



MACRO Voices
with hedge fund manager Erik Townsend

Jim Bianco: The Future of Decentralized Finance

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Erik: Joining me now is [Bianco Research](#) founder Jim Bianco. This is a special episode of [MacroVoices](#), this came about after Jim appeared on the show back in February. Towards the end of his interview, I asked Jim about the long term impact of decentralized finance, the trend that's become known as DeFi, Jim reacted by saying, Oh boy, I could do an hour on that subject alone. And holy cow, the listener response was overwhelming. So congratulations, Jim, you suddenly have a whole new following of DeFi enthusiast who can't wait to hear what you've got to tell us about the future of finance and what decentralization will mean to it.

Jim: Well, thank you. Yeah, it is a fascinating subject. And a lot of epic changes, I think are on the horizon.

Erik: Now, I want to just first set the context for our listeners that I asked Jim to talk to me a little bit off the air about what the best topics to ask him were about. And he gave me just a hit list, a bullet list of what topics we might discuss that conversation went more than 45 minutes. So Jim has about 217,000 hours of content in his head, I'm going to have a little bit more to say about how we might get more of that out at the end of this interview. But to just set the scope of this, we're gonna start by talking about currencies, not in the sense of what's going on right now with Bitcoin and other cryptocurrencies, because so many other podcasts have addressed that, so well. What I'd like to do is talk about the long term vision of what digital currency is going to mean to the global financial system. And from there, we'll move on to decentralized assets as they apply outside of currencies to other financial instruments.

But Jim, let's start with the big picture of the Bitcoin guys invented something really profound - truly digital cash, the ability to have a bearer instrument, which is represented inside of a computer so it can be transmitted across a network. And when we transmit that value across a computer network, it's not like a check or a claim against an account someplace, it truly is a transmission of financial value in the here and now, just like handing somebody \$100 bill. Now, the way that I think about this is, for decades now going back to the 1960s, when Valéry Giscard d'Estaing, the French finance minister at the time, later became president of France, coined the term "exorbitant privilege" to describe how the United States as issuer of the global reserve currency kind of got an unfair deal, or at least unfair for the rest of the world, in the sense that since you have to have a global reserve currency, and one country has to be the issuer, whoever gets to be the issuer kind of gets an unfair leg up on everybody else in the world. Now, it seems to me, Jim, that decentralized currency systems create the potential of at some point,

replacing the US dollar as the world's global reserve currency, with a supranational digital currency system, probably one that is controlled by a consortium of central banks, rather than by Bitcoiners. It's possible that Bitcoin could evolve into that. But what I'd like to ask you about is what it would mean, if we had a global reserve currency system that no country owned or controlled, that basically allowed everybody equal access to that currency system. And perhaps it's designed to allow central banks to administer monetary policy within their geographical domains. But the overall currency system isn't owned by any one nation. Is that a benefit? And do you think we're headed in that direction? And particularly, how do you think the United States government is going to feel about giving up that unfair advantage, according to the French that they've had for really, any years now?

Jim: Well, taking the last part first, it's fairly clear that the US government is not in favor of any of the above. Because they are at the top of the heap, they have, we the United States have the exorbitant privilege that the dollar is the reserve currency. And you're correct, everything is priced in dollars, everybody needs to use dollars. So we've immediately if nothing else, think about crude oil or commodities, we immediately buy them in our, in our currency, we bear no currency risk. Europeans have to buy them in dollars, they have to convert their euros to dollars, they always bear a currency risk every time they do it. Because they don't know what the exchange rate will be, at the time that they need to do the transaction. We do know what the exchange rate is going to be because it's priced in dollars. We just don't know what the price is going to be. We just bear that risk. But everybody does.

If you do move to a global permissionless, meaning that no one can alter this system, or no one can override the system global currency. What you wind up doing is making it fair for the rest of the world because one of the problems the current global financial system has, is it's more of a tiered system that if you're further up the list in the United States is at the top of the list, you get more privileges, better, cheaper financing, better access to markets. As you move further down the list, you get less access, things become more expensive. And you wind up having also the possibility of being punished, or rewarded by the more important players, Europeans, United States, to give an example, depending on whatever your behavior is. And so what you're seeing with a digital currency is a push towards doing it. And in the United States, there's a belief that what Bitcoin or these digital currencies represent, is a bunch of you know, bros in Starbucks's in San Francisco that are trading these things. And there is that, but really, if you look at a company called Chainalysis that looks at adoption rates of Bitcoin and digital currencies around the world. And they look at it by penetration of the population, only one country in the top 20 is a developed country. And that's the United States at number eight, the other 19 countries are all developing countries, emerging markets as well, too.

