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Military OneSource Podcast — FINRED

**Program title:** Cryptocurrency Podcast

**Episode transcript:**

**Intro voiceover:**

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**Bruce Moody:**

Welcome to the podcast. I'm Bruce Moody.

It's our cryptocurrency episode. It's the episode we never thought we'd get together. It was feeling a lot like Lucy and the football. But here we are, thanks to our friends at the U.S. Commodity Futures Trading Commission, who are here to help us through this episode. Dan Rutherford is from the CFTC. He's our guest today. Dan, I can tell you, we're all glad to have your help with this episode.

**Dan Rutherford:**

Well, thanks Bruce. Thanks for having me today. I'm really looking forward to the conversation. Before we get started, though, I do have to make a simple disclosure. The comments and opinions I'm about to make are my own and do not necessarily reflect those of the CFTC, our chairman or any individual commissioner. So, with that, let's get going.

**Bruce:**

For those listening, what we're trying to do is thread the needle here because this is a very complex topic. But there's certain things that we can talk about without needing to get into major geekdom and too technologically crazy about. We're going to talk about cryptocurrency and what it is and what the pitfalls are and where we are on this. There's a lot to learn on this topic.

The first thing that I learned is to stop calling it Bitcoin. There's just so many types of cryptocurrency out there. Bitcoin is certainly one of them, but there's many, many types out there. So, in just getting this started, Dan, if you would for us, just give us a description of what is cryptocurrency?

**Dan:**

Sure. Well, we talk about cryptocurrency, and you're right, there are literally thousands of different coins and tokens and stablecoins and NFTs and all sorts of things that are out there. It's difficult to lump it all together into one big definition. But if you really boil it down, what crypto assets, what cryptocurrency really is, is just a recordkeeping system that keeps track of digital records that represent, one, value, two ownership or a

writer obligation of some sort. So, you say, let's not call everything Bitcoin, which is correct. Bitcoin was the first, I guess, popular cryptocurrency that sort of took hold. We'll talk a little bit about why that happened.

But for now, if we think about it as how it started, really go back to the roots of the question. And this was 2008, the financial crisis had just occurred. There was a lot of distrust or the banks weren't seen as the most popular folks on the block. And so, the idea started kicking around online to create a truly peer-to-peer online payment system. When you think about, well, we could already make digital payments using our credit cards or debit cards or what have you, but to do that, you have to go through banks and a lot of those middlemen create the pipes that make up our payment system. The processors, the gateways, the merchant services, all those sorts of folks that are in the system take a little bit of a fee along the way. So, the idea was how do we take the banks and those middlemen out of the equation and just be able to create essentially a digital cash system where I can pay you and not involve all those other entities.

But to do that, they needed to solve a problem, and that was called the double-spend problem. Everything digital can be infinitely copied. If I send you a picture, you can copy that picture and send it on to someone else. I'm old enough to remember things like Napster and the music and all of those sort of things that happened on a peer-to-peer basis several years ago. So, if that's the case, how do you create a digital currency that has any value? If I have a dollar and I can copy it and send you a dollar, well now there's \$2 floating around out there, and if I can copy that same dollar and send it to someone else, it just becomes worthless after a while if everyone can print their own money. If I have a physical dollar and I give it to you, it leaves my hand, goes to your hand, and I no longer have possession of it, so I can't spend it twice.

So, to do this, Bitcoin came up with really five key ideas. The first was to have a fully transparent, decentralized record, and that's known as the distributed ledger. And you probably hear that terminology a lot, distributed ledger technology, blockchain, it's all sort of the same thing. A ledger when you boil it down is just a record of money flowing into and out of different accounts, like your bank statement that's a form of a ledger. But that's capped on a centralized system owned by your bank so it's considered a "centralized ledger." A decentralized ledger is kept across a global network of computers and that are maintained by volunteers essentially and synchronized so that they all have the same copy of that same record system.

The second thing, the second key idea that Bitcoin came up with, was that the network would be democratically governed by the people who operate. Third, transactions would have to be unchangeable. Once you put a payment on the books, you don't want someone going back later to change the amount. So, they had to come up with a system to make those records unchangeable. Everyone around the world, from individual Bitcoin owners to the network operators, would have to agree on one true version of the record. Remember, this is a record of value. So, if my version of the record doesn't match your version of the record, we have a problem.

