



## Blockchain and Cryptocurrency – Carrie Cohen

[00:00:08] Welcome back to the TRACE Podcast: Bribe, Swindle or Steal. I'm Alexandra Wrage, and today we're talking about blockchain. Blockchain technology is on the brink of mass adoption, but we don't fully understand the regulatory hurdles involved. To help us think through the benefits and challenges associated with blockchain is Carrie Cohen. Carrie was an assistant U.S. Attorney in the Southern District of New York where she tried public corruption and investment fraud cases. She's now a partner in Morrison & Foerster's New York office where she handles high-stakes litigation with a focus on white collar cases. Carrie, thank you for joining me.

[00:00:44] Wonderful to be with you.

[00:00:45] As we're going to cover blockchain today — and many of our listeners may not be really familiar with it — maybe you could start with an overview and provide some context for us?

[00:00:56] There's a great quote about blockchain that I think is helpful, albeit somewhat scary, which is a quote from a very senior person at Goldman Sachs: "From Silicon Valley to Wall Street, technologists and investors alike are buzzing about the potential for the blockchain to revolutionize, well, just about everything." I think that sums up fairly well the future of blockchain. I looked at some key data points to give you some stats which might be helpful to set the table. These stats are from the World Economic Forum Report. "More than US\$1.4 billion across 549 deals since 2013" — so blockchain has been involved in US\$1.4 billion worth of deals, and there were 549 deals since 2013. "Virtually every major bank in the United States and in Europe is exploring the adoption of blockchain. There have been more than 2,500 blockchain patents filed with U.S. Patent Office." Here's the last one that I think is sort of astonishing: "10 percent of global gross domestic product would be stored on blockchain by the year 2027." 2027 may sound far off, but actually, that's less than 10 years from now. That's sort of a scope of where blockchain is and how it works. I think the best way to describe it is it's a new form of information technology. You can think of it as sort of a shared spreadsheet. It's immutable — it's "write once and read only." It's a ledger of time stamp transactions that's operated. It's decentralized. So it's by a peerto-peer network of unaffiliated people who can read it. It goes through predefined consensus mechanisms in lieu of a central authority, and it employs what's called military grade cryptography in order to prevent the ability to edit or tamper with it. Once it's written, it's read-only. It can't be edited; it can't be massaged; it can't be deleted in any way or manipulated. That's how blockchain works. Blockchains can be structured three different ways, and this may get a little bit in the weeds so I'll just touch upon it. They can be structured to be public, so anyone can look at it; permission, only those with access to it can see it; or, private, which is just, "I send it to one person." Public blockchain is like a large network, and it's distributed open source code, and anyone who can read a transaction record can look at it. An example of public blockchain that people may have heard of is Bitcoin. The permission blockchains are also largely distributed, but it's not an open source code. Some entity has to determine who is allowed to look at it. The last one, the private blockchains — much smaller centralized networks, and it's limited to who can look at it, to who's in the membership of the entity that controls that blockchain. I think that gives you a little bit of a table set.

[00:04:00] Absolutely. That's very clear, very helpful. I hear "immutable" and "date stamped," and I think this is fantastic for fighting financial crime, but how do you see the interaction between privacy — and we've talked a lot in this podcast about the GDPR, but there are other privacy laws of course — and the transparent aspects of blockchain technologies?

[00:04:25] The GDPR distinguishes between what it calls "data subjects," which are just individuals with fancy legal terms called data subjects, and "data processors," which are the organizations that collect and hold individuals' personal data. GDPR was designed, of course, with more traditional centralized holders of information — iCloud, for example, or social media companies. One complexity of GDPR as it relates to blockchain is how to determine, how to apply this concept of data processors to a decentralized blockchain system. "Who is the data processor, so to speak, in the system?" There's also some conflicts with the goals of GDPR and blockchain. GDPR has a goal: the right to be forgotten. I have the right as an individual to have my personal data erased by the data processor holding it. I can delete my photo in my iCloud. That seems to be at odds with the immutability of blockchain. That's a conflict that I think we're going to be grappling with for some time. There are some shared goals. Decentralized data control — that's sort of a shared goal — and limiting the power that centralized service providers have over your individuals data. That is definitely a shared goal. Going forward, I think it's going to be interesting to make GDPR a compliant blockchain technology, or we may see the GDPR itself amend itself to account for the complexities of information that's held in a blockchain.