So you're seeing the adoption rate, really what's pushing this is Asia, Africa, the Middle East, knowing that they've been at the short end of the stick having not to have access to world capital markets, or to banking services at a reasonable rate. And wanting to have that. That's why you're seeing the adoption of places like in El Salvador, and potentially in Argentina, as well, too. Because they have been shut out of the capital markets, they need the permission of entities like the World Bank, or the IMF to do certain things. They are punished if they do things

that displeases, the first world or the United States, or the IMF, or the World Bank. And so that's why they want some kind of system like that. So what you're seeing is an outgrowth of a global currency. And you're right. For purposes of this discussion, let's leave off the technology and just assume or take that it's there, it exists, that at the currency level, it can't be hacked, and it is immutable.

Now, later on, when we talk about protocols, meaning I build a DeFi protocol, on top of that currency, we could borrow or lend it or trade it, that could be hacked, just like your bank could be robbed. But that if your bank is robbed does not mean that the dollar itself is invalid. Bitcoin, or whatever digital currency we come up with is not invalid, if your protocol gets hacked, so want to make that separation. But beyond that, I do think what you're seeing is a lot of the rest of the world very excited about the idea of a digital currency because it gives them better access. And they're not subject to being censored in ways that they are now.

Erik: Now, Jim, in the beginning, I used to think where we were headed was toward a supranational global digital reserve currency. And I thought maybe that, you know, countries like China and Russia that had the most to gain from displacing the US Dollar as global reserve currency might be the early actors who work together to design that system and somehow try to promote it to the rest of the world. But frankly, I think they would be up against a pretty difficult challenge, because you can't just take a digital yuan or a digital ruble, especially with the difficulties the ruble has seen recently.

You can't just take that and say it's going to be the new global currency everyone adopts. What's really evolved in my thinking around this is what I call SVDCS Silicon Valley digital currencies, the notion that some of the tech giants might recognize - hey, wait a minute, what's actually up for grabs here, even though most of the governments don't realize it yet, is whoever can design a supranational digital currency system that gives a level playing field to the entire world so that you don't have one country that gets an unfair advantage over everybody else. They could sell that to all the central banks of the world and whoever is behind designing that technology is putting themselves in a position of extraordinary power.

So when I saw Facebook with its Libra project, which didn't go very far because of, I think they failed to bribe all the right politicians in advance. I think that potentially where we're headed is Silicon Valley coming up with a private digital currency system that might initially be sold as a payment system kind of the way Libra was, but where their real aspirations are to develop a global digital currency system, that could eventually replace the US dollar as the world's global reserve currency. What do you think about that idea? And boy, what do you think US regulators would do when they figured out that's what the agenda is?

Jim: Well, I think you've somewhat answered the question too, because that was what Facebook started with their Libra project, which eventually evolved into Diem as well, too. They were trying to create an exchange, a stable coin, if you will, to be used on the Facebook network. Remember, Facebook has over 2 billion users, and they've got Facebook market and everything else. And they were going to maybe create a medium of exchange that you can

exchange value within that network. They were hauled in front of Congress in 2019. And David Marcus, who was the head of that group was just grilled mercilessly, that they didn't want it the Diem project, actually, they tried to basically build a global central bank digital currency and offered it to the central banks as their gateway in. And that was also rejected outright as well, too. So to answer your question, yeah, they're not interested in having any kind of an outside actor like a central, like a Facebook or Silicon Valley firm. Put this together for them, I think largely because they're afraid then that they would have a loss of control.

Now, the other side of that is, well, the central banks are going to put together their own central bank digital currency. Well, they got two issues, leaving aside the technology issue, let's just assume that the technology is there, which I think it is that they can actually pull this off. The first issue they have, and let's go with what the Fed talked about in their central bank, digital currency paper is, if you create a Fed currency, you create a digital dollar. Okay, what do I do with this? How do I use it? The Fed would have to create a digital wallet in order for you to use the digital dollar. And they refer to this as a retail digital currency. Oh, so then I can hold my money directly with the Federal Reserve, I don't have to hold my money with Chase or, or Citibank or Bank of America, Wells Fargo, whatever bank you want in? The answer is yes. And the Fed, admittedly said that this could very well be disruptive to the current financial system, the deposit taking function of a bank could be disrupted by the central bank. They don't want to do that. So then they talked about having the digital currency be a wholesale digital currency where, you know, Citibank could trade it with Wells Fargo, but then you and I would have to have a wallet with Citibank or Wells Fargo to access it. In which case, they've accomplished nothing, they've really accomplished nothing, if they wind up doing if they wind up doing it in that respect.

So they're struggling to figure out how much they want to disrupt their own financial system, their own banking system. And the answer is they don't really want to do it in any great way. But if they don't, they're never going to get one of these central bank digital currencies off the ground. Also, there is more of an enlightenment, if we go back to February. And we remember in February that we had in Canada, the trucker protest, and then they instituted the Emergencies Act. And part of that was that gave them the ability without due process, to suspend and to freeze bank accounts of people that were involved in the protest that they didn't like or didn't like what they were doing. I think even people that were against the protests, started to realize that this was a giant government overreach. That you shouldn't have governments to be able to willy nilly just say, I don't like what you did. I'm taking your money away from you. A central bank, digital currency makes that a lot more efficient. And so you've heard calls in the wake of that incident, that this is going to hurt the adoption of a central bank digital currency. Yes, they may create one. And yes, they might even take on potentially disrupting their banking system. But will people willingly say I want to keep my money with the Federal Reserve. And then one day, they might donate to a group, and remember, this happened with the truckers back in February. That people donated to the truckers, and it was perfectly legal, and it was fine. And then the Canadian government invented a word called retroactive law, that when you donate it in the beginning of February, to these truckers that was perfectly legal and fine. But by the end of February, when we decided that they we didn't like

