TFTC 402

**Marty:** [00:00:00] Lynn, welcome back to the show.

**Lyn:** Thanks for having me back. It's been too long, but I agree. I agree. But I'm

**Marty:** excited. We're talking today. We were just mentioning that, uh, Jerome Powells on Capitol Hill, uh, getting grilled, uh, I forget if it's Congress or the house, um, or the Senate, but he's getting grilled and we were just mentioning, it's funny, uh, he essentially had to admit to Kennedy that, uh, Fed's policy is probably gonna drive up unemployment unless the fiscal side comes in and helps him out with the inflationary pressures.

But you were, you were mentioning that this historical tie between inflation, unemployment doesn't really materialize, but it is the Fed's mandate too, really focusing on

**Lyn:** these two metrics. . Yeah, it's a really weak correlation. Uh, you know, it came about back when labor was more domestic in general, right?

Less, less globally [00:01:00] interconnected. Uh, and you know, the general idea is that if, you know, the economy's running too hot, uh, you know, they can, they can tighten money, they can raise rates to try to, you know, make it run a little cooler. On the other hand, if it's running too, you know, slow, they can loosen money and try to get more people back to work.

And of course, you know, there's been major decades of stagflation. We have high unemployment Ian, high inflation. You know, if you kind of map out the long-term relationship between unemployment and interest rates, it's very weak correlation overall. And yet the, the entire institution of the Fed is basically based on this relationship being extremely tight, right?

Their, their mandates are, you know, basically price stability, which they currently define as 2% average inflation per year, the way they measure it, uh, and, uh, you know, optimizing long-term employment. . Um, and so they, they kind of inherently have this, this relationship built into their dna n a And so it's kind of like, you know, they're operating on a certain algorithm that might or may not be applicable, and [00:02:00] more often than not is, is not particularly AC applicable, but that's kind of what they, they have to do legally.

And so it's, it's kind of, um, you know, it's an interesting system and it's, it's, I think we're at the phase of the long-term debt situation, the long-term fiscal situation where interest rates and overall monetary policy are gonna be increasingly politicized. Uh, the last time government debt as a percentage of GDP was this high, was that the 1940s.

And the Fed was essentially captured by the treasury. Basically, they had to make interest rates, you know, at, at a, uh, a level that. , you know, in line with how much debt and spending were happening at the public level. They had to keep them low despite high inflation. And now of course we have a, a different degree of central bank independence, but I think that's gonna be increasingly challenged.

And it's, there's the, the ting sides of that are one, I think some of the challenges are appropriate in the sense that you can say, does your model even make sense? Right? So they can ask p like, does your, does your [00:03:00] focus, does your focus on creating more unemployment? Is that actually gonna bring down inflation?

Um, and other hand on the public sector side, they're, you know, a lot of the inflation we're seeing is fiscal driven inflation. Uh, and so they're, in many ways is that, you know, their decisions over decades have contributed to this. It's, it's part of the underlying money creation mechanism. And, you know, so they're, they're kind of, uh, facing their own problems.

And so I think that's gonna be a, a, a whole thing this decade.

**Marty:** Yeah. It reminds me of a conversation I had yesterday with Kelly Landon. We were talking about, real estate market, but we, we dove into, uh, the railroad infrastructure and that being a shining example of something where the maintenance on these railroads has obviously been subpar.

Railroad operators are like, all right, it's good enough to get it from A to B, but if inflation gets too high and you destroy any possibility of actually maintaining the railroads, you could have [00:04:00] breakaway inflation cuz they break down. You can't fix them. No matter what you do, you're not gonna get supply to where it needs to be.

And so if you can't buy something, it's just gonna drive up the price. It becomes more scarce.

**Lyn:** Yeah, that's, I mean, if, if you challenge the whole relationship between labor, you know, unemployment and inflation, basically it's, uh, you know who, who would look at inflation and think, okay, we have to make sure fewer people work.

we have to make sure fewer people are providing goods and services in order to get inflation down. Right. That doesn't make, that doesn't make sense, right. It's basically a very demand driven lens. It's like we need fewer people working so they have less income to buy things. That's kind of the, the, you know, the assumption.

But they f you know, they're ignoring the fact that those people are also working, which are producing the, the supply of goods and services. You want maximum employment all the time, if possible, because that's, that's where our supply side comes from. And so some of the things that they do, risk herding the supply side, uh, which is, is a large part of, of where this inflation comes from.

Basically, we have, we have [00:05:00] a, a tightness of real world constraints. , you know, energy labor, especially the types of labor. We need people that can build things and maintain things. Uh, on the other hand, the, a lot of the excess demand we have is coming from that fiscal component, which is not gonna be affected by monetary policy.

It's actually made worse by monetary policy in the sense that if you have, you know, if you have deficit driven inflation and you raise interest rates meaningfully and hold them there for years, then it's, it's larger deficits that's actually more money pouring into the economy. And so it, it's just kind of an interesting dynamic, and I agree with you that basically that the inability to build or maintain things is, is going to, I think, gonna be a key theme for a while, because that's not something that you can change very quickly.

That's, you know, we, we've kind of undermined our industrial base for decades. Uh, we've, we've prioritized certain types of work over others by the nature of our system, right? So if you work in technology, healthcare, finance, government, you know, you, you're, you're doing pretty well. But if [00:06:00] you worked in a physical trade, , you know, it, it, it is an uphill battle the whole way and, and so we've kind of disincentivized that type of work, and so it's, it's not shocking that we have pretty structural labor shortages in that type of thing.

Yeah, , it's, it's

**Marty:** pretty alarming when you put it all in context and then bringing it back to the Fed again, what they're dual, their dual mandate of price controls and stable job markets doesn't seem like they're achieving their goals with their aggressive interest rate policy at all. I mean, obviously the CPI print has come down a bit the last couple months, 6.4% in January.

However, if you dig in to the individual verticals within cpi, inflation, food still above 10%, energies around 8.2. Yes, natural gas and gasoline prices have come down, but this could be a temporary lull in, [00:07:00] in. A bull market for energy, especially if you consider that China's gonna open up their economy. So like, is this the, the last gas of the, of the Fed, when I'm looking at, it seems like their, their interest rate policy has been completely ineffective because C's coming in at 6.4, that's growing on a bigger base.

That was set last year, number one. And then number two, I've read, um, a newsletter about this last night. Like shrink IFL is becoming more and more prevalent as well, which is not being reflected in the CPI either. So I, I think everybody who listens to this show and has been for years knows that I think CPI is completely bunked.

But even though it's well above the 2% target, I think it's severely underscore or, uh, not reflecting the actual inflation that exists in the economy. And if actual inflation is much higher, then the C P I and the, the Fed is proving to be completely ineffective. Where does that leave [00:08:00] us? .

**Lyn:** So I think, yeah, we definitely have to analyze the path dependence here.

So for one, I do agree that c p I has has historically understated actual inflation. Uh, basically, and one of the biggest components is, um, uh, how, how they redefine shelter. Um, there's also challenges, obviously with hedonic adjustments. One of the things I like to do in history is look at, um, a handful of things that just don't change, you know, like, , uh, you know, gold bacon oil, a bear of oil, and look at the price of those over a very long period of time.

And, and some of those are obviously very volatile in a 10 year period because you, you have, you know, obviously big, big supply comes online and then there's periods where there's not enough supply. But if you look at 'em over the course of like a 50 year period, most of those things have gone up faster than the C p I.

Um, because c p i, you're basically, you're, you're constantly adjusting towards cheaper things, uh, and you're factoring out, uh, some of the, uh, appreciation in real estate because they're, they're using owner's equivalent rent instead of housing. There, there are [00:09:00] brief periods where you could actually, C p I could ironically overstate inflation.

Like if you have, um, house, house prices stagnate for a while and their, their shelter component, uh, is like operating on a lag. Cuz it's kind of this like janky calculation. You can have this like brief window where like CPIs actually. You know, overstating inflation, uh, because real inflation's more volatile than their calculation will, uh, get to.

