. Um, could be something like what. So as we mentioned before, like with Tether, you send them like dollars and whatever, and they give you a new token and they use the fiat to buy treasury securities and they get the yield and you get a stable coin, so a better dollar, one could say.

And so you're happy, they're happy, and now it's... It means, uh, in the right environment we are in that, as you mentioned, it's one of the most profitable company in the world. Um, you could do the same thing with DLCs. Like, for example, you could, uh, create a Bitcoin wallet. Um, let's say that you want to peg your Bitcoin to the dollar.

I will take, um, [01:09:00] uh, um, the opposite side of the trade. Um, and tie collateral in a D l T with you. And then I will edge my exposure through a centralized exchange. And you won't get any yield. You would just have, um, the benefit of having a stable balance, which is, uh, uh, already kind of nice. And I think it's something that would some, it's a product that would've good market fit and, uh, on my side as, um, As, um, the company offering the, the wallets, um, I basically would have to, um, lock, uh, collateral on, um, uh, the DLC and also lock some collateral, uh, on the exchange where I edge, but the benefit for me is that I get your positive yield.

And so I used, um, basically external capital that is seeking for, um, censorship resistant [01:10:00] dollar natively on Bitcoin, um, to, um, uh, basically generate cash flow for my business and grow and have better infrastructure, better marketing and stuff like that. That's a way, uh, uh, to solve this problem and there are many more.

It's more a matter of, um, what kind of market segment you want to address, because, of course, um, uh, you can use DLCs to, uh, offer like a kind of, uh, uh, new form of wallets, um, uh, to Bitcoin plebs. Uh, it's what, uh, 10101, for example, is doing. Um, and, uh, I'm on their beta and it kind of works. It's still buggy and stuff, of course.

Um, but, um, if you look, for example, to, uh, offer, um, a kind of money market fund for hedge funds or other financial institutions, Um, you will hardly do that [01:11:00] through lightning and, um, you would have to, to package the product differently to, um, better fits, better cater to the needs of those kind of users. Um, and so I expect that, uh, in the long run, you will have different, uh, products catering to different needs for different market segments.

**Marty:** Yeah, I mean, I think it's very obvious that there's something here and we're definitely in the nascent stages of this market developing. I mean, you mentioned 10. 10. 1. There's Atomic Finance out there on the Lightning Network. We have... I mean, 10. 10. 1 is building on Lightning, you have Ellen Markets, BlinkBTC, you can begin to see if you squint hard enough the formation of this particular vertical within the Bitcoin financial products landscape beginning to grow.

Thank you. Uh, develop a fundamental base, and if you squint even harder, [01:12:00] you can see, like, yes, it may be buggy, it's a little bit clunky in some areas, UX needs improvement, but there's definitely something there that can be improved upon, and it isn't hard to imagine that over the next 5, 10, 20 years, that the people dedicated to this particular problem will come up with a solution that is...

Um, at parity with some of the more centralized solutions that exist today, it's just going to take time.

**Théo:** Yeah. And what's interesting is also that all the, the, the companies that you mentioned, uh, are developing kind of different products like atomic finance, they leverage DLC to offer options. Um, 10, 10 one, they focus on, um, futures and, um, dollar stable balance.

Blink BTC, which was formerly a Bitcoin beach wallet, um, is a more centralized design. So it doesn't use DLCs. It uses, it uses, um, um, exchange [01:13:00] APIs, um, to place the trades. And so it's a custodial wallet. And, um, you transfer, uh, custody over your Bitcoin when you use it, uh, but by definition, it also means that it's cheaper, easier to build, less expensive, and stuff like that.

Um, and, um, LNMarkets, they are currently building an OTC trading desk for that. Um, because as they understand, uh, uh, what I just explained, that it's kind of difficult to build a market on that from scratch. Because, um, you, you, you will have, you will have a hard time finding like liquidity providers, market makers, and building the whole market infrastructure.