that group, we're gonna go retroactively back and punish you by freezing your account for doing that activity. I don't want to make it easy for them. I don't want to keep my money with a central bank directly in a digital currency. So they've got issues that they have to resolve the issues are not technological issues. The issues are more about control, privacy rights in policy that they have to work through. And so therefore, I think we're still a ways away from seeing a central bank digital currency, because those issues haven't been resolved.

Erik: Jim, I think we're pretty much in agreement. But let me just flush out a couple of thoughts with you here and see if we are. It seems to me for the reasons that you state, you know, central banks in governments in general are not about to agree to a supranational system where they're not in charge of something, they want to have their central bank digital currency that they're in charge of. The Fed didn't talk in their fed white paper, about a supranational currency that the Fed doesn't have control over, they talked about how they could create a digital dollar that they're in charge of. Then my prediction would be that the people who want digital currencies, and by that I'm not referring just to Bitcoin enthusiast, but I mean, other nations who would like to see this unlevel playing field get leveled, who would like to see a supranational digital currency, there's going to be demand for that.

And my prediction is CBDCs, issued by central banks will be designed, first of all, to make it much easier for governments to do all sorts of crazy things like freeze people's bank accounts, and, you know, automatically if they say something against the government narrative, as happened in Canada, as you described. And I don't think that they're going to be open to a supranational system. So for that reason, I think what's much more likely is the CBDCs get developed, and they get launched with a big flop, and nobody really cares, and nobody wants to use them. But then somebody comes along with a private digital currency, which is much more scalable than Bitcoin and the other first generation cryptocurrencies, but which is really designed to be that global supranational reserve currency system. And I agree with you that they're not that the US government's not going to like it. But I think the rest of the world would like it, and would be a big buyer for it. The thing is that people that are best qualified to develop that are in the United States. And I don't think they're going to get a lot of support from the US government in building those products.

So It's a big question mark, in my mind as to how this plays out. But it seems to me like CBDCs is issued by central banks are never going to be supranational. And they're never going to be designed to what the market actually wants. Would you agree with that?

Jim: I absolutely would agree with that. And it's not only the permissioning too, it's the rules too. Just give you one example, in China, they'd have issued a central bank digital currency, a digital yuan. And one of the things that they did with it was, they put on its a bunch of rules that if you actually bought into this currency, you were in to use the crypto version, you are airdropped money, they put extra money in your account. But they put rules on what you could do with the money, you had to spend it in a certain period of time, I think they gave you 30 days. And you had to spend it on certain things, and you couldn't spend it on other things. And even in China, even though they were giving you free money, with all those rules, didn't go over very

well. People don't like you know, to have all of those restrictions. Think about your frustration, or my frustration. If you've ever had airline miles and you go, Oh, I got all these miles, I'm gonna go get a ticket and go somewhere. And then they tell you okay, but you can't use it here, you can't do it there, and you can't do it on this day. And these are blackout days, and these are blackout cities. And you're very frustrated. Oh, what's the point of this? Well, that was what happened in China, as well, too.

So yeah, the idea of a central bank, digital currency runs at odds with the users and the creators. The creators want to do it, because they say, good, we could do all these rules and permissions. And we could we can affect behavior by changing the parameters. And the people that would use it say, well, I'd only use it if you left me alone, completely parameterless with it, let me do with it what I want when I want it. And that's why you're seeing people more and more gravitate towards the crypto space that is permissionless, that is decentralized, so no one controls it as well, too. And you're seeing the excitement in the decentralized finance space really starts around what is referred to as stable coins. And a stable coin is just a digital token that is supposed to have its value pegged to something else.

Now most of them have their value pegged to the US dollar, there are some for the Euro and the Yen and gold. And recently there's a new one now for a CPI as well too. And there's some others. But the most, the vast majority of stable coins are pegged to the US dollar and people are gravitating towards those, because no one can permission no one can censor me. No one can put rules on me as to when I can use it or why I use it. And I could do with it what I want so that has been one of the big attractions of the stable coins that have been coming.

Erik: Now I'm gonna make the argument, Jim, let's pretend that stable coins are analogous to Microsoft Windows version one. What is Windows version 10 look like in my mind. It's not just a stable coin, which would be a supranational digital currency system, but it's one that is tightly integrated with a supranational digital sovereign bond market. So instead of saying that all of the central banks around the world, the way that they work today is their central bank reserve assets are usually in US Treasuries, because that's the most liquid market. What if the most liquid market that exists in the world that has the depth and liquidity characteristics that we today associate only with US Treasuries?

