

The status of stablecoins

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Hello and welcome to the omfif podcast. My name is Lewis McClellan. I'm the editor of the digital monetary Institute here at omfif, and today we're going to be discussing stablecoins, the status of stablecoins and other non bank payments service providers, how they should be treated and most importantly, who should get access to payment rails, to final settlement at Central Banks. Presently, that is restricted almost exclusively to commercial banks. It varies a little bit depending on the jurisdiction, but for most stable coins, most payment service providers, they need reserve banking relationships with commercial banks, and they and it's the commercial banks that do final settlement in the central bank reserves. So payment service providers, or like stable coins, are, in a way, a layer two solution, but stable coins are really a new model that have emerged pretty recently, and maybe it's time that we re examine the role they're playing in the economy and their relationship with payment rails and final settlement at Central Banks. With me to discuss that topic is Gordon love from circle, Chief Economist at Circle, thanks for joining us, Gordon. Thank you so much pleasure to be here. Terrific. All right. Well, can you talk a little bit about this issue of, I guess, the historical origins? Why is it that we keep access to payment rails restricted to this pretty narrow community of commercial banks, depository institutions?



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That's a great question to start. I think banking, you go back in far back in the history of banking, it started being a bundle of credit provision services, along with deposit taking and payments. And that bundling of credit creation and payments have long existed well before the most modern times, but it was really the rules that are created in the 20th century, in the US as a Federal Reserve Act that both created a system of regulating banks and supporting banks in times of crisis, but also keeping it, keeping the banking sector Quite entrenched in fulfilling the

role of payments. Of course, payments happened long before in the form of commodity money and being able to pay each other also using physical cash, but it was the rules and allows that were enacted in the US and elsewhere that re entrenched banking entities being at a center of the payment system that they only the banks have direct access to the central banks, and as a result, direct access to the large scale payment rails on which that central bank reserves are moved around. So if you could only access central bank reserves through a bank. Therefore, you're also limited to the access of large scale payment rails through the same mechanism of going through banks. But you know, there was actually a fair number of attempts historically at addressing this issue of exclusive access, which have created issues in the past. Namely, every single time there was a large financial crisis, if you think about the Great Depression in the 1930s as well as the savings and loan crisis in the 70s, in the 80s, as well as even after 2008 there were discussions of, you know, should we actually think about dismantling this bundling of credit provision and payments, because they are somewhat separate functions, and by forcing them to be together, from a rule of law perspective, you're creating a structure that is prone to too big to fail, type of risk that ultimately end up disrupting businesses. So that sort of a time has been going on, at least in the US, multiple times in the history of modern banking. But I would say, you know, there's actually been a lot of progress recently. We could go into that a little bit later in other jurisdictions, in opening up that sort of open competition for payments from both banks and non bank payment providers, right? Yeah, we'll definitely get on to that in a moment. I think that is really interesting, though. This, this idea of unbundling credit and payments, credit provision and payments, because I think I mean clearly payment services as its own business model has existed. You know, for a while there's lots of payment.



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Service providers that don't really do credit and it's certainly a viable business model, but they, they're always kept to this layer two level, right there. They're not doing the final settlement. They have to have a bank, a relationship with a commercial bank, rather than with a central bank. And yeah, you only get that if you're doing credit provision as well, but at least in the US,



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yeah, at least in the US. And I think that sort of, you know, layer two reach to the payment system has been quite limiting, at the detriment of eventually, consumers and businesses that are trying to settle payments on the faster rail, not just domestically, but if you think about fast water, payments is still today, painfully slow. Or why is this slow? If you look at essentially how cross border settlement happens today, it relies on, ultimately, updating ledgers on multiple systems or multiple currencies. Ultimately, those ledgers ends up being the central bank ledgers. So the final say of who has the money from that that has rather moved from one institution to another are the central banks. So for someone to pay from, say, the US to Europe, you actually are, at the end of the day, settling on two different ledgers, the ledger at the Fed, which is