So they decided to start by, um, basically building an, an OTC desk, which is just a meeting point for, uh, people. Uh, wanting to match together because they want to do opposite trades. So, [01:14:00] um, in this fashion, this could be used, for example, by miners, uh, that want to edge their exposure, uh, uh, to Bitcoin. It could be also used by Um, power and power companies that want to you to edge their exposure to minors because they provide electricity up front to miners that can get bankrupt really fast when either the hash rates or Bitcoin's volatility explodes or both, by the way, and so there is lag between the moment they supply electricity and the moment they are paid.

You could imagine some scheme Um, through which, uh, the miner would pay, um, the, the power company over lightning, um, uh, at cost basis, uh, um, sort of a flow of what they consume. And the power company could use, uh, this kind of OTC desk to hedge the value over their [01:15:00] Bitcoin. They will be matched against, uh, uh, hedge fund, for example, that want to make a directional bets on, uh, Bitcoin with a small leverage.

And so the, the company in the middle here, Ellen markets would only, um, supply like, uh, technical services to do that, such as like oracles, uh, backup of transactions so that, uh, you'd be sure that even if you're not trash or something like that, you could still execute the contract, uh, when you wins and stuff like that.

And yeah, so it's, it's an exciting, uh, space. Um, it's really early, I would say, like, I don't expect, uh, what I described to, um, uh, happen, uh, tomorrow, but, um, for example, I had. Uh, conversation with, um, a big, uh, ETF provider, a big asset manager, um, that is [01:16:00] already, uh, looking at that, um, and is interested to propose that as, uh, an ETF as, uh, security.

Um, it could be. quite challenging on the legal front. Um, and I don't think the technology and the decentralized market for derivatives on Bitcoin is mature enough. But let's fantasize about that. Um, uh, if you you bring such product to markets given the macro backdrop that we described, I think it would garner a lot of attention and it would attract a lot of liquidity because it would be a legal security that anyone can trade and it would be a good place to to hold synthetic dollars and get a yield for it.

**Marty:** Yeah, which gets to The conclusion of your piece and the bullish aspects of this, [01:17:00] uh, these money market funds being a sly roundabout way to incite hyper Bitcoinization. Um, if the products do mature, they do drive a lot of demand and they do pull a lot of Bitcoin off the market. Like this could, this could really be some jet fuel for the price of Bitcoin at the end of the day.

And then it becomes like a self perpetuating cycle because the product exists that people want to go levered long, even more. And it becomes more of a profitable trade, at least until. reach a point of monetization where it's sufficient. Yeah, it's,

**Théo:** it's kind of, um, tantalizing proposition because, um, what I try to explain into the pieces that, um, by definition, our financial system is Is geared [01:18:00] towards a low time preference, uh, high time preference finance.

And so most of the capital that is circulating in the financial system is short term capital, um, that, uh, is in search for a short term yield. And it's. Also why money market funds are all the rage right now, but it's also why, um, this kind of product could attract a lot of capital to Bitcoin because, um, when, when you think about it, as we mentioned, it's.

It's inflation resistant, it's seizure resistant, you don't have counterparty risk, you can access it from anywhere on the planet. It can be marketed as not a Bitcoin product, it's more like, um, here are the properties of this. And, um, um, it's just you do that or, uh, you have, um, you are underperforming your competitors as a money manager.

[01:19:00] So, uh, it's not a good proposition to, to, um, to avoid, uh, uh, that, um, and also, um, you can. Like you can imagine for now, like derivative markets on Bitcoin are not, uh, have not enough depth and liquidity to, uh, attract that much capital. But as Bitcoin grows and as it monetize further, um, uh, what we can expect is the derivatives markets growing in tandem.

And so, um, it could, um, kind of feel a virtuous cycle whereby, um, This attracts more capital, this forces people to enter this trade to buy Bitcoin spots, uh, then short it. And it makes both the spots and the derivatives market more liquid. And it's, uh, make it more, uh, deep and, [01:20:00] um, this, uh, compels like, uh, traders to leverage on Bitcoin because, uh, it helps Bitcoin appreciate, um, and just making the market even more.