The fifth area, and one of the more interesting components of this is the network operators, the volunteers that do the work of collecting and validating transactions and building the records that go on to the ledger, they would have to have some economic motivation to do that work. So, what the founders of Bitcoin came up with was a cryptographic puzzle. And once you gathered up enough and validated the transactions, the people that run the network would race or compete to solve a very complex cryptographic puzzle. The first one to do so basically proves that their block is valid, that all the transactions in that block are valid, and that they have the right to add that set of transactions to the chain, that's known as Bitcoin mining. And that's essentially how most cryptocurrencies sort of follow the same basic characteristics.

**Bruce:**

So, whereas a bank puts your money in a vault and ensures that money with the federal government, the different approach is to say, instead of putting your money in one particular place, we're going to put it out on this huge system. And the strength of it is that everything that you do is being seen and validated and pointed to by a larger group of people. And they can all see what's happening at all points in the transaction, and they can say, yep, this dollar is going from here to there, and we're all seeing it and that's what makes it real. Am I getting that?

**Dan:**

Essentially, yeah. I mean, what we're saying is, you're exchanging your dollars for a Bitcoin or a token or a cryptocurrency, that's recorded by the folks that run the exchange platforms. I'd also like to sort of caution folks that these platforms call themselves exchanges, but they're not regulated and they're not supervised like your more traditional exchanges like the New York Stock Exchange or the Chicago Mercantile Exchange. So currently these are considered cash markets that the CFTC doesn't have direct oversight over but we do have authority when there are cases of fraud or manipulation. So, our authority in these markets is currently somewhat limited. But the point is that record of that transaction, that conversion, if you will, from dollar to Bitcoin is recorded by that platform.

Once you take what you purchase, that Bitcoin that you purchased, and move it to your individual wallet, we can talk about wallets a little bit more in depth, but it's just the record of that amount that's moving through the process. That's literally all there is. You don't get anything physical. There's nothing that's backed by any sort of government or physical asset, gold or silver, what have you. Or, in a case of stocks, machinery and buildings, there's nothing tangible behind it; it's just the record of that amount that you own.

**Bruce:**

OK. You did mention that there are areas in which caution is advised, and we're definitely going to get into the many, many areas where caution is advised to a certain degree. I mean, I've written checks, I've taken a piece of paper and I've literally written \$10 and I give it to somebody and they say, "Oh, thank you." This is most certainly

worth \$10. But, of course, there's more to it, there's more backing that. But we'll get into this. Let me just maybe turn to the practicality of cryptocurrency. Can I go down the street and buy a cup of coffee?

**Dan:**

Well, it's not very easy at the moment. If we look at all the small businesses and all the mom and pops that are out there, Bitcoin isn't widely used. And for a couple of reasons. In addition to being able to record how much money I have, I can take my value and I can go trade it. And so, it's these market trades that make these various cryptocurrencies very, very volatile. So, if you think about it, OK, I go in and I buy a \$3 cup of coffee, and the value of my cryptocurrency climbs 50% in a week. Well, a week later, that cup of coffee just costs me 4.50. And by the same token, if I'm a merchant and I sell you something that's worth a \$100 today and I sell it to you using a cryptocurrency, and the value of that cryptocurrency drops 50%, well suddenly I only have \$50 instead of \$100. It's that level of volatility that makes people unwilling to want to transact in it.

Then there's also the consideration that currently the IRS considers cryptocurrency to be a property. I'm sure maybe you've talked about capital gains taxes in the past, but what that essentially means is, if it's property, first you've got to know your basis. What did you pay for it? Then you got to think about what was it worth on the day that I spent it, because that is considered a sale to the IRS, right? And then you have to consider, did I make a profit or loss? And you have to do that for every transaction. So, you can just imagine how difficult that would be for someone who's buying coffee every day.

**Bruce:**

Especially people in particular who are perhaps stationed overseas, they're watching the currency exchange rate, and they're saying, OK, the local currency is up a few percent, or down. It's sometimes worth it to wait and see if you want to go exchange some U.S. currency into the local currency. Crypto is an entirely different pace, if you will. As you're looking at the incredible ups and downs of it, maybe somebody would look at cryptocurrency and say, well, I'm not looking to buy a cup of coffee today with my cryptocurrency. I want to employ cryptocurrency in my long-term investment portfolio. Is that a possibility?

