Jo Ann Barefoot: 00:01 I am really excited to say that my guest today is Brian Brooks, the chief legal officer of Coinbase. Welcome, Brian.

Brian Brooks: 00:08 Thank you, Jo Ann.

Jo Ann Barefoot: 00:09 You and I have had a lot of time over recent years to talk about innovation in finance. You recently went from being the general counsel of Fannie Mae to here at Coinbase. I told you I would love to sit down with you and talk about regulating crypto, so here we are at your offices in San Francisco.

Brian Brooks: 00:29 Here we are.

Jo Ann Barefoot: 00:29 It’s fantastic to see you. I want to start by asking you to just talk a little bit about yourself. Give us the short version of your journey up to this point.

Brian Brooks: 00:41 Well, Jo Ann, first of all, thanks for having me on this podcast, which I think is kind of the leading exchange of ideas in this space, so I really appreciate being here.

Jo Ann Barefoot: 00:47 Thank you.

Brian Brooks: 00:47 I’m very flattered that you’d consider me. I started my career as a lawyer in a big law firm, and I did traditional financial services stuff for a long time. Then, like a lot of people you and I both know, the financial crisis came, which created challenges for some clients and opportunities for other clients. I, in particular, had a lot of interesting moments during that which led me to my current place and got me out of my day-to-day law practice. One of the stories I love telling is I had this one celebrity client in the financial crisis, Alan Greenspan, who hired me to represent him in front of the Financial Crisis Inquiry Commission.

Jo Ann Barefoot: 01:24 That’s interesting.
That was super interesting, and I learned a lot from the man who brought all of this to us about the real causes of the crisis and about what it was like inside the Federal Reserve at that time. That got me thinking that maybe there was a broader world other than law practice that I might think about doing.

With that thought hanging in my head in 2009, I met a guy who became an important client of mine who I never, in a million years, imagined might wind up being treasury secretary. That was Steven Mnuchin, who was the person who put together a buyout group to buy failed banks in the crisis, one of them being IndyMac, the second-biggest bank failure in that era. Steven and I got to be very close as I represented him in a variety of issues, and he asked me to leave my law firm and go out there and help him run that organization.

I moved to Los Angeles, which was crazy enough in its own right, and went to this giant failed mortgage company, which was crazy in a different way but really interesting. I learned more there about risk management and about the nature of some of the assets that really did bring about the financial crisis, probably, than I ever wanted to know, but it was an amazing learning experience to actually run a business and oversee an organization that was not the cause of the crisis but, at least, was a harbinger of the crisis-

Yeah, it was.

... and to do a turnaround that was really interesting. It had lots of regulatory dimensions that you and I both remember pretty well, including the Independent Foreclosure Review and the Federal Reserve and FCC consent orders on mortgage finance, just a fascinating story.

A funny little sub-part of that story was, along the way, we were one of Fannie Mae's biggest counterparties, so I had to saber rattle and threaten to sue Fannie Mae and do all these various things in order to make that work out well. Imagine my surprise, three or four years later, when we sold the bank and I went to go work for my old friend who had become CEO of Fannie Mae, and I got to go be general counsel of the company I had to saber rattle at just a couple years before.
Brian Brooks: 03:23 Fannie Mae was an amazing opportunity for me, Jo Ann, because it was, first of all, such an enormous platform. It is, by a significant amount, the biggest financial institution in the United States, and it holds, by far, the largest portfolio of mortgage assets in the world at just over $3 trillion of assets. It was a huge responsibility to work there and to resolve a lot of crisis era problems, but that wasn't really what got me up in the morning at Fannie Mae. What got me up in the morning there was the plan that we developed while I was at the company that Fannie Mae's real utility in the ecosystem was to become the innovation platform for housing.

Brian Brooks: 04:03 Our theory was that, sort of in the same way that the iPhone is in everybody's pockets so it's the right platform to develop entertainment and consumer technology, Fannie Mae is plugged into every single financial institution is the United States. Therefore, if anybody is innovating in the world of housing and mortgage technology, if they want to access that market, they should be doing it on the Fannie Mae platform, so it was terrific. That's what got me really passionate about technology and fintech in particular.

Brian Brooks: 04:31 Naturally, when I finished doing that job, having served as general counsel twice as long as anybody else has in recent memory, I was very excited about coming to the bay area and really trying my hand at a full-time fintech job. Coinbase, which is, by far, the largest US platform in cryptocurrency, was at the absolute leading edge of fintech. One of the things I hope to talk about today is what crypto really is and how it is a species of fintech. I think not everybody perceives that, but that's my strong conviction.

Brian Brooks: 05:03 I've taken a journey from law and traditional banking through fintech and all the way to cryptocurrency. Some people look back on that and ask me, "How do you connect those dots?" To me, they're all very logical. It's a series of innovating and making things more efficient, making things more accessible and more open. That's our mission at Coinbase is to create an open financial system, so I see it as very consistent with things I've done recently.

