

This webinar was given on Thursday, April 1, 2021 by Timothy Massad, an M-RCBG research fellow, an Adjunct Professor of Law at Georgetown University Law Center, and a consultant on financial regulatory issues. It is part of the Regulatory Policy Program's weekly webinar series.

Joe Aldy:

Welcome to the Regulatory Policy Seminar. I'm Joe Aldy, the faculty chair of the Regulatory Policy Program at the Mossavar-Rahmani Center for Business and Government at the Harvard Kennedy School. Let me open with a few reminders regarding the logistics of our online seminar. We are recording this seminar and we'll post it online. So if you know of someone who is interested but could not attend the talk live, please let them know that they can access the seminar at the MRCBG YouTube channel, and I'll put a link to that in the chat in just a moment. We will take questions today through the Q&A function in Zoom. Please click on Q&A at the bottom of your screen and type your questions. At the end of our presentation, I will take the questions and pose them to our speaker.

Joe Aldy:

We're really excited to have Timothy Massad join us in the Regulatory Policy Seminar today to present *Cryptocurrencies: Speculative Bubble or the Future of Money?* Tim Massad is currently a research fellow at the Kennedy School of Government at Harvard University, an adjunct professor of law at Georgetown University Law Center, and a consultant on financial regulatory issues. Mr. Massad served as chairman of the US Commodity Futures Trading Commission from 2014 to 2017. Under his leadership, the agency implemented the Dodd-Frank reforms, the over-the-counter swaps market, harmonized many aspects of cross border regulation, including reaching a landmark agreement with the EU on clearing house oversight, declared cryptocurrencies to be commodities, and enhanced cybersecurity protections.

Joe Aldy:

Very recently, Mr. Massad served as the assistant secretary for financial stability at the Department of the Treasury. And in that capacity, he oversaw the Troubled Asset Relief Program, TARP, the principle US government response to the 2008 financial crisis. Mr. Massad was with the treasury from 2009 to 2014, and also served as a counselor to the treasury secretary. Tim, welcome to the Regulatory Policy Seminar.

Timothy Massad:

Well, thank you so much, Joe, for inviting me to give this talk. It's really a pleasure and an honor to be here. I'll first say, I didn't ask to give this lecture on April Fools' Day, but I do find it an interesting coincidence. If you had told me a year ago, when the price of Bitcoin was around \$6,000, that it would be close to 60,000 today, I probably would have said that was an April Fools' joke. Of course, there may be those in the audience who wonder why it was even more 6,000 a year ago. But crypto is here to stay and there is no shortage of true believers and promoters.

Timothy Massad:

For example, the CEO of a very large financial institution recently said, "The current financial system is ripe with high fees, delays, unequal access, and barriers to innovation. If the world economy ran on a common set of standards that could not be manipulated by any company or country, the world would be a more fair and free place, and human progress would accelerate."

Timothy Massad:

So here's the question, who said that? Was it David Solomon, CEO of Goldman Sachs, was it his separated at birth lookalike Jeffrey Sprecher, CEO of ICE, which owns the NYSE. Or, in fact, it was their younger brother, Brian Roberts, CEO of Coinbase, which is about to go public very soon. It's the largest crypto exchange in the US, and it may well have a market capitalization greater than Goldman Sachs or ICE. And he said that in an SEC filing, and he went on to say, "Cryptocurrency could provide the core tenants of economic freedom to anyone: property rights, sound money, free trade, and the ability to work how and where they want. Our job at Coinbase is to help make this future a reality."

Timothy Massad:

Now, those who believe in the promise of cryptocurrencies have never been shy about expressing that faith. And indeed there are many recent developments they would point to. In addition to the price of Bitcoin broaching 60,000, we've seen more and more mainstream financial institutions entering the space, including BNY Mellon, the world's largest custodian bank, which will now provide crypto custody services, Mass Mutual made a big investment. PayPal is now offering crypto accounts. There've been investments by companies like Square and Tesla, and Bitcoin has led to a lot of other developments such as the emergence of stablecoins. And the mere announcement by Facebook two years ago of its plans to launch a global stablecoin, led many central banks to dramatically accelerate research and development on central bank digital currency.

Timothy Massad:

But at the same time, there are facts in this landscape that remind me of the opening of A Tale of Two Cities. Now, not so much the first line, "It was the best of times, the worst of times," but remember what comes after that, "It was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity." I am neither a true believer nor a complete skeptic when it comes to crypto. I am somewhere in the middle. But having been a corporate lawyer for 25 years and a financial regulator, I did tend to look at what might be wrong with this picture. And I'm going to look today, particularly, at how this industry is regulated, and the inadequacies of that, quite frankly.

Timothy Massad:

So, here's my agenda. I want to first give you a few facts on the crypto market today and then discuss the regulatory framework: what it is, why I think it's inadequate, what we should do about that. Then I want to focus in particular on stablecoins, because they pose specific opportunities and challenges. And also, I want to say a few words about central bank digital currencies. Now, CBDCs are typically not called cryptocurrencies because they are issued by a government, but all of these are forms of digital assets.