What if that was these digital sovereign bonds, which all countries have an equal right to issue, they get credit, graded, and so forth, there's digital tools in order to not only grade their creditworthiness, and allow them to potentially have different rates of return, depending on who the issuer is. But they're all denominated in the same supranational global reserve currency system. If you take the stable coin concept. And you create a framework, which allows the financing needs of all of the nations on earth to work in a level playing field as opposed to one where the United States is in charge of everything. To me, that means the whole rest of the world ought to love that system. And the United States has a very serious national security threat in terms of what it would mean to lose that reserve currency status. I think that's coming, I have no idea how it plays out. I had been skeptical in the past that Bitcoin would, you know, evolve into that. But the more I think about it, I just can't see central bankers having their act

together to recognize the market is going to demand that supranational system that no one country owns, I can't see any national government letting go of control and ownership, because that's just their culture, they think they have to be in charge of everything. What the world wants, is a fully decentralized, permissionless supranational digital currency system. And I think if you tie it to a digital sovereign bond market, it completely changes the playing field for the issuance of sovereign debt. Does that make sense?

Jim: No, it makes perfect sense. And in fact, that's what's indeed happening. So you've created these stable coins, these representations of a dollar that are outside of the financial system, you can't censor them, can't restrict them or control them in any way. And they're pseudo anonymous, pseudo anonymous meaning that I can see an account using something like Bitcoin scan, or ether scan, and see that this account has the stable coins in it. But all I know about the account is it has a bunch of numbers and letters as the account name, I don't know who personally controls that account. That's what I mean by pseudo anonymous.

So this system of the stable coins will never work within the traditional financial system, you can't take them to JP Morgan, or Citibank, or Barclays, or fill in the blank and exchange them for value within the traditional system. So we're creating a whole new financial system around them. And that's decentralized finance. And in decentralized finance, you wind up having another set of, they use the word protocols in decentralized finance to separate them from platforms, you know, like Facebook, and YouTube and Twitter and the like. So you create all these protocols that you can go to and trade, your stable coins for other coins, borrow against your coins, lend against your coins. And so we're creating an entirely new financial system that is outside of the financial system that we have currently. And this, you're right, has really got regulators around the world, very, very worried. And to be honest with you, they use the words you know that they they're very worried about investor protections. But it's clear from what their actions are, is they're really worried about incumbent protections. And that they're, they're saying that they want to protect the little guy from these systems, but it's really that they want to protect themselves from being overwhelmed by the systems. Because the little guy, you know, you'll hear this a lot, well, somebody might get into a stable coin that's supposed to be pegged to the dollar. And what if the peg is lost? And it goes to 80 cents? The little guys lost 20%. Okay, yes, yes. But what's the current system? The little guy in the current system, if you're a poor migrant worker in the United States, and you've gotten a few hundred dollars of pay and you want to send it back to your family, it's going to cost you 20 25% To use the current banking system to send that money back to your family. Anyway. You're already at 80 cents to the dollar in the current system.

So you're really no worse off if that stable coin loses its peg. And if the stable coin doesn't lose your peg, you're actually better off in that system than you are in the current system as well. So decentralized finance is the answer for what to do with this. And so what we're essentially doing in the defi community is recreating a whole new financial system with a new set of rules. And those new set of rules is no permissions, no rules, no punishing people for actions that we don't like, or rewarding people for actions that we do like. And that's been a fascinating thing to watch evolve, especially over the last two or three years as it's really taken off.

Erik: Well, Jim, as you just alluded, currencies are only the tip of this iceberg. So I want to move on now, to talk not just about some of the early actions that are going on in the DeFi community. But let's set our focus on the long term of where the global financial system is headed. Because for hundreds of years now, we've had this idea called the public corporation, or listed company, the idea of a corporation, which is a bunch of shares, what are the shares? It's a piece of paper, a share certificate, and people will tell you that financial system has been digital for 30 years, that's absolute nonsense.

What we've had for 30 years is digital accounting systems that keep track of conventional assets that are anything but digital. So we've got this paper concept of share certificates, it says, you own one small slice of this publicly traded corporation. And then that corporation has what's known as a capital structure, a cap table, where it has equity, which is the outstanding shares, and then it has various different forms of subordinated debt and non subordinated debt, senior debt and so forth. Something that you said in your interview back in February is, you know, that whole model of a public corporation and its capitalization table, or its capitalization structure, is really subject to being reengineered. Completely from the ground up with this new decentralized token technology. Tell us more about that we didn't have enough time in the last interview, expand on what that means.

Jim: So yeah, so let's start with what you mentioned about the history. The modern corporation, the fractional banking reserve system as well too, they were both invented during the Renaissance. So we are using systems, the foundation of finance, you know, the capitalization structure, equity, representing ownership in a corporation, debt, representing claims on that on that corporation in exchange for money and interest rates that we pay on that money. This stuff is 300 or 400 years old. And as you correctly pointed out, it really hasn't changed a whole lot. In the last three or 400 years, yes, we have come up with digital accounting systems to make it more efficient to track that 400 year old system. But we haven't really redesigned that 400 year old system from the ground up. But now we are starting to do that. And that's because of the new digital economy.

