Baringa's Web 3 Trailblazers Podcast

Episode 2

Anna Orriss-Baxter, Baringa: Welcome back to our Web 3 Trailblazers podcast with me, Anna Orriss-Baxter. Web 3 is transforming the financial services industry globally. Through our podcast, we will be exploring the evolving technologies and the true impact of the Web 3 movement. Today, we will be expanding on one of the nine use cases we outlined in our DLT article, focussing on central bank digital currencies. A CBDC is a digital currency that is issued by a central bank that will only exist on digital platforms and not in a physical form such as cash. In my opinion CBDCs are one of the most exciting innovations coming from Web 3. Alongside Baringa's Scott Weddell, who you may remember from a previous podcast, I'm really pleased to welcome Antony Welfare. Antony is the Senior Advisor for CBDC Europe and Global Partnerships at Ripple. For those new to Ripple, it is an enterprise, blockchain, and crypto company that transforms how the world moves, manages, and tokenises value. Its RippleNet business in particular enables rapid cross-border payments between financial institutions. Antony, could you tell us a little bit more about yourself and your role at Ripple?

Antony Welfare, Ripple: Thanks, Anna. Great to be here and welcome to all the listeners. My name is Antony Welfare. I've been in the blockchain world for about five or six years now, so it feels like a lifetime now because the technology changes so quickly. I started in the blockchain world because I was consulting around retail and I thought payments and supply chain would benefit from blockchain technology. I've spoken to hundreds of businesses globally around blockchain technology and a lot of that is around payments. It's been about a year now since I've been at Ripple and we've been working on CBDCs for about 18 months to two years. We work with the central banks and large banks to work out what does a CBDC look like, how would it work? I'm really sought to drive this forward. It's been an amazing year so far and we're still only at the start of this project and phase of the development.

Anna Orriss-Baxter, Baringa: And Scott?

Scott Weddell, Baringa: Thank for having me on the podcast again, Anna. Following on from my brief intro in the last session, I work within the corporate transaction banking and enterprise payments segments at Baringa. Within this segment we explore the latest industry themes, which has brought us on to Web 3 and more specifically, what we'll be discussing today, CBDCs.

Anna Orriss-Baxter, Baringa: Antony, it was really great to hear about your career history and how you got into blockchain. I wondered if you could explain a little bit more about Ripple's CBDC proposition, the opportunities that surround it, and any barriers for adoption or systemic risks that you want to call out.

Antony Welfare, Ripple: Probably good to start off with what we class as the explanation of what a CBDC is. For us a CBDC is a sovereign equivalent of a private cryptocurrency. So, it's issued and controlled by the country's central bank and used by the people and businesses for retail payments. In a way it's much like cash but in a digital format. When you talk about the opportunities: Why are we doing CBDCs? Why do we have these discussions? Why are the banks even looking at these? There are four reasons, or let's call it opportunities, around this. First of all, we look at CBDC as the platform for innovation, and I think it's really important to understand what we mean by that and why we say that, especially, in a Web 3 context. When you move to a digital currency, you