Timothy Massad:

So let's start with a snapshot of the market today. There are literally thousands and thousands of cryptocurrency, but only a few have any significant market value. And here's a list of the largest, by market cap, and of course, Bitcoin is by far and away the largest. The second thing to note about this chart is that those on the lower half of the list can change quite quickly, faster than the components say of the Dow Jones Index.

Timothy Massad:

Now, cryptocurrencies can be traded on a variety of platforms. Some of those platforms are centralized, run by a corporate entity and offering traditional electronic order book trading, but increasingly popular

are decentralized exchanges, and here's a list by volume. This is global. This list really changes dramatically from year to year. In fact, some of these might be out of business in a year. And the volume numbers are not always reliable. So, CoinMarketCap, which is the source of this information, also ranks exchanges by ... What they say is, "The confidence that the volume reported on the exchange is legitimate, as well as factors like liquidity," and there's their scoring on that basis. If you were to compare these two, you'd only find I think two that make it on both lists.

Timothy Massad:

Nevertheless, when you see the level of activity, the number of exchanges, and so forth, it starts to look like a well-developed industry. But from a regulatory standpoint, that is not the case. So what's the regulatory framework for crypto assets? Well, one must first answer whether a crypto asset is a security of commodity or something else. The answer is, it can be any of those. And the problem we have is we have a new innovation that is outstripping our regulatory framework, and that's not at all unusual. The history of the financial industry is one of constant innovation creating activity that often escapes the reach of the regulatory framework. Think back to subprime mortgages.

Timothy Massad:

So when it comes to regulating crypto assets, we're sort of trying to fit a round peg in a square hole. What we have is a situation where each of several agencies has some authority, but the problem is not simply the fragment and jurisdiction. It's that even collectively there are still big gaps. So for example, the SEC has jurisdiction over crypto assets that are deemed securities. And the test for whether something is a security is based on a 1940s Supreme Court case involving orange groves in Florida.

Timothy Massad:

Now, the mere fact that the SEC uses this old case to make judgements on this incredibly innovative technology and industry, infuriates many in the crypto community. But the fact is, the case has stood the test of time. And it goes to whether something is an investment contract, I won't get into it. We can get into it later if anyone's interested. But on that basis, the SEC crack down on the initial coin offering boom, that you might remember from a few years ago, and that was with good reason. There were a lot of fraudsters issuing white papers to sell tokens without complying with the securities laws, and they made grand promises, but offered very little disclosure. Most of those white papers had practically no financial information. You couldn't even always identify where the company was from.

Timothy Massad:

So, if a crypto asset is a security and it's subject to the full panoply of securities laws and regulations that we've developed over the last 90 years, and exchanges that trade those crypto assets must comply with the SEC, you must register the issuance of a crypto asset and so forth. But almost all of the largest cryptocurrencies are not securities. And indeed on the list I showed you earlier, I believe the SEC has only recently asserted that one, XRP, is. So if it's not a security, is it a commodity?

Timothy Massad:

Well, when I chaired the CFTC, the agency for the first time declared that cryptocurrencies like Bitcoin were commodities. Now, we did that because people wanted to use cryptocurrencies and derivatives. Like they wanted to have swaps involving Bitcoin. Anything used in a derivative is deemed a commodity. So that gave the CFTC jurisdiction over derivatives involving crypto assets. But the agency has only very limited jurisdiction over the cash market for those crypto assets. It can bring enforcement cases for

fraud and manipulation, but it can't set general standards for the exchanges or other intermediaries. And that's the case with all commodities. Just because the CFTC regulates oil futures does not mean it regulates the cash market for oil.

Timothy Massad:

So what's the situation? Well, put these things together and it means we must mind the gap, as they say in the London tube stations. The cash market for cryptocurrencies that are not securities, meaning the cash market for Bitcoin, Ether, Litecoin, Tether, and a lot of the others, is not subject to federal regulation, in the same way that our securities and derivatives markets are. And exchanges then trade only those cryptocurrencies that are not securities are largely not subject to federal regulation.

Timothy Massad:

Now there is state regulation, sort of, in that these exchanges are considered money services businesses. So they will say they're licensed and regulated, but that regulation is very, very light. It may consist of a few very modest monetary requirements. It doesn't involve standards that ensure investor protection and transparency. And frankly, because of the absence of a federal regime, we have states competing now. And we're increasingly seeing opportunities for regulatory arbitrators. We have, for example, New York being fairly aggressive, insofar as its laws allow, whereas Wyoming, for example, recently passed the whole range of crypto laws because it's trying to become sort of the pro-crypto Delaware if you will.

Timothy Massad:

Now, the problem the US face is not unique, other countries have faced it also, but some countries have had an advantage in that they have a unitary financial regulator with broader powers to act, and some are moving much faster to update their laws. The European Commission has just proposed a massive set of new laws called the digital finance package, and the UK is also developing its new laws.