But the majority of the time, uh, I think it's generally going to understate it. Um, as, as for basically the path dependence here, you know, my base case early last year was that they were going to tighten into a recession. They would probably get the, uh, inflation down. And then because the underlying problems are unresolved when they try to loosen, when they try to have another growth phase, that that inflation's going to come right back, right.

Until you basically fix, you know, the combination of structural fiscal deficits and fix, uh, the energy supply and, and, and transportation problem globally. Um, you know, [00:10:00] as long as those two pieces are there, inflation's ready to bounce back whenever there's a period of growth. And so that was the base case.

We're starting to see early signs that they might not even be able to get. , you know, inflation down, uh, as much as they wanted before the next cycle of inflation. I'm not quite there yet in terms of saying that they can't. Um, I, I, I still think they have a window here where they can cause so much private sector damage that they might be able to temporarily get inflation down.

But I think the main problem is that it's just ready to go. It, it's ready to come right back as soon as they have another growth cycle, as soon as they let their foot off the brake for a brief period of time. And basically, you know, they're using 1970s monetary policy to fight 1940 style fiscal driven inflation.

So, you know, if you look at over time, the, the. The inflationary decades that we've had in the United States and elsewhere have had very different reasons for why that inflation exists. Right? So the 1940s banks weren't lending much, but instead the government was running absolutely massive monetized deficits.

Uh, and [00:11:00] that was the source of money creation and, and prices going structurally higher. Um, in the seventies, you did have deficits, but they were much smaller, and that was the peak period for bank lending. So basically the, the credit multiples constantly going up. Uh, banks were lending aggressively. You had a, um, you know, baby boomers were entering their home buying years.

Then you combine that with oil shortages. So you had both supply side constraints and you had tons and tons of bank driven money creation. And so back then, one of the main tools they used was trying to slow down that bank money creation with tighter monetary policy. That's basically the Volker playbook.

They also did a bunch of geopolitical things. I mean, they, you know, they went after unions to try to get domestic, uh, labor from, from, you know, going, uh, up, like it was, they tried to open up global trade. So they did a lot of other things, uh, in addition to monetary policy. But basically that tight monetary policy made sense in an era where banks were doing most of the money creation.

Uh, whereas in the 1940s or the 2020s when [00:12:00] most of the money creation is fiscal deficit spending, when you raise rates, it doesn't really change what the government. Do, I mean, they're gonna spend what they're gonna spend and now they're just actually pouring even more money into the economy with their deficits because they're paying such high interest rates on them.

And so it's kind of interesting to, to see them do the 1970s playbook for a 1940s problem. And in my mind it just shows that even if they temporarily get inflation down, they don't fully understand the nature of the problem. And so it's, it's ready to come right back.

**Marty:** Yeah. No, I mean, the interest expenses on the debt have been a big theme in the news over the last few months, approaching a trillion dollars annually, which, what would that be in 2022?

Or excuse me, 2021 tax receipts. 2022. Is it in yet? But, uh, we're tax receipts like four, 4 trillion around. .

**Lyn:** So yeah, something like that. Yeah, it'll be a very big percentage. It's also rising as a percentage of g p basically ever since, you know, when you look at, at, um, public [00:13:00] concerns around the debt, uh, they peaked in the late eighties and the early nineties, right?

So if you look at interest expense over time, it was going parabolic in like the seventies and the eighties. And in the late eighties and the early nineties, it reached a peak as a percentage of gdp. And that's because you had rising deficits and you had high interest on that, on those deficits. And that's, you know, for example, the, the famous like, um, uh, national deck clock was installed in the, the, uh, late eighties.

Uh, also in the early nineties, you had some of the most successful, you had the most successful third party candidate in American presidential history, uh, you know, Ross Pro. And he, he, a big thing he ran on was the debt, uh, that was like a big theme. That was like, really. Um, you know, it got the public attention at that time, and a lot of that was kind like three decades early because what then, what generally happened over the next couple decades was you had this gr, you know, rapid period to globalization, uh, lower inflation, lower interest rates.

And so even though debt [00:14:00] as a percentage of G D P kept going up the interest expense kind of stagnated, uh, especially relative to the size of the economy, and it, it went down for a period of time. And so you had basically, you know, four decades of rising debt as a percentage of GDP and four decades of falling interest rates offsetting that.

And now we're in like the awkward part of the cycle where debt as a percentage of GDP still going up, but those interest expenses are, are not going down anymore and might start trending higher. Uh, certainly in the near term they're, they're trending higher. And so that's when you actually revisit those concerns of late eighties and early nineties and say, okay, basically, you know, they, they were early.

but now we're actually getting to the phase where some of the things they're worried about are more structurally occurring now and there's a lot less wiggle room to deal with them.

**Marty:** Yeah. And it seems like it's only gonna get worse. Like I was mentioning, we were, I was following up on PAL'S comments on Capitol Hill today.

I saw the [00:15:00] probability of a 50 BIP hike, um, during the next meeting jumped from I think 39% to 59% during his hawkish comments. And so that's only gonna exacerbate the problem. And then the question is, does the US have the political will to do what is necessary on the fiscal side? I'm not so confident.

How are you feeling about it?

**Lyn:** I don't think they do because, um, I mean, a couple reasons. One is just the, you know, the, the political polarization makes it almost impossible. Basically, they're, they're not gonna most likely trim any sort of intermediate term entitlements. Uh, you know, a lot of these, these things are.

Baked into the cake from decades ago, uh, and demographics, they're not gonna probably trim military spending, uh, especially what's happening geopolitically. You know, I, I think you could ask reasonable questions like, do we need 7 54 in military bases? You know, I would say no. Like you could probably trim that number down, but I don't think that in this, in this era is when they're gonna do that.

Um, and I also [00:16:00] don't think you're gonna. Much, if any tax increases, uh, because it's, you know, the, the Republican side is probably gonna be pretty adamant on that. And so when you add both sides to together, all the, you know, one side doesn't want to cut military, one side doesn't want to cut entitlement, uh, one side doesn't wanna cut taxes.

And then if you look at, um, kind of the, the Trump wing of the Republican party, he's, he's strongly in favor of keeping Medicare and social security there. That's kind of how he's been differentiating himself from other, other players in the Republican field that have historically been more in line with cutting those.

And so I, I think basically this is the current and political environment makes any sort of meaningful cuts to the fiscal deficit. Very, very hard to do. And then a further complicating thing is if you just look at kind of the history of, of debt to GDP for countries in the world, once you get this financialized and you get this high public debt to gdp, even if you were to do those cuts, it would probably also negatively impact GDP so much.

That even though you'd reign in the, the [00:17:00] deficits at first, you'd actually probably still keep increasing debt as a percentage of gdp because a lot of that GDP only exists because of those deficits. Um, you know, if you, if you, if you do all, if you have like say 50% public debt to gdp and you, and you and your, you know, your deficits are getting a little wide, and then you do austerity, that works, right?

Because you, you didn't let the problem get so big that your GDPs reliant on those giant debts and deficits. Whereas once you get over like a hundred percent debt to gdp, austerity often backfires because you, you are all, your GDP is already so financialized. And so that's, it's kind of this thing where it's inevitably going to go through a very hard period.

And, you know, I, I, I think they might have attempts at austerity. Um, we kind of saw that in Europe after the European, you know, crisis 2012, all that debt crisis, there were like these attempts at writing in the deficits. I mean, you got Italian deficits down to like 2% of G D P, which for, you know, it's their attempt at austerity.

um, you know, during the, kind of the, [00:18:00] the period where Obama was president, but then there was Republican, uh, you know, power in, in Congress and Senate, you had that gridlock. And so you actually, for a while you had falling, uh, deficits as a percentage of G D P as they kind of locked in the existing structure.

But that started, you know, blowing out when you started to get entitlements, uh, you know, kinda that demographic peak started to come and, and manifest. And then also you got, you know, uh, you know, Trump stimulus tax cuts that were not all set by spending. Uh, and so basically no matter what arrangement we have in politics, this kind of train is already going.

Like the momentum is so strong for it.

