

Barefoot Innovation Podcast with Ravi Menon

Managing Director of the Monetary Authority of Singapore

***Note that transcripts may sometimes contain errors and that transcript timing notations do not match the posted podcast**

Jo Ann: I could not be more thrilled to have my guest today because he is Ravi Menon, the managing director of the Monetary Authority of Singapore. And I am just so excited to have you on the show today. Thank you for coming.

Ravi Menon: Thank you. Thank you, Jo Ann.

Jo Ann: We are at the Singapore FinTech Festival. It's bigger and better this year than ever before. It's the most extraordinary thing I've ever seen created by a central bank, to be honest with you. I think there's 60,000 people here or something like that. Just an unbelievable achievement by really the most, if I can say it, the most innovative central bank in the world.

So I'm just thrilled to have you with us, and there are a thousand things we could talk about, but what we're going to talk about is cryptocurrency, digital assets, central bank digital currency, stablecoins, that group of topics.

And I know you spoke yesterday here on this, and I'd love to just ask you to talk to us about how MAS is viewing this whole new frontier of money.

Ravi Menon: Yeah, thanks, Jo Ann. And I think that's a great question, a great way to start this discussion. When we talk about innovation these days in the financial sector, you can't avoid talking about digital assets in crypto.

First off, I would say there is much more to the digital asset or crypto asset ecosystem than cryptocurrencies. So much of the media attention and popular imagination has been focused on cryptocurrencies, trading, which one is going up in price, which is coming down, and of course the associated companies getting into trouble and so on.

But really, for those in the know in the industry, there's just so much more. I mean, the central idea is not so much about a cryptocurrency you can buy and sell and hopefully make a profit. That isn't the central idea.

The real innovation here is the idea of tokenization, that you can take any item of value, financial or real, even intangible, anything of value, potential value, and you can actually represent your ownership rights over it in a digital token and put it on a blockchain or distributed ledger. That is a hugely powerful idea, great transformative potential.

And the cryptocurrency is just one form of that token that is used as a medium of exchange in the blockchain. They've taken the life of their own outside, have come to be

desired and demanded for its own sake, as if it has some inherent value which people hope to capitalize on.

That has really given the industry a bad name and has overshadowed so much of what the potential is. But serious players in the industry, and we as a regulator count ourselves as hopefully one of the serious players, work with industry actively to realize the potential in this other large part of the digital asset ecosystem. And that means applying digital tokens in use cases that create economic efficiency or social inclusion. So we are very use case focused in our approach.

What is a problem we're trying to solve? And yesterday talked about atomic settlement, real time settlement of a cross border transaction, either a foreign exchange or a securities transaction. Today, we don't do a good job at it. We actually do a pretty lousy job at it.

And there is so much scope for improvement, and digital assets provide a powerful means to address these issues because it is as good as cash but in digital form. So when we transact over the table, for instance, and say, if you gave me a hamburger and I gave you dollars in return, that's instant settlement, instant payment. We are square.

But when it comes to cross border, when it comes to banks, that doesn't take place. Settlement doesn't take place because there's a reconciliation process and a lot of checking, and then the funds get transferred. And so, you have to pre-fund accounts in case it doesn't come in and so on.

So this is a real problem you want to solve. Digital currencies are a way to do it. Private cryptocurrencies, I don't think can because their volatility and value means by the time I send you the stuff, it is different in value.

So digital assets have powerful use cases and trade finance in post-trade and pre-trade capital market activities, anything where you need instantaneous exchange of real assets, they have a powerful role. And if you think about it that way, there is just so many things you could do with it.

Jo Ann: So talk about how you as a central bank are regulating the space and also some of the initiatives that you're launching to develop these use cases where you see a high upside opportunity.

Ravi Menon: Yeah, So if you look at digital assets, and maybe I'll introduce one other concept, programmable money, basically that's what these digital currencies are trying to do, that you embed the rules for that surround the use of this money in the money itself.