Timothy Massad:

Now, of course, part of the attraction of Bitcoin and other cryptocurrencies has been this kind of libertarian ethos. The technology was going to usher in a new era of finance that would not be subject to national sovereign authority. We wouldn't be dependent on the large financial institutions that brought us the global financial crisis, for example. And if you go back and look at the original white paper by Satoshi Nakamoto, it promised a peer-to-peer system that would reduce our reliance on centralized intermediaries. And think about Brian Robert's comments that I showed you earlier. But wait a minute, Coinbase is a large intermediary, and this industry, what's happening really is the industry is giving rise to a whole new set of intermediaries. And in my mind, they are less accountable than the big banks that almost brought down the financial system.

Timothy Massad:

Now, I suppose it's no surprise technology changes the form of financial intermediation and it doesn't eliminate the need for it, but the problem is we just don't have the same kinds of regulatory standards that we have in other financial markets. So, I'll give you some examples. I won't go into all these because we just don't have the time, but here are some areas where we have standards in the securities and derivative markets, but we really don't have crypto specific rules. For example, we don't really have rules requiring protection of customer assets the way we do in the security space. We don't even know

for sure whether a crypto exchange is operating with sufficient crypto to backup customer claims, because a lot of them do take custody of assets.

Timothy Massad:

And for all the talk of the value of the distributed ledger and recording things on the distributed ledger, some exchanges take custody of customer assets and simply track those on a traditional ledger. They're not recorded on the blockchain. There are no rules on order execution and settlement. We had congressional hearings on the GameStop saga, but there's nothing that assures me the best execution in crypto, other than the exchanges zone policies. And there's also a lack of governance standards, conflicts of interest, crypto intermediaries can play multiple roles that we don't allow in the securities and derivatives markets. For example, they can have their own proprietary trading approaches if it's an exchange. And we don't have the sort of layers of fraud and manipulation protection that we have in those other industries. So there we've got not just the agencies, but we've got self-regulatory agencies, the exchanges themselves are required to have surveillance operations, their private rights of action, and so forth.

Timothy Massad:

So, what that means is the SEC and the CFTC I think are doing a good job using their enforcement authorities where they can, but they simply don't have the statutory authority or the resources. And there was a CFTC case just out two weeks ago where I think illustrates this in spades. So the CFTC brought a case against Coinbase, involving wash trading. Now wash trading is when you essentially trade with yourself or trade with an affiliate in order to boost volume or manipulate price. So you might think that, "Okay. The CFTC went after Coinbase because it failed to stop wash trading by a customer," right? Because we don't allow wash trading in securities and derivatives exchanges, but we don't have explicit rules about it for crypto exchanges.

Timothy Massad:

But in fact, this was wash trading by Coinbase itself because it has a proprietary trading operation and it had two different proprietary programs that traded with one another. CFTC settled the case for \$6.5 million, which is kind of ball tree when Coinbase had 1.3 billion in revenues last year. And those facts, among others, led one of the CFTC commissioners, Dawn Stump, to issue a very thoughtful, but really highly unusual concurrence, where she said, "Look, this behavior needed to be punished, but the case was basically a poor use of resources, because the CFTC does not and cannot regulate Coinbase or any other crypto exchange. We're not the cop on the beach," she said, and she worried that the case will create unrealistic public expectations that the CFTC can police these exchanges when it really can't.

Timothy Massad:

So, you might step back from all this and say, "Well, okay. But what's wrong with caveat emptor? What's wrong with buyer beware?" I mean, after all, this is not a huge part of the financial system. Do we really need to expand government resources to regulate it? The trading does seem to be largely speculative anyway, the social utility of a lot of these assets isn't clear. But I think that's not the right answer. We've traditionally concluded that we do believe in regulation of markets trading financial instruments. We don't make normative judgments on what people should invest in, but we think it's in society's interest to have markets that have integrity and transparency.

Timothy Massad:

And while some may question the use cases of crypto and wonder where this is all going, the technology has already given rise to some very interesting developments and we'll get into some of those that may have very important applications. And it's not just that there's a huge amount of money pouring into this sector. The fact is there's a huge amount of talent pouring in to it too. And I suspect many students from the Kennedy School, the business school, and the law school might be going there.

Timothy Massad:

The other argument I would make for having a good system of federal regulation is that there are broader risks to society from leaving this activity unregulated. And I would note in particular two. And one is often pointed out, it's the risk that crypto is being used for illicit payments. Now, the good news is, there is a good cop on the beat here, which is FinCEN, the Financial Crimes Enforcement Network, there's also a global entity called the Financial Action Task Force, and they're doing what they can to enforce some good standards to prevent money laundering and terrorist vandalism. But their ability to do that is still limited by the lack of overall regulation.

Timothy Massad:

Again, think of the wash trading example, one analysis noted that it's not unusual for criminal groups to launder crypto through the exchanges by making five to 10,000 trades with themselves. If you don't have standards that are basically saying you can't do that, it makes it harder for the anti-money laundering authorities to detect it.