**Marty:** Yeah, we're in the damned if you do, but if you don't stage and considering that the 2024 election cycles beginning to heat up, I find it very hard to believe that anything on the fiscal side will will change moving forward. It's just too politically untenable during an election season.

And then that gets. to the broader question too, is like, we've been focused [00:19:00] very specifically on like US policy obviously over the last year to six months. Uh, many countries outside the US have seen, uh, the, uh, the sovereign Reserve seizure of Russia. They've seen the turbulence here in our economy and they're beginning to position themselves, particularly countries like Russia, China, uh, and Saudi Arabia to buddy up with each other and begin maybe defecting from the US dollar reserve system in some way or another.

Slowly but surely. What, what do you think the ramifications of the turmoil we're seeing in the US economy, um, and our inability to tame inflation as having outside the US in terms of other countries beginning to look at

**Lyn:** alternatives? ? Well, I think in general we're shifting towards a more multi-polar world.

Um, you know, if you looked at, you know, gold as a percentage of sovereign reserves, for example, or just even [00:20:00] just the number of tons they have, they were on this like structural decline from like the seventies until like 2008. Basically you had rising dollar dominance and you had falling gold dominance.

And after 2008 when we basically just printed the difference, like when our bank system blew up and we just printed, uh, you started to see this like reversal, uh, and, and foreign central banks started buying more gold again. And they, they've actually kind of gotten back up to like, you know, significantly pre, uh, 2008 levels.

Uh, so that was like one factor. Number two is you had, uh, China Belt and Road Initiative. When they launched that, it was something like 2013. They basically came out with a, an announcement, uh, and they just said like, accumulating treasuries is no longer in our Nat national interest. Um, and so what they started to do instead was, was take a, a, you know, page from the European and American playbook of like, monetary, you know, like neocolonialism, where they said, okay, we're gonna start, instead of like taking all of our dollar surfaces from trade, from the trade surfaces we're running with the Americans, instead of like putting all those dollars back into US assets, uh, we're [00:21:00] going to start making dollar loans to African countries, Latin American countries, uh, central Asian countries.

Uh, basically he help them build infrastructure that kind of all leads to China, uh, buying commodity rights, that kind of thing. If they default on that, any of that debt, that basically some of those rights go over to China. And so they, they've kind of, you know, tied themselves into this global Euro dollar market, uh, to a significant degree instead of buying treasuries, um, and Saudi Arabia, you know, instead of just constantly taking their, uh, petro dollars and putting them into treasuries, they're putting 'em things into like, you know, their sovereign wealth fund.

Uh, kind of these, for a while they were really into these big tech. Growth type of stocks. Uh, they're, they're doing domestic development. They're doing all sorts of partnerships. Um, and so basically the, the, a lot of these countries are saying, instead of just this current system that that was in place for decades, we're gonna start investing our, our dollars elsewhere, at least around the margins.

So we're not, it's not like we're dumping all of our treasuries tomorrow, but it's like, we're just not. [00:22:00] Gonna keep improving our stockpile and might even trim our stockpile like China's done. Um, and so I do think we're shifting towards a more multipolar world. There's obviously challenges there. I mean, one, you know, they can settle in goal, but they still have all these like payment centralization issues.

And so you see them working on like, you know, like, uh, what is it, Enbridge or something where they're, they're, they're basically, they, they have like this like blockchain thing that they're working on with the b i s to see if they can like, settle things outside of Swift. Um, you know, these, these, all these alternative payment systems.

You know, Russia has theirs, China has theirs, some of these collaborations. Uh, and there's ongoing frictions there. But I, I do think a general trend is, is, is a pretty adamant shift towards, you know, with the combination of more multi. Payments and more multipolar reserve assets, you know, instead of just dollars.

It could be gold could be won, you know, it could be others. You know, if Bitcoin gets big enough, you know, that gets interesting. But it's not, you know, right now at at the size it is, they're not really, you know, they're, [00:23:00] it's more about gold and, and currencies and, you know, equity types of investments. And I think that's the general trend we're on is that, that we're multi-polar.

But it's funny cuz there's like, there's weird frictions. Like for example, India is another country that has kind of broken out of the Western consensus. And they said, well, I mean we're gonna basically buy all the spare Russian oil then, right? Because then they, they literal said it, they said, look what's happening to Sri Lanka?

You know, we're not gonna have that happen here, so we're gonna buy whoever is gonna sell us oil the cheapest. So India started buying a ton of Russian oil and they already had plans in place to expand trade with Russia anyway. And one of India's goals was to buy oil in rupees. Um, yeah, that was promising for a while, but the problem is now they're actually buying so much Russian oil and Russia doesn't want that many rupees.

Basically, you know, India's running a pretty big trade deficit with Russia. Um, and so that actually creates like a settlement problem. And so there's always these like weird frictions they run into when they're trying to have like this [00:24:00] big feat barter system. We essentially have in place, you know, we have 180 different feat currencies and whenever they're trying to do global trade, it's, it's kind of a nightmare for them to work through and it's, it's a slow process.

**Marty:** If only there was a politically neutral distributed monetary system that, that these people could use to settle their trades with. Yeah.

**Lyn:** If, if only, if only .

**Marty:** Well, I guess that's, we could dovetail into like the whole Bitcoin conversation. I mean, I think we both agree that it is a superior settlement network, but with that being said, the liquidity profile, Bitcoin probably isn't where it needs to be to settle these types of trades on the international level.

Do you agree

**Lyn:** with that? I agree. I think you need, you need, you know, a, a 10 X, right? I mean, if you look at oil trade, I mean, it's, it's, you know, we're talking trillions of year in, in oil revenue that, that has, you know, that that has to be settled somehow. And, you know, the depth of the, the Bitcoin market is not really in line yet with global trade numbers.

Um, and so it's certainly [00:25:00] possible for like these smaller countries to explore that. There's also just career risk, right? I mean, if you're like the finance minister or the central bank, you know, executive and you say, Hey, let's, let's do Bitcoin, and, you know, then it crashes, you know, 80% and y like, you're the one that gets fired basically.

So there's like, there's, there's limited upside for you and there's plenty of downside for you. So the, the, there's kind of this institutional inertia that makes experimentation, uh, challenge, they'd rather explore partnerships and things they can control more. Uh, so I, I think it's more of like this window where, you know, uh, you know, Gold and, and FX are kind of the instruments of the central banks and bitcoin's kind of left for the people at the moment.

And I think, you know, if the people get it, you know, if they add another zero to its like price and market cap and liquidity profile, you know, then it becomes harder and harder for central banks to ignore. And the more interesting would become to them as both a payment rail and uh, a savings instrument [00:26:00] because the overall liquidity and robustness and, you know, kind of durability would be all improved in their eyes.

So, you know, I think that's, that's kind of what we're on now. And if you look at China, for example, I mean, you know, they're trying to solve like India's problem there of like, you know, Buying too much oil with Rues and then Russia not knowing to do with the rupees, and therefore not really wanting Rues.

You know, China tries to solve that problem by having Chinese convertibility to gold. You know, it's hard to get money in outta China, but it, it can go through gold to a certain extent. Um, and so they basically say, well, if you, if you get too much Chinese, you want, you can use it to buy gold. Right? And so that, that's one of their mechanisms for trying to solve that problem.

And I think that's a, a decent like, intermediate term mechanism that that is, you know, interesting for a lot of countries. Yeah. Ideally you'd have something that doesn't rely on that type of centralization, that type of counterparty risk and something like Bitcoin. It just has to be bigger, I think.

**Marty:** Agreed. And actually don't mind this order of operations, [00:27:00] getting it into the hands of individuals first. Uh, I agree. Before the central banks adopt it. I like that. And it's very interesting. Obviously we're both deeply ingrained in Bitcoin. I saw you tweeting this out, uh, the other day, maybe last week, but.

everything we've discussed up to this point, the monetary and fiscal situation here in the US and the reaction to that situation outside the us. In parallel with all this chaos going on in the macroeconomic and geo geopolitical landscape, people are building out the Bitcoin network, adding more accessibility to it, utility to it.

What in beginning to, uh, inject it into other open protocols, uh, whether that be RSS or things like Noster. Like what is your current view on what's going on in Bitcoin?