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the Federal Reserve's reserve system, as well as the Fedwire system, and also the same like a different ledger at the ECB. And that creates quite a bit friction, quite a bit of frictions, because

not every single bank have access to both ledgers. And in fact, in most of the cases, have this problem of banks not having access to multiple ledgers to update their records, and oftentimes, if you actually go from one currency to another currency, you end up having to update a number of intermediary ledgers. That's the correspondent banking network in between. This is why cross border payments is painfully slow. It is also a process that's prone to errors and prone to also illicit finance and inability to trace where money is coming from, where money is going to so I think just being able to kind of opening up that playing field of allowing payment companies are actually doing a lot of cross border settlements these days. To have direct access to these multiple ledgers on different central banks networks is actually quite helpful in increasing the efficiency of payments, reducing the time of settlement, but also perhaps even making payments more traceable for different countries in terms of combating the USA finance. Yeah, it's really interesting point. I think again, it's difficult to treat central banks as a block here, because, you know, if you think about Switzerland, they've had foreign institutions being able to access their central bank balance sheet for a long time, but that's a pretty small market, and they, they know the value of having foreign liquidity providers there, but that's, that's quite unusual, right? That's not a common position. It's actually, you know, you do have foreign banks, oftentimes having reserve accounts, different central banks, the Federal Reserve, for instance, where Previously I worked out a couple of years ago. You know, the Fed does have a number of foreign banks that have access to the reserve account, but it's rather limited. It's the largest G sibs. For instance, it's not the second level, second tier banks, and it's not oftentimes the smaller banks in different emerging market geographies, oftentimes they had to go through an intermediate bank to get that access. And the problem is, when you're trying to settle, say, payment between, let's say, \$1 you know, some currencies, it's not as widely used, you end up having to go through updating of not only the ledgers of the individual banks that are involved in the transaction, but also the different central banks involved in transaction. And today, still, most of the global transaction volume does go through the dollar. And that means even for someone who's trying to pay from, say, South Korea to Singapore, oftentimes that payment will go through the Fed system in settling through the dollar network. So that's a rather inefficient way of thinking about how payment flow occurs, as well as the different steps are in place to make that happen. Yeah, yeah, right, yeah, okay, that makes sense. Well, let's talk about some of these jurisdictional differences, though, in terms of you know, who is able to access these payment rails, do you have a sense of is this? Are we.



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A trajectory of opening up access globally. Where are we? Where are we, and where are we going with that?



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Absolutely, I think we're on that trajectory already. For the last couple of years. You look at major jurisdictions outside of the US, the UK, the EU, Singapore, Australia, they have already started to open up their large scale payment rails to non bank participants. In the UK, I think the real time growth settlement system has already been open to certain non bank payment service providers for a bit of time, and some of the payment firms have already come in with special accounts that are limited, quite limited in their usage for only payments with the central bank. The EU have also clarified in their revised payment service directives, or PSD, to to also allow non bank entities such as payment providers and E money issuers and E money token

perhaps even token is yours to gain access to the EU payment system, including target two system. These are all really fruitful, I would say, steps on the way to both open up more competition in the payment space, especially for cross border payments, but also, I think ultimately this would make the financial system more resilient as a result, because they thus do some part of this unbounding of credit creation and payments in a way that could actually lower the balance sheet strings of, I would say, both banks and central banks, optimally, if you think about one of The main roles of the central bank, historically, has also been fulfilling this lender of last resort function, because you have rationally reserved banking that is providing credit, but at times really does need liquidity. Central banks have to step in and be that lender of last resort, especially because banks are also fulfilling the payment functions, and that has created essentially larger and larger central bank balance sheets over time. Now, I think we're already in this world in which more of the credit creation are becoming more market based. If you look at non bank lending or either as private credit or in the other forms of credit provision that's more market based, that's already on the trend of rising and becoming more important. This is quite different than, say, shadow banking in the prior OA pair, because these are market based lending that's not funded by short term vulnerable liabilities, as it was in the case of shadow banking prior to like, whether this is genuinely the market has gone there were solutions for creating credit that is oftentimes pricing these credit more competitively than a bank would. Um, so you already have that credit creation function function going on that's more market based, and now it makes other sense to actually also consider, on the payment side, to have more competition as well, that you could introduce this somewhat of an unbundling of credit and payment. And ultimately, I think that will strengthen the whole financial system, because you will reduce that too big to fail risk, you will reduce the need for central banks to step in every once in a while because of financial crisis. And ultimately, I think that would reduce the constraints on central bank balance sheet being so large, and also strengthening the independence of central banking. Yeah, I think that's a really good point. I want to that. You know, the impact on central bank balance sheets in a moment. But just before we do,