[00:05:58] You mentioned the difficulty with something as fundamental as figuring out who the data processor is. Has that been answered, or are we just at the stage where we're discussing the various challenges, not the solutions?

[00:06:09] Although it's not actually brand new technology at all, I think to more mainstream users, it is new, and so I think we're still working through all of those issues.

[00:06:19] Bringing this back to financial crime and the subject of this podcast, how do you see blockchain for digital recordkeeping affecting bribery or anti-bribery efforts?

[00:06:32] I think blockchain actually has huge benefits when it comes to preventing public corruption and other financial crimes. Blockchain's security over information eliminates the opportunity to falsify transactions. It would prevent a bad actor from going back into an accounting report and changing the inventory or inflating costs for goods or services in order to generate excess funds for a bribe payment in the bribery context. Blockchain also increases transparency and accountability of payments and you can track additional data through the blockchain. That's very helpful if you are looking at it from preventing public corruption or investigating public corruption in bribery. In that way, blockchain transactions make corrupt payment — the government can figure out — more difficult for the company that might be wanting to bribe some officials in order to get their work through. I'll give you one example, a government-funded construction project that uses cryptocurrency and block technology. You could track and monitor how every dollar is actually spent and ensure that only authorized individuals are making payments and only on authorized expenditures. It would take care of the fake vouchers or the inflated vouchers or having two sets of books. It would take care of all of that. Blockchain technology could also dramatically reduce the time and cost associated with a bribery investigation because typically, in a bribery investigation, you have to go through reams and reams and reams of very complicated financial records. The blockchain would just eliminate all of that review. Additionally, the level of transparency and being able to track money on government projects could also potentially serve

as a deterrent if you think of it to bribery because it would be much harder to hide where the money is going or what the money's being actually used for. I would say it's not that blockchain is going to be a magical solution and prevent all corruption from happening. There's still the old-fashioned cash in a bag in a back alley, and blockchain is not necessarily going to be able to combat that. Although, I would add, it would make it difficult to generate, as I said, a separate set of books or an off-the-books to account for that payment.

[00:08:47] I sense that there's a dark side to all of this as well. What you've just said is very encouraging for the anti-bribery community, but can you say a little bit more about how blockchain relates to cryptocurrency and how the government is regulating one and potentially both?

[00:09:04] Cryptocurrency — and there's two different kinds. For our purposes, I doubt that it necessarily matters to break it out between digital tokens and other types of cryptocurrencies, but the ones that you've been reading about in the papers have been where cryptocurrency has been used on the dark web for drug transactions or money laundering. There's also been increasing cases brought out for fraud where the cryptocurrency is used as the money to hide fraudulent acts. Not surprisingly, the different U.S. prosecutors and the different U.S. regulators that regulate what are securities have jumped into the fray and are trying to grapple with, "How do we regulate digital tokens? Are digital tokens securities? Are they commodities? Are they currencies? Are they property? Are they something else?" Again, perhaps not surprisingly, the U.S. regulators have said all of the above. Like, "We think we can regulate it because it fits for the SEC. It fits into the securities category for the Commodities Trading Commission, it's a commodity." So the different regulators — we've been following this and watching this — have all sort of come down the side of, "We can regulate it," because, if you think of U.S. securities laws, they apply when a security is marketed or sold to the U.S. There's a specialized test for when you determine something is a security, but the SEC has been very outspoken, especially under Chairman Clayton about the SEC's view that all digital tokens are securities. They've been testifying about it both in Washington for the banking committee and at various speeches throughout the U.S. Same thing for the FTC. They've also been saying, "We consider tokens cryptocurrency to be regulated by us." The state prosecutors are jumping into the mix. For example, a lot of the state Attorneys General — the more active ones — are saying, "We actually want to know what you're selling to the residents in our states and whether there's any fraud or market manipulation going on, and we think we also can play a role in trying to root out fraud." That's how the AGs view it. So, there's a lot of enhanced scrutiny of both token sellers and token buyers. There's also a recent case in New York State. We have the Department of Financial Services, and they have been saying, "We regulate banks, and we actually think we can regulate cryptocurrencies. In order to sell digital tokens to people in our state, you need to actually be registered with us and meet our standards." There's just a lot going on in the regulatory space about this, and there have been a bunch of court cases filed. So far the courts have sided with the regulators in terms of cryptocurrencies being a security and, therefore, can be regulated by the various bodies that can regulate securities.

