

CBDC plans energised by stablecoin momentum

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SPEAKERS

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Speaker 1 00:00

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Speaker 2 00:26

Welcome everyone to this digital monetary Institute podcast with GND currency technology and indeed, one of our treasured regulars, Wolfram Seidemann, its CEO, I'm John orchard, chair of the DMI, part of OMFIF, the central banking Think Tank. Welcome valfront. Very nice to have you back.



00:45

Thank you, John.



Speaker 2 00:47

Talk about CBDCs. We've done that before, but they're back in the news after an executive order from the incoming administration in the US on the 23rd of January, apparently ruling them out there. This throws up lots of questions about the likely Digital finance system that will emerge in the US. We'll touch on that later, I'm sure, but it may deep speed up cbdc implementation elsewhere we've discovered, and that's something we'll delve into. Too many central banks, volfremes, we've talked about before, and their parliamentary colleagues think that public money probably needs to be visibly at the heart of retail and wholesale payments

and settlement, which is why many still have important cdbc programs, even in countries where there isn't an urgent retail need. We're going to check in today on their current thinking in this complex and fast moving area. So working with G and D, we've just published a survey of 34 central banks latest thinking on CBDCs, both on a theoretical and technical level, which follows on from several pieces of research over the last few years with G and D, which I thoroughly recommend on topics such as attitudes to privacy, trust in payment platforms, and regional preferences for digital payments, both from a mixed intriguing picture is emerging from our research. According to the report, the proportion of central banks that expect to issue a cdbc in the next three to five years has, in fact, increased, but some at the same time have delayed the issuance timelines. What's going on here? Why do you think it's so critical to move on now with cdbc issuance.

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Speaker 3 02:23

Yeah, thank you, John for your introduction, and you actually start with a very relevant question. In my opinion, cdbc provides huge value to the financial system for both in wholesale, where a modern, digital settlement instrument could be used in new programmable use cases, as well as where retail cdbc serves as an inclusive public digital payment option, which is not guided by commercial interests, that really adds value to the financial system. So that's why we see many central banks moving forward with the agenda to engage into that digital transformation. Partly, we see delays indeed, and that's most probably because central banks want to do things right and not necessarily be the fastest one, and therefore they are carefully looking into the options and a proper guided process to move things forward

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Speaker 2 03:28

that matches the report's findings regarding central banks. Motivations for CBC issuance actually volfront with financial inclusion and preserving monetary sovereignty ranking first. And of course, those serve broader economic imperatives for the jurisdictions in question. Why does central bank seem hesitant, dare we say, or slow than the private sector? Do you think?

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Speaker 3 03:50

Well, first of all, I think they don't want to make mistakes. Their responsibility as public and legislatively controlled entities is far greater compared to a tech company launching a digital payment solution or a crypto asset. Private payment systems are driven by business cases. Central banks are guided by public interest. Furthermore, time was needed to define core requirements of all stakeholders involved and overcome technical hurdles. Cdbc is intended to reduce fragmentation and serve as public infrastructure, so it requires an involvement of all relevant stakeholders, educate on advantages, dispel misconceptions, develop use cases, benefiting all. And establishing regulatory and governance framework is time consuming. Establishing legislation is partly depending on political will as well. However, now it's time for central banks to act.

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Speaker 2 04:47

Yes, that's That's right. Well, I mean, while many central banks are working on CBCs and say

Yes, that's that's right. Well, I mean, while many central banks are working on CBDCs and say that they are still, in the most part, still doing that, the US, as I mentioned beginning, is prioritizing digital assets. Since the change of government. What do we think this means for CBD issuance globally? More impetus for adoption, maybe or perhaps more hesitation. And do you see private sector stable coins, which are probably beneficiaries of the new administration, albeit backed as well by dollar cash or government debt? Do you see them taking up slack as a result.

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Speaker 3 05:21

Well, first of all, I think the initiative of the US administration pushes the development of the token economy, so it has definitely a positive impact. And stable coins have a lot of benefits for certain use cases. However, they do not fulfill the function of public money, nor do they serve as an efficient retail payment instrument. I actually believe that this might accelerate cbdc initiatives in some countries in order to protect monetary serenity, the central banks would rather would like to have their currency be involved in business activities, rather than to use foreign stable coins. Actually, one could even declare this discussion as the second Libra moment that hopefully will be another wake up call to engage and move the CBC journey on.

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Speaker 2 06:12

Well, actually, we might have a bit of empirical evidence for that already. Volfram, I mentioned earlier the executive order, apparently banning CBDCs. We worked on a quick mini survey following up from this research we're talking about today. That survey was done the end of last year, so we needed to update a little bit, asking people whether the EO has changed their intentions, and actually, we're getting indicative results. Up to 30% of the respondents think they probably will. What do you make of that?