Um, uh, in contango because a lot of people buy, uh, um, leverage on Bitcoin. So it's right. It increases the yield you would get on your stable balances, which further incentivize people to access, uh, the stable sats trade and so on and so on and so on. And so it's why I talked about a sly roundabout way, because, um, over the last cycle, we have been focused.

on, um, this kind of store value narrative whereby like people will adopt Bitcoin as a long term saving instrument. But the reality of it is that, um, like long term savings are really, really, really small parts of the [01:21:00] financial capital out there. And, um, like the lion's share of the capital is like short term capital sinking, like, uh, liquidity and, uh, de risk, uh, vehicle with bearing, uh, a yield.

And so once we have some products that are mature enough. Uh, uh, on Bitcoin to do that, uh, yeah, it could open the floodgates and tremendously helps, uh, first legitimizing Bitcoin as, uh, uh, the bedrock of a new financial system because, uh, due to the incentives in the tried fire worlds, uh, as I tried to argue in the piece Uh, you could imagine, uh, uh, a lot of financial institution adopting this just because, uh, it's better yields and better properties than, uh, the alternatives.

And it'll also, uh, help grow Bitcoin's liquidity, uh, faster than with, uh, basic Bitcoin plates. [01:22:00] Uh, d c a in on Bitcoin, uh, which is good, uh, by the way, but, um, it, we are, it, it's a different order of magnitude. Uh, we are talking about

**Marty:** Yes, completely agree. And to that point, in your mind, what is the bigger driver of this trade moving forward, better UX and accessibility to the trade or turmoil in the trad fi world that forces capital allocators to seriously consider this and figure out a way to get into the trade despite the maturity of the products that exist?

**Théo:** I think it's, um, UX predominantly like, um, once you are, uh, well capitalized enough company offering like, uh, Bitcoin wallets with a good UX, um, that allows you to do that, um, I think it will spread fast. Um, and [01:23:00] it will, um, give the idea. Uh, and I think, uh, in the, in the medium term. Um, I think it would grow with, uh, like, uh, stable dollar balances and just people like me that, uh, don't want to, to, to, uh, phone their bankers or just have to deal with a bank or financial institutions, uh, for their daily lives that would rather use only Bitcoin, but that have this kind of Um, I have to keep some cash on hand because, um, I have my rent to pay, I have my utility balance to pay, and so, uh, being fully exposed on Bitcoin volatility can be, uh, a dangerous proposition.

And, uh, as, uh, you have this kind of, uh, uh, attraction, then you will garner more liquidity and more market debts, uh, and these instruments would, um, Uh, appear [01:24:00] to be, um, uh, de risked, uh, for outside observers. And then you can, I think, imagine, uh, more, like, financial institutions, maybe, uh, on Bitcoin. Like, I can make the case, for example, for a DCA company, like, I don't know, like, River, Swan, or, or stuff like that.

Just offering that kind of... Uh, um, uh, Bitcoin dollar account to their customers and, uh, outsourcing the liquidity and then, um, helping like, um, institutional players, uh, to access this trade, uh, until the point where, um, you get institutional wrappers for that, like stuff like ETFs that replicates that. Uh, by managing the underlying and then yeah, it's widely distributed globally accessible and Many financial [01:25:00] institutions will have the mandate to To invest in that and yeah that could change a lot of things.

Of course, it will take years. Uh, maybe the whole decade, um, but There is no worry And, um, as far as I can tell, the tech is working right now, like it's more, uh, the companies have to be built, the liquidity has to be built, the UX, uh, has to be built. Um, but, uh, all the technical components are in place.

**Marty:** Yeah, you're getting me all excited to, uh, this is, uh, as somebody, and I think another part important part of these types of products materializing to, I imagine is more merchants and individuals and companies accepting Bitcoin as payment, because I would go full into this trade, uh, in a product [01:26:00] that provides this service, especially if I'm able to get yield on it.

If I were able to pay my rent in it, my utility bill in it. Uh, pay my bill at the grocery store and there'll be no reason to have a bank account. Um, so it's like, I don't even know if it's a chicken and egg problem. These things probably have to mature in parallel, um, with each other. But yeah, I mean, you'd see this side of the market with a stable value, um, and a yield on that stable value maturing at the same time where more individuals and more companies become aware of how their native currencies are being debased.