Jo Ann Barefoot: 05:24 That is fascinating. I knew most of if but not all of it. I feel like we could do a whole other show, at some point, on housing and
mortgage finance and all of that, but we’re not going to do that today unless we have lots of extra time.

Brian Brooks: 05:37 Right, but we will do it one day.

Jo Ann Barefoot: 05:38 We will. I'll look forward to that because you’re one of the most thoughtful people anywhere on all of that, but yeah, so let’s go where you were just starting to take us. Explain cryptocurrency. Some of our audience knows all about it, and a lot of people don’t.

Brian Brooks: 05:52 Yeah. Well, so let me begin by trying to debunk what I think is the great myth of cryptocurrency. I think the people who don’t use cryptocurrencies and have never really been exposed to it, they think of cryptocurrency as, basically, about two things. They think about it as speculation, and they think about it as a vehicle for some kind of illicit activity.

Brian Brooks: 06:16 Let me tell you how people in Silicon Valley think about it, people who have Stanford computer science PhDs and have devoted their lives to this stuff. They think that what’s going on in cryptocurrency is that we’re building the next version of the internet. Here’s what they mean by that. What they mean it as, once upon a time 25 years ago, information was highly centralized, so if you wanted to get information, you more or less had to go to the library or a university system or something. If you wanted to send information, you had to go through the Post Office. It was all highly centralized. There were these two central authorities that controlled all information flow in both directions.

Brian Brooks: 06:53 Then, within our adult lifetimes, along came the internet and changed all that. Suddenly, nobody goes to the Post Office anymore, and maybe to pay bills but, even then, that’s only our generation. Our kids’ generations, they don’t even pay bills that way. Nobody-

Jo Ann Barefoot: 07:09 I can't imagine paying bills that way.

Brian Brooks: 07:11 Hard to imagine, right? It's not certain. It's not very secure. It takes a long time. Nobody goes to the library anymore because you carry a library around in your pocket. I mean there's no information that's not readily accessible on the internet, which is just a distributed network of computers around the world that made all of that possible.
Cryptocurrency aims to bring the same concept to finance that the original internet brought to information, right? In the world of finance, we also have central authorities kind of like the Post Office. Those authorities are called banks. It turns out, historically, if you wanted to send a payment from person A to person B, there had to be a bank involved who would maintain the ledger of accounts so you knew who had paid whom and who still owed money to whom. The central authority had all the power. The central authority, of course, used that power to do some things that were valuable, like make loans, and take deposits, and intermediate risk. That was all good, but it also did things like impost transaction costs, fees for various services, time lags for various risk management and chargeback activity, things like that that were negative to the system.

The insight of cryptocurrencies, and notice I use that word in the plural because there are multiple cryptocurrencies, was that, perhaps, a lot of the things that banks do as intermediaries could be done without any intermediaries. Imagine if I could pay you without any bank being involved. Imagine if I could just send you currency from my phone to your phone and nobody took a cut. Imagine if I could do that instantaneously. Imagine if I could do that with certain features that a regular check or a regular wire transfer didn't have. You start to see the internet analogy, right?

When the internet first came about and I wanted to send information to you, I could send you an email. It was better than a letter because it was free, and it was instant, and I could send attachments. It was really cool. Then somebody invented text messaging. You couldn't do all the things you could do with emails, but it was way faster for short messages. Then somebody invented Slack, which was different from those, but it was great for enterprise information sharing and other technologies. That's what's going on in the world of cryptocurrency.

The underlying tokens, which is the word we use to describe any individual cryptocurrency, the underlying tokens are each a technology protocol for doing a particular thing. They're all different. For example, Bitcoin, which was the original cryptocurrency and is the biggest one, Bitcoin was designed to be scarce and certain, right? Bitcoin is inherently noninflationary. There's only a certain amount of Bitcoin
released every 10 minutes. It can never, unlike the dollar, can never be debased. You can't print any more of it, so it has the value of that. Now, it has some disadvantages, right? But it has those kinds of advantages. It creates a blockchain, which shows you transactions with absolute certitude with no possibility of hacking, and it's scarce. That what was the original cryptocurrency was about.

Brian Brooks: 10:05 Then a second cryptocurrency was invented call Ethereum. Ethereum was not scarce in the same way that Bitcoin was, but it was a little bit faster, and it had a feature called a smart contract, which had amazing things that Bitcoin didn't have, so whereas Bitcoin we refer to as like digital gold, gold because it's scarce so it retains value, Ethereum we call it the programmable dollar. Now I can send a dollar, but I can also send the dollar contingent upon certain things occurring inside of the smart contract, so it's like a self-administering contract where you don't need a third party escrow agent. The technology knows what to do, and it cuts out the cost factor, et cetera, et cetera.

Brian Brooks: 10:45 There are now hundreds of these crypto tokens all doing different things, but they're all about creating an internet of value the same way the original internet created an internet of information. That's the concept.