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Speaker 3 06:44

I can relate to that because the difference between stable coins and cbdc is clearly one is issued by a public authority, the other one is issued by a private institution. The one follows public interests, or guided by public interest. The other one is guided by profit interest. So that's one part of the debates. The other part is, of course, the question of sovereignty. In each of the jurisdictions where money has these three functions, as you know, it's means of transaction, it's a store of value, but it's also unit of account, and if the contracts in a country are denominated in a foreign currency, whereas stable coins can be used, it reduces the impact of the monetary policy of the local central bank. So for sure, that might have an effect on the discussions for essential banks to drive forward their cbdc engagements. Yeah, you would have

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Speaker 2 07:41

thought so it's quite easy to imagine the dollarization of certain elements of the payment ecosystem, if some of the stable coins very successful. Chapter Two of the of the report we're talking about today, not just exploring these theoretical import theoretical issues, but also the technical sides of cbdc. And actually, there's been a lot of progress, great strides, in addressing

the technical challenges. I think, of issuing cbdc In the meanwhile, certainly since we last asked, Do you think we're now ready, from a technical feasibility point of view, to introduce retail cbdc evolve from

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Speaker 3 08:16

Oh yes, and we have conducted intensive testing and experimentation, and can confidentially say that we are able to launch a cbdc ecosystem so we would be production ready. And contrary to the opinion in the banking landscape that is sometimes here, we could confirm that integration into existing systems, established processes and even existing hardware, it's quite simple. So for example, it took us two weeks to onboard financial service providers in Ghana, where we integrated into their back end system and also integrated with a simple SDK into the mobile banking app or the mobile wallet solutions, which worked rather fast. And by the way, with that technology is also very simple to onboard user, because you can just have access to the existing users of the commercial players or the financial service providers with the existing app, and this is just enriched with capabilities to transact with cbdc. So I believe if we continue to drive a close collaboration between the private sector and early integration of FSPs and merchants in cbdc projects. It's a rather smooth roll out, and technically, the topics are solved.

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Speaker 2 09:36

Well, that's that sounds promising last time, voltram offline payments seem to be the leading preoccupation, and we've we've talked about that several times. As you know, in this survey, central banks found user experience to be the biggest challenge now to focus on from a technical point of view, what are your thoughts on this fall from

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Speaker 3 09:57

so that's a question of cbdc design. I. In a well defined cbdc ecosystem, central banks are not in direct contact with end users, but FSPs are FSPs who distribute cbdc, for example, the ease of onboarding is solved through SDKs, which are software libraries that are integrated into existing wallets or mobile apps. A multi device concept allows a variety of wallets to be used, and merchants can easily be onboarded with their existing service contracts that they typically have with their service providers, where a new kernel needs to be loaded into the point of sale device. So good user experience is, of course, crucial for adoption, but therefore in a well designed cbdc ecosystem, this is left to those who have experience with it.

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Speaker 2 10:56

Yeah, you touched on adoption just now. We've seen some pilots where that hasn't worked as quickly as people wanted. That remains a something of a concern. How should a CBC ecosystem be designed to encourage adoption forefront?

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Speaker 3 11:13

Yeah, all stakeholders of the ecosystem need to be addressed. That's the paradigm, which

mean, all stakeholders of the ecosystem need to be addressed. That's the paradigm, which means early integration of the private financial sector is one of the key aspects, and that is not a simple one, because one needs to define the business model and how engagement will be compensated, which also is a case, then to involve the merchants where which is so important for universal acceptance, and again, also, what is the business model? How do readers reach merchants? How can we include the service provider to upgrade the existing point of sale infrastructure to be able to receive cbdc payments? But even the consumer needs to be considered, since also some awareness campaigns are required and education is essential, citizens need to be informed about what features cbdc has, even what benefits they bring, what use cases are attractive. And last but not least, there's a lot of misconception typically circulating because cbdc can be implemented in so many different ways, and sometimes people have different perception of what's the intention of a cbdc, and so there has to be a very good communication campaign to allow public to trust the solution. So CBC should carefully prepare a rollout plan. A possible strategy could be a soft launch, where you leverage from insights from a pilot and scale up later, without having a big bang, but rather roll it from one region to the other, or from one application to the other. Another approach could be to promote government payments leverage the public sector institutions such as unemployment office or other entities where citizens can download the app from a government web page and therefore apply for certain subsidies or services to monitor user adoption and integrate that feedback is also crucial for a proper roll out Plan and eventually making sure that the CBC is integrated. Into existing systems, such as those wallets that are already trusted and are already in use, as I mentioned in those pilots, where we just added the functionality to an existing wallet, which really increased the onboarding of users. So from a technical perspective, this is all best practices that are very easily to be rolled out, and that would definitely drive adoption within the entire ecosystems.