open up lots of different opportunities and lots of different ways of making payments and receiving payments. So, the payment system today in the Western world is not bad. You've got faster payments in the UK and things like that. But in a lot of the world the payment system is quite complex and quite slow. Even in the UK, settlement actually doesn't happen instantly - it's a few days. More importantly, as well, cross-border and making payments globally. So, we live in a globally connected world and we work in different countries and send money back to family and friends. If you look at the financial system as a whole, it's fairly inefficient for what we do today. It's really not fit for purpose for the next generation and especially for Web 3 in the future. So, ultimately what we see is the CBDC enabling all the innovation that's going to happen around Web 3. There's a couple other areas which are really important. One is around financial inclusion. Financial inclusion is about everybody having access to the same financial products, the same financial opportunities. So, for example, the way I look at this, my gran is 96 years old and lives in Canada, my mum lives in the UK, and I live in Portugal. We have very different finance access and finance systems based on age, geography, financial status. It's a very different world and it's not very fair and it's not very equitable. With a CBDC, technically, we could all have the same savings account with the same amount. We could all invest in the same companies and things. Obviously, regulations aside, we could do that. So financial inclusion is a really important benefit of CBDCs. The second one is around the innovation theme that I mentioned, and that's greater competition both within countries and across. As soon as you make the financial system easier, cheaper, faster to run, people can make smaller payments and earn money in smaller amounts. So, we could, for example, do a social media video and we could monetise that and charge one pence per view. In the current system, you couldn't really do that because it would cost more than a penny to do the transaction, whereas with the CBDC world, you could do that very easily. And then finally, CBDCs for a country and for governments, they maintain a better oversight of risks and control. This is about understanding where the money is in the system and how it's working in the system. The money is the most important thing in our world. If the pound disappears for whatever reason or goes up or down, it affects all our lives drastically. So, the Bank of England and the central banks have to be very risk averse, very secure, and really be able to understand where things are. A benefit of DLT, blockchain technology, is it's an immutable record of where things are. You can see a lot more easily where the money is and even what wallet or which transaction is happening on it. So those are the opportunities that this gives for governments and people. And then finally, you mentioned barriers. As with any new technology, there's a lot of barriers and challenges with adoption. And this is from both governments, central banks, and institutions, and from people as well. The first one is control versus innovation. We need to innovate to bring in Web 3 and a payment system. We also need control when you're talking about currency. So, we're in this world where we've got to balance control and innovation, and that is a big barrier in some countries. Some countries are more innovative, especially smaller countries, because it's less risk. Larger countries tend to be more controlling because they're talking about 100 million, 200 million people. So, the risks are different. I think the cross-border side of it, how a CBDC and other payment systems work across borders is one of the biggest challenges we have. Putting a CBDC in the UK with one system and then in Europe with another system, in America with another system, isn't going to make any difference to cross-border. It will still then have a challenge cross-border for making payments and travelling, etc. So, there's a real big discussion around interoperability and the cross-border side of it. Then, another one is around the accounts, the identities, the wallets…privacy. From a technology perspective, we can set up the wallets, the accounts, the transactions, for the transparency that the government wants, or the bank wants. There are different ways to do technology where you can be transparent, or you can be completely open. There's obviously a scale from full, complete privacy to no

privacy at all. And we work with the banks to work out how best to do that for that country and for their rules and their systems. One important thing to remember, though, is using blockchain technology, DLT, like our XRP Ledger is immutable. So, the transactions are always recorded there. Taking this back to think about some of the fraud and issues that have happened using, say, Bitcoin. If you actually go and look at the research, most, not all but most, of the stolen Bitcoin or missing Bitcoin have been traced and found. The FBI is one of the best places to do that. And that's because ultimately every transaction is recorded, and you can never delete that transaction. You may not know who did that transaction or what happened, but you know the transaction happened and obviously with the FBI's technology they can then track the end point. And then finally, it's the innovation theme again. But it's around the banks and the governments embracing non-bank channels. The fintech world and the non-fintech world who want to get into this. If you live in the UK and you've got a Tesco club card, for example, why can't you use the Tesco club card for payments? Or say you fly with British Airways and you've got points there. Why can't we start doing those? The system as it is today, anything that becomes a financial transaction has to be regulated and monitored. Now, I'm not saying they don't and shouldn't be, but there's places that are non-financial, which we may want to operate, especially in a Web 3 world.

Anna Orriss-Baxter, Baringa: Thanks, Antony. I think that positioning it as the innovation and the control and how do you balance these things is something that is just so fundamental to all aspects of Web 3 and certainly to these central bank digital currencies.

Antony Welfare, Ripple: It's the hardest challenge. And there's issues with the Web today, which is why people look at Web 3 because Web 2 grew up in a place where nobody really knew how they should control it. So, it's a very difficult balance, control and innovation.

Scott Weddell, Baringa: 100%. I think what I see the greatest opportunity within this is, is for regulators, specifically the Bank of England, to actually shape and build that infrastructure for the CBDCs. Then going forward when they actually start to regulate it in more detail and understand CBDC products a bit more, they won't inhibit the innovation through that regulation, and they'll allow the Web 3 ecosystem to thrive as opposed to inhibit it and essentially put it down.

Antony Welfare, Ripple: Yeah, but I think there's two sides to that because the bank needs to understand what Web 3 is, as we do. I mean, even people in Web 3 don't know what Web 3 is and so they need to work together. So, you've got to be careful because if the bank builds the system and regulates, and then puts it in, it's likely not to work. There is this working together, which is a challenge of innovative, pretty crazy people quite often, working with a very regulated, risk averse system. And CBDC is where it ultimately happens because it's the central bank, it's most important. But they need to be open to this and they need to work with the younger generations and non-financial people.