Jo Ann Barefoot: 10:55 I should say we have past shows, one with Chris Larsen at Ripple and one with Jeremy Allaire at Circle, which we'll link to in the show notes.

Jo Ann Barefoot: 11:06 Give us the landscape of the crypto world now, like a sense of ... I know Coinbase is huge, and also where Coinbase fits into it, but give us the overview.

Brian Brooks: 11:17 Yeah. It's a really interesting ecosystem that I would describe in two or three different dimensions, I think. First of all, let's begin by just talking about the United States to start with. In the United States, you've got two or three kinds of companies that are involved in cryptocurrency. You have cryptocurrency issuers or developers. Ripple is an example of one where they have their own proprietary cryptocurrency, and they're building a payments solution, an international payments solution around that cryptocurrency. There are a number of companies that do things like that.
Then there are exchanges like Coinbase where the idea is to be a platform for the developer. You might think about the Ripples of the world as verticals, and you might think of the Coinbases of the world as horizontals. It's almost like they're IBM, and we're the New York Stock Exchange. IBM wants to list on our exchange, but so do a lot of other companies, but those are the companies that build the cars, and trucks, and pharmaceuticals, and computers that are in the real economy. The New York Stock Exchange is what bring liquidity to the economy by allowing their equity securities to trade, right? We're like that. The Ripples of the world get their liquidity based on the viability of exchanges like Coinbase and Circle. Circle is another exchange. You have that in the United States. You have exchanges, and you have developers.

Then you have an interesting issue around the global crypto world. All right? In the global crypto world, you have a similar thing, but I want to focus on the exchanges for a moment and focus on the fact that, in the US, exchanges are subject to a host of regulations, including securities regulation, most importantly, that don't cover some of these international exchanges. There are major exchanges, exchanges that have like 50% global market share that are essentially unlicensed and unregulated in any jurisdiction, and they exist in jurisdictions like Malta, and Gibraltar, and some of these other places where they essentially go to escape the kind of regulation that exists in the developed world.

That's an interesting issue because those exchanges have gone from basically 0% market share a couple of years ago to roughly 50% market share today, which says something about the regulatory climate in the United States, or at least, I would say, about regulatory uncertainty in this country. One of the things we're trying to solve for in our public policy dimension, and I know we're going to come to this, is how do you make the United States competitive in this technology so that we don't lose our edge to other countries that have taken a different regulatory path?

But, again, what I come back to is you've got a bunch of deep technologists who are building crypto tokens to do specific things, some of them really interesting. Then you have exchanges which make a market in those things and bring liquidity to that process. Along the way, Jo Ann, because we're
kind of building an alternative financial system here, there are lots of infrastructure elements that are going on. Most of these are being developed by the exchanges but some by others. I'm thinking about, for example, custody where, if you're going to have a trading platform, somebody has to custody the assets that people are trading. In the world of cryptocurrency, it's hard for people to think about what is there to custody because these are all just computer codes.

Brian Brooks: 14:22 It turns out custody is even more important in the crypto world than it is in hard asset land because it's one thing to custody a gold brick in a vault. That's not that hard. You can insure the gold brick and, if somebody steals the gold brick, you can pay them in dollars so they can buy a new gold brick. In the world of cryptocurrency where you're just talking about a computer code stored on a flash drive, if that code gets stolen and somebody uses that code, that money is gone and can never be replaced because it ... all that it is is a representation of a cryptographic code.

Brian Brooks: 14:57 You have to build the same infrastructure for custody, for chain of title, for identity verification, for KYC, for a whole series of other things just like you would if you were running a bank. As we build those things, what increasingly becomes clear to me is that we're trying to develop, really, and alternative financial system for the 21st century where all the things that you need intermediaries for today you can now do on a distributed basis. That's where I sort of come at. You've got asset developers. You've got exchanges like us. Then you've got the people building infrastructure, the custody businesses and things like that, so all of that's going on. It's like the banking system in 1862, one year before the National Bank Act. It's a little bit like that.

Jo Ann Barefoot: 15:35 Oh, yeah. I'm an alum of the Controller of the Currency.

Brian Brooks: 15:38 Yes. Yes, you were.

Jo Ann Barefoot: 15:39 Not everybody remembers since we weren't there then, but the reason it's called the Controller of the Currency was they were trying to figure out how to control the currency at that time.

Jo Ann Barefoot: 15:51 You started touching on the policy issues. I am a former bank regulator. I always say I have great sympathy for the challenges that regulators face in all of these fintech innovations and this one, especially, because it is so mold-breaking. You bring this completely new, original, wild element and try to put it against a regulatory system that’s not designed for it, and people are struggling with what is this? Is it currency? Is it an investment? We didn’t touch on ICOs. We’ve got that whole dimension to mention as well, and so our regulators then struggle to fit it into the laws, to figure out who’s in charge of what. Talk about that. Start with the US. Talk about what we’re doing and maybe how we’re doing. Before we’re done today, I want you to talk a little bit about how you think we could optimize the policy around this.