**Lyn:** So, I'm, I'm, you know, I'm really optimistic about it. I think Nostra has been really exciting, right? Because you're, you know, [00:28:00] in addition to having open, uh, transfer of value, you have open transfer of information, uh, which is, you know, hard to stop.

Um, so I, I like these layers that are building and working with each other. Um, I like the proliferation of lightning in general. It's still very small, but it continues to grow, you know, pretty rapidly from that small base. Uh, you know, it's, it's hard to measure some of the statistics with it, but you know, there's been really good reports by arcane research and by river, uh, that kind of lift the veal on, you know, the part of the network that they can see and that they, you know, that they have exposure to, uh, combined with some of these other statistics we have looking at the network.

So I, I think that's really promising. And one of the things I am really interested to watch, uh, this year and in the years ahead is, uh, things like fedi, mins, you know, these, these other types of officers protocols that can, you know, shift some of the balance a little bit. Because one of the, one of the problems you see in developing countries is you, you hear of all these great like, statistics for like Bitcoin adoption and you know, [00:29:00] stablecoin adoption, whatever the case may be.

And a lot of it's like Binance, right? A lot of it is like everybody has these cu, you know, custodial counts with Binance. And so there's this gigantic global centralized honey pot. That would, would devastate millions if, if, you know, that were to all, you know, be taken from them or otherwise disrupted. And something like Fedi Min, you know, and, and of course there's companies built on it and there's other, there's also other implementations of cha cash.

But basically the, these ideas of, of using CHA cash, I think are interesting because it tries to localize some of the custody. You know, it basically says, well, don't trust finance with your money. Don't trust, uh, exchange X, Y, Z with your money instead, you know, either self custodys or if that doesn't make sense economically yet, or if you, you know, you want privacy benefits, then basically it's, it's tools to allow communities to build their own full reserve community banks with and build privacy, privacy and convenient transactions.

So I, I, I think that's one of the things I'm excited about is trying to decentralize and spread out some of [00:30:00] those custody and other risks. . So you don't have like, you know, so-called decentralized protocol, but everybody using these, these gigantic honeypots, even things like, you know, as, as, as cool, as like say wallet assia is, uh, and you know, it is super convenient, but it'd be nice to see a more private version of that and like a bunch of those that are kind of split up.

So you don't have like all, you know, custody kind of centralized and you say you get okay, all the, all the UX conveniences of that, but, you know, with, with a better bread of privacy and a better, you know, more fractured custody situation.

**Marty:** No, agreed. And when it comes to fei, the private payments aspect is just the tip of the iceberg.

The, the modular nature of the Fedi protocol and the front ends, like Fedi Irving built on top of it, is going to really expand the design landscape for more complex applications. I mean, the one. Obviously I'm very bullish on, um, just pure fedi mins for private quick payments with a better [00:31:00] custody model than something, than wild of Satoshi.

But like the whole, I'm not sure if you have read about the idea of feta pools, like that's, yeah, that's another centralizing factor within the Bitcoin ecosystem right now is mining pools in this concept of a feta pool, being able to spin up a Federation of block instructors who can really distribute the risk of block construction at the pool level via ahei, uh, and then provide more private payouts over lightning, uh, which is something that many miners wanted for years.

The, the ability for something like that to come to market is massive. And then you get into the whole concept of being able to create DLCs within. These FEI mins more robust, smart contracting capabilities like payments is just the tip of the iceberg. I don't think people realize, um, the power that's about to be unleashed with, with these FEI front ends.

**Lyn:** I agree. I think people are sleeping on it and because a lot of them, as soon as they hear [00:32:00] custody, they're not interested. Um, and I, I think a couple way to break that up is one is just that custody's so centralized that breaking it up is just already a better step. Uh, two, privacy in many aspects of dealing with ecosystems sucks still, right?

And this, this is a huge privacy gain. And then, like you said, basically the modular nature allows all sorts of stuff that we've not even thought of, uh, to be built. Uh, if, if some degree of femine, you know, usage in communities start to proliferate. And even just as a, as a user myself, I mean even as someone who does self custody, cold storage, bitcoin, uh, I would like to use a femine wallet because, you know, the private, private, you know, incoming and outcoming transactions.

And if the balance, you know, gets above like, you know, spending cash, you pull it into cold storage. Um, and so it's, it's like separating what you use as your, you know, daily spender versus what you do for like, long-term sovereign, you know, store value type of, of of application. And [00:33:00] I, I think the cool part about Bitcoin is that people can interact with whatever parts of the stack that are most useful to them.

You know, if they wanna have few hundred dollars in savings, if they wanna do a lot of payments, if they want a lot of privacy, something like Fedi Min is really useful for them. Uh, you know, over time when this kind of proliferates more and these front ends, uh, develop a little bit more. Uh, and obviously if you wanna, you know, store, store Bitcoin for like a very long period of time, obviously multisig, coal storage, that kind of thing is really important.

And people can choose whatever parts of the stack are, are, you know, they, they need for their purpose at any given time.

**Marty:** Yeah, more optionality is always good. Uh, for all the Bitcoiners out there saying, oh, this is terrible. You don't have to use it. Um, . Yeah, it's, uh, it's, uh, I'm a big fan of more optionality and more functionality with this particular option, I think is gonna be massive for Bitcoin adoption globally.

Which dovetails into another question is like, what, what are your thoughts [00:34:00] on Bitcoin adoption moving forward? And what will be the driver will be Western countries trying to use it as a store value? Uh, maybe some people in the traditional financial system realizing that it is good collateral. Maybe if you mix it with some of the credit products that are looking desperately, um, doomed to fail in the US that it may catch on there.

Or do you see Bitcoin adoption in the next three to five years being driven, uh, maybe in emerging markets?

**Lyn:** I would like to see emerging markets, uh, be the spearhead. Uh, I'd like that kind of decentralization of power. You know, they're the markets that need it the most. Um, I, I think a lot of them, basically if you're, if you're trying to send money in or outta your country, if you're trying to do work for, for global people that would like to pay you, then obviously something like Bitcoin Lightning is super useful.

Um, and so I think, I think Medium Exchange can drive it in, in areas that are [00:35:00] lacking good payment infrastructure, uh, and have all these frictions, uh, built in and currency problems and things like that. I think, I think ment and various front ends can accelerate that by making it easier, more accessible.

Uh, like you said in the West, I think, I think the, for now, the store value aspect is, is more impactful for many people because they have relatively good payment infrastructure most of the time. And so for them it's more just like this law they, they viewed as like an investment, kinda like any other investment.

Um, so I, I think those two dynamics are gonna drive it forward. I think when we. Talk in that three to five year range rather than like say next year. But if you look in that longer term range, I think the problems you talked about earlier regarding kind of a physical spiral become relevant on that kind of timeframe.

Because I think there's gonna be a situation where, you know, it becomes apparent that no matter how high, how high you raise, raise interest rates, you don't necessarily quell inflation over the longer term. And you, and in some context you could even exacerbate it because you're actually [00:36:00] further blowing out the deficit driven inflation that it, that's happening.

And so if you get to a phase where the Fed is still holding rates high, but they have to resume some sort of qe for example, to like, you know, fix like a treasury supply problem, cuz there's so much treasuries being issued, that's not really a problem like this year. But it's like, you know, when you talk that about that three to five year timeframe, um, I think you can have like a global like, oh shit moment where everybody kind of says like they're actually, they're not actually struggling to get this under control.

and what could we buy instead? And I think that's where you see things like gold or Bitcoin. Uh, probably both things like that catch a bid because there's this kind of, right now it's, the dynamic is whenever you see either stronger labor prints or stronger inflation prints, or, you know, Powell talks about higher rates, you get, you know, stronger dollar, you get sell off in these, these other types of monies and they say, okay, well they're gonna have to get tighter then.

And I think there's a, I think there's a, a eventual phase shift where they realize that, that no matter how tight they go, because it [00:37:00] actually, some of that tightness exacerbates the problem. That it's not necessarily that that correlation, they think it is. And when that correlation breaks down, I think that it gets really interesting for anything that's like alternative money, right.