Anna Orriss-Baxter, Baringa: I think the challenge there often is the pace at which some of this change is coming in and some of the innovations and the developments. If we think about the variety of cryptocurrencies that are being built on different blockchain, so for example, Bitcoin, Ethereum, XRP Ledger, they're all used for making payments. They use different consensus mechanisms though and the payment settlement times will differ. So actually that makes it very difficult when you're trying to regulate. We've touched on cross-border payments and what it could mean there. I think we probably all agree that it's important that CBDCs are built on a platform with technology that's scalable, secure and

brings benefits to the consumers. I'd be interested to hear from you both in terms of what does that look like and what role does Web 3 technology play in enabling CBDCs?

Antony Welfare, Ripple: There's a lot of blockchain platforms, as you say, out there now and there's a lot of new ones that will come as well. It's still early stage for the blockchain technology world, but for a CBDC, you need history and longevity. You look at some of the platforms that you mentioned, they've had a lot of hacks and a lot of issues recently. There's three or four of them that have been around for ten years or more like XRP Ledger and Ethereum and Bitcoin, which have not had that many issues, if any. And I think that's important, first of all, because you've got to have a solid foundation. You're talking about the currency of the world. We work with a couple of countries that are very small at the moment, and they have some very important cultural challenges which a certain type of technology can't fix. It's around, the way that they live, their culture, and so that needs to be taken into account. I think it comes back to this interoperability I mentioned before. I think when you're using any technology for payments, it needs to work with another technology. You've got to assume that there's going to be more than one type of technology and type of payment system and therefore building on a best practise basis. So with APIs and different ways of integrating and swapping the information, which is what corporates have been doing for hundreds of years with technology, it's the same type of process but also needs to be built for fast and scalable transactions so that you can do the micropayments and things that I talked about. And then finally, I think, the way that CBDCs are working, if it enables the innovation and helps to build the Web 3 world and the internet of value and everything that's coming next, then they'll naturally be more interoperable and naturally be more working together. If regulators are part of that process they'll naturally do the right things there as well. There's some really interesting benefits that will come through from this.

Scott Weddell, Baringa: I think, Antony, you've touched on everything that I had on my mind for this question. For me, it's all about how the consumer will interact. I think the key with all the cryptocurrencies is finding some solace in what's familiar. So offering a payment method through a wallet that looks and feels similar to a digital bank account and being able to accept payments through QR codes and all that good stuff. I think whilst this technology is embedding itself and is really interesting, I think there is some benefit to the customer journeys which we've defined and have worked for the largest incumbents over the previous years.

Antony Welfare, Ripple: I think that spot on the adoption of this and mixing together in the Web 3 world is about the user interface and how we use it. So, you're picking on a really important point where we've got to make it simple and easy for humans, for normal people, to use these systems and processes.

Anna Orriss-Baxter, Baringa: I love these ideas in terms of building on what the consumer already knows, thinking about the fact it's not a one size fits all. You're not going to have one type of technology that works for the broad range of different countries and types of people that will be using this. I think the IMF was saying that there are over 100 countries that are exploring CBDCs at one level or another. They are all going to have very different needs and answers and requirements. So that's one thing that we need to be cognisant of as well. In your opinion, if we think about this offering and where we are now in 2022, what do you think it might evolve to by 2030? And how could these CBDCs change the traditional model?