With the digital economy coming into being in the last 20 odd years. With the invention of the internet, whole new structures are taking place, in terms of creation. So you're a creator in the digital economy with the MacroVoices Podcast, I am a creator, in the digital economy through Bianco Research, my advisory firm, as well too, and so are millions of other people. And if we look at the value of a lot of the FAANG companies and other companies that are involved in this space, it's many trillions of dollars of value that they have created in this space. Well, now what we've learned in using that old 400 year old structure of equity and debt is, as this new digital creator economy comes into being, you and me, we don't own any of it. You don't own MacroVoices. I don't own Bianco research, if anybody else deals in this economy, you don't own it. If you have a Twitter account, and you have twitter followers or YouTube account, YouTube followers, you don't own it. Twitter owns it, YouTube owns it, and they make money. So we are in an unusual situation where if you are in this digital crater economy, you spend all day long, creating value for Twitter or creating value for Facebook or creating value for YouTube or

Instagram, or any of the other entities in that. If you get to a critical mass. They will reward you with a portion of advertising revenues that they have made off of you. But it's only a portion and it's only when you get to a digital mass. So people have argued, maybe we ought to rethink this with this new digital economy. And that's where the phrases Metaverse and web three come from. Now these are undefined terms. But what they really mean is, everything we're doing on the internet now, we do in web three and in the metaverse, but we own it. I own Bianco Research, you own MacroVoices. I set the terms. For Bianco Research and whatever value it accrues, or MacroVoices accrues goes directly to me or you directly, it doesn't go to some platform company, like a Twitter or YouTube or something. And then secondarily comes to us as well, too. And in doing that, we are redefining the ideas of debt and equity, and that there might be a whole new capitalization structure within this digital economy that has tokens, non fungible tokens, NFTs. And these would be the representations of the value that we would create in our world. Now, again, this is being designed as we record this, and will be for the next several years.

So there's, you know, there's no quick consensus as to how it would look. But conceptually, it would be that, as a creator, I could issue a token, you need you need my token as permission to work in my universe, or an NFT, which would be a version of a subscription, as well. And as people come into my, come into my network, and use my tokens, or my NFT's they accrete value, they become worth something. What do I do with those tokens that become worth something? I can trade them in the decentralized financial world on a decentralized exchange, in exchange for other tokens that have other value or use. I can borrow against them, by pledging them as collateral, I can stake them to earn interest on them. And so it's really turning the whole concept of the capitalization table, and what is finance upside down, and we're inventing for the first time in 400 years, a whole new system. And what this also allows, is for companies to start thinking about their cap structures very, very differently.

So if you are a traditional company, a McDonald's, you can change your capitalization structure in ways that you haven't before. You could use tokens to incentivize customers, you can use tokens or NFT's to incentivize investors, and the like. You know, there's an example that's been thrown out there, one of the successes of Apple and Tesla, leaving aside all the other issues is most people that buy the products of Apple and Tesla, most likely own the stock of Apple, and Tesla as well, too. So you become a natural cheerleader, for that company. I bought a Tesla, I drive it around proudly, I keep it wash to make sure everybody looks at that cool car. And I tell everybody, it's really a very cool car, and I'm very happy that I, I bought it, and other people then have a high opinion of it, and the stock goes up. And oh, by the way, I own the stock. And I benefit as well, too. Well, if you're a customer McDonald's doesn't quite work that way. You don't own a bunch of McDonald's stock, and then walk around and tell everybody about the virtues of McDonald's and, and go buy in McDonald's. Technically, you could. But most likely you don't. Because most likely the people that shop at McDonald's or think Dollar Tree, if you want to think of a better example. They don't have the means to own the stock and go around and promote the stock.

But maybe in a tokenized world, they'd would, and you turn your customers into promoters of your company, just like you've turned Tesla and Apple customers into promoters of their companies. And all of a sudden, the whole capital structure of debt and equity starts changing into tokens and NFT's. And the whole world starts looking very, very different in terms of finance than it did for the last 400 years. This is still evolving. We're still trying to figure out the ends and how this is going to work. But this is what's got people a lot excited about when they look into the digital world and decentralized finance and cryptocurrencies. And they go Yeah, I can see where this could really change things and change things for the better. Open it up to a lot of people that are currently not avail...that it's not available to usually the poor, usually people that are less fortunate or in other countries that don't have the ability to buy a Tesla and drive around town and own a bunch of Tesla's stock and tell everybody else they should buy a Tesla because it's such a great car. There's only a limited few people that can do that. And they are doing it and they are successful from it. But why can't that model be brought to everybody else? Well, tokens and digital currencies and decentralized finance is starting to think that along those ways and bringing it to them,

Erik: Jim, I want to share an epiphany that I had when we were talking about this off the air, with our listener. Because honestly, when you started talking to me off the air about the Metaverse, my emotional reaction to that was come on. Jim, where are you going with this? You know, the Metaverse is this big virtual reality game thing that Mark Zuckerberg wants to invent to kind of extend the social media so that people are living in this virtual reality Metaverse place and pretending to operate virtual businesses and virtual things and it's not real. Why do you want to talk about the Metaverse? Let's talk about how we're going to someday get to a global supranational currency system and a new global financial system is that wait a minute, if the Metaverse is this big, sophisticated thing that's going to have this make-believe non reality financial system that's all based on the latest technology. And it's going to have a digital currency system that works across the Metaverse independent of national borders. And it's all virtual reality and it's not real.