Brian Brooks: 16:55 Yeah, yeah, yeah. That's really where all the marbles are is how are we going to regulate this? I begin with a proposition of, is it even important that we clarify how to regulate this? I mean I think some people believe that this is some side niche technology and, if we get it right, that's fine, and if we don't get it right, as I say, it's only about speculation and illicit activity, so who cares, right?

Jo Ann Barefoot: 17:17 It's still pretty small in the scheme of things.

Brian Brooks: 17:19 It's still small. Right, exactly. It's not Fannie Mae. There are no trillions of dollars here, and it won't matter, so I begin with a proposition that, circa 1993, the internet was very like this. It was a small niche technology, kind of weird. The people who devoted their careers to it, they were all sideshow Palo Alto people. The rest of the world didn't care, but now look where we are in 2019. The entire economy is built on the internet. It's hard to imagine banking without the internet. It's hard to imagine doing consumer transactions. How do you even-

Jo Ann Barefoot: 17:48 Well, it's hard to imagine anything.

Brian Brooks: 17:48 How do you buy a book without the internet? I couldn't order light bulbs without the ... right? The world is build on it, but in 1993, people thought it was small niche sideshow. I think that we are, right now, in the 1993 moment of cryptocurrency, so I come back to the internet analogy. In the early '90s, there was a vigorous debate about whether the internet ought to be regulated as a common carrier under the communications act,
which would have meant price controls, Public Utility Commission regulation. We would never have amazon.com. We would never have Expedia or the Wells Fargo website if a decision had been made to treat the internet like the phone company. That never would have occurred.

Brian Brooks: 18:29

We're at the same moment now for cryptocurrency where there's a real debate about whether we should regulate cryptocurrency like it's a bank or whether it is solving for a lot of the problems that banks need regulation for. As we'll discuss, I think that's the really big question is are we going to regulate this thing to death, or are we going to realize that this is a fundamental technology like the internet that we want to succeed and grow while, at the same time, of course, making sure that the fraud that goes on in this space, like it did in the early internet, gets appropriately enforced? I think we have to make the fundamental decision of do we want this to be like '93 where we grow and become dominant in this space, or are we so scarred by the financial crisis that we're scared of any financial innovation? That's the threshold issue.

Brian Brooks: 19:18

Once you get beyond the threshold issue, then what you look at is the most amazing set of, depending on your point of view, either regulatory arbitrage or regulatory overlap that anybody's ever seen. The funny thing about crypto, from a regulator standpoint, is every regulator wants a piece of it. The securities regulators are convinced that all cryptocurrencies are securities. I mean I'm overstating because they don't think that about all, but there's a bias in favor of let's look at this through the lens of securities regulation. The CFTC is inclined to believe that, if these things aren't securities, then they must be derivatives. The IRS is convinced, in a ruling, that these things are just property, so there are capital gains embedded and all of these things, versus other people believe that they're currencies subject to currency regulation.

Brian Brooks: 20:05

There's a whole host of agencies out there, all of whom want a piece of all of this, and I'm not sure any of them are right, but the way that I describe this inside the company is that, in the world of crypto regulation, we're partying like it's 1946. That's my line, party like it's 1946, which was the year the Supreme Court decided the Howey case, Howey being the classic case for determining when is an activity a security versus when is it something else for purposes of SEC jurisdiction? The problem with trying to impose an old law on a new business is that
you're really not allowing the new business to innovate because you're assuming that whatever the innovation is is superficial and the real thing going on is no different from, in the Howey case, selling fractional interest in orange groves.

Brian Brooks: 20:52 We think what we're doing here is pretty different from selling fractional interest in orange groves in part because nobody in the crypto world is selling an underlying interest in anything. We're developing a technology that other people will use to do things they want to do. We're not promising anybody and the developers are not promising anybody an income stream from sales of oranges. We're not suggesting that the future price of an orange grove will go up or down. Instead, what we're saying is, "Hey, this particular crypto token is a great way to buy your way out of advertising on the internet, and you can use it if you want to, and the way you get it is you come to Coinbase, and you buy it." Simple as that, so it seems very different.

Brian Brooks: 21:29 At the moment, the securities regulators are still using this 60-year-old Howey test to assess which tokens are securities. There's, as a result, very, very little clarity about whether a given token is a security. The problem with that is that the Howey test, like lots of legal tests, has a four-pronged test, which are very vague, and very ambiguous, and are kind of in the eyes of the beholder.

Brian Brooks: 21:53 Our view is, and there's a bill pending in Congress to this effect, our view is that crypto tokens that meet certain conditions, which is to say they're on a distributed ledger, and not centrally controlled, and that have utility to do specific things, shouldn't be regarded as securities whatever else goes on, and if they need some kind of regulatory oversight, they should have it. I begin with the securities side of things, Jo Ann. Are these securities or not? That's the most important question we face.