Timothy Massad:

And a second risk is cyber attacks. And this is an area where we've done a lot over the last several years to enhance cybersecurity in our financial sector. That's been very important. We've implemented new regulations and banks and other financial institutions have spent literally billions of dollars, but those standards don't apply to crypto intermediaries. Now, they have a self-interest in cybersecurity for sure, but is that enough? Are they doing enough? And my concern here is that is there a risk that you could have a hack of a crypto institution? And there have been many hacks of crypto institutions that might cause collateral damage to other parts of the financial sector, because the connections between crypto institutions and the rest of the financial sector are increasing.

Timothy Massad:

So, I think we need to improve the regulatory framework. And my view is we don't need to create another agency. We could expand the jurisdiction of either the SEC or the CFTC. It's not a perfect fit for sure, there are issues there, but either would be competent to do this. The key thing is Congress should do this in a general way, and then let an agency develop the rules.

Timothy Massad:

I want to turn now to stablecoins, because they do pose particular issues, and they've grown dramatically in just the last two years. So first of all, what is a stablecoin? A stablecoin is a crypto token whose value is pegged to another asset, either by a formula, or an index, or some other measure. And I'm going to focus on stablecoins pegged to Fiat currencies, such as the dollar.

Timothy Massad:

Now, most people probably have heard of these from the proposal Facebook made two years ago to launch a global currency called Libra, that really brought a lot of attention to the concept. And of course,

that received a lot of attention. The specifics of the proposal were troubling to many because it was designed to be pegged to a basket of currencies. Of course, central bankers then viewed that, "Well, that's creating a super national currency that could undermine individual national currencies and potentially interfere with the conduct of monetary policy." So they didn't like the structure of it.

Timothy Massad:

Plus, Facebook was large, it had two billion users. People thought, "Well, this could be immediately systemically important. And how do we feel about a social media company like Facebook suddenly becoming a provider of financial services?" And you add on top of that, the fact that there was already a fair amount of hostility to Facebook because of its role in our 2016 election, and its role in disseminating disinformation and failures to protect privacy and so forth. I mean, this was the only issue I know of where former president Trump, Chair Powell of the Federal Reserve, and Maxine Waters, the Chair of the House on Financial Services Committee, basically agreed on something. None of them liked it.

Timothy Massad:

Now, the proposal has since been revised and it's now called Diem. And now the concept is for a set of stablecoins, each of which would be pegged to a single currency. And that's much more like the structure of existing stablecoins. Facebook's proposal still is not operative. They're still trying to get their regulatory approvals. But the fact is, there are stablecoins out there that are out there, and here's a list. The top, it's USDT, it's Tether, and it has a market cap of \$40 billion. The next one is USD Coin. That one's interesting because it's partly sponsored by Coinbase, and also listed on the Coinbase exchange.

Timothy Massad:

I want to focus on Tether. A lot of Bitcoin trading today is through Tether and a lot of that Tether trading is done, it's high-frequency trading done by proprietary trading firms. There was a research paper a while back by a University of Texas professor who alleged that Tether was really being used to manipulate the price of Bitcoin. The market kind of shrugged that off. There was a recent paper by JP Morgan warning of that because of the HFT element, there could be a sudden dramatically increased volatility if the proprietary trading firms were to stop trading Tether, you could see a sudden decline in liquidity that could be problematic. The market kind of shrugged that off too.

Timothy Massad:

There've been various statements that Tether is being used to launder cryptocurrency gains. The market kind of shrugged that off, because it's true. I don't know, all the people that are laundering money are fine with that. Tether is pegged, one token is pegged to \$1. But that doesn't mean you have the right to convert it into \$1. Early on, Tether said, "Each token is backed one-to-one by traditional currency held in our reserves." But they've changed that. They now simply say, "Well, the tokens are backed 100% by our reserves." So there's questions about the reserves.

Timothy Massad:

So, let's take a closer look at that. And so for that purpose, I'm going to bring on Inspector Gadget. Now, this was a cartoon character from several years ago, you may or may not be familiar with him, or your kids might be. You might think I'm making an April Fools' joke here. But in fact, the creator of Inspector Gadget kind of holds the Tether reserves, because one of the creators of Inspector Gadget was a guy named Jean Chalopin, and he had a second act as a banker. And he became the chairman of Deltec Bank & Trust in The Bahamas, and that's where all the Tether reserves are located. Most of them, that is.

Timothy Massad:

There was an enforcement by the New York attorney general, recently settled earlier this year, on the Tether reserves. And it found that, well, actually Tether didn't have sufficient reserves. It had loaned 600 million to its affiliate Bitfinex, which is a crypto exchange, because Bitfinex had a bunch of losses. And they found some other problems as well. But it's kind of like the CFTC with Coinbase. New York AG doesn't have the authority to set standards for this market. So, it imposed a small fine, it required some transparency, and it prohibited Tether from soliciting business in New York.