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Speaker 2 14:14

Are talking about offline functionality a minute ago at volfrem, and that remains a critical component of user experience and adoption. Someone does your saying, it is actually quite an interesting component of I think, trust in this format actually from the conversations that you and I have sat in before. And it's not just in the context of geographies with infrastructure and network challenges, you know, developing markets that people associate that requirement with. But it's also important, I think, in more developed jurisdictions that don't have those don't you think,

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Speaker 3 14:50

Oh yes, absolutely. Offline is a key function and a key feature for a cbdc. And it's an interesting aspect that actually, this is. Is an area which has never been addressed so far in any digital payments solution, because we always were of the opinion, yeah, it's digital, so it will fail, but we still can use cash. And everyone carried cash around. If you ask nowadays in the audience, please those stand up who carry cash see less and less and less people, more and more people staying seated so But definitely, as soon as we enter the public space and talk about the central bank payment instrument, which is legal tender, it has to work under all circumstances, which means it can't be offline. It has to work. So in order to can't be down, and so in order to be able to pay, it has to provide offline functionality. And that is true for all countries, because even in the most modern economies with a lot of infrastructure, you have down times which need to be covered and, yeah, just try to travel by train. In Europe, you want to buy your coffee

at all times. So it has to work offline. And we don't need to look at countries where offline is a feature that will drive financial inclusion, because that is the other aspect of this functionalities where it provides value that in rural environments where there's not only no connectivity, but also less infrastructure in place, an offline capable cbdc can allow participants to onboard the digital space and be open to financial services that they would not be able to access so far. So it's clearly one of the key features for many reasons. Yeah,

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Speaker 2 16:49

we can't really have interruptions in the functioning of cash one way or the other. As you say, whatever kind of economy you've got, it looks like there are, there are good answers to that. Now, in CBD design, you touched on another issue that comes up a lot in our discussions at DMI, and that's the potential fragmentation of the financial system, including walled gardens around the most effective private sector payments players and similar issues to that. How can CBDCs work against that, to the benefit of the economy and indeed, the private sector more broadly?

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Speaker 3 17:32

Yeah, that's a very good topic, because when we look back what we accomplished in digital payments, it's quite a lot with great functions, great features, convenient ways of usage, but still highly fragmented. And that even starts in a room. If you ask five people which digital payment solution they use, you will most probably get five different answers, especially in Europe. That's the case. So the reason for that is most probably because each of the systems have been started as a private business case, which try to maximize reach, but carved out less attractive segments of society, or your restrictions or borders, and here, I think cbdc has multiple ways to improve that situation. First, it has the broadest or the strongest network effect, since it will be a legal tender, it can be used everywhere, and that's the key element, or the killer application, for cbdc to be used everywhere by everyone, and that will definitely drive that fragmentation down. And if the cbdc design is in a way that cbdc is the public infrastructure platform that offers private players to build products and services on it. It is the framework under which then multiple use cases and services can be created, but with one common infrastructure and one main theme, which is acceptance, to ensure that it can be used by everyone everywhere, and that will bring down fragmentation and drive inclusion.

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Speaker 2 19:26

Yeah, we we encountered, actually, a recent discussion that you and I had with a key, innovative central bank, we concluded, actually that a public sector offering CBC actually, of course, drives interoperability, and therefore helps innovation in the private sector expand on that idea a bit Wolfram, so innovation is sorely needed, and competition as well, improves products and keeps prices down. What kind of progress might you expect to see ultimately benefiting. Consumers as a result of cbdc?

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Speaker 3 20:03

Yeah, that's that's a very good point. Let me try to be as concrete as possible, because I talked

Yeah, that's that's a very good point. Let me try to be as concrete as possible, because I talked about that already, a lot that I see that cbdc is a platform for innovation. What does it mean? And so in one of our pilot projects, we collaborated with a FinTech company that provided a payment service but had to rely on the infrastructure of a competition firm or competing firm to process those transactions, and that means it is a burden for the operational costs. It's a challenge for liquidity management, and it's less attractive for the users who don't get instant settlements but are on batch processes, for example, assuming that this FinTech in their offering could use cbdc infrastructure as a settlement instrument, they can offer their products and services to The end user with far better conditions, because they have low operating costs, they also have less investments to do so also the time to market for new services can be significantly improved that that's why I urge central banks to not only regulate but also invest in cbdc as a platform and issue that instrument that allows and the market to work with it rather earlier than later, because the faster you start, the more you can drive the digital economy.