Brian Brooks: 22:18 Related to that is the CFTC derivatives analysis where our basic view is creating things that have derivative contract-like features with respect to these crypto tokens is a good thing because derivatives markets spur liquidity, and the more liquidity you have in a market, the less price volatility you have. It would be good if Bitcoin didn't fluctuate between $19,000 a Bitcoin and $3,000 a Bitcoin in a given 12-month period. That would be good for everybody, but the way that we'll achieve that objective is by having a robust derivatives market. We're not opposed to derivatives regulation, but we believe it's
important that the enforcement side of the derivatives regulators not kill this stuff but, instead, recognize that the best route to solving some core problems is through promoting greater liquidity, so you have that problem.

**Brian Brooks:** 23:07

Then the third thing I'll tell you, from a regulatory perspective, is the most interesting innovation, to me, at least in the last 12 months, in cryptocurrency is the invention of the stablecoin, which requires bank regulators to get comfortable with this asset class. The reason is a stablecoin is a crypto technology where every unit of stablecoin is backed by a dollar, so whereas Bitcoin's price today might be different from its price yesterday, stablecoins are always worth a dollar, not $2, not 50 cents. They're just worth a dollar. The way you achieve that is you have a reserve account that the issuer maintains where, as it sells stablecoin, it deposits dollars in the account, so a user of a stablecoin always knows that there's a dollar backing it, and you can redeem it for that dollar. Of course, for that to happen, banks have to be comfortable holding dollars that back stablecoins.

**Brian Brooks:** 24:00

Because some people have thought that cryptocurrency is a sketchy side area of finance, there are some bankers that are just not comfortable holding those dollars because they don't want to touch anything that sounds like crypto. Now, you and I know, because we spend a lot of time with the innovation offices at OCC, at the FSA in England and in other places that, in fact, the bank regulators today are much more interested in innovation than many people believe.

**Jo Ann Barefoot:** 24:24

Yeah, they are.

**Brian Brooks:** 24:24

I mean you've done a lot of projects on this, but bankers haven't all gotten that memo, and some of these bankers are scarred by the lessons of the crisis. They thought subprime mortgages were innovation, and look what happened with those, and so they're afraid that they're going to be tarred with the same or painted with the same brush as they were in those days. The question I often get from bankers is twofold. It is A, "Am I even allowed to touch any crypto asset like even a stablecoin?" and B, "Even if I were allowed, why would anybody want to use a stablecoin? If it's only worth a dollar, they should just use a dollar instead of a stablecoin."
Brian Brooks: 24:59  My answer to that is what I said a few minutes ago, which is it's like in 1993 when people said, "Why do I want to write an email? I can type something up on my IBM Selectric just as well," except, wait, it cost 44 cents to mail. It took five days to get there. You couldn't have any attachments, et cetera. The stablecoin is the translation between the old economy and the new economy. It has all the instantaneous, and secure, and smart contract features of a crypto token, but it's worth a dollar. It doesn't have the price volatility of other crypto assets, and so it's the crosswalk that allows people who hold cryptocurrency to transact in the real economy and, I think, holds a lot of promise in terms of unlocking commercial applications of this stuff.

Brian Brooks: 25:41  You've got OCC. You've got the CFTC. You've got the SEC. Those are a lot of regulators interested in this asset class. What we need is some kind of harmonization based on a belief which is not yet embedded, that it would be good for the United States to do well in the crypto technology race. You have to get that first before you're going to get any kind of consensus regulation, I think.

Jo Ann Barefoot: 26:03  I have lots of questions this is sparking, but let me ask you, on that last point, can you see the pathway to getting there? How are we going to get to the harmonization?

Brian Brooks: 26:14  Well, yes, I can. The first thing is that we're going to have to have leadership that sits outside of any given regulatory agency because agencies, as you and I know, they exist to promote their own jurisdiction and, up to a man with only a hammer, everything looks like a nail. If you're a bank regulator, everything's a banking problem. If you're the SEC, everything looks like a securities problem, et cetera. I think we're going to need somebody outside of the agencies to set a course. I think the two most likely places for that to happen would be the Treasury or the White House National Economic Council, one of those places.

Brian Brooks: 26:48  You might ask, well, why would those entities care enough about this to do something? I think there are real reasons, actually. At the White House level, I think one real reason is that there is an international competition for leadership in this space, in this core technology, much as there was on the early internet. The government decided, in the early days of the
internet, that we were going to own ICANN, which is essentially the licensing entity for web domains, right? By controlling that, we essentially controlled the plumbing of the internet, which allowed us to take a global leadership position in that core technology.

Brian Brooks: 27:24 Here it's the same issue, which is that there's clear competition from China, principally, but also from a couple of other countries to dominate in this space. One thing we know from President Trump's comments on trade and other things is he regards China as our principal global sort of geo-competitor, so I think it's possible that the National Economic Council can be persuaded that it's important for us and not China to own this core technology and to incubate it and develop it faster for the benefit of the world. So it's possible the NEC would make a pronouncement on this.