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I think, you know, you made some interesting points there about, like, different business models for credit creation and lending from the traditional bank lending models. And I think



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this idea of novel business models within within payments, I think is really, really interesting. Not not just having transaction services as as you know, something you get as part of your



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you know, all the services you get from the bank, but you know the banking model of maturity transformation, where you put in short term deposits, and they lend long and make money based on that. That's one model, and it's obviously lasted a long time for good reason, but not the only way of doing things. And I think it'd be good to can you talk a little bit about what alternatives will be would be opened up to by by expanding the sectors.



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Yeah, so I do think you know, expanding access to payment system is just about expanding access to payment system. It doesn't necessarily open up to other forms of maturity or credit transformation by non banks. And my personal opinion.



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It probably shouldn't open up that sort of credit creation that's more based on leverage, that's more based on



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transforming risk. Rather, I think just by unbundling the payment side from the credit side, you do open up the ability for more payment service providers to provide a payment service by itself, and more market based credit provision that is not based on leverage, but based on just simply those who have funds. These could be unlevered funds that are lending out to businesses and households in an unlevered way that doesn't rest on fractional reserve. So that's already occurring, you know, even without this unbundling, but I think it could happen even quicker, perhaps with this unbound knowing of payment and credit at the same time. You know, I think just cross border payments and alpha back payment, that would improve dramatically, just with the open for competition with new technology, stablecoin being one of the technologies. But it's not the only one that allows faster transfers, allows better, essentially, better optimization of the routing, as well as the holding of these nostro vault bonds



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currently that are required to add correspondence banks which are quite inefficient and actually sorts up a lot of liquidity in the banking system.



16:42

Yeah, I think that's a that's a really good point. And I think, you know, one of the sort of pillars of security that people rely on, and you know, gives them confidence in commercial bank money, is this access to the lender of last resort. And I want to come back to what you were talking about with the, you know, capital treatment of stable coins, and how that kind of differs from fractional reserve banking model, where it's levered rather than unlevered funds. Um, can you talk a little bit about, I guess, this is quite a is quite a sizable innovation in money to change from levered fractional reserve banking to unlevered, wholly backed money. Yeah, I think it's actually, it is both in innovation, but also not in innovation, because it's been discussed so many times before. And in fact, if you go back in history, the earliest bank, I think, sorry, Bank of Amsterdam also was fully reserved in the sense of, you know, it didn't have that much maturity transformation. It was actually just fully invested in kind of the safest asset at the time, which were the commodity mining at the time.



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So this fractional reserve paper lending only started to occur much later on in history, but even then, after the Great Depression, I think there were some discussions about restarting a more narrow form of banking in which banks were only allowed to hold the safest bonds, without much maturity transformation, without much credit transformation. And you know, if you fast forward to today, if you look at the provision of access to Central Bank payment rails, or central bank reserves and payment rails in Europe, in



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Asia, it's predominantly for these non bank payment service providers is quite limited. It's not providing the same lender or last resort function. I think that's probably for a good thing,



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both requiring these payment service providers to actually have the full reserve and not do better transformation and not doing the British transformation, but also ensuring that the central banks are now exposed to fulfilling that lender last resort role for non banks, and that's quite different from the bank access to central bank reserve so I do think there is quite a distinction between even if you do allow non banks to get Access to central bank reserve accounts to large scale payment rails. You don't necessarily have to give them the same central bank backing in terms of a discount window line, and that's because, you know, these are payment instruments, and as payment instruments, they should be fully reserved. They shouldn't be transforming credit anyway. So if you look at, for instance, circles USDC and its reserve, it's entirely, almost entirely, backed by essentially government forms of liability, short term T bills, reverse repurchases, that's also Treasury based.