You know, with, with bitcoin and gold, depending on the, on the types of markets you're operating in, being the, you know, the, the two like soundest Yeah. That's

**Marty:** where you have the psychological light switch go off and people like, oh, they don't have control. .

**Lyn:** Yeah. And right now it's, yeah, right now it's it, they're adamant that basically raising rates is the solution.

And I think as long as that psychology is there, it's hard for these other things to catch a bid.

**Marty:** Yeah. But like we mentioned earlier, it's getting to a point where intuitively like that seems like a logical conundrum. Cause we raise rates, I mean, it's most, uh, heavily felt in real estate markets right now, fed fund rates going up, mortgage rates are going up towards 7%.

But going back to like solving supply side issues, particularly with like energy, like if you [00:38:00] raise the Fed fund rate up to a certain point, like the cost of capital to um, get out loans, to drill new oil and gas wells, or start new energy projects gets prohibitive. And then again, going back to the problem we were discussing earlier, that's where you have the supply side problem where there's not enough supply to meet the demand.

And then you have. , does inflation run away while you're raising? .

**Lyn:** Exactly. I I think so, and that's why the path dependence is, is challenging here because raising rates can reduce, you know, demand and inflation pressures in the real estate market, right? Because they use debt so heavily. It also is having a big impact on unprofitable tech companies because they're, they've been very reliant on structurally high equity valuations and constantly issuing new equity in lieu of profitability.

Uh, obviously that's fine for startups, but if you're a mature company and that's like your, your your perpetual business model, uh, that's mal-investment, that's a [00:39:00] problem. And a lot of that's being cleared out right now because in a, in a. In higher rates, kinda like how real estate gets hit. That unprofitable eq, you know, high equity focused tech gets hit because then, and then it compounds on itself because then you realize, okay, now that they have to raise prices to, to make up for the fact that they're not able to constantly issue as much high value equity.

And when they raise prices, their growth rates go down because their growth rates were only at the level they were because of ar. , you know, artificially low pricing due to not having a mandate to be profitable. Um, and so tho real estate and tech are the two areas that are adding some degree of disinflation to the mix.

Um, I, I think going forward, because you're gonna have in some ways stagnant prices, you're gonna have less overall activity in those, in those areas. And I think the Fed's basically hoping that that's enough to, to counterbalance a lot of the other inflationary forces, which are energy, which are labor shortages, uh, among people who make stuff and maintain stuff, uh, and the fiscal driven inflation.

And so I think we're in this, this awkward [00:40:00] phase like now, maybe the next year where those two forces, it is kind of hard to say which one's gonna win over like a 12 month period. That's why it's, you know, I think we still could get this period of, of Disinflation ahead, but then when you look out. , you know, 24 months or, you know, three to five years.

Uh, I think certainly those inflationary forces are stronger and can override some of the tightening that they can do in some of the most interest rate sensitive industries. And when that happens, uh, I, I think you get a trend shift in psychology. I think you get big questions around fed independence and politic politicization of fed activity.

And I think actually one of the things that challenges that is we're, we're on the, we're about a week or two away from the Fed, uh, having negative tangible equity, which is interesting because now they're operating at a loss and they've been operating a loss since September. And those losses have now piled up such that they are about to, to equal their existing equity.

And so that's gonna start raising independence questions. And it gives certain [00:41:00] congressmen that don't like what the fed's doing. Another avenue to kind of, um, go after them,

**Marty:** look at them, they're unprofitable. We need to nationalize the Fed. It's. No, this is something you've been covering since it started happening in September, which is, yeah, so the Fed is losing more and more money month on month as they raise rates.

And so who does this affect at the end of the day? Like, so the Fed member, like so who actually owns Stakes and the Federal Reserve, right? It's a lot of the commercial banks and Fed members. Does this affect them at all? .

**Lyn:** Well, the funny thing is it probably affects them positively because even though they own a stake in the Fed, those, the fact that the, so if you back up for a second, the Fed, just like many other banks, has assets and liabilities and, uh, for the Fed, the assets are things like, uh, treasuries and mortgage backed securities, which are on average longer duration.

And we're locked in at these lower interest rates of old now their liabilities are, bank notes, which are the zero interest rate portion of their liabilities. So [00:42:00] they've, you know, that's, that's nice for them. But then their other major liabilities are, uh, bank reserves and reverse repos. So banks store their excess cash at the Fed, just like we store our cash at the bank.

Uh, and so they get paid industry by the Fed on those reserves, uh, and reverse repos. Um, and the Feds paying out very high interest rates on those things, which are ironically mostly going to banks, banks and money markets. Um, so all you know, the fact that the, the Fed raised rates so much, you know, they spent decades in a, in a period where their assets paid a higher level of interest than their liabilities.

So they were consistently profitable and they'd have to give their excess profits to the treasury. Um, and now because they've raised their interest rates, interest rates so much, the interest rates on their liabilities exceed the interest rates on their assets. So they're operating at a loss. So the first.

um, you know, fatality of this whole arrangement is that they're no longer sending money to the treasury. So the treasury had a hundred billion dollar a year income source [00:43:00] from the Fed that is just gone now, and it's gone for quite a while. Um, and a hu a hundred billion doesn't seem like much these days, but that's, that's four NASA's worth of income, right?

That's like, that's four times NASA's annual budget. Uh, that's just, it's just gone. You know, fairy dust is gone. Um, and instead it's going towards the banking system, right? So the banks are actually doing okay with that arrangement. Um, and so I think you're gonna event, and then, you know, the, the longer term threat is that you're gonna get senators and Congress people being like, Hey, why are you trying to squash labor?

And by the way, why are you paying all this money to banks? And why do you have negative equity? Negative tangible equity? Because they're actually using accounting. Kind of tricks to hide the fact that their equity's going down, right? They actually record all their losses as assets. So it's kind of like magic.

But basically, if, that's why I say tangible equity, like if you actually, you know, factor out their weird [00:44:00] accounting, it's negative tangible equity, or at least about to be in about a week or two. And I think that that's, you're gonna get publicization of the Fed in the sense that you're gonna have basically really easy ways for like congress people that don't like the Fed to, to troll it better.

Because you're like, you have those two avenues to attack now that you didn't necessarily have in the years prior. Uh, it's so tiresome.

**Marty:** It's, uh, the, the back and forth. Cause that's where it's like puts you in a position. It's like you can see why the Fed is doing this. Like their hand has been forced to a certain extent.

Um, primarily, not primarily, but definitely materially driven by the inability of, uh, the government on the fiscal side to clean their house up. Um, it just seems like we need to get away from this back and forth interaction between the two, maybe separate, uh, money from these institutions altogether. [00:45:00] Um, because again, it's the way you describe all this, it's hard not to be a bit pessimistic about the future of the us particularly from a financial standpoint, economic standpoint.

Like what, what is the, the silver lining here? Is there one, do you see, uh, a glimmer of hope moving forward for the

**Lyn:** us? I think the silver lining is that the four inspectors of S two. So if you kind of go through the list of major economic blocks, I mean the United States, we have the problem of. You know, structural trade deficits, uh, very high levels of political polarization, uh, because of some of these imbalances in the system and the fact that, you know, if, if foreigners stop buying our treasuries on a structural basis as they, as they kind of already have, especially at the official sector, uh, that gets really ugly for the United States pretty quick.

Um, that's, that's our downside. But our upside is that, you know, uh, we have a lot of natural resources. Uh, we have still some of the best rule of law and some of the [00:46:00] most dynamic kind of entrepreneurial tech-driven. You know, ecosystem. So we certainly have strengths. We have, we have basically the best geography in terms of agriculture, river systems, access to coasts, you know, friendly, friendly borders compared to, you know, the, the number of borders that like China has to deal with.

So we have both strengths and weaknesses. If you look at Europe, they have a worse demographic situation than the United States. They have now a worse energy situation because, you know, they've lost their access to, to cheap rushing gas, and now they have to rely more on l and g, which is more expensive.