Brian Brooks: 27:57 It's even more possible that the Treasury would do that. The Treasury has already announced that, at the end of the first quarter or the beginning of the second quarter of 2019, they're going to issue an administration white paper outlining government policy around blockchain and crypto assets. Treasury, though it's not the regulator of any of this, has the policy-setting and agenda-setting authority for the administration, and I think it's quite likely that they will set a course on that. Once they do that, if they make a statement that they believe this is an important technology for the country, then it will be up to the agency heads to get on board and figure out a regulatory agenda that's consistent with the president's policy. I think, until we have that central sort of guidance from the top of the government, the agencies are going to pursue their own normal course, which is largely enforcement-dictated.

Brian Brooks: 28:45 One other thing I'll just quickly say on that, and that is that I do believe, because of the utility of these crypto assets, that some government agencies will fight over regulatory jurisdiction, but other government agencies may well find themselves using crypto tokens to do their day jobs. That's the other thing that I think will change the regulatory agenda. For example, when you see the EXIM Bank, the export-import bank making loans in cryptocurrencies because it's an easier way for foreign borrowers to repay the loan if they don't have to engage in foreign exchange on their side-
Jo Ann Barefoot: 29:19 They're already doing that?

Brian Brooks: 29:19 Well, this is being discussed, so it hasn't happened yet, but it's being discussed. Or once the IMF, for example, starts using cryptocurrencies as a part of their toolkit for development finance or for crisis management, or once USAID realizes that a way to avoid fraud and abuse in war-torn regions is to stop sending dollars and start sending stablecoins that can't be stolen, once those things start to happen, you'll have government stakeholders, not just government regulators. That will change the dynamic too, and I think that's something you'll see in the next 18 to 24 months.

Jo Ann Barefoot: 29:54 That is really interesting. What do you think about the likelihood that we'll see fiat cryptocurrencies from some countries?

Brian Brooks: 29:58 Well, it's interesting. There have been central banks that have talked about this. The Bank of England had a white paper on this less than two years ago looking at that issue. I guess what I would say is you've got a couple things going on. I mean one is, if a central bank decides that you're going to have a true fiat digital currency, it's not going to be a cryptocurrency in the traditional sense because it's not going to be distributed, right? It will flow through a central authority. The question you have among crypto purists, and I think they're right about this, is there are a lot of technology enhancements you could use in terms of digital commerce, but anything that has to go through a central authority still has the downsides of friction, foreign exchange, cost, those kinds of things.

Brian Brooks: 30:41 Imagine if you could buy a stablecoin, right? Ours is called the US Dollar Coin. Imagine if you buy the US Dollar Coin in euros, right, without foreign exchange because Coinbase does the foreign exchange in the background for you, so now there's a single asset. It might be called the USDC, but it transacts the same way on both sides, so when you spend it, there is no foreign exchange, and when you receive it, there is no foreign exchange. That's the difference between what the Bank of England was writing about, which is basically just a pound-sterling digital asset but controlled by a central authority, versus a stablecoin which is built on a distributed blockchain, so there is no central intermediary and, again, thus, virtually no fees, virtually friction-free, not dependent on the regulatory status of the sponsor, et cetera, et cetera.
Brian Brooks: 31:28 It's sort of like saying what if a country had their own internet? The answer is some countries do. North Korea has its own internet, right? Free societies don't do it that way. Our view is, eventually, people will realize that money is not any different from information. It wants to be free. People want to transact. In the same way that we've evolved, as a species, from families to tribes to cities to nation states and we expand our borders continuously, at some point, there will be a set of globally transactable currencies. I sort of think that has to be the evolution.

Jo Ann Barefoot: 32:06 I don't know if you agree with this. I must say I have been impressed by the degree to which the regulators, as soon as Bitcoin showed up and it was so alarming to so many people, and yet the financial regulators, I think, generally realized that there was upside potential there and that they shouldn't strangle it in the cradle even if they could have, which is a different question. They want to learn from it. They want to understand what to do, and yet they want to protect the system. One of the concerns is the monetary policy side of it. As you said, we're talking about building a system that doesn't have to run through the central banks. It doesn't have to run on the bank rails at all. We know that the origins of Bitcoin itself included a lot of hostility toward the Fed and so on. What do you envision on that?

Brian Brooks: 33:05 Well, I start with let's think about the cases where it's clearest that cryptocurrencies would solve monetary policy problems and then go from there to what are the circumstances where it would create problems? People usually start in the opposite direction and they say, "Imagine if the Fed couldn't control money supply. Then what would happen?" That's a legitimate question, but what I come to is the places where monetary policy really matters in an acute way are places like Mexico in 1994, or Thailand and Malaysia in 1998, or Argentina in 2002. It's places like this that have ... they've experienced major currency crises that cause economies to collapse.

Brian Brooks: 33:47 I have a friend who led the IMF mission in 2002 in Argentina. He described a situation where, in the space of seven or eight weeks, Buenos Aires went from a middle-class sort of relatively wealthy city to a world where all of the banks were closed, and people who had been homeowners two months before were...
out on the streets banging pots and pans together because they couldn't access their deposits in the bank.