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Speaker 2 21:33

Yes, exactly so that, and I know that's top of mind for lots of central banks, as a motivator beyond the practicalities of replacing cash, some central banks have been exploring or even indeed, indeed rolling out instant payment systems. There are subtle but important differences between IPSs and cbdc Tell us about the additional value that a retail CBD can provide in comparison to an instant payment system. I think it's quite an important distinction.

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Speaker 3 22:03

Yes, there's clearly a need, for instance, person to person payments. However, that's a just one use case of cbdc. And here is a bit of the misconception that I currently identified in many of the discussions, um central bank want to offer fast, instant payment solution, but they could, if they jumped on the next technology, which cbdc is instant payment comes with it automatically, because cbdc is instant it's instant settlement, and can be used for Person to Person payment. So why investing twice now, working on an account based instant payment solution, which is not inclusive because you only reach the banks part of society, and investing into just a single use case, instead of rolling out cbdc That comes with instant payments automatically, where you could even envisage a face roll out of adding additional functionalities at a later stage, so one could start with tokenized instant payments easily from the beginning, and then later on at additional features of cbdc, for example, offline. So you could bring this instant payment system into offline, you could bring it into probability. You could bring it into conditional payments. You can enlarge from there. So again, it's a platform for innovation addressing one use case first, which may be the instant payment person to person use case, but then bring it to the other but you have a a future proof investment and not, yeah, running it twice.

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Speaker 2 23:50

Well, the other thing, of course, we touched on earlier in this conversation. Wolf read lots of central banks talk about the importance of singleness of money, and I don't know if you necessarily get that from an instant payment platform, even if the state provides it in the same way that you would from CB, cbdc, perhaps,



24:08

yes, right.

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Speaker 2 24:10

Let's, let's take out our crystal ball vol from I've said, you've got a very good track record in discussions with us, with us, of picking the right themes at the right time, including this one without even knowing the outcome of the US election, I have to say, what do you think we're going to see in payments and finance over the next five years? Say 510 years? What would you expect?

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Speaker 3 24:33

Well, definitely, a lot of things happening. Since if we look five years back from now, the world look different. But of course, looking into the future, it's a bit more difficult to predict. What I see is definitely that we will continue to see innovation in both the account payments environment as well as the token based arena. If you have a picture in front of you where there's a central bank and there are the Comm. Commercial banks and the users. Today, there's already the account based paradigm addressed with RTGS systems from central bank to the commercial banking system, and then from the commercial banking system with instant payment solutions, account based to the user. I believe that this will be added with tokenized solution. So we will see wholesale cbdc in use cases between central bank and the commercial banks, and we will see retail cbdc Even rolled out further down to the user, who could then use it in multiple possible use cases. Personally, I believe that wholesale and retail is a bit semantic at the end. I even believe that a multi purpose cbdc can be designed on on one technology platform, not necessarily blockchain, because blockchain comes with, on one side, a lot of positive aspects of efficiency on the other hand, and Brazilians especially, but on the other hand, the participation control is definitely an issue. And so I'd see that in the central bank space, we will be using different technology than blockchain, but there's a lot of infrastructure being deployed in the private sector on DLT, and in order to have an efficient settlement system wholesale, cbdc needs to be designed in a way that it can be used in private DLT infrastructures. And so as we talk even today about markets and infrastructures, I see that in the future, there will be a public infrastructure, private infrastructure, and there will be private and public issued instruments, payment instruments that will settle in those environments. And gladly, we are all working currently on interoperability design, which allows that to be an efficient solution at the end, yes,

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Speaker 2 27:09

of course, plenty of central banks have been looking at the idea of a unified ledger. We're waiting to see what the prevalence of private sector stable coins denominated in dollars will have on that idea. We'll see. I was in the Federal Reserve Museum in Dallas Wolfram a few weeks ago, where there were several different types of dollar pinned to the wall. In the end, resulted in the creation of the Federal Reserve in early 20th century. And one wonders if the

states will find a path to repeat that with stoic stable coins, I don't know, but what I didn't realize, I think is fascinating, is the impetus it's provided to go the other direction, outside the US, and that's something we'll follow very closely together. So I'm looking forward to talking to you about that again soon, both virtually, but also in person. And thank you very much for being with us today.



27:58

Always good to be with you, John. Thank you.



Speaker 1 28:03

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