They have to build all this infrastructure. They, they've kind of, they're, the German model is, has been reliant on arbitration, cheap rushing gas to, to make all these products that the rest of the world, especially China consumes. But, you know, a large portion of the world, everybody buys Mercedes. Uh, so that's, you know, I I, I'm not very bullish on Europe in general.

Uh, and they also have a more complex, you know, fiscal and monetary arrangement because, [00:47:00] Like, imagine if the United States, instead of having like, basically it's like if all the states have their own like, um, social security systems, and some were like, they, obviously they have that in the pension side, but imagine if you had even more debt on like the state level, um, and the types of like polarization you'd have from different policies.

That's basically the problem over in Europe, right? You have basically a, a monetary union without a fiscal union that I think is kind of destined to run off the rails in a significant way. So I think that's challenging them. And if you look at China, I mean one, you know, authoritarian, genocidal state, so let's, there's that.

But even just from a pragmatic standpoint, they, they have a demographics peak. They have like some of the worst demographics going forward in the world. Um, and. You know, they have strengths like their, you know, the power of their industrial base. I mean, they, they produce more electricity. They have a huge industrial base.

Um, they're effective at building infrastructure, including for projects around the world. [00:48:00] Um, but they, they do have a, a demographics problem and, uh, you know, like a freedom problem. Um, and so there's really no center of power really that's like better than the United States. It's just, I think that it's, it's, it's becoming less US dominant instead of like us being the only game in town like it was after World War II and for several decades.

It's just increasingly this multi-polar world. And so I think there's gonna be spots that are better than others, but I think it's, it's just a challenge that the world has to work through in terms of energy and failing money systems for like the next decade or more.

**Marty:** Yeah. Yeah. There's trouble all over the world freaks , but it's like bringing it back to energy.

Like, do you think. Lessons learned last year particularly, um, are going to drive a tectonic shift in energy policy moving forward? Or do you think it hasn't

**Lyn:** been enough? I don't think it's been enough yet. I, I think the rhetoric out of Europe shows [00:49:00] it's not been enough. I, I think in the US we're not seeing a sea change yet.

Um, I think basically until you see a radical kind of push towards like nuclear, you know mm-hmm. , uh, I think that as long as that's not happening, then it's not, there's been no sea change. Even things like, you know, like, uh, otec, you know, ocean thermal energy conversion, I think those types of technologies are interesting or explorer because it's actually, you know, kind of stored up energy that that's accessible.

Um, the fact that there's still kind of lackluster interest, most people don't know what it is. Um, I, I don't think people realize just the challenges that are ahead of us in terms of global kind of dense energy sources and, and there's been really no sign. That this is underway. You know, I still see people talking when they talk about energy transition.

They always are focusing on solar, wind, and batteries. And they, they seem to underestimate how much metals you need for all of that and how much hydrocarbons it takes to get all those metals, let alone [00:50:00] if you just do the math on copper and say, okay, well how long does it take to build a copper mine? How many copper mines do we have?

How much copper would we need if, if x, y, z assumptions about electrification are, you know, happen? And it's like the, the gap is just like enormous. Uh, you know, by the time you get out into like the late 2020s into the 2030s. And so I, I, I think there's, there's not been yet a realiz. About the importance of dense energy and kind of like reliable plans for long-term sustainability.

Rather than that, the emphasis is always on, like scoring points over the next couple quarters or saying like, Hey, you know, I do this and therefore I feel good even though what I did isn't necessarily helping anyone. Right. That kind of thing. Yeah. I think we have to get out of that mindset and, and towards long-term engineering, which is like, how do you make nuclear better?

Uh, can you get otec ec economical? Can you, you know, a advance geothermal, right? Can you, you know, improve energy distribution [00:51:00] infrastructure? I think that that kind of stuff's just still not serious. No,

**Marty:** I completely agree. And that's particularly here in the States. It's one thing like watching the All In Podcast over the last few weeks, Chamath has been really leaning into like solar is like the cheapest energy that we have right now.

Like it's gonna drive. , this cheap energy revolution that we don't understand. And number one, like you mentioned, I don't think he's being completely honest about the bridge necessary in terms of the rare earth metals needed to actually build out that infrastructure and all the energy and infrastructure that would be necessary for that.

And then number two, I think what does the public, a, a mass disservice, particularly from solar and wind, is they, they leverage this, uh, metric L C O E, like the levelized cost of energy, which isn't wholly reflective of the actual cost. It's just the, the cost to produce as it's producing. It doesn't factor in, uh, the, the [00:52:00] cost of the natural gas plant that needs to be spun up overnight to supply energy when, when the sun's not shining.

And there's just like a lot of confusion, uh, and rhetoric being pushed that that is doing a disservice to humanity at the end of the day, I

**Lyn:** believe. . Yeah. The cost of having continuous energy or energy on demand is, is obviously a very different metric than the cost of highly variable energy that is, is there kind of when nature allows it, and it's, you know, they, a lot of people point towards that cost curve of solar over the past decade, but a lot of that is you were in a massive commodity bear market, right?

So the cost of commodities to produce these things went down a a ton. Making solar panels is very energy intensive and you had a multi-year energy bear market, uh, including coal for a while. Uh, you know, something like 80% of solar panels like made in China with coal. Um, and so you had this kind of structural downward curve in solar, which is in the past couple years now in an uptrend because the inputs are more expensive.

And [00:53:00] if you wanna have your solar panels made domestically rather than, you know, in China, , that's gonna add a, a big cost layer as well. And so I, it's not, it's not that I'm opposed to solar, um, especially in certain mar in certain environments, we have very, very strong sun. And where you want that degree of like, you know, uh, generation independence.

Um, you know, I, I think Africa could be a pretty big solar market, for example. Um, you know, I think solar is, is, uh, a potential mix. But I think that the problem comes when people assign too much to it and, and kind of push something that is, is not gonna work on a market scale while ignoring some of the, the more dense energy sources that can work all the time.

Things like nuclear, for example. Yeah,

**Marty:** nuclear is such a no-brainer. There has a, there has been some positive doughs here in the US particularly. I think one of the companies building out small modular reactors has gotten through some of the red tape and will begin, uh, deploying [00:54:00] some of those reactors at some point this decade.

But I, I completely agree there, there needs to be, A massive shift in leading into nuclear. Like, Hey, this is the densest form of energy we have. We need, we obviously need more cheap, abundant energy. Like I think, yes, charitable was bad, Fukushima is bad, but those are lessons we can learn from. And there, there are ways to do it much safer then than we were doing decades ago.

**Lyn:** Yeah. It's like statistics. It's like, it's like, um, the statistics of plane crash is right. Uh, plane, plane travel is very safe, but obviously every once in a while there's like this headline incident that is like horrifying. And so that kind of gets in our psyches. Same thing's true for nuclear. If you run the numbers, even if you assume the worst, like death toll from all the radiation from those nuclear disasters, it's still way, way, way fewer people than like the number of people that die from coal.

Like every, every year for example, just from like the, the pollution from particulates, right? So it's like we, we understate, and this [00:55:00] happens like with driving cars too. We, we, we underestimate the, the risk of driving a car on a daily basis while we overestimate the risk of air travel. And similarly, we, we underestimate the risk of, you know, either not having enough energy or some of the d types of energy.

And we, we, we, you know, we overestimate the risk of things like nuclear, uh, because they're scary, they're unknown, and when they go wrong and they really go wrong, um, . And then there's the other factor that, you know, most of those, the, the, even though those instances occurred in different decades, they were all with like sixties and seventies technology.

Uh, you know, they were all kind of the same air of technology. Cher Noble in particular was a dumpster fire. I mean, they didn't even have like basic safety precautions, uh, that allowed her to get, is what allowed her to get so bad. Whereas now modern plants and then it, you know, the like additional development of small nuclear reactors, I, I think is a huge thing.

Like, imagine if, if we just never shifted away from so, uh, from nuclear like we did, if we had better r and d this whole time and more professionals working [00:56:00] in it, I think we'd be further ahead than we are now. But even now, we have very, very promising technologies that if we were to be serious about them, uh, I, I think can, you know, Smooth out a lot of the energy problems that we face in the years ahead.