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Right? That's also very short term. And for these sort of instruments, you have very little amount of market risk, you have very little amount of credit risk. And you know, we try to manage liquidity risk as best as we can. And at the same time, you know, that's it requires a whole different framework of thinking about how liquidity and capital should be positioned. So most recently, my colleagues and I, we released a paper, a general framework that we're proposing how we should think about Capital Framework, or any sort of tokenized stable value claims that includes stablecoin but also includes potentially deposit tokens, tokenized money market funds of sort, anything that has a fixed value claim to it, but it's tokenizing nature. In this paper, we outline the different type of risk which are similar to traditional risk, but different as well. We have the traditional market risk, which I just mentioned, for a fully reserved type of instrument, instrument like a payment stable coin, is rather low. You have credit risk as well, which I think depends on the reserve mix could also be very minimal if you reduce the exposure to some of the credit institutions, and then you have this category of operational or technology infrastructure risk, which is also something that historically has been thought of in the banking realm. But for tokenized assets or tokenized claims, it's a bit different, because you have the additional complexity of new technology, you have additional complexity with tokenization on the different type of features and risks that isn't held. Yeah, I guess that's just a

level of comfort thing, though. It's not like the existing system is entirely free of operational risk. It's just already priced in. People know exactly how to go about things. So I guess the the operational component will, people will get more comfortable with that. But this idea of,



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you know, providing payment services, but without, without the leverage, you know that the narrow banking model that you talked about, it does kind of answer a lot of people's potential concerns about, if you open up access to central bank accounts, are you opening up exposure? Are you opening up liabilities, you know, the claim to a lender of last resort discount window or something like that. And, yeah, not necessarily if you, you know, supervise the capital requirements properly. Some of what you've been saying has been specific to stablecoins, and some of what you've been saying applies to other nonbank payment service providers as well. Can we dig into that a little bit? Can you talk a little bit about what they have in common? What nonbank payment service providers have in common, including stablecoins, and how stablecoins are a slightly different model as well.



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Yeah, I think you've brought up a good distinction. I think there are probably a few distinctions in the features between stablecoin I would call it actually just generalized tokenized form of fixed value claims versus non tokenized forms of fixed value claims offered by non bank payment service providers. The tokenized form of fixed value claims is oftentimes blockchain that are public blockchain. So with that, you have broad access, you have you get away from this siloing effect of a walled garden of a single provider having a single set of customers, whether you have a issuer of these tokens that are transmittable public blockchain, but if you actually look at the reserve differences, I think There's actually a bit of difference as well in that some of the payment service providers, because the way that they're more siloed up, or because there hasn't been spotlight shone on them before, they actually do have more credit exposure. I think for the tokenized form of money to be short, you actually need a higher standard in terms of reserve, in terms of less credit transformation, less maturity transformation, because it is a ledger that is broadly accessible, because you could program in things like if then statements, if you observe other people transferring funds out, then you will transfer funds out. Now that it's not possible with digital banking today, it's just with tokenization that risks become more salient. So this is why I think for all sorts of tokenized fixed value claims, whether you call it stablecoin or a tokenized money market fund or a token.