Today that doesn't happen. I have a dollar note, it doesn't have any rules. I can give it to anyone for any purpose. But if you want to embed the rules in a digital form in the money, then it becomes programmable.

And the world has four choices. Private cryptocurrencies is one way of doing it. Bitcoins, Ethereum, and the whole lot of them, attracted the most attention, lots of investments in those areas. But, as I said, the volatility stands against them.

The second option is stablecoins. So here we see a promising future for stablecoins provided they're well regulated and securely backed. So we put out for consultation a set of regulatory measures last week defining how that surety of value can be achieved in practice, 100% backing good securities, and there is a monitoring mechanism and so on.

And there must be full redemption at par. That's what money is. That's what we expect of a deposit in a bank. And stablecoins must have the same utility. And if they do, then they combine the benefits of programmability and being put on the distributed ledger and the advantages of stable money. So that's what we are doing through regulation by having the right regulation to promote this industry as a basis for the digital asset ecosystem.

Third is tokenized deposits, which is very similar. We all have bank deposits today. If you want to use it like cash, you have to withdraw it, take notes and coins, and use it like cash. Why can't I convert it to cash in digital form and use it on a blockchain as good as cash? And if you tokenize a deposit, you can do that. So that's another thing that we have set out rules for. And because that's within the banking system, it's less of a difference in substance.

And then of course, Lars, the CBDCs, which you mentioned, central bank digital currencies can also be programmable money. The advantage there is that you have the assurance it is issued by the central bank. And so, it has the features of notes and coins today that we hold, which are issued by our respective central banks.

And that can be used in a programmable form, and we've called it purpose bound money, money that has a purpose to which we attach to it. And so, that is another way in which we can promote this. And here, we are doing experiments with other central banks to solve what I referred to earlier as the settlement problem.

To settle the cross-border settlement problem, you can exchange central bank digital currencies, which are basically cash. So in the example I gave, if both of us exchange cash, we are square. So if we can do that on a cross border basis, then we can get real time settlement. And central bank digital currency projects, there are many of them around the world. We are involved in several. We don't know which will work, but that's the nature of innovation.

Jo Ann: Yeah. And it's great to see innovation coming from the government and really experimenting, seeing what's going to work. Do you see trends... Are you concerned about whether regulators around the world are going in different directions? We're at such an early stage with these young innovations, and how might we work our way toward a fully interoperable set of rules of the road?

Ravi Menon: Yeah. That's a good question because, as you say, when it's at a very early stage of innovation, no one can see the lay of the land very clearly. Our perceptions of risk may vary. Our perception of the benefits may vary. And we are all coming from different starting points. So it is natural that regulation is not likely to be completely consistent and interoperable at the start.

But the regulators are very aware of it. We spend a lot of time talking about this, and I think there's a growing consensus and convergence on how we want to approach these issues. So what I said about taking a stern view, if you will, about private cryptocurrencies, I think many regulators share that view.

We go about doing it slightly differently. I think Singapore has probably some of the most stringent rules on retail access to cryptocurrency trading. We have not banned it. China and India are, of course, at that end of the spectrum.

But in terms of restrictions, we are proposing more restrictions that put us at one end of the spectrum. But most of them are moving in that direction, stricter controls, better risk disclosure, suitability tests, not to take on credit when you buy cryptocurrencies. Basically, we're all trying to minimize harm to retail investors. And I think over time there will be a gradual convergence.

Stablecoins too, what I just described as stablecoin regulation that they're moving ahead with is talked about in international circles as well. Countries will move at different speeds depending on the legislative processes and so on. Not every last rule will be aligned, but I think over time, there will be greater convergence.

Jo Ann: I have some hope myself that this environment may help lead us to some new models for investor protection that will be more tech forward and maybe inform people in new kinds of ways. There's so much creativity coming into the space.