Jo Ann Barefoot: 34:11 Yeah, I remember that. Yeah.

Brian Brooks: 34:12 I mean these were grim times. The issue had to do with there had been a government that had debased the Argentine peso so then, too late, they moved to a dollar-pegged currency, which had its own issues, and then they ran out of reserves, and then bad things happened.

Brian Brooks: 34:25 My basic view is if ... I mean in a world where Bitcoin was available, for example, the IMF might have managed that crisis very differently because, again, the problem was debasement of the local currency. Instead of imposing a series of austerity measures and a series of onerous repayment terms of a dollar-denominated bail-out loan, by the way, which is what happened, instead of doing that, they could have imposed Bitcoin as the national currency for a period of time because it can't be debased. Again, there are criticisms of Bitcoin that have to do with things like its involvement in the Silk Road controversy a few years ago and some other things, but the core promise of Bitcoin, to your point, is to avoid the idea of people mucking around in sound money. The idea of Bitcoin was that it would be digital gold. It would be stable, so you can imagine it being very, very useful in solving inflationary crises. I mean imagine if you could impose Bitcoin on Venezuela.

Jo Ann Barefoot: 35:20 Yeah, I was just thinking that.

Brian Brooks: 35:21 Or if you can impose Bitcoin on Zimbabwe, these places with 10,000% annual inflation rates. In that circumstance, it's a solution to monetary policy not a problem, so I start with that.

Brian Brooks: 35:32 You look at the Federal Reserve situation in the US, this is a little bit different, obviously. I mean, in our country, we have the most liquid currency in the world and, thus, one of the less volatile currencies because of how liquid it is, and yet, still, we have just come off 10 years of QE3 and Federal Reserve bond buying, which did significantly deflate the dollar, raising real issues. You could argue that some of the trade problems we have today are the result of that and that that masked some underlying issues in the US economy in real time.
My answer, in the US, is I think this stablecoin technology might actually be the solution where, because the stablecoin has to be backed by dollars, the Fed still controls the money supply, right? We can't put more dollars into the account than there are, but it's still allows a bridge between the world of cryptocurrencies, which have all the features I've described, and the world of a Fed-controlled money supply. What I come to is I think, in developed countries, the problem can be managed. I think, in volatile countries and inflationary countries, the problem literally is solved by some of these crypto tokens. That's something which I think smarter economists than me need to study more, but I think there's a lot of promise there that people have not fully recognized.

Do you have a view on where we are in migrating to a vision like that? Is it a ...

Well, where we are is we're sitting down doing podcasts with friends of ours to make sure that the word gets out. I mean, look, the way we talk about it is some people think that cryptocurrencies are like only in the second inning or something. We think we're in the first at bat of the first inning. I mean we think we're very, very early in the cycle. The way we envision all this happening is there was an investment phase, which is where all this started. Bitcoin was invented, and people immediately started bidding up the price and speculating on assets but, inevitably, one has to migrate from the investment phase to the utility phase. We're not in the utility phase yet, but that has to do with starting to describe what these crypto tokens are for. We're just starting that now. That's our big initiative for 2019.

From there, we'll get to a phase where people really do transact in their day-to-day lives in cryptocurrencies the same way ... Honestly Jo Ann, five years ago, did everybody do direct bill pay? No. Did everybody buy things on amazon.com using membership rewards points? No. Those were pretty revolutionary of their time, but this is more fundamentally revolutionary than any of those things. Those were like the fax machines of their day. They were intermediate transition technologies. This is a fundamental technology where we go from a centralized world to a decentralized world with all the efficiencies that implies. As I say, it's the internet of money, so
Jo Ann Barefoot: 38:20 Let's go back to the crime and money laundering topic that you touched on earlier. I mean you and I know that cash is completely untraceable in most situations.

Brian Brooks: 38:37 In a crime vector, yep.

Jo Ann Barefoot: 38:37 Talk about the concern around that and what should be done there.

Brian Brooks: 38:41 Yeah. Well, I begin, Jo Ann, with one of the most common misconceptions about cryptocurrencies, which is that, somehow, they're deeply secret and that if you're trading in a crypto, that's a way of covering up what you're really doing. The truth is, there's a group of six people here at Coinbase that reports to me. We call them the Global Intelligence Unit. These are a bunch of former law enforcement and CIA types, okay, whose full-time job is working with law enforcement to do analysis on the blockchain to identify bad guys. Almost every week, I get thank you notes from local FBI special agents, Justice Department prosecutors, and others thanking us for the work that our guys did identifying bad guys on blockchain.

Brian Brooks: 39:22 The truth is many of the crypto tokens are far more traceable than dollars are, as you say. If I have a suitcase of cash, it's very unlikely anybody's going to be able to figure out what I did with that cash. Crypto assets are mostly not like that. It's mostly relatively easy to figure out who's doing what on these blockchains. Now there are some tokens called privacy tokens that have slightly different features but, even then, we employ these investigators specifically to kind of figure those things out, so I begin by trying to debunk the myth that, somehow, these things are inherently secret in a way that normal financial transactions are not. That's just really not the case.