That means that all of the technology infrastructure is going to be built in the Metaverse and the question of where would a new global financial system come from might actually be to simply take the virtual reality Metaverse financial system and grow it into the real world financial system? Is that the path that you see ahead? Did I get that right? Or tell us more about that vision and where it's headed?

Jim: Yeah, I think that that's definitely the path that we could see it move forward. Right now the Metaverse is, you're right, it's tagged with being a bunch of games, gamers are playing in that space, as well too. You know, think of the movie Ready Player One. And that's what people think what the version of the metaverse could be. Now, keep in mind one thing about gaming, and I try to tell my traditional Boomer friends, I'm a boomer too, you know, about gaming. It is as far as entertainment goes, gaming is the largest entertainment source in the world today. Gaming earns or revenues from gaming is larger than all the revenues from professional sports, television, movies, radio combined. It's larger than all of it combined, as well, too. And so when you think about it, it you know, it starts off with gaming. And I want to point out that's very, very

big to start off with, as well. But it can morph into something more than that. What have we learned from the pandemic? That there's been a shift to work from home. What do traditional people do when they work from home? They talk to people on Zoom, they probably update spreadsheets, and they send around emails all day long. Oh, that's efficient, maybe if I'm doing it in an office, if you want to measure it that way. That's why we prefer working from home. But it's not very efficient.

How do we how do we integrate that whole system of work from home to make it a lot more integrated? Well, there is an example of that. Look at your teenage son or daughter who's been playing games all day long, and why they like to do it, why they lock themselves in their room and do it all day long. They're not punishing themselves, they enjoy it. And if you've ever tried it, it is quite something. And I say this because a lot of people that turn their nose up on this haven't tried games, go see what is happening with some of the latest role player Games, World of Warcraft, Minecraft and stuff. These are kids that are communicating with other kids online. The older kids mentor the younger kids, they've created their own economies in these games, as well, too. So they've set up incentives to be rewarded when you do certain things and punishments to be meted out when you do incorrect things as well, too. And all of a sudden, you start looking at it and go, that's how online work is going to be. It's going to be the same type of thing that we're going to create online communities, online economies. And that's how we're going to start working more, it's not just going to be answering emails and talking on Zoom and updating spreadsheets. That's still digitally making. That's the analog world just being more efficient, digitally.

And once we start moving towards that, then you're going to start to see these online economies that we're going to be creating that are more than just games. But the real world economies, especially people in service sector jobs, that can do it remotely. They're going to need a financial system for that online economy because I have created value. I've created digital value. Okay, how do I express that digital value through some kind of a token or NFT? What do I do with this? Because now it's worth something? What do I do with it? I can't take it to JPMorgan and say, here's a bunch of tokens. So give me a bunch of dollars so I can pay my mortgage. But what I can do is create a financial system within the digital world that I could do value with it. And as that system grows, it will become more and more integrated with the physical world, and so that they will start to merge from each other.

And so that's how I think this is going to wind up going and why, you know, it's going to be a lot more. So this Metaverse Web3 argument that you hear too is integral with it. You've created a digital decentralized financial system. For what? What are we going to do with it? It's going to be the financial system for web three in the Metaverse. Well, if you think about the size of games, and if you think about the potential of work from home, and creating economies online, this is many, many trillions of dollars size that this is going to be this is not insignificant. Why do we think that the FAANG stocks are worth more than all of the companies in Germany right now, because they are the current representation of the digital world. The problem is all the value is in those five or six stocks, the value isn't in the billions of people that use those platforms and create the value. And so what the what the Web3, the Metaverse is going to do is take the value

from those FAANG stocks and distribute it to all of the users to billions of users. And then decentralized finance will be their financial system to you know, realize that value and do something with that value. This is one of the reasons why you also don't hear, you kind of hear like lukewarm response out of Silicon Valley, the big Silicon Valley tech firms. Yeah, you know, the DeFi is kind of interesting. Ethereum is kind of interesting, the web three is kind of interesting. Other than Mark Zuckerberg changing the name of his company to meta, Jack Dorsey changing and company Square to the name Block, the rest of them, Amazon and the like, they probably more see this as a threat to them, then then another opportunity. And so they're more threatened by it than they do see it as the next big opportunity.