I know that one of your main priorities has been sustainability and climate impact. How are you viewing the issue of crypto mining on the environment?

Ravi Menon: Yeah. So, obviously, the traditional models of crypto mining and proof of work is very energy intensive, not good for the climate. And so, that's another reason why this excessive exuberance with proof of work and mining coins, unless it's grounded in some real economic activity, on the cost side, you are actually needing a lot carbon.

Now, the good thing is the industry has hoisted this in. Many of them are working actively to reduce emissions. And I can't recall offhand the numbers, but various meetings I've had, crypto players are telling me how their new protocols and new ways of working have substantially reduced the energy demands.

And I think in a couple of years more, we are not going to hear much about this issue in particular. There'll be other issues to solve, but the energy issue, I think most of them has hosted it in, and I think the emissions count has been coming down.

Jo Ann: I know that I need to let you get back to the conference here, the man of the hour here. But last question is a hard one, a crystal ball kind of question I guess. But I'd love to know your thoughts on when we sort of push out the frontiers of the changes underway in money, think about the possibilities coming with Web3, think about the possibilities coming with decentralized finance, defi...

And I'll tell you something I think about a lot is that as someone who's worked in financial regulation my whole life, if Web3 turns into a really new version of the internet that changes everything, the financial regulators are going to be at the forefront of shaping that environment because defi is sort of the first use case that's emerging here.

So when you think about where we might be headed, how much excitement do you feel about the possibility of really solving big new problems? And how much do you think that maybe this is all going to lead to more risk than benefit?

Ravi Menon: Well, as with all new technologies, it's a combination of both. And I don't think I'm alone in this, and many regulators to varying degrees, I think, enthusiastic about the potential benefits of Web3 and decentralized finance.

They're also wary of the risks, and I think about both depending on what time of the day it is. And I think that is the right approach because I don't think we should close this off. This is in a way an organic development that's coming out as a response to Web 2.0. And Web3 is really a peer-to-peer world where intermediation is reduced.

There is an inherent attraction to that idea. And in terms of economic efficiency and social inclusion, because when you cut that out, you have more economic value being unlocked, more opportunity. So I think at the abstract level, that's true. And you're seeing interesting cases of application.

Unlike Web 1.0 And 2.0, Web3 has, as you said, started off with finance. So decentralized finance has become one of the early applications. And we are doing some experiments in decentralized finance with industry and Project Guardian and trying to understand how it works, the best way to deal with new technologies is to just experiment with it in a confined space with a small group of players, everyone puts in a little bit of money and see how it works. And then you gain valuable experience, and then you keep going at it.

Every step, you want to maximize the benefits, and every step you are watching out for the risks, things that went wrong and how you can minimize it in the next version. So we're trying to do that.

Of course, there are some really big problems with defi. One of them is that how do you regulate it? Because traditional regulation has always been about applying rules on entities and individuals, and if something goes wrong, you go after entities or individuals. Legal systems are structured that way.

But with defi, there isn't by definition an accountable party. It is an algorithm. Now, how do you take action against a smart contract? You can't go after the person who wrote it

because he has no idea how it is being used, and it is being used in an autonomous fashion.

So some of the experiments we do are trying to also see if we can specify accountabilities. Regulation doesn't work if there is no accountability. There has to be some accountability, but it has to be not in the traditional way we understand it, and we can't think about entities and individuals, but we got to think of something else.

So there are real challenges, so I don't think this is going to take off in a dramatic way until and unless we are comfortable with some of those basic issues. We're not going to be able to manage all the risks, but at least these big ones need to be in place, I think, before it can take off in a big way. But I do think that it offers great scope for reducing cost and increasing efficiency and creating value.

Jo Ann: That is a perfect note to end on. Ravi Menon, I cannot thank you enough for being my guest today. It's just been a thrill to be able to talk with you.

Ravi Menon: Thank you so much, Jo Ann. It's a pleasure.