Antony Welfare, Ripple: I have no idea what 2030 looks like or even 2025. But let's talk around roughly that so nobody ever holds me to what I'm going to say. We truly believe, as you just said, it's a mixed system. I think the mixed model of the payment system is…we see three areas of this. One is CBDC, which we've talked at length, two is Stablecoin and three is native crypto. So, we actually see all three, and within each country and within each sector and everything, there'll be a different mix of everything. CBDC in itself is the central bank currency. That is very unlikely to be 100% a payments system. It could be, but it'd be very, very, very unusual. It wouldn't work for a big country, not the UK or anywhere in Europe or the US or Japan. You then have the Stablecoin side of it as well. And Stablecoins nobody knows what they are yet. We call them different flavours of Stablecoins. You've got regulated, nonregulated, and then some are very strange ones where there's been a lot of issues recently. But if you go back to what a Stablecoin is in theory, it's backed by something like a dollar or a pound, or it could be backed by gold or property or something else. It tends to be something physical or something issued by an institution like the central bank. I think there'll be lots of different Stablecoins and different ways of tokenising things which can be used as payments and transactions. And then obviously you're still going to have native cryptocurrencies unless they're regulated out of the world, which would be very unusual because everyone would have to agree, and they'd have to regulate it. And you can't close it. You'd have to close the Internet to close it. So, you can't get rid of them ultimately, but you can definitely damage them and reduce their usage. So, I think there's going to be a mix of all three. You look at some of the countries which have adopted Bitcoin as an official payment system, it's still probably only 10%, 15-20% of transactions. I don't see it growing massively to 100%. It would be a very different world in a different country. So, I think you may be talking 2050. If you think about Web 3 metaverse and where this is all going, ultimately that could all morph into some native cryptos that come out through that. I think really the traditional finance model is going to change completely by 2030.

Scott Weddell, Baringa: Moving to 2030 in my head, I think recently there's been a move by the regulators in the UK about climate and the move to net zero. I think whilst this technology, distributed ledger technology, is only 10 years old. I think within the next ten years we'll see a movement to: the use case being proved for this…now, how do we make it sufficient going forward and how do we then actually embed it into our lives going out to 2050.

Antony Welfare, Ripple: Again, with that, you've got to think that if we are to manage the climate in the world, why have a payments system, a payments network, which is so expensive, so time consuming and so slow. It makes no sense.

Anna Orriss-Baxter, Baringa: A common theme that I'm hearing from both of you is the need to put the consumer first to really consider their payment journeys, and for Web 3 and CBDC to be a way that we can support financial inclusion by expanding access to products and systems. And therefore, I'll be really interested to ask you, when the UK introduces a digital pound, how would you suggest that we as consumers prepare for CBDCs and how can we start interacting with it?

Antony Welfare, Ripple: It's a great question because we don't know when, or if, a digital pound will arrive. We do believe there will be one.

Anna Orriss-Baxter, Baringa: I deliberately used the word ‘when.’

Antony Welfare, Ripple: Exactly, when it arrives. But what it looks like when it arrives is still to be a work in progress and there's lots happening. I don't believe this first part, but if the UK was to just do a bank to bank CBDC, which is just really big payments between the banks, it wouldn't affect us as humans, as consumers, that much. We'd still end up using bank accounts and digital banking and our apps the same as we use them. So, I don't think that would go there. But some of the countries are saying they only want to go there. I think ultimately, they're going to go to what we call the retail CBDC, or let's call it the full CBDC, which is enabling payments all the way to you and me making our payments with our cards and phones. And I think that's the interesting bit because as a consumer, do you want to make your payment with an app from a bank or do you want to make payment with your Nike card, or your Tesco card, or your favourite brands? That is where I think it's more interesting and where we would interact as humans more because the technology will allow that. It's just literally a brand, you just change the logo. The wallet will still be a crypto type wallet and work in the same way you just put a different image on it. Then the other part is back to financial inclusion and allowing us as humans to benefit from the financial system, the new CBDC system. So, when the government issues bonds and municipalities or towns, you and I, it's very unlikely we're going to invest in those, even though it's one of the safest investments. Because it's normally 5,000, 10,000, 100,000, a million. Normal people can't invest £10, but with a CBDC, a retail one, we could. So, we could actually then own a part of our own city, for example. So, there's those things that are going to really help us use that. I think we need to, as an industry, make sure that it's easy for the humans to use. And then as humans, as consumers, we need to think about how we would use this and benefit from it.

Scott Weddell, Baringa: I think that's a really, really good point around incentivization, actually encouraging consumers to interact. And I think you briefly touched on earlier about marketplaces and being able to earn a number of tokens through a TikTok video or doing a podcast to then spend at that marketplace would be a really good way for a consumer to dip their toe into the CBDC world and then expand out from that.

Anna Orriss-Baxter, Baringa: There is one final question that I would love to ask. To Antony, what advice would you give someone who's keen to start getting involved in this new world of digital currencies within the Web 3 ecosystem but isn't actually sure where to start?