Timothy Massad:

So the case really just underscores the need for a stronger regulatory framework. We need to know what is the quantity of the reserves? And when it was first alleged that Tether didn't have 100% reserves, Tether's response was, "Well, that's no different than fractional reserve banking. And in fact, we have a much higher percentage of assets in cash than most banks do. So what's the problem here?" Well, the problem is, banks are subject to a comprehensive regulatory regime, with liquidity requirements, and capital requirements, and supervision, with limitations on their activities, and their deposits are insured. None of those things apply to stablecoin issuers. So, we've got that problem.

Timothy Massad:

We've got problems as to the quality of the reserves. What I mean by that is, must they be kept in cash or high quality liquid assets like government bonds. So if you look at the fine print on Tether's website today, it says, "Reserves mean traditional currency and cash equivalents. And from time to time may include other assets and receivables from loans made by Tether to third parties," which may include affiliated entities. So that's not very comforting. That's sort of like they're acting like a bank without being regulated like one. And we don't have transparency, we don't have audit requirements.

Timothy Massad:

So all of this to my mind creates run risk, meaning that if something occurs that suddenly causes people to lose confidence in a significant stablecoin, we could quickly see significant withdrawals. And particularly with something like Tether, that could have significant effects. There is nothing that gives the crypto world immunity from a run. And of course, the classic depiction of a bank run was Jimmy Stewart's movie, *It's a Wonderful Life*, where you may recall, he plays the manager of a small bank during the depression, and suddenly everyone rushes into the bank wanting to withdraw their money. So I often think, "Well, would blockchain have helped Jimmy Stewart? If he told them, 'Don't worry, all your mortgages are recorded on the blockchain.'" Yeah, I doubt it.

Timothy Massad:

How do we fix this? The Financial Stability Board, which is the international group of central bankers and financial authorities, has issued some principles, very good principles that should be applied to global stablecoins. They did this partly in response to the LIBOR proposal, and that pertains the quality and quantity of reserves, transparency, and so forth. And in late December of 2020, the Trump administration, the president's working group on financial markets issued guidance that basically supported these. They basically said stablecoin issuers should follow these principles. But the problem is, should, right? They didn't really outline a path as to how we might make them mandatory.

Timothy Massad:

Meanwhile, the office of the controller of the currency under the Trump administration in the last few months of the administration was led by a very pro-FinTech controller. And he issued guidance that said national banks could hold stablecoin reserves and could issue stablecoins. Now, in a sense that was good because we'd rather have the reserves in a bank that's regulated, rather than a bank that's not under US jurisdiction, let's say, but it's frankly inadequate if we don't have a comprehensive framework. I fear it's a bit like the CFTC's situation with Coinbase. It creates unrealistic public expectations that the office of the controller can police stablecoin issuers. And in fact, in reaction to that guidance, there are those in Congress who have issued or introduced something called the STABLE Act, which would actually require a stablecoin issuer to obtain a bank charter and be subject to some pretty stringent bank like regulations.

Timothy Massad:

So, the point is, I think we need to fix the regulatory framework for crypto generally, and particularly for stablecoins, will the Biden administration take action? Well, admittedly, this is not a priority on the order of managing the pandemic or fighting climate change, but I also think it wouldn't take that much [inaudible 00:35:51]. And I think it's something where you might actually get bi-partisan support.

Timothy Massad:

Let me turn finally to central bank digital currencies, and just say a few words about those. We could obviously do, there's a lot to be said, but as I said earlier, the LIBOR proposal really, and these are Chairman Powell's words, lit a fire under central banks regarding digital currencies. Many started research and development projects, or they accelerated work they were already doing. And one in particular was China, it really caused China to accelerate its rollout of what's called the DCEP, its version of the CBDC. And the Fed has now started the Project Hamilton with MIT, which is a R&D effort.

Timothy Massad:

But you also want to step back and ask, "Well, what problem are we trying to solve with the CBDC?" After all, we've got all types of electronic payments today. So, is there a clear set of benefits to having a CBDC that outweigh any disadvantages? And when you read the reports of various central banks, they're, a lot are kind of working through this, or is this a case where the existence of the new technology will essentially drive us toward adopting CBDCs, whether we really need them or not?

Timothy Massad:

The use case kind of takes two forms. One is the wholesale model, which would really be limited to large financial institutions. It would enhance the existing payments system. It really wouldn't fundamentally change how most of us use money. The Fed is already focused on a different approach called FedNow to speed up the payments system. The fact is, large financial institutions already have a form of a CBDC, if you will, and they have digital claims on the Federal Reserve, through the accounts they have at the Fed. It's the rest of us that don't have that, right? The only claim we have on the Federal Reserve is paper money.

Timothy Massad:

So the retail model, by contrast, would be something that would be available to all individuals. Now, there's lots of design choices in how you do this, and we don't have time to get into those. In some cases it's a direct method where the Federal Reserve might have a [inaudible 00:38:39] one. In other structures, it's kind of a two-tiered method where it would work through the banking system. But the

advantages that are cited are several. It could improve financial inclusion, for example. 25% of households in this country are either un-banked, meaning they don't have a bank account, or underbanked, meaning someone in the household has a bank account, but they still use non-bank services, like check cash or payday lenders.