Why they may want to accept Bitcoin as payment to prevent the debasement of of their balance sheets over time Yeah, I think those are two things that probably have to progress in parallel with each other to really throw fuel in the fire of this particular product. And, I mean, just in my own life, yesterday, I tweeted this out yesterday, but, um, sorry, on the merchant side of things, already beginning [01:27:00] to see it on, uh, my side.

I got a message from our primary care doctor. We do a private, uh, direct private care here in the United States where I pay monthly fee. Um, for my children and my wife, um, to go to the doctor whenever they want. And, uh, she reached out to us yesterday and was like, Hey, we're accepting Bitcoin. If you should not just us, all the members of this direct private care company.

So like, Hey, we're gonna accept Bitcoin as payment. So that's an example of like, if I had this product and I'm able to pay for my, uh, my doctor fee every month in it, like it's a no brainer. Yeah,

**Théo:** that's good, too. It's good to see, uh, unfortunately here in France. We are far from that. We still have a communist health care But Yeah, I I can tell from personal experience and even if you look for example at people using like USDT on troll in Argentina like most of [01:28:00] the people in developing countries facing inflation They just want to all dollars on their phone So as long as we are able to give an opportunity that has, um, like better properties than the alternatives, which is the case, because there is no issuer, so there is no counterparty risk, um, then it's just a matter of doing it, they, they don't have to, to struggle with, uh, what is the deal.

What is that? Why? Uh, just like a button stabilize and stabilize and, and it works. And like, um, we, we can see it with the adoption of stable coin. Uh, um, it's, yeah, it's a use case for crypto. Uh, the problem is that there is an issuer in the middle of it. So let's get rid of that. And then I think, um. It's the time where Bitcoin can, uh, address, uh, uh, to the masses, [01:29:00] uh, and they will adopt it even without knowing it.

And the next step from that is like, Oh, I have, uh, this, uh, button that I can stabilize. I can unstabilize. Um, let's imagine, um, the. The market is brewing. Um, I can strongly imagine a lot of people, um, deciding to adopt Bitcoin this way because, um, they have the thing in their hands and, um, they will have the.

Better gateway to the assets and a better, um, uh, UX, um, and also in France, we have some merchants that, uh, try to accept Bitcoin. Um, but, um, so like fiscal declaration of it and stuff like that is like, uh, it's like really painful. Um, and, um, so yeah, I [01:30:00] can totally see how it can help. It could help, uh, merchants, uh, At the margin adopting Bitcoin, um, and you have to remember that it's not legal tender.

Like it's stabilized against the dollar, but it's not a dollar. So, um, it's, it helps, but, um, I expect, uh, it's, it would be a slow process. Uh, even, uh, if, uh, it's materializes, uh, even if we have wallets, uh, soon, um, that support these functionalities, uh, because you, you, you still have this problem that like, um, yeah, merchants have to accept Bitcoin, even if they can, uh, um, uh, be paid in a stable value in dollar and don't experience the volatility.

Um, it's still a difficult thing to, to wrap your head around and you still have a lot of regulatory, uh, [01:31:00] barriers to this kind of, um, uh, experience, uh, um, being, uh, massively, uh, adopted.

**Marty:** Yeah. Yeah. It feels like it's forming. This is an incredible piece and I think it's going to start a lot of chatter. In the space and hopefully stoke a lot of ideas on the product side of things for people to get building this.

I mean, I think if people have these stabilized, unstabilized buttons and the UX is perfect and people at the institutional level, not even at the institutional level, just your average business that wants to put some of their cash on their balance sheet into a Bitcoin money market fund have the ability to do so.

It could be massive for the market and just highlights the Um, the possibilities that exist out there natively on Bitcoin and just, uh, the dynamics [01:32:00] that exist with this new monetary good with a fixed supply and no central issuer, uh, can actually provide better products for individuals in terms of, uh, giving them the ability to save not only save money, but, um, get a yield on their money for providing the service of helping leverage longs, make more Bitcoin.

Beyond this.

**Théo:** Oh, go ahead. Also, I, I, I'm, in the piece I focus on the stable dollar use case because, uh, to me it's what, uh, has the more value. But, um, in the distant future, you could also, like, expect, uh, different kinds of, uh, DLC based derivative markets. Let's say I don't want, uh, to, to... To give custody of all my funds to anyone, but I want to be long oil to be a short one to be as soon as I [01:33:00] find an oracle that can attest to the future price of those markets of the assets And that I find a counterparty for my trade, either through an app or through an OTC desk.