**Dan:**

Well, a lot of people think so. Let's put it that way. I mean, I can't make recommendations. As a member of the federal government, I can't offer legal advice or investment advice of any kind.

What I would recommend, instead of rushing if the price looks low today, let's buy while it's cheap and put it in my account and hang onto it forever and see what happens. The better first step, rather than looking at the price is thinking about how much do you really understand this stuff, right? We're going to talk for maybe 30 minutes or an hour or whatever, but that is really just scratching the surface. There's a lot to learn here. And

if you don't understand how the technology works, you don't understand the markets and the trading jargon and what it means to convert your dollars to what have you and move that to cold storage and et cetera, yada, yada, yada. I mean, there's a lot of things that people need to learn.

Spend your time, invest wisely by learning that stuff first. Because what we tend to see is that when people lose money and to fraud, it's usually because they make a quick decision and they don't necessarily know what they're getting into. The other thing to keep in mind is, I mentioned earlier that there are literally thousands and thousands of these tokens out there. And essentially what these tokens are, to a large degree, someone has an idea, they think that maybe they have storage space that they want to provide on the cloud, but to access that storage space, you need to purchase this token. And having this token gives you certain rights and access to the services. What they're actually doing is coming up with of a business plan.

You really have to look at a lot of these tokens and a lot of these products that they support as startup businesses. And we all know that the vast majority of startups fail, and a lot of them, because there are so many, the bad guys tend to hide in the crowd. So, you really have to be able to do a lot of not only researching and understanding the generalities of cryptocurrency, but you have to stop and be able to analyze that technical white paper because there may not be any other disclosures. There are no disclosures required by law. You're really on your own. If you don't have the ability or the skills to analyze what essentially is a startup company, then maybe that's not the place for you to be putting your money.

**Bruce:**

This is a business, it's unregulated, it's not backed by the government. This company may go bankrupt, they may go out of business, they may choose to go and open up a lemonade stand and boom, you're out of your money. They may get hacked, you may get hacked. I just kind of list all of that to kind of underline the fact that you've got these exchanges, something on the number of 1,000 new ones a month, some crazy number like that. You've got them popping up all over the place, they're not regulated, and it's all happening at frightening speed. I mean, the term "buyer beware" doesn't even begin to address a cryptocurrency and all that's at play there.

**Dan:**

That's true. I mean, the term online is FOMO – "fear of missing out" – and people look at how Bitcoin and how some of these other tokens have exploded in value over a few short years, and they look at it as the golden ticket that if they just hold onto it long enough eventually there'll be a millionaire. But life doesn't work that way. There are risks. You have to understand where those risks are and how this thing that you're buying is going to make money, how it's going to lose money, and what are the chances of either one? And think about, you mentioned, does this belong in my overall portfolio? Well, think about it. How much money can you lose? How much money can you afford to lose?

Because if you're saving for, first, you have your living expenses, you got to cover the bills, you got to pay the rent, got to make the car payment, then you got to think about, OK, well my kid's going to need braces and then I'm going to have to pay for college for the kids when they get older and I have retirement. And those are all savings needs that you have to cover before you maybe want to think about speculating. And that's really what we're talking ... When you buy something and the hopes that someone else later is going to pay more for it than you did, that's the definition of speculation. And so, you don't want to risk a short term ... If you have a short-term savings needs, you don't want to put it on the roulette table. If you have longer timeline and a longer timeframe to think about, maybe you can set aside some of your investment money to speculate and hope that it might climb 50% or 100% by the time you're ready to cash it out. And if it goes the other direction and you lose it all, it doesn't hurt you.

**Bruce:**

With the case of cryptocurrency, you're speculating. If you're looking to do your speculation, the stock market, for example, you're speculating that it's a value that might go up or down or in some direction or another. With cryptocurrency, your speculation extends all the way into is their website going to crash? I mean, the number of factors that go beyond just the economic are staggering. And please address that.

**Dan:**

What I was going to say is, you're absolutely right. And when I come to work, I look at the number of fraud complaints that come in. The fact is that this is open-source software. Bitcoin is open source. It's really easy for someone to come along, copy that code, make a slight tweak, put it out there as their own and start a website. And that happens all the time.