Timothy Massad:

And so financial inclusion might be enhanced if the Federal Reserve actually offered individual accounts to every citizen. Though there are some negatives that go with that. The underbanked would be helped by faster payments. If you live paycheck to paycheck, you can't always wait three to four days for your paycheck to clear if you've got to pay your rent. And so the underbanked use check cashing services because you get your cash right away, often at a cheaper cost than a bank overdraft fee. So you could help address that situation. CBDC would also just address the declining use of cash. You could even think about it almost as a defensive response to new forms of private money, if you will, stablecoins and other things. Because if we don't, unless we have a CBDC, the public might not even have access to public money if we increasingly see this greater reliance on digital payments. The public would just have these privately issued tokens.

Timothy Massad:

Another significant thing would be the cost of cross-border payments, and stablecoins could do this too, this is one of Libras main arguments. Cross-border payments, remittances typically cost seven to 10% to send. That's a huge cost and this affects people on the lower rungs of the economic ladder in particular: immigrant families, others sending money to their families abroad. It could certainly make distribution of government benefits easier. It would have made coronavirus payments a lot easier to get out the door. But there are advantages. A big one is potential disintermediation of the banking system, depending on the structure. If you give people accounts at the Federal Reserve, are they going to take all their money out of commercial banks? And what effects would that have on credit creation? Because banks depend on deposits or funding. And what effects might it have, particularly in a period of financial stress, if you have the option to put your money at the federal reserve. You could actually increase stress at just the wrong time.

Timothy Massad:

There's some other complicated issues in the design here, if you're really on the traceability versus privacy implications. It's one thing, China may like the fact that a CBDC will give them lots of information about the citizens' transactions, but it's not really our system. So how do you balance those concerns. And there's some complicated issues on monetary policy as well. Let me say a few words about China because it is rolling out it's CBDC, and I'm hurrying because I want to leave plenty of time for questions, but this is a screenshot of the app that you can use from one of the banks. Theirs is a two-tiered system, by the way, rolling it out in commercial banks. Lots of discussion and different views on why they're doing this. There's some international reasons potentially. Some see it as part of a long run plan to make the RMB an international currency.

Timothy Massad:

Others see it more defensive. They really reacted to the Libra proposal and saw that as a backdoor means of promoting the dollar. And so some had speculated that this is partly a reaction to that. They've expressed hostility to the way that the US uses international payment systems that are based on the dollar to impose sanctions for foreign policy objectives. So some see it as partly responding to that.

From a domestic standpoint, they've made great strides in financial inclusion through their private mobile payments industry, but they've recently taken some steps to reign that in. Some people see this potentially as a further means to reign that in. It may be a social control tool. There've been expressions that, well, they'd certainly be able to monitor the expenditure to party members if they can see every single transaction.

Timothy Massad:

There's also just an advantage to being the first mover here. Because you potentially have more influence over technical standards that could affect other countries. One of the big issues in this space is whether different countries as they develop these will develop them in a way that they're interoperable. So, what should the US do? Well, there's lots of different proposals. It's worth noting that the two really most powerful democratic leaders of financial committees on the Hill, Sherrod Brown who chairs the Senate Banking Committee, Maxine Waters, who chairs House Financial Services, have introduced measures for Fed accounts for everyone. Meaning all of us would have an account at the Fed. As I noted earlier, there's some benefits to that, but there's some risks also. Members of both parties have looked at what China is doing and urged the Fed to speed up its efforts if only as a defensive measure.

Timothy Massad:

So, maybe just to conclude by returning to the question I asked, which was the title of this talk, Bitcoin to me is largely just a speculative investment today, but it has given rise to other very interesting things. Stablecoins I think do have some promise if we have a solid regulatory framework around them. And we need that obviously for just cryptocurrencies generally. And I do think CBDCs are part of the future of money. It may take a while before we actually get up there, but I think we'll see them. So maybe with that, I'll stop. There's my contact information and a couple of papers I've written on this, and happy to take questions.

Joe Aldy:

Right. Thank you, Tim. That was fantastic. And at dinner tonight, my kids are going to be really excited to hear that I got to discuss, or at least learn a little bit more about Inspector Gadget while I was at work. So I appreciate that. So let me remind everyone to use the Q&A button at the bottom of your Zoom screen to submit questions. And I want to get started with a couple of questions here, Tim.

Joe Aldy:

First, just sort of thinking through the role of cryptocurrencies in finance and how that can help us think through what may be the potential design or application of regulation and oversight. So it'd be helpful if you could just sort of say, what do we see as the value from a financial standpoint of having cryptocurrencies? What gap in the financial system are they filling in and how might we use that to inform regulation and oversight?