Erik: You know, I think back to the early days of personal computers, and people like Bill Gates, just laughing at the digital equipments and the IBM's of the day. And they were laughing at Gates because he's just a little nobody. And they said, look, we've got the thing totally locked up, you know, our IBM mainframes running on the MVS operating system, or digital had VMFS. You know, these are world class operating systems that run on much better computers than you've ever even seen little boy. And Gates was smart enough to know. Yeah, but but my stuff runs on computers that cost less than \$1,000 that everybody can buy and yours run on computers that occupy entire rooms that require air conditioning systems just to keep them running that cost a quarter million bucks. I'm ahead of you. And you're too stupid to recognize that. And of course, you know, the rest. Gates becomes the most wealthy man in the world for a while.

It seems to me if you fast forward that to five years from now, I can just imagine a young entrepreneur walking into a meeting with Goldman Sachs saying, you know, you guys are an investment bank. I want to take my company public and they say, well you know, it's kind of an old boy network. You got to have people on your board who are well connected. And it's not so easy to do. You got to be Harvard boy like us. And I can just see this young entrepreneur laughing at him saying, dude, you don't get it. This is so much easier in the Metaverse the way that we finance things. I'm going back to the financial system that's in the Metaverse, the one that I know that I know is better. And I think that what happens is just as personal computers completely took the mini computer and mainframe industry by surprise, and everybody got displaced and nobody saw what was coming. I think that traditional finance could get run over by a new generation of entrepreneurs that are just not interested in financing their companies through the conventional finance system. Because they know about something that the conventional guys thought was just a virtual reality game, because as you say, they were too lazy to go try it themselves, because they're thumbing their noses at it because they're old guys like us who don't play games on computers. And they don't know that it's not just games on computers, but there's actually an entire economic system that exists with payment systems and everything else in the Metaverse. It seems to me like that is a very plausible way for things to go from here. Am I right?

Jim: No, you're absolutely right. And you're absolutely right, that it is unlocking tremendous, you know, creativity and, you know, ideas that were probably bottled up. Look, if you look at some of these, if you look at some of these systems that have been created, and I'll use the one

example that everybody knows is Ethereum and the Ethereum network. The Ethereum network was developed by Vitalik Buterin. Russian born, grew up in Canada, when he was 19 years old, he wrote the white paper for describing Ethereum months out of high school. Holy crap, Erik, this is one of the foundational things of finance that was written by a kid barely out of high school. I mean, unless you want to put them into the category of Galileo and Newton and Einstein. And by the way, I do think he is in that category. There's probably been other creative people like him, that gets stuck into these big bureaucratic corporations and just wiped out, you know, that all their creativity is just sucked out of them, that they're not allowed to think outside the box, and do kind of things like this. Well, that's what's happening in this system.

So whether it's a Sam Bankman-Fried who's 29 years old, who runs FTX and Alameda Research, or whether it's a Vitalik Buterin, or some of these others, there is some serious talent here. And you go, was there 29 or 22 year olds 15 or 20 years ago that were seriously talented? Yeah, their names were Bill Gates, and Steve Jobs. And what were the rest of them, oh, they probably were working at Goldman Sachs. And they were probably working at JP Morgan. And they had the life sucked out of them. And they became very good managing directors, probably, and made a very good decent living. But they were never able to realize the transformational abilities that we're seeing with some of these guys as well, too. So yeah, these systems, and what is happening is truly revolutionary. They're thinking at levels that no one else is thinking. And yes, you're right. When you go to that director board of directors, that it's a bunch of old boomers, it's really hard for them to get their head around what they're thinking about and how they're doing it. Just like Bill Gates had with the problems when, you know, in the 80s, when he came up with the personal computer.

And by the way, when you were giving me that example, what I was also thinking about too, was IBM was very centralized. It was a very centralized permission system, the IBM mainframe computer. And what Bill Gates was proposing was a decentralized permissionless network of computers that we eventually got through Three Comm and the invention of the Ethernet as well, too. And it's kind of the same thing we're doing. So that's kind of what we did to IBM, you know, 30 or 40 years ago with the invention of the PC. And that's kind of what we're doing what finance right now, with the invention of decentralized finance. That at every step, the evolution seems to be not we need to centralize it and concentrate more power in the hands of the few, but decentralize and allow more people to have value and enjoy the networks, the abilities of the network. And what we're starting to realize is, it all revolves around a very important concept, that if you don't realize it is the driving force of the economy today, and that's Metcalfe's law. And that the network and the growth in the ability of a network, then you're not really getting it in terms of where the digital economy is, and what is really behind it.

Because you, you know, I'm thinking of also, the famous line from Orrin Hatch when Mark Zuckerberg was speaking before Congress and Orrin Hatch, which was 86 years old at the time. And he said, How does Facebook make money, it was just such a alien concept, this whole idea of networks, Metcalfe's law, the ability then to create value within that network, realize it in the terms of what Facebook was doing in advertising value. It's just such an alien concept for somebody whose concept of companies was born out of the 40s 50s and 60s, and I think we're

going to always have that be the case, you know, when the trial period is 80 years old, maybe there will be a new system and another 29 year old has got something else. And he'll be pushing back against that as well to saying it'll never work. But for right now, he is the leading edge of what we see happening.