[00:12:02] That is a great and very helpful overview of the regulatory landscape in the United States right now. I'm curious, given the inherently international nature of blockchain, can you give us a sense of how other countries are handling this?

[00:12:20] Certain countries ban cryptocurrency completely. China, South Korea —basically banned or so severely restricted that it's as if they're banned. Countries that take a "proceed with caution" approach — right now, I'd put the United States in that bucket because what the United States is saying

is, "We have the right to regulate it. We're not saying you can't do business in our country, but we want to regulate it the same way we regulate lots of different types of financial instruments." Canada, similar to the U.S., and Hong Kong, actually similar to the U.S., where digital tokens are considered very permissively used and very low regulation, and they're very encouraged. The same countries that, when I wore my prosecutor's hat, I would see a lot being used for things like money laundering and other illicit financial transactions. Countries like the Isle of Man, Cayman Islands, Bermuda, Malta, Gibraltar, even Switzerland and Singapore. These are countries that, traditionally, did not ask a lot of questions and did not highly regulate the banking industry.

[00:13:30] It sounds like the countries that are universally recognized as softer on money laundering are also less inclined to regulate cryptocurrency. That may not be a 1:1 Correlation, but that sounds roughly accurate.

[00:13:47] That's a fair characterization, but better coming from your mouth than mine on that. The countries that have been more permissive and not regulating digital currencies are the same countries that were more permissive and did not regulate banking transactions as strictly as they may now.

[00:14:04] Let me ask you now — I do this on panels sometimes, and it's always fascinating to me to hear the answers — if you were actually trying to engage in financial crime, given what you know about blockchain and cryptocurrency, what would you exploit as the weaknesses in the system right now?

[00:14:27] That's a great question. You're asking me to actually think like the criminal defendants I used to prosecute, which, actually, as a prosecutor, you do sometimes try to put yourself in someone else's head to try to figure out the motive and the "why" and the "how." I think because it can be the ability to be anonymous through blockchain and through cryptocurrency, it gives great ability to someone who has a nefarious motive and a nefarious intent to hide transactions and hide behind what are fraudulent transactions — try to hide proceeds of crime. That would be an area where, if you were a smart criminal, you would be using the blockchain technology to your advantage.

[00:15:07] I won't ask you to be more detailed than that. This isn't meant to be a how-to for criminals. On a more upbeat note, we have an election coming up, and I've heard a little bit about the potential use of blockchain for digital voting. Do you have any thoughts on that?

[00:15:22] That's a very interesting idea. There have been, over the past — we can go back to Bush v. Gore — a lot of discussions around how to ensure fair voting where your actual vote is recorded correctly, where the ballot itself is not confusing. If it's manual, that the people who look at it actually record correctly. If it's done by machine, that the machine reads it correctly. There are a lot of different voter registration laws and talking about disenfranchisement of certain groups with voting and the idea that blockchain could somehow be used to both ensure that everyone can exercise their right to vote — which is what is extremely important for our democracy to have happen — and also that groups are not enfranchised or votes are not counted because of some technical problem is extremely important. Applying blockchain to that, going back to where we started, blockchain-Goldman Sachs quote: "Blockchain will be applicable to just about everything." This is a great example of something that I don't think people foresaw when they were first starting out with blocking, but certainly something that we're going to see being explored as we move forward.

[00:16:32] Any final thoughts that you would like to leave us with respect to these technologies?

## **Blockchain and Cryptocurrency**

[00:16:39] Like any new technology, I think the technology and how it actually works can be scary to a lot of people, and they say, "I don't even understand how my iPhone works, never mind how blockchain works." I would say to all those people, you don't have to be able to program it yourself. You don't have to understand it at the level of a coder or a programmer to understand the big picture, how it works, and not to be afraid of it, because I do think it is going to permeate our lives in so many different respects.

[00:17:09] It's fascinating because I think, especially in the legal community, we can be a little nervous, as you say, about new technology, but it's Roy O'Meara's Law, that we tend to overestimate the effect of technology in the short run — that is overreact — and then underestimate its effect in the long run. It sounds like we need to keep our eye on this technology and watch it as it evolves. Thank you so much for joining me today, Carrie. This is a really important topic for the global compliance community, and it's great to have your insight.

[00:17:38] Wonderful to be here. I'm a big fan of your program. It's really an honor to be on it.

[00:17:42] Thank you.