Timothy Massad:

It's a good question. Except I don't think it's the question we really should ask, because had we asked it several years ago, I don't know that we would have foreseen stablecoins or the growth and interest in CBDCs. And traditionally, we have not made regulation dependent on kind of making a normative judgment about whether people should invest in something or whether it has social utility. A lot of people have said, "Well, why do we need derivatives?" They've proven to be very useful, although there's some applications of them that maybe have gone too far. I kind of view the whole crypto world

the same way. I'm not smart enough really to say. I mean, today I view a lot of the activity as speculative. On the other hand, a lot of these decentralized finance applications, smart contract applications are very interesting. And if those can be developed in a way that helps decentralize the financial system, reduce the footprint of large institutions, that would be great.

Timothy Massad:

I think distributed ledgers offer the promise of reducing the cost that we spend today simply on reconciling data. Financial institutions spend a huge amount of money, reconciling sets of data one to the other so that everybody is working off the same set of data. Distributed lenders can address that. So, that's kind of how I look at it. There doesn't need to be a clear use case for everything that people are trading. We just need a framework that allows for healthy development of the market.

Joe Aldy:

So, you're suggesting we need to, there's this incredible value in having incentives for innovation in this space. At the beginning of some of these new products, we may not even fully appreciate what kind of impacts they could have down the line. And so we should balance this incentive for innovation with the need to have some oversight, so that we can manage potentially what could be downside risk.

Timothy Massad:

Right. And of course, some people would say, "No, no, no. The innovation will happen much better if we don't have that regulation." And the problem with that is you can have significant losses, you can have failures, you can have things that hurt people's confidence. And that's why I think having a regulatory framework that provides transparency and integrity is better.

Joe Aldy:

So you've been in government, working with major pieces of legislation in response to the financial crisis. TARP passed in the fall of 2008, Dodd-Frank passed in 2010, that you implemented a number of the new regulatory authorities established in that law at CFTC. So that was an obvious crisis event where it's clear Congress has to act. You identified the need that given the kind of gaps in our regulatory system, the concern about potential regulatory arbitrage, something we heard about a decade or more ago, but I wonder whether or not there's the kind of galvanizing event that could get Congress to work on this. You know that there's bipartisan interest, but sometimes there can be bi-partisan support, but it's not a selling internet issue for members of Congress to work on it, for the White House to work with Congress on it to make it happen.

Joe Aldy:

So what do you see as sort of the prospects for, especially given that you may have different committees and Congress might want, they may start fighting with each other on this. Or you know what, it could be as SEC, it could be CFTC that's engaging different committees of jurisdiction. How should we think about the political economy of this and what might be a way to make some actions so that we get a more thoughtful statutory authority that provides a regulator with that sufficient authority to manage the risks, but to make sure that we're not then stifling the innovation that it has got?

Timothy Massad:

Right. Well, I think China's rollout of its CBDC is certainly causing not just people to focus on whether we should be developing the CBDC, but that also kind of gets you into these issues with stablecoins,

because you could say, "Well, do we really need the Fed to do this? Or should the Fed just create an operating system where other people could do it?" So that's one, and we're seeing that provoke some bi-partisan reaction. Obviously a second is if you had some major failure, scandal, loss, whatever, let's hope it's not that, but you could have something like that. A third is we are seeing Europe and other jurisdictions move forward with packages, and we may see people in the industry say, "There's regulation, but at least we know what the ground rules are now." So that might influence it.

Timothy Massad:

The last example I would give is the Jobs Act, which passed in, whenever it was, 2010, was the act that created the crowdfunding exceptions to the securities laws. And most securities lawyers thought, "Well, that'll never happen," and it kind of just rushed through Congress because it sort of just captured people's imagination. And it was kind of seen as pro-innovation, pro-startup. Maybe there's something like that that one could do. What I would like to see is I'd like the industry to get more behind regulation. I think this is where the industry, there are some people in the industry who are calling for this, but not enough. They need to be more like the cannabis people who sort of go around to Congress and say, "We really need a framework for the development of the private industry."

Joe Aldy:

Well, so that last reference on cannabis prompts another question I have, which is you noted that there's a divergence among the states. New York State is being somewhat more aggressive. Wyoming is trying, I think it's they want to be the Delaware of crypto. One thing with cannabis, we learn that there was an effort that began with some of the states to try to get through some legalization or decriminalization in the context of marijuana. What might be the opportunities to use the states as the basis for experimentation to then inform future federal regulation?

Timothy Massad:

That's a good question. I think it's tough just given that this is really a global market already. I mean, it's hard enough for each country to sort of figure out how to regulate it. But we're certainly seeing states try, we'll see what happens with Wyoming. To give you an example, I mean, they've set up this thing that sort of have banks do crypto, but it's not a full panoply of registration. So I just have trouble saying that it's going to work on a state level. I think we really need federal action here. And once you have national action, you hope that different countries can get together and do some harmonization as we've done in other areas such as banking and derivatives.