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Its deposit, you face a similar type of issue with tokenization, introducing that ability for faster movement on money, but it also introduces ability for observation of ability and transparency of movement of money, in which it's a double edged sword. And you know, one thing that you mentioned about earlier, about, you know how people talk about narrow banking? One historical concern has always been that, oh, well, if there's a lot of narrow banks around, wouldn't that compete with traditional banking? Because it would take away deposits? I think it depends. I would. I wouldn't characterize payment stable coins today anywhere near as a narrow bank, because it's not, it's providing the payment service, but it's not providing yield to

the users. So you're not competing against bank deposits, or yielding bank deposits, per se. You're competing more against, you know, physical versions of cash. It's just more of a tokenized version of cash. But now, if you have yield attached, do these sort of tokenized fixed value claims, such as a tokenized money market fund, all of a sudden, then you get into that narrow banking beta. Well, now you have an instrument that is probably transferable, even if it has some white listing or blacklisting type of procedures, but it has yield. It could actually serve as an alternative to a deposit account, but I think that's much more of a concern there. And I think there's been really good research that's been done from some of the central banks. I'm thinking of Bank of Canada in particular, they have a set of researchers, Johnson Chu and co authors have written this JpE paper about how the introduction of digital currency and in their in their paper as well central bank digital currency, but it could be broadly applied to other sites of digital currency, whether that introduces risk to disrupting intermediation and banking sector. I think that large, the conclusion, by and large, but I summarize it correctly is when there is market power in the banking sector. If you introduce a low yielding or a non yielding form of payment instrument, that could actually introduce the right type of competition that crowding deposits, rather than crowd out deposits, because they introduce another option, banks might raise their deposit rate just so slightly that it actually draws me more deposit and you actually end up expanding credit position. However, if you introduce too much competition in terms of having, say, the full spectrum risk free rate embedded in these tokenized products, then it's very possible that you compete with events so much that you actually end up reducing credit provision and actually disrupting banking and challenging that traditional form of liquidity. And I think that could be potentially quite dangerous, at least in the short or medium term. So that's, yeah, yeah, no. It's a very interesting question. And as you say, something that comes up a lot when people are talking about Central Bank digital currencies, the extent to which they're going to compete for, you know, for deposits, and you know, the digital Euro formulation, non remunerated, and there's a pretty low holding limit, 3000 euros, what they're talking about. And, you know, reverse waterfall, where you don't actually hold anything until until you actually pay. Probably wouldn't compete for for bank deposits. But that's not necessarily the model that of digital currency that's going to emerge over the next few years. Certainly, you know, some central banks might do things differently, and there's, there's other sources of digital currency that might be competitors as well. I wanted to go back to something that you were, that you talked about at the start of that answer, pertaining to credit in non bank payment service providers. And I think, you know, you mentioned there's, it's kind of treated as though it doesn't involve credit, but, but in a way, it does. And if you have the, you know, the experience of doing instant settlement with with a lot of non bank payment service providers, you get that because of the extension of credit, not as a not because you're actually getting the money somebody is taking credit.



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Yeah, absolutely. So that that is the difference between traditional non bank payment service provider and something that's more of the form of a payment stable coin. In that in traditional non bank payment service providers, instantaneous settlement actually is just the instantaneous provision of credit from one part of the balance sheet to another and from one one set of risk transfer to another. But I would say for payment stable coin, the end holders of tokens are the Clement, the full reserve that are back in the token when you actually have settlement that occurs on.



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A blockchain that is settlement transfers of the right to own, the underlying reserve, which are fully backed, and that is different than the typical type of instantaneous settlement that happens with the non bank payment service providers. I say that's one difference. But yeah, credit could still happen payment stable coins through what I described earlier as a form of market based credit. So someone could take a payment stable coin, for instance, and use that to settle, essentially lending transactions between the borrowers and lenders, and borrowers and lenders could be just non banks that are fully reserved, or they have there's non levered, just like how private credit works today. That perhaps you could speed up the market a bit and make it more efficient when it's actually a shared, permissionless ledger or permission ledger. Are you likely to be right? Yeah, yeah. But the, I guess the part of the difference is the credit. You can still provide credit services with a stable coin, but it's not money creation in the same way, because the instrument itself is still fully backed. The instrument itself is folded back, but others third parties can use the instrument, yeah, for landing, for borrowing, yeah, yeah, absolutely. So we're running short of time here, but just before we finish up, I wanted to come back to something and something that you discussed at the start on the I guess, how it would be different from from the current system, and you mentioned traceability as something that you get with stable coins, differently from, you know, the existing correspondent banking system. Can you talk us through what what that means?