Brian Brooks: 39:57 Then I start asking myself is there something fundamental about crypto tokens that incentivize fraud or illicit activity in a way that other aspects of the internet didn't? I remind people, if you go back to 1994, the main uses of the internet were pornography and bank scams. These Nigerian bank scams that used to come over the fax machines started showing up on the internet. That was most internet traffic circa 1994, but nobody thinks the internet is about fraud. As people built real
businesses on top of the internet, the percentage of traffic that was fraudulent fell obviously.

Brian Brooks: 40:35 I think that's what's likely to happen here as well. Because crypto is a niche market, the percentage of it that is represented by bad stuff is relatively high, not because there's a lot of bad stuff, but because the total number of transactions are relatively small. Over time, that's going to change because people are building real business on top of this blockchain technology, and those businesses will crowd out the other stuff. I feel confident. I mean we're a big open economy. Virtually every new area has been first glommed onto by bad guys and then later identified by serious interests who have built real businesses and made people's lives better. That's been true for the whole history of the republic.

Jo Ann Barefoot: 41:15 You talked about maybe a pathway in the US. Globally, what are the bodies that are most central to sort of figuring out how we make this work across the world?

Brian Brooks: 41:29 Well, I think there are a number of them. I mean some of them are regulators, but some of them aren't. Some of them are sort of payments consortiums and other things like that, so I would start with ... You mentioned Chris Larsen earlier. I'd start with the SWIFT network. Chris' whole business is basically designed to disrupt SWIFT because SWIFT is slow and makes a lot of errors. A lot of chargebacks come across SWIFT. That's an embedded interest that has to either adopt this or die at some level, and so I think that's really important.

Brian Brooks: 41:56 In the US, we think about Visa and MasterCard, which are the main electronic payment rails for the last 40 years, but they're pretty clunky. Chargebacks are high. Fees are insane. You're paying 6% interchange fee to take an American Express. That's a big deal. Paying 3% to accept MasterCard and Visa, that's a big deal. Crypto tokens can do that for 20 basis points. Imagine if you could achieve a 95% cost reduction by using a better technology, but there are deeply embedded stakeholder interests that get disrupted by that, so they have to be brought along in some way in order to figure that out.

Brian Brooks: 42:30 Then, of course, there are things like the Bank for International Settlements. There's the Basel Committee, and there are all kinds of central organizations that, for this to become a truly transnational currency, need to get comfortable. All of those
things need to happen, but look, we're beginning the discussion now with conversations like this one. I think smart people will eventually realize that, when costs are dramatically lower and customer experience is dramatically higher, inevitably, there's no avoiding that outcome. This will eventually become the future. Is that 5 years or 10 years? Your guess is as good as mine.

Jo Ann Barefoot: 43:00 I could talk with you all day, Brian, and I know we're almost out of time. Let me maybe conclude by asking your advice. I'll put you on the spot. What if we put you in charge of figuring out a system that can facilitate the good in this and deal with the risks? What are the main things that should be done?

Brian Brooks: 43:24 Well, the first thing that should be done is we should stop regulating crypto as a category. Crypto should not be any less regulated for Bank Secrecy Act money laundering issues than anything else is, but it shouldn't be more regulated for those either. It's a different mechanism for storing value and transacting in commerce, but treating it negatively as a category is a recipe for disaster, right? We have plenty of laws on the books that regulate exchange, and those should apply, but they shouldn't apply especially.

Brian Brooks: 43:52 The second thing is I would designate a lead agency and say that's the agency with authority. That agency probably is somebody like either the OCC or the Fed, somebody whose job is regulating the financial system not regulating investor protection or consumer protection. I think an enforcement-focused agency is the wrong kind of agency. It needs to be a systemic and prudential regulator like the OCC or the Fed who would own this.

Brian Brooks: 44:14 Once you have those two things done, once you have a single point of contact so there's no overlap and you stop disfavoring it as a category, I think, at that point, markets tend to take over, right? Markets like certainty. They don't care if there's heavy regulation or light regulation. They just want clarity. I think you could solve that pretty quickly if you did those two things.

Jo Ann Barefoot: 44:33 I'm glad I asked. That was very interesting. Is there anything we haven't talked about that we should add?

Brian Brooks: 44:38 So many things, but that can be version two.
Jo Ann Barefoot: 44:40 Okay. I will definitely want to do version two. Where can people get information about Coinbase?

Brian Brooks: 44:44 They should go to coinbase.com. We have one of the most active blogs in the industry. Some of the most important thought leaders in America post on that every day, so I encourage people to visit.

Jo Ann Barefoot: 44:56 Brian Brooks, I cannot thank you enough for being my guest today. It's been fantastic.

Brian Brooks: 44:59 Thank you, Jo Ann.