Joe Aldy:

So, one question we received addresses this issue of regulatory gaps, and wanting to think through about the potential risks that something like say a run-in crypto, what kind of implications might it have more broadly in the financial system? So this person knows that they're concerned about the risk to the traditional banking system. And some financial firms, whether it's big banks, fintech firms, Fidelity already spending a great deal on developing cryptocurrency assets and trading, how, if this goes badly in one sector of crypto, can we avoid it having a crisis in the traditional financial sector as well?

Timothy Massad:

Yeah, that's a good question. I mean, I don't see crypto assets like Bitcoin causing that risk, but stablecoins, you could argue that the stablecoins or proposals like Diem, formerly Libra, might. I think the way we address that though is through a regulatory framework. I mean, if a stablecoin issuer is

required to have a certain level of reserves to have a capital buffer, to keep those reserves in certain types of assets, whether it's cash or high quality assets, to have transparency, to have liquidity requirements, then you don't have that risk. I mean, without that, you could have a situation where a stablecoin issuer is trying to do the right thing by putting the reserves let's say in an FDIC insured bank, but it's an omnibus account.

Timothy Massad:

So you're not really getting the benefit of insurance. And if you had a run or a sudden volatility on that stablecoin, for whatever reason, and then that money comes out of that bank, is that going to then cause that bank to have trouble? So that's why, to me, the lack of the framework creates far more risk. I think if we have a framework, we can address a lot of those risks.

Joe Aldy:

Now, you worked at the treasury department, and you know that there is a number of actions treasury can undertake interpreting the law. But there's also a lot that the secretary of the treasury can do just by speaking publicly on issues. And so recently Secretary Yellen has been somewhat critical of Bitcoin. I'm wondering what your take is of her recent criticism?

Timothy Massad:

Yeah. She focused on the illicit financing aspect, which is a risk. And that's one area where treasury has some tools [inaudible 00:57:10]. I would hope that, I mean, I know she's got a lot on her plate, but again, it's more important than this issue, but I would hope that in due course, she uses the FSOC maybe to take a look at crypto because it is a situation where you've got authority split up among a lot of regulators. And there could be ways even in the absence of new legislation where the SEC, the OCC, the CFTC can work together better.

Timothy Massad:

There's a suggestion, for example, that stablecoins should be regulated like money market funds. That's got some pros and cons to it, but I think you could use the ... I think this is an ideal situation to use something like FSOC to really examine how can we do the best we can with the authority we currently have to address what we see is the potential issue to it.

Joe Aldy:

So, one final question. We've seen on a number of fronts here over the past few years, I think a kind of rise in nationalism. There's an issue that you raised near the very end of your talk about defending the dollar. And we as Americans do benefit from the fact that the dollar is the sort of default currency for so many international transactions. I wonder if you can speak a little bit more about what this might mean in terms of the politics, whether it's with members of Congress, whether it's this administration or a future president, on how to think about the potential threats to the dollar as that default currency for international exchange.

Timothy Massad:

It's a big issue. And the way that we've used international payment systems to, as I said earlier, to impose sanctions, it plays into this also. But the dollar strength is based on a number of things. It's obviously not just technology or speed of payments. It's the rule of law. It's so many things that this

country stands for, and it's the strength of our economy. So I don't view the fact that China is testing a CBDC as an immediate to the role of the dollar.

Timothy Massad:

On the other hand, I do think we have to keep up with technology, and we're seeing Europe working on developing CBDCs as well. And I think one of the big issues there is then how you make those interoperable and how you work together. So I'm glad the Fed is moving on this now more aggressively than they were. I hope they speed it up even more. I'm sure they're thinking about a lot of these issues, and the design choices in doing something like this are quite complicated. But I think it's an area where we do need to move forward quickly.

Joe Aldy:

So, unfortunately it's 1:00. So let me note that before we wrap up, that this is the final Regulatory Policy Seminar of this semester. We appreciate you joining us via Zoom over the course of this academic year. If you have suggestions for potential speakers for next year's seminar, please feel free to email me. I can be reached at joseph_aldy@hks.harvard.edu.

Joe Aldy:

And let me finally say, this is one of the joys about being at the Kennedy School, is that through the Mossavar-Rahmani Center for Business and Government, we bring in these leaders from the policy world to actually spend time with us, Tim got to spend a little bit of time on campus with us before the pandemic, but it really adds an incredible amount of value I think for us as faculty, and I believe also for our students, to be able to learn from these insights from those who've been at the frontier of policy. And in Tim's case, thinking about the oversight of our financial system at treasury, at CFTC. And so it's been a real treasure, Tim, for us to learn about what you've been working on as a senior fellow here, and very much appreciate your presentation and discussion.

Timothy Massad:

Well, it's been my pleasure to do it. I'm sorry I didn't get to answer all the questions. I'd be happy, if anyone wants to get in touch with me, I'm happy to carry it forward in that way. Thank you so much for having me.

Joe Aldy:

Fantastic. Thank you. Hope everyone enjoys the rest of your day. Take care.

Timothy Massad:

Bye.