

THE DAILY CHECK-IN WITH GOLDMAN SACHS

GUEST: David Mericle, Chief US Economist, Goldman Sachs Research

HOST: Liz Bowyer, Global Head of Content

Recorded: June 8, 2021

Liz Bowyer: Hi David.

David Mericle: Hey Liz.

Liz Bowyer: You've published several reports for Goldman Sachs Research on the possibilities of Central Bank digital currencies, both in the US and around the world. To start, what is a CBDC and why are central banks suddenly thinking about them?

David Mericle: Sure. So, central bank digital currencies, or CBDCs are a form of central bank money in digital form. They're different from cryptocurrencies in that they are a liability of a central bank, nominated in the sovereign currency. They're different from cash in that they're digital. And they're different from central bank reserves in that they can be held by individuals, at least in the case of what are called retail CBDCs.

Now, beyond that, central banks have a lot of different options in how they want to design CBDCs. For example, is it account based, or token based or both? How do clearing and settlement of CBDC transactions work? How much anonymity does it provide? Does it pay interest? And so on.

Why this sudden interest from central banks? I mean, I think the reason that these projects have really accelerated over the last year or two is in part a desire to crowd out adoption of private digital currency alternatives that could pose a financial stability risk, by offering a central bank digital currency as an alternative.

Liz Bowyer: So, give us a snapshot of some of the various central bank digital currency initiatives around the world.

David Mericle: So, in the US the Fed hasn't told us a whole lot yet. But in other countries, projects are a little bit further along. There are a couple of countries where CBDCs have already been launched for public use. There are about 20 countries that, at least, have pilot projects going on. And then there are many other countries that have major research initiatives underway where they've told us a little bit more about what they're

thinking.

So, here are a few generalizations about CBDC design so far. Central banks have tended to choose designs that feature both tokens and accounts that are intermediated by commercial banks, rather than offering direct access to the public and central bank, that use distributed ledger technology or some combination of that and centralized clearing, that do not pay interest, and that permit, at least, small scale, offline payments similar to what you could do with cash.

Now that said, almost all of these projects are still under development, so they could change going forward.

Liz Bowyer: And what are the main motivations for creating a digital currency from a central bank's point of view?

David Mericle: It's a fair question, because after all we can already make electronic payments, whether using cards or whether using payment apps. Now some of the arguments that you sometimes hear in favor of CBDCs are that they can make payments faster and cheaper, that they can reduce the crime and cost associated with the use of cash, that they can promote financial innovation, that they can promote financial inclusion, and that they can strengthen monetary and fiscal policy.

But there are two reasons to be a little bit skeptical about some of these claims. The first reason is we could achieve the same benefits with a more traditional approach. For example, you could also offer people bank accounts simply by subsidizing them. And the Fed is already planning to speed up payments by introducing a new, real time payment system called Fed Now that will come online by 2023.

The second reason to be a little bit skeptical is that some of these benefits require a more radical version of a CBDC than any central bank is actually planning to introduce for now. For example, no central bank is planning to completely phase out cash, so you can't really claim that as a benefit.

Liz Bowyer: And how do you think the central banks themselves are thinking through these issues?

David Mericle: So, we actually know how central banks are thinking about the motivations for a CBDC because the Bank of International Settlements surveys them and asks them. In the case of emerging economy central banks, the emphasis is really

on financial inclusion and payment sufficiency. And that is especially true in countries where the average person might not have access to a local bank or where some big app based payment provider would otherwise monopolize the domestic payment system.

In contrast, advanced economy central banks are more focused on improving the safety and robustness of the payment system, although most consider it an open technological question whether or not a CBDC would really achieve this. I think this is basically how the Fed is thinking about it. Would a CBDC make the payment system faster, cheaper, more resilient to attack or failure, and more open in a way that promotes competition and innovation? And they're not just thinking about the needs of the payment system today, they're thinking about the future.

So, for example, imagine payments costs were much lower and people could make micro payments. Or imagine all of the people around the world who today use physical dollars suddenly had access to digital dollars. In those cases, there would be far more payments that you had to process. Clearing needs would rise a lot. And you would want a technology that could cope with that.

Whether a CBDC can really deliver these technological benefits is a hard question, but I think that's where central banks are now focused.

Liz Bowyer: And what other concerns do central banks have about introducing a CBDC?

David Mericle: I think there are two main risks. The first risk is that a CBDC would make it easier to conduct criminal activity without the need for huge volumes of physical cash. There's a reason that we don't issue million dollar bills after all. And a CBDC that allowed totally anonymous payments and offline payments could be like an even worse version of that. The last thing that you want to do is offer criminals a more liquid and stable version of the cryptocurrencies than many of them are already using for crime.

The second big concern that central banks have is disintermediating banks, basically taking away their deposit base. Now, crypto enthusiasts might think that this sounds like a great idea. But no central banker is going to be terribly enthusiastic about it because regulators like banks to be funded by deposits for financial stability reasons. The concern here is that a CBDC could disintermediate banks by competing for their

deposit base if the CBDC is too attractive. Either because it's very useful for payments, because it pays interest, or because people like holding a central bank liability rather than a private commercial bank liability. If so, then it could displace demand not only for cash, which is the intention, but also demand for bank deposits.

Liz Bowyer: And what can central banks do to address those risks?

David Mericle: Actually, if we look at central banks that have more advanced CBDC projects, we can already see how they're planning to address those risks. So, let's start with the first one, how do we avoid facilitating crime? Central banks have mostly decided against full anonymity or capped the size of anonymous transactions to deal with that. To varying degrees they've also given the government some level of insight when necessary into CBDC transactions. Or they've tasked the commercial bank intermediaries with monitoring customers and monitoring transactions that their customers make for any potential illicit activity.