Erik: And I'll add another prediction building on that same analogy going back to the computer industry. By the early 80s, it was crystal clear that the desktop computer revolution and networking was going to drive the future. But as much as 20 years later, in the early 2000s, you still had a large group of people and frankly, a whole lot of them were in the finance community, saying nope, the IBM mainframe asked in programs written in COBOL for the MVS operating system and the CICS transaction processing system is so far superior in architecture that it will be our solution for all time to come. They still thought that stuff because those guys were too lazy to go find out what was really going on, on the new platforms they weren't familiar with. And I think we're gonna see exactly the same thing in finance everybody who knows the old systems and especially guys our age Jim, are going to insist that it can never change and that senior subordinated debt and capital tables and the things that we know about corporations that have been the same for 300 years can never change. And then a bunch of young kids are going to reinvent the world out from under them, and they're not going to know what happened to them.

In any event, Jim, I'm gonna cut it off there because believe it or not, we've only barely scratched the surface of these topics. We're already running out of time. So I'm going to shift gears here and I want to invoke an analogy for our [MacroVoices](#) listeners. Many of you remember, our good friend Jeff Snider, after I interviewed him a couple of times, I realized Jeff had an extraordinary perspective on the commercial Eurodollar system. And we created Eurodollar University, a series of podcasts to really get all of that brilliance in Jeff Snider's mind out into a format where people could consume it. If anything, I would say the amount of DeFi content in Jim Bianco his head is at least as big is what Jeff Snider had to say about the commercial Eurodollar system. The difference is I do not have time or ability to create a DeFi University. I really want to encourage our podcast community, you know, when I did Eurodollar University, season one and then season two, and I told Jeff, I'm sorry, I don't have cycles to do season three. And our good friend Emil Kalinowski took the baton and created a Eurodollar University podcast that allowed Jeff to continue expressing those ideas. Somebody I don't know who should steal that idea. Get a hold of Jim and create Jim Bianco DeFi university because this guy has a lot to say. Just to tease them, Jim, give me off the top of your head a few bullets of what topics you could spend another hour talking about if we had time?

Jim: Oh, you're very kind. You know, if I had more time, I could get into the more nitty gritty of what is going on in this in this space. How does decentralized finance work? How does a protocol work? I mean, you know, getting an electronic wallet. How do you borrow? How do you lend? How do you stay awake? You know, those types of things. How do you perform transactions in this space? What are some of the ideas that are coming up in this space as well, too. You know, whether or not you're talking about yield farming or protocol owned liquidity, which is known as DeFi 2.0, there might be a DeFi 3.0 as well to coming, you know, how do the stable coins work? How do algorithmic stable coins work versus, you know, centrally backed

stable coins like USD circle and tether? And once you start to realize how this all works, it starts to make a lot more sense.

And the biggest problem, when you know people have in thinking about this, why, you know, their series and people are trying to do this is that it isn't easy. I've had, I can't tell you how many conversations I've had with professionals, you know, Boomer professionals in finance, they've been around for 30,40 years. And they want the two hour course on what is DeFi? Well, it's you can't learn it in two hours. You have to really apply yourself and spend a lot of time and effort relearning this whole system. Anymore, as I like to say, you can't tell a 17 year old a s a freshman in college, go take this two day seminar called what is finance. Okay, now that you're done, you could send your resume to Goldman Sachs. Well then Goldman Sachs will want you to get a college degree, if not a master's degree in finance, before they they'll hire you for an entry level job. Well, might take as much work as this as it is well too, because it's all new. It's all different. It's built with different concepts and different ideas. I started in this space in 2017. So I've been I've been playing around with it for five years. It won't take you five years, but it is a big space to think about.

So yes, I want to get into the nuts and bolts of it, you know, and stuff I know, some people have, and there's some out there. But yeah, when you start really understanding it, you find it to be, quite frankly, one of the more interesting things I've seen in my multi decade career in traditional finance.

Erik: Jim, I think the key to this is there's so much out there already, that is coming out of the crypto community which really is focused on tokenization and technology and so forth from the perspective of the technology. Bringing the perspective of someone like yourself who has worked for decades in traditional finance and really understands the global financial system and what reserve currencies are and what Triffin's paradox is and can then frame all of this new technology in terms of how it can be applied to bettering those aging systems, which we know and tell ourselves we love but we don't really love them that much.

Jim, I have to tell you, I think you're the only voice I'm aware of, there's lots of washed up macro guys who reinvented themselves as self proclaimed crypto experts. I don't think but most of them really know what they're talking about. They're full of BS as far as I can tell. You got a lot to say. And I really want to encourage somebody out there I don't know who to do the Eurodollar University of Jim Bianco going deeper on this subject. I can't do it, but I'm sure hope someone else does. We're going to have to leave it there. Patrick Ceresna and I will be back as [MacroVoices](#) continues right after this message from our sponsor.