Uh, and I think it's just, I think the, like you said, there's early signs of an awareness of this. Um, and I think that, you know, if you have a, a handful of more energy crises, I think that they're gonna be cumulative in the sense that more and more people will wanna learn about energy and wanna know how to solve these problems.

They keep happening to them, and I think that they'll, they'll be, become more aware of nuclear, become more aware of other dense energy sources, um, you know, hopefully become more aware of like, you know, bitcoin mining as like demand response, for example. Uh, I, I think there's, there's kind of all the above that has to take place and I, I think there's gonna be this like, kind of harsh period that has to kind of wash out misconceptions people have around energy.

**Marty:** Yeah. [00:57:00] So do you foresee a harsh period coming in the coming years? I mean, o obviously a lot of people have been talking about China reopening. Stoking demand for, for oil and gas, particularly in driving up the price of those commodities which could lead to energy crises. Are you seeing that as well, or is

**Lyn:** that just a meme?

I mean, I think it's a factor. It depends how, how fast they try to open, right? So for example, you've seen a pretty good resurgence of domestic, uh, Chinese air travel. Uh, there's still, you know, their, their international air travel is still, you know, significantly below prior trends. Um, you know, their level of construction we shouldn't probably expect as we've seen before, because, you know, they've already got, you know, that now that their population's basically, you know, flat down.

Um, but I, I do think it is around the margins a factor. Um, and then I think the longer term factors are that countries like India and others, uh, that are just kind of using more and more energy every year are gonna continue that just step by step by step pace and more and more energy. [00:58:00] Um, and so I think.

I, I think it, if you look at region, right? So natural gas is kind of this more local market. Uh, I think, you know, there's still a couple winners of challenges ahead for Europe. They have to really kind of get this L N G online. Um, luckily we're building a lot of L N G export in the United States that can help smooth that out in the coming years.

But I think, I think there's still kind of a danger period. Uh, but I do think that the, potentially the, the global issue is kind of the price of oil. Um, and I think that, you know, I, I don't have a crystal ball for the timing, but I think until we see a significant supply side response to kind of structurally higher prices, um, I think we're gonna be in this period, wherever, whenever we try to have a period of, of global growth, um, you're gonna get basically oil price coming right back and, and being a problem.

And so I do think that we're gonna have kind of waves of energy crises, hopefully, hopefully nothing as bad as what Europe had, you know, uh, at the worst phase. Uh, but I do think you can [00:59:00] appear as like that. where certain energy, commodities go, like vertical and price because just the supply side is, is messy in terms of both production and distribution.

And I do think this is, it's gonna be a, just a recurring set of lessons we have to go through that's probably gonna be pretty harsh for five, 10 or more years. Yeah.

**Marty:** Yeah. It's uh, it's crazy that we've gotten so far away from reality as a society where many people in positions of power don't realize the importance of energy and what it means for the quality of life for all humans on the planet.

And that is the, the weird paradox that the West finds itself in now trying to like virtue signal about climate change and moving towards this green energy revolution. Then like you mentioned, you have countries like India that are pulling themselves outta poverty, and they see what we've done here in the west are like, Hey, we wanna get on par with you, so we're gonna do the same thing that you did.

Leverage these [01:00:00] hydrocarbons too. Fuel our economy. And there there's just like this weird political rhetoric that, uh, puts the us in a bit of a paradox. Like, who are we to build up our economy with hydrocarbons become the largest empire the earth has ever seen, then turn around and say, no, you

**Lyn:** can't do that.

Yeah. And the same thing happened with Europe and when they were like, you know, trying to convince a lot of countries to like use less coal, use less hydrocarbons in general. And as soon as they had an energy crisis, they were like, okay, we need all the coal now. Right, . Yeah. And it's like, it's like, well, like they, that they want even more because they, they have, they're using less of it now and they want, you know, the basic quality of life that comes with, you know, reasonable amount of energy.

Um, and I do think that's gonna be a big theme. And I think that, you know, good times allow for luxury beliefs to proliferate and going through harder times. Kind of scratches away those luxury beliefs. And the risk, in my view is that it can also [01:01:00] create extremist beliefs, uh, and, and blaming the wrong group for the problem.

Right? And, and that, that's kind of the theme that reoccurs in history, that, you know, when you go through harder times, so you really have to focus on what the actual problem is, which is things like energy supply and broken money systems, uh, and things like that. Whereas I think it, the risk is that you end up blaming all, all sorts of other groups o often the, the most disadvantaged groups to begin with.

And that's, that's not good for anyone. Right. And so I, I, I think that's another key risk is, is when you analyze how bad things get versus how, you know, promising things could get. I, I think it's, it's how society handles those, those challenges. Do, do they identify the correct problems quickly enough or do they go off on weird tangents, things like that.

**Marty:** God, I think particular right now it's very important to get this message out there because, refining ourselves at a point where the US EC economy's sort of teetering on the [01:02:00] edge, the global economy sort of teetering on the edge, and we've seen it in the last two months, very acutely is the sabba rattling.

Uh, the, the war drums are slowly beginning to beat. And that's typically what happens when, uh, governments lose control of their economies and their societies. They distract the populace with, with war and some foreign land. And that seems to be the trend that's growing right now, which is a bit scary. And something I think about often is like, how do we get out in front of that, get to people and say, Hey, look, they're trying to send you the war, your problem's, not with those people in the far off land.

It is these structural problems, the energy systems, the monetary system, um, and the fiscal problems that, that you have in your own country. Like, I mean, I'm rambling right now, but it's like how do we get that message out there to the wider populace to to really not go down? The path of war because war at the scale that it would be, uh, today [01:03:00] would not be good for anybody on, on the planet.

**Lyn:** I think, I mean, I don't know the answer. I think it's just one person at a time. Um, you know, two messages I would have is one is that, you know, inflation leads to war and war leads to inflation. So you really don't wanna exac, like basically when the pie is not growing, when there's supply side issues, countries are more likely to.

For those remaining supplies. But then ironically, because you're creating all those frictions, you're now shrinking the pie. So you might get a bigger piece of a smaller pie if you're victorious, and if you lose, you get a smaller piece of a smaller pie. Um, and so that, that's just one challenge. And then the other one is, is that the, the cost of war are often abstracted away from us.

And I, I, I did a recent, um, tweet maybe a week ago or something like that where I, I, I look back on the cost of the, the war in Iraq, for example, . Um, and because it, it, it's more relevant now because a lot of the cost is actually the accumulated debt we had from it. You know, you, [01:04:00] you had all these military operations, you had all these other things, um, and a lot of it was financed by debt.

And now the interest on that debt is being refinanced at higher rates. So actually the, the higher interest rates go, the more, in retrospect, that war was expensive to us. And, you know, it's, it's up to something like an estimated 5.8 trillion, all factors considered. and you know, the forecasts up through like 2050 are like, you know, something like 13 trillion because those, those, those, those debts and other things keep, you know, the, the what we owe to war veterans in terms of healthcare and what we owe on the debt compounded over time will keep growing.

And at the time, you know, in, in the, in 2003, something like 76% of Americans are the peak were favor of invading Iraq. And it, and, and so, but it's like if you, if you then reran that poll and said, okay, do you wanna pay a 10% income tax, uh, for the war to cover the cost? Now what would that number be? Right?

It's like if the cost is abstracted away from [01:05:00] them, they're like, yeah, I don't know. Go, go do war, uh, I'm a patriot. But if you actually say, okay, like here's, here's the actual breakdown of what this means, um, you know, let alone ethics and violence and all that. It's just like if you had to actually pay for it, , you know, how does this impact your life?

And I think, I think one thing we want to focus on this decade is like if it, if people either get aggressive internationally or, you know, they, they start getting tribal at home, it's like, well, let's actually examine the cost of what you're proposing. Um, and that's, that's something I'm gonna try to keep hammering on.

**Marty:** Yeah. Here's a picture of your future paycheck with the, uh, the war tax taken out. Are you sure you wanna do this? Exactly. Yeah. Yeah. I have hope. I think in the age of social media and immediate communication technologies and the proliferation of more open communication protocols like Noster, we will have the ability to get these messages out.