If you're talking to someone on social media and they start introducing you or talking about trading or talking about how much money they've made and crypto, and you should really check out this ... Stop. Because it's a fraud, it's a red flag. Never give any cryptocurrency to anyone you meet online. And it just comes down to that. If you haven't met this person face to face, because anything can be faked online. And again, remember these transactions, once they're made, they can't be undone. There's no complaint process. If I send my Bitcoin to your wallet, I have to rely on you to give it back. If you're a fraudster, the chances of that are pretty thin. Some of the complaints we've seen people lured in through romance scams, we've seen people introduce through WhatsApp wrong numbers, when someone just drops out, hey, what's happening? Or we met last week, you may not remember me or a LinkedIn contact. There's a lot of these fraudsters playing on social media, trying to get you to start a friendship. And you also have a lot of the message boards out there that where people are bragging about maybe how much money they make, but you don't know how much money they really make.

You really have to be careful out there. And that's just because I put up a website doesn't mean that it's necessarily real. When I used to write articles about warning

people out, giving their credit card numbers online, but because of regulations, because of new rules, because of the soundness of the banking system, it's become a lot easier and people don't think twice about it anymore. And I think really just because someone sees a profile online or a flashy website, that it's real and people really need to spend a lot more time researching who they're talking to and the sites where they're committing their money. Many times, it's your life savings, thousands and thousands of dollars.

**Bruce:**

If you haven't caught onto this already, it's a really, really dodgy world out there in cryptocurrency land. Having said that, there's a lot of serious thinkers out there who think that there is really something to cryptocurrency and that, yes, it's really messy at this point but the concept has a future. Is there a scenario where cryptocurrency gets oversight or addresses some of the issues to make it a more viable, as a stable platform for money?

**Dan:**

So again, as a federal employee, I have to be careful here. I don't want to get out in front of Congress, the president or my chairman on this. There are a lot of bills that are going through Capitol Hill, and many try to do exactly what you're talking about. They're looking at what are crypto commodities, which would possibly fall under the CFTC purview? What are actually securities and could fall under the SEC's purview? What are bank products that maybe the banking regulators or the CFTC might have oversight over? And so, there's a lot of that thinking going on right now in Capitol Hill, and there's a lot of people in the industry that are looking at how could they start to self-regulate and what should they be doing to maybe provide more consistent customer protections, disclosures, education, that sort of thing.

There are reputable folks out there that have the best intentions. So, it's not all just fraud and crime. In fact, there have been some data that was released over the past year that showed actually as a percentage of overall economic activity that occurs on blockchains that crime and fraud is actually becoming a lower and lower percentage. That's basically because there is more legitimate commerce being done on the blockchain. The scales are tipping more toward the legitimate business side of things.

I would also remind people that we sort are where we are, because the technology always moves faster than the government, than legislation, than enforcement cases. And we're always in a constant state of looking at what is it, what laws regulate it, and then which entity has responsibility for enforcing those laws? And that's sort of where we are now. But again, remember that if we're talking about a global network, these network nodes exist all over the world and many outside the United States. It's not necessarily something that one government or another, one country or another can necessarily turn on our own.

**Bruce:**

I guess where we will wrap up is to say, tread into cryptocurrency with extreme caution, if at all. But we will certainly watch this space to see what the future has to bring. Dan, it's been a real pleasure talking to you. Any final words on the topic?

**Dan:**

Yeah, I mean, we can really sum that up by just saying, learn the markets, know the riff and make a plan. If you understand the markets, you understand the products, you're going to be less vulnerable to fraud. You'll be able to have a little knowledge, a little understanding, and see through some of the pitches that people are throwing at you.

**Bruce:**

I appreciate you being with us today and walking through this very confusing topic, and hopefully this gives people a sense of what is happening and what it's all about. Dan Rutherford is with the U.S. Commodity Futures Trading Commission. And Dan, it has been a pleasure speaking with you today.

**Dan:**

Thank you, Bruce. It's been a great conversation and good talking to you. And if anybody has any questions, they can feel free to stop by [cftc.gov](https://www.cftc.gov) to learn more.

**Bruce:**

Excellent. We'll put a link to the Commodity Futures Trading Commission's website in the program notes of this episode.

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I'm Bruce Moody. Thanks for listening. Bye-bye.