Now, what about the second risk? How do we avoid disintermediating banks? Let's assume that we want banks to continue to be funded by deposits rather than other forms of funding. In that case there are really two options. The first option is to simply limit people's CBDC holdings or to make CBDC sufficiently unattractive that people won't want to shift all of their bank deposits over to CBDCs. So far, central banks have largely taken this approach. In particular, they have imposed caps on balances. They have considered imposing a penalty interest rate on any holdings behind some threshold. Or they've simply decided not to pay interest at all on CBDC. It's a little tricky to get this exactly right though. Because of course, when interest rates are zero, it's not like bank deposits pay any interest either. So, there's not necessarily that big of a disadvantage even if you don't pay interest on the central bank digital currency.

Now the second, bolder solution to this problem is that if central banks design a CBDC that does displace bank deposits, they can recycle those deposits by lending back to banks. They could just auction the funding to banks. But more creatively, if individuals access CBDC through a commercial bank intermediary, the central bank could provide funding to banks proportional to their customers' CBDC holdings. In fact, if you wanted get really creative with it and you wanted to mimic and preserve the

status quo, you could even allow the commercial banks to set the interest rate on their customers' CBDC. And then you could lend back to the commercial banks at the interest rate they chose plus some fee that essentially serves as a risk premium to protect the central bank against losses. Just like how banks set deposit rates in order to compete for customers today.

So, this is definitely not going to be version 1.0, but there are ways to preserve the status quo if one is so inclined.

Liz Bowyer: And from a broader perspective, what are some of the consequences of a CBDC for the financial system as a whole?

David Mericle: There are potentially consequences for both banks and payment networks. We've already talked about the consequences for banks. And I think, in general, central bankers are going to want to minimize those. There are also consequences for the payment networks. In general, I think here central banks will be more open to disrupting the status quo payment system. In fact, encouraging innovation and competition with current incumbents in order to compete down fees on things like credit card payments would probably be welcome by many central banks.

Now, the incumbent credit card networks have already held out to competition so far. And they have some big advantages, so that displacing them and lowering fees in this area is not as trivial as you might think. Specifically, they have three big advantages. First, they already have a network in which their cards are widely accepted. Second, they've already made big, necessary investments in things like fraud detection. And third, they've already built a brand advantage with things like credit card rewards.

So, I think the key question is to what degree could a CBDC potentially undermine those advantages and allow new competitors to compete down fees? I think if you give more companies access to Fed clear, whether with a CBDC or without a CBDC in the status quo payment system, and especially if the CBDC platform bears some of the fixed costs for things like fraud detection, then you really would, potentially, lower the barriers of entry for new competitors. And they might be more successful than past competitors have been in competing down fees against the existing card networks.

Liz Bowyer: And what about the consequences for monetary and fiscal policy?

David Mericle: So, I think initial versions of a CBDC are likely to be designed pretty conservatively to minimize disruption of the existing financial system. And I think those initial, simple CBDCs only offer pretty modest advantages for monetary and fiscal policy. A more radical CBDC could make monetary and fiscal policy more powerful. But that requires policy makers to be pretty open minded.

So, let's start with the fiscal policy side of things. A simple CBDC could allow the government to disperse fiscal stimulus to people instantaneously. So, you would have it in your account instantaneously, rather than the days to weeks that it sometimes takes at present. Of course, if the Fed eventually introduces Fed Now in 2023, and if Treasury had a database of everybody's bank account information, you could achieve the same thing, potentially, without a CBDC.

In contrast, a more radical CBDC is a bit more exciting because that could permit policy makers to program the platform to automatically set tax rates that vary over time or even across geographies in response to economic information, even economic information based on data gleaned from the CBDC platform itself.

Liz Bowyer: And what about monetary policy?

David Mericle: On the monetary policy side, a CBDC could provide the Fed with more real time information about the state of the economy if it were widely used. Now, of course, Fed officials already have access to spending data like credit card data. So, it's not clear that the CBDC would add that much information.

A more radical CBDC, in contrast, could allow the central bank to vary interest rates in response to economic conditions, again, including in response to data gleaned from the CBDC platform itself.

So, big picture, I think a simple CBDC doesn't really add all that much in terms of making monetary and fiscal policy more powerful. But if policy makers were willing to introduce a more radical CBDC, and to put policy on auto pilot, at least to a modest extent, they could allow tax rates and interest rates to vary in real time in response to economic conditions, you know, including in response to economic data from the CBDC platform. That could be a pretty powerful tool for economic stabilization.

Now, depending on your tastes, you might think that sounds really cool or vaguely totalitarian. In any case, it probably

isn't going to be version 1.0.

Liz Bowyer: Thanks, David.

David Mericle: Thanks, Liz.

This transcript should not be copied, distributed, published or reproduced, in whole or in part, or disclosed by any recipient to any other person. The information contained in this transcript does not constitute a recommendation from any Goldman Sachs entity to the recipient. Neither Goldman Sachs nor any of its affiliates makes any representation or warranty, express or implied, as to the accuracy or completeness of the statements or any information contained in this transcript and any liability therefore (including in respect of direct, indirect or consequential loss or damage) is expressly disclaimed. The views expressed in this transcript are not necessarily those of Goldman Sachs, and Goldman Sachs is not providing any financial, economic, legal, accounting or tax advice or recommendations in this transcript. In addition, the receipt of this transcript by any recipient is not to be taken as constituting the giving of investment advice by Goldman Sachs to that recipient, nor to constitute such person a client of any Goldman Sachs entity. This transcript is provided in conjunction with the associated video/audio content for convenience. The content of this transcript may differ from the associated video/audio, please consult the original content as the definitive source. Goldman Sachs is not responsible for any errors in the transcript.