Um, I can, uh, collateralize a bet in Bitcoin, um, to, uh, wage a bet on those asset classes. Um, which, uh, could be of interest. Um, maybe more to traders, but, um, could also have like practical interest for, um, like traditional companies trying to edge their risks. Like for example, airlines trying to edge against, uh, all the rising or stuff like that.

Yeah.

**Marty:** Yeah. It's really fascinating. The bold future. It's right at our fingertips, freaks. You just got to go build it and make people aware of it, which I think this conversation hopefully, I think it will help. Uh, I know it will help [01:34:00] many people. Um, so thank you for writing the piece and beyond this, what else interests you?

What other research are you looking at, or would you like to begin tackling beyond the idea of a Bitcoin money market fund?

**Théo:** Um, I'm currently writing another piece. Uh, I don't know when it will be released. I think in a couple of months. Um, it's quite different. Uh, it's, uh, more, um, towards, uh, like, financial understanding of the Bitcoin market.

Um, like, how it organizes, what drives it. Uh, and, uh, basically shattering, um, a long history of false ideas about how market functions are coming from the fiat finance apparatus, uh, all this bullshit about, uh, um, uh, the modern finance theory, efficient market hypothesis, the CAPM model, and [01:35:00] all this, all this stuff.

Um, and there are alternatives. Um, to explain how, uh, the order is, um, is, is made in markets. And, um, the interesting thing is that we can apply this to Bitcoin and test those hypotheses against Bitcoin because it has so much volatility, even with 14 years of price, that statistically speaking, um, it's It's a better market to test ideas than, uh, any other markets, not mentioning the fact that, uh, there is not, uh, um, uh, a given price of because there are multiple prices.

So it helps to have like, uh, more signal and less noise. Um, and yeah, so testing those concepts and, uh, um, And explaining how, yeah, how the, what are the dynamics of the Bitcoin market. [01:36:00] Uh, don't get up your horses, it won't be of any use to trade or stuff like that. Unless you maybe are a really, really sophisticated hedge fund with a lot of researchers and stuff like that.

Um, but it's more like an intellectual endeavor to try to... Uh, have a better understanding of, uh, yeah, how financial markets work and, uh, what's, uh, what we're witnessing with Bitcoin adoption and its relation to price and stuff like that.

**Marty:** Fascinating. Well, I can't wait to read it when it comes out. I'm sure you've piqued the interest of everybody listening to this as well.

Theo Mojane Freaks, up and coming research analyst in the Bitcoin space. I'm very happy that. We, uh, had the last hour and 40 plus minutes to dissect. Your latest piece, uh, by the time this episode airs, it will be live. We'll obviously be [01:37:00] linking it in the show notes. Um, for anybody that wants to read it, highly recommend you dive in.

Uh, this podcast is a good companion to the piece itself, but, uh, I think you have to read the whole thing as well on top of this show. So Theo. Thank you for joining us. Is there anything before we wrap up here that we maybe didn't touch or any words of wisdom that you'd like to leave the freaks before we end

**Théo:** the show?

No, I think it was, uh, really complete. Um, maybe just, uh, yeah, um, thanking all the people that helped, uh, uh, editing and, uh, giving subject suggestions while I was writing the piece. Um, also thanking ax BTC to. Um, for publishing it, um, thinking you to invite me on the show and yeah, as I mentioned at the beginning, if you like the piece, um, uh, there is my contact on it.

Don't hesitate to send me an [01:38:00] email. I'm currently looking for a position as a researcher. So if you think that this kind of research research can, uh, benefit your firm. Yeah. Uh, please contact me.

**Marty:** Awesome. The, uh, you go enjoy your night and, uh, thank you. Thank you for all. This is a great episode.

**Théo:** Thanks for the invite, Martin.

And I guess have a good afternoon.

**Marty:** Good afternoon. Yeah, we're getting into the mid afternoon here. So I'm gonna have a good mid afternoon. Peace and love freaks.