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Yeah, so transactions, these public blockchains, are visible to everyone, although the addresses are generally RP decipher, unless you're the institution that's providing the on ramping or off ramping. So as a result of that, for most type of transaction, when I did the calculation myself, it was something like the vast majority, 99.9%



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of the transactions are essentially within a half or two from a KYC entity. That is most of the wallets. These are blockchain wallets in the world are almost direct extensions of the exchanges, that if you ask the exchange, whose wallet that is the exchange, what answer to law enforcement and transactions emanating from those wallets, either receiving ascending represent almost the bulk of almost all of the transactions effectively. So that's a very powerful tool for actually fighting against us finance to fight against potential fraud, if you actually scale up that sort of system in comparison, corresponding banking has been around for a while. Yes, there are certain controls in place, but we have also seen many failures, many gaps, because just because the neurons,



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the 5r system gets run by the Fed, doesn't mean the Fed knows what's going on with every single transaction there's it's hard to actually observe from the public, and there's oftentimes risk do not get flagged. More recently, I think there was just a was regenerative about the usage of US banking system, how it was linked to the payment of illicit funds to Iraqi banks to Iran, and that was representing the bulk of the transaction from these Iraqi banks. And that really does highlight the failure of the current, current corresponding banking network, the

current way of just because you have control as a central bank doesn't mean that you necessarily see everything that's going out until it's too late. I do think if you look at the private sector versions of it, public blockchain, as well as the number of real time monitoring and tracing firms that is the chain analysis and TRM, like TRM labs of the world, they're doing just a phenomenal job of actually tracing out the transactions, flagging it to law enforcement and flagging it for also blacklisting by stablecoins. And that's a pretty big, I would say, product innovation over the existing structure, which is actually hard to trace. Yeah.



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Yeah, I think, you know, there's this reputation in, you know, the crypto industry generally, that that, you know, because of the possibility of it being peer to peer with unhosted wallets, that there, there's this, like, a huge amount of value transfer to completely young KYC people, but it seems to be a pretty small and decreasing share, is that, is that fair from the data perspective, like the proportions of transactions going on? Obviously, you know, I can buy, you know, USDC and send it to somebody that you haven't directly KYC, but it seems like the unhosted wallets question is, somebody's gonna have KYC, most of its in relation



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exactly that's most of the private wallets are directly linked to exchange one way or another, because the on premise and off ramps has to be actually exist for those private wallets to get the funds in the first place. So as a result of that, you know, the duly untraceable wallets are far fewer in between than what do we make out to be sometime?



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Well, we've run on longer than I intended, but it's such a fascinating topic, and there's certainly much more to be discussed. Thanks so much for your insights. Gordon, yeah, great to have you.



36:18

Thank you so much. It's been a pleasure, and if you're interested the paper that Gordon referenced earlier on token capital adequacy frameworks, we'll drop a link to it in the in the description. It's definitely worth your time as a lot of detail there on the capital requirements of different types of tokenized money claims. And you know how we should start to think about those? Certainly much more on this topic coming from omfif. The end of the year, we have our future payments report, which will touch on some of these themes. We always have a program of roundtables going on. So do check out our website if this is a topic you're interested in, and feel free to get in touch as well. Thank you for listening. Goodbye. Thank you for joining us for this edition of the omfif podcast. If you found today's conversation engaging, make sure to stay tuned for additional thought provoking discussions on artificial intelligence, Central Bank, digital currencies and digitalization of finance by subscribing to our channel. Stay connected of the latest developments by following us on our LinkedIn page. Omfif, digital monetary Institute.