Antony Welfare, Ripple: Yeah, it's a great question because it's so difficult to understand this because it's a work in progress. I think the first thing I'd say is get involved because it is a work in progress, and you can influence this and learn from it. For me where I would start is from the world of cryptocurrency. At the end of the day, blockchain technology, which underpins this, the first use case really has been cryptocurrencies and different types of payments and things. So, if you do a bit of research on that, understand how, Bitcoin, Ethereum, XRP, how these all work, it will start to give you an understanding of what happens. I always say when you get involved in blockchain and cryptocurrency, for the first three months, you'll be like, 'This is not right. This is right. No, this isn't right. No, this is wrong. No, this is right. This is good'. You go through this learning on learning, realising it's good and it's bad and indifferent. There's a lot of fake news unfortunately, out there about it. There's a lot of misinformation. When the crypto market valuation is like it is at the moment everybody thinks that everybody gets scammed and it's Ponzi schemes and things, but that's starting to dissipate. People are starting to see real use cases and CBDC is a real use case of this. I think, for me, the getting involved bit can be anything from literally just reading about it, listening to podcasts. And also all of these companies like Ripple and XRP Ledger, are doing incentives for people to build solutions on the

platforms. So with XRP we have a grants programme where anybody from a single person developer through to a company can build a solution on the XRP Ledger. That could be something very basic from, helping the climate, helping with payments, helping with videos and content and NFTs. There's a lot of things that can happen on it and you don't need to be too technical. But even I started like this and I actually wrote a smart contract on Ethereum back in 2016. I don't even know how to find it or anything, but it was to make a payment and then get some money back…and it didn't work very well. It was probably the first time I ever coded in my life, but it got me into understanding how it works and that was the interesting bit. I'm not coder, but now I understand the technology and obviously I work with people every day that do that. So, for me it's always about getting involved. Whatever it is, be it your sport, be it your favourite brand, they're all getting involved in this. So, what are they doing? How are they doing that? Then, I think the easiest way to learn anything about this is, I've written a book 'Commercialising Blockchain' that talks you through blockchain technology from a human perspective. So, cryptocurrency and payments, they're only part of what's there so you can always start with my book as well.

Anna Orriss-Baxter, Baringa: It can feel a little bit inaccessible to people so it's really great to hear a story of someone like yourself. You said you're not a coder, but you can get into a position where you're writing a smart contract on Ethereum and that's a really exciting place to be.

Antony Welfare, Ripple: Yeah, exactly. The amount of videos around this now, honestly, I think most people could do it and you can do it to build things that you want to play with. Because remember, all the blockchains are public and open source. So, you can do lots of different things. It's just finding your interest and finding how you can interact with it and you can play with it. I talk to thousands of people globally around blockchain and how they've got involved and it's nearly always the same. They start looking at cryptocurrency and then something, an NFT project, a music project, a brand, gets their interest and they go, 'Oh, I can do that'. And all of a sudden they're learning blockchain technology without even knowing it. And that's absolutely the main thing. Nobody needs to know anything about the technology, you just need to use it and enjoy it.

Scott Weddell, Baringa: An example you used there, Antony, was sports. I think we've just seen a recent example of Crawley Town FC trying to issue their season tickets through NFTs. This is actually really interesting how that will be adopted and how season ticket holders will engage with that.

Antony Welfare, Ripple: If you look at ticketing in the whole event space, be it sports or be it music, it will be amazing when you get your NFT ticket, an electronic ticket, but it gives you access to something different. I've seen, some of the of megastars that are doing their concerts, recently where you can download very specific videos or information, which is only for you. And even go to the VIP level where you can have a video call with the pop star or go to different dinners and things like that. So, it opens up such a different world. I think people will be quite shocked when they're using this because they won't realise what it is. And you know, if Crawley Town is doing it then I'm sure Man United are doing it as well.

Anna Orriss-Baxter, Baringa: It's so interesting to hear some of these everyday use cases and how it will gradually start to creep more and more into people's lives without them necessarily knowing about it.

Unfortunately, I think that's all that we've got time for today. There's still so much unknown in the Web 3 space and conversations like this one are really helping to bring the components of Web 3 to life, which is great. I've really enjoyed hearing more about how the industry is responding to the innovation surrounding these new digital assets. I just want to say a big thank you to both Antony and Scott for sharing your thoughts. To any listeners, please do remember to subscribe to make sure that you don't miss out as we continue to dissect Web 3 and how it's leading a wave of disruption and innovation across the globe. Thank you.