Um, some [01:06:00] people think, I'm naive to think that, but I do, I do think it's possible. And I do think we have seen examples of this in the last decade, particularly around Syria. . I do think social media played a role in, in curbing that war, but, uh, it's really getting out there and educating people about the structural underlying problems that wars used as a distraction from.

Um, and there's a lot to be hopeful for, particularly with Bitcoin. Like there's so much to build, there's so much promise, there's so much accessibility from a, from a global perspective, that I think as Bitcoiners, I think that's one thing we need to, and not we, but one thing I try to be better at is highlighting the, the opportunity that exists, uh, building on top of the

**Lyn:** Bitcoin protocol.

I agree. That's, I mean, you know, if I, if I didn't have Bitcoin to cover, I'd be more pessimistic because I'd be covering just basically problems with, with fewer solutions. And instead, it's kind of this mix of pessimism and optimism because [01:07:00] you're covering problems, uh, but you're also covering potential solutions.

And so both in energy and in money, you know, there are severe problems in the present, but there are, you know, technologies that make this better over time. And so the goal is kinda like, okay, here's, let's write about the problems. Let's write about some of the solutions. Let's, let's, you know, be honest with some of the risks of these solutions.

And so what, what, what hurdles are still there? Like, let's explore this. And I, I think just the more people do that, the more hopeful people can get about, you know, how to fix this. And, and part of that is understanding. the problems of the current system. So I I I I, I do try to be optimistic. Uh, I'm generally optimistic and it just, it, it just basically comes down to, I think, going through a period of hard times and making sure people don't learn the le like the wrong lessons from those hard times.

And that instead they learn the right lessons from the hard times because then you have a, an era of hopefully abundance after those hard times. [01:08:00]

**Marty:** Agreed. And actually, I think the silver lining to a lot of these tech sector layoffs is gonna be, there's a bunch of bitcoiners at a lot of these companies who are very talented, who now have time to actually focus on a solution and go build products that, that bring a Bitcoin standard about.

Um, I did have one question that I wanted to ask earlier, but I do want to ask it, and it's sort of disconnected from the train of thought that we're on right now, but, uh, it ties in, I forget who I was discussing this with yesterday, but. , how much does going back to like employment and fed policy, like there's many people who are working two, three jobs now, is that factored into any of the policy decisions that the Fed is making?

And if not, how is it creating a blind

**Lyn:** spot for them? So I, I do think they try to look at different types of metrics to make sure that, that things are measuring out wrong. I don't have a high assessment of their probability of [01:09:00] reading the data accurately. I mean, generally they're looking at lagging data.

There's also, you know, there, there are, you know, you can look at job openings, you can look at temporary jobs, you can look at overtime hours, you can look at full-time employment. You can look at, like you said, multiple, multiple, uh, jobs. You can look to see, you know, are there certain errors that are booming and ones that are not.

Um, and I, I generally think that there. Probably not gonna take into account that data very well. Um, right now, if you look at the labor market, you know what, what's pretty weak is temporary help services and overtime hours, those have drifted downward, implying kind of, they're, they're like early leading, more volatile, um, signs of labor softness.

Uh, because, you know, if you're, if you're a business, you know, the first thing you're gonna do is hire less temporary help, um, and reduce your overtime before you consider laying people off. Um, and so I, I think we're seeing early signs of [01:10:00] labor softness. Um, but I, I think the bigger problem with how they measure this is just the entire thesis that unemployment and inflation are somehow inversely correlated.

Right? There are periods of time where they can be, but it's, they're often not. And I, I think probably the, the, the biggest risk that the Fed faces is, is the idea that they're deliberately trying to have fewer people working, which means less products and services. and hiring just on the government debt, which means even more money pouring into the private sector from that source of money creation.

And that's, that's probably not the right mix that they're aiming for in terms of getting prices down in a way that, you know, you can get them down temporarily. But it's like what everybody wants when they say they want low inflation is they want disinflationary growth, right? They want things to get better and for prices to be stable.

Whereas if they're trying to do a trade all between inflation versus like a recession, it's not a very attractive arrangement. And so [01:11:00] I kind of question their whole premise of operation and, but I think that's something that they have to go through instead of kind of complaining about it. It's like, well, let's see how this plays out and we'll see what lessons people learn from it over time.

Um, and I think that overall that'll be more people. Challenging the Fed question, the Fed, and I don't really blame Jerome Powell too much. I mean, I think, you know, ever since he came in, he's been trying to be more hawkish than his predecessors. Uh, he's been trying to tighten up monetary policy to varying degrees.

Um, he's, he's more transparent, um, with some of his like, you know, just descriptions of things. Then some of his predecessors, uh, basically is, uh, uh, you know, there's limitations on how transparent you can be when you're running the Fed. Um, but I think he's, he's, you know, it's not that I don't think he as a person is a problem.

I, I think the premise of the institution is, is kind of the problem. But I think that, that in some ways it's a good thing for that to get [01:12:00] explored and made more transparent because then more people see the problems. But it's also going to be a, a hard time as people go through the problems and pe everybody has like a arm Sure.

Opinion on what the Fed should do. And it's like, well, they're gonna do what they're gonna do. We're gonna see the outcomes. And right now I think the outcome is that they're, they're sticking to this idea that inflation and labor are kind of inversely correlated, and that raising rates will quell inflation because I think they're, they're fighting 1970 style inflation with 40, you know, with, you know, they're fighting 1940 style inflation with 1970s policy, which I don't think is gonna go well.

Um, but yeah, I don't, I'm not very optimistic on their ability to navigate this well.

**Marty:** Yeah. Don't hate the player, hate the game. And the game is going to, for, it's a very expensive lesson on the American economy and the global economy at large. Um, yeah. Fun times. Yeah. Thank, thank God for Bitcoin.

**Lyn:** I agree.

Lynn got some, got something to distract [01:13:00] us and work on and, uh, you know, be optimistic about. Yes.

**Marty:** Extremely optimistic. Thank God is there to keep me busy because, , like you said, if I were forced to be immersed in just doom and gloom day in and day out, I don't know how that would be for my mental health or my outlook on the future.

Tough times. Yeah. We'll create strong. I agree. We'll create stronger men and women in the future. So I think, uh, tough lessons we need to learn. Um, and luckily we have people like you getting out there, educating people about the structural problems and the core of these problems so that they can better understand and make better decisions moving forward.

So Lynn, I wanna thank you for taking some time to sit back down. It's been too long.

**Lyn:** I agree. Yeah. Hopefully we'll run into each other at one of these conferences, one of these, one of these days. It's not too

**Marty:** late to, to book a ticket to the, the Bitcoin takeover event here in the Commons in a couple weeks.

It's actually next week. .

**Lyn:** I'll look into it. . [01:14:00]

**Marty:** Um, where can people find out more about what you're, where you're writing, um, where you're, where you're sharing your thoughts? ,

**Lyn:** uh, lin al.com is my hub, uh, for most of my content. I'm also active on Twitter at Lin Alden contact, so people can check that out. I, I do also, I write for Swan, but then after a while, I, I do republish them on my site as well.

So I, I, I recently wrote an article about, um, open monetary information networks. You know, kind of just observations around the implications of what things like Bitcoin and Noster mean compared to the existing kind of closed siloed systems. So people can check out that.

**Marty:** Go check it out, Lynn alden.com.

And if you're not following Lynn on Twitter, uh, you're doing yourself a disservice to

**Lyn:** go follow her, Lynn. And I'm on Noster. I'm on Noster too. I should actually. It's pretty relevant. Yeah, I, I'm basically on there. I try to be active. Uh, I definitely like to explore. Over the past two months I've been exploring that ecosystem.

So I'll,

**Marty:** uh, I'll let you pull out your phone. You can pull up your mub and read that to the [01:15:00] freaks as well. They can , I'm kidding. . Um, go follow in on Noster. Lynn, you enjoy

**Lyn:** the rest of your day. Yep, you too. All right. That's

**Marty:** all we got today. Freaks. Peace and love.