Jake 00:59
Thank you so much Raul, for coming on the show today and joining me for this conversation. I really appreciate you taking the time. You are a expert in finance and markets and crypto and really new school media, I would say as well. You're the founder and CEO of real vision, financial media brand as well as global macro investor where you do some writing and publishing have some more content. So it's great to have you I've been reading some of your tweets about you know, all these different, you're always reading charts and you know, you're going on podcasts and talking about Bitcoin and crypto and I found you have like a really refreshing and reasonable perspective. So looking forward to having the conversation today, I think the best place to start would be for those who don't know you if you could just sort of start off by kicking off your story. And I'd love if you can go back sort of as early as you're willing to start love to hear sort of the coming up story of people like you.

Raoul Pal 01:51
Yeah, of course, it's great to be here. So my story is, as you can tell my accent, I'm English. My father's actually first generation Indian, and my mother's first generation Dutch and they met on a blind date in Birmingham, in the UK. And I grew up in the UK, and went to university in the UK, i the only university that would accept me at the time, and graduated in the middle of a recession in 1990, which was perfect time, then what? God What do I do now? My father was like, Well, what do you want to do? And he was in marketing. He was marketing at Xerox and some other large companies. And you know, I was toying up the idea, do I go into marketing? Do I do something else? And you know, I've been watching the whole kind of finance boom of the late 80s. And I thought, that's what I really want to do. And I even wrote my dissertation on junk bonds, even though didn't really quite understand it. But I kind of figured out, okay, this look cool. So anyway, I was at my father's birthday party, when somebody said to me, Well, what do you want to do? Now you graduated, and there were no jobs, obviously. And I had a drawer full, I think I had 200 rejection letters from all the best firms in the world. And I said, Well, I don't know, I'm thinking about financial marketing. And this guy looked at me said, it's really easy. Well, you can go and work for a firm like Mars, they do fantastic fmcg marketing, and you can get some

free Mars bars for working for them. Or you can go and work for a bank and get free money. And that kind of made up my mind. And that was one of the best pieces of advice ever did, because I caught that huge wave of the 90s, as kind of the financial markets took off, we had something in the UK called Big Bang, which kind of deregulated the financial markets. And it was the rise of the derivative markets and the rise of hedge funds. So basically, I was at the epicenter of all of that, from the 90s. And then, and that's when I started realizing that I was a macro guy, I kind of was very visual, in how I saw things. And I loved piecing together the map, this 3d beautiful puzzle of the world, that is macro investing a macro vessel people aren't familiar, is basically how all asset classes, whether it's commodities, credit equities, bonds, cryptocurrencies, anything, how they all are driven by the global business cycle, and global economics, and how that jigsaw puzzle in investing fits together. And that was the world when I grew up. George Soros and Julian Robertson and Paul Tudor Jones and Louis bacon, and the rise of the hedge fund industry. And I caught that entire wave because I became a salesman in equity derivatives. And so I ended up by luck becoming the kind of go to guy in Europe. I had, it was an extraordinary feat of luck. It's I was running a derivative team as head of sales at a UK firm called James Capel, which a very prestigious but relatively small, firm part of HSBC, the giant bank. And I got headhunted to take the team across to NatWest, which was the big UK bank at the time. I was there and I was thinking about, okay, what do I want to do? And suddenly they hired 120 people from Morgan Stanley, the big us investment bank. And in it was this legendary sales guy called Rick Goldsmith. And Rick Goldman said, Listen, Raul, we've kind of restructuring what we're doing here. What do you want to do? Because your old job doesn't really work. So I said, Well, actually, all I want to do is talk to hedge funds. So he said, okay, who do you want to meet? So I gave him the list of the top largest hedge funds in the world as you do. And so but these are the guys who want to know. And he said, Fine, I'll introduce him to all come over to New York next week. So I flew up to New York. And my first meeting was with Paul Tudor Jones. And that the next meeting with was Louis bacon from more capital, these are kind of the most legendary people in the history of the industry. And they're my career took off, I became their go to guy, I was their kind of interpretation of what was going on in the world. And then going into that, I then got poached by Goldman, to start and run their hedge fund sales business in equities and equity derivatives. And the Asian crisis arrived, which was one of the big macro events of our lifetimes. And having cut my teeth on a few macro events. Prior to that, I was kind of primed and ready for it. The hedge fund business was exploding, and I was at the epicenter of everything, including the epicenter of long term capital management blowing up, and everything else, which made my entire career because then soon after that, I was figuring out that we're probably about to go into a recession in 2000, after the big tech boom, and bubble, and I decided I wanted to trade it and not advise on it. And one of my biggest clients, GLG partners, which was the largest hedge fund firm in Europe said, Why don't you come and join us and start a macro hedge fund? So I did, I went across the GLG start a global macro hedge fund had a few really good years, because 2000 2001 2002 2003 were great macro years, and then decided to opt out of the rat race, moved to the Mediterranean coast of Spain for quality of life change. And I started thinking, Okay, what should I do now, and I realized that I had more experience than pretty much anybody else at this stage in that hedge fund business and how they thought, and I obviously run a hedge fund as well. So I thought, you know, what, I'm going to start writing macroeconomic investment research and strategy for hedge funds, because we all speak the same language. So I launched that business global macro investor. And by word of mouth, it took off, you know, all of the world's most famous hedge funds, subscribed, sovereign wealth funds, asset managers, governments, family offices, and you know, incredible to be paid to think. But that's what what I've been done doing for 17 years being paid to think for people. And that I was lucky enough to be at the epicenter of basically all the information flows, and figured out what was going to go on in 2008. I was well, ahead of that game predicted a lot of it. A lot of my clients were people famously in the film, The Big Short. And we kind of navigated that very successfully, didn't navigate 2009 very successfully, because I stayed too bearish too long, and kind of ignored my own body of macroeconomic framework using gutter motion, which was the big mistake of my career. But after that also got the European crisis in 2012. But over those two crises, I realized that something was really wrong. Obviously, we'd had this debt, supercycle where the world had blown up, and then continue to add more and more debt to central banks that continued to use interest rates as that only tool. And I realized with the Occupy Wall Street movements and other things that were happening, the indignados in Spain, that people had had enough of an lost trust in both the financial sector and the media. And people would come up to me in the street in Spain. And so why didn't we know what was going on? People lost fortunes. You know, Spain had a huge crisis. I sat sat uncomfortably with me, why should I have all the information and nobody else does. So I started thinking about how to solve that. And then eventually stumbled across the idea of creating real vision. So real vision is started as a video on demand platform, aiming at democratizing the very best Financial Intelligence and essentially what we did, we just opened the access. So we we interviewed the world's most famous hedge fund managers, not three minutes like CNBC, but for an hour, at depth talks about their framework, risk management, how they thought about things where they thought the world was going, lessons learned. And that became a word of mouth success. And eventually, it's kind of morphed into a larger kind of media platform. We have podcasting, free youtube channels, we have research, we have all sorts of things a big community called the exchange, and we're probably, you know, one of the largest businesses active in Twitter, and stuff like that. So it's been, it's been a hell of a journey, but the mission really is to democratize the very best Financial Intelligence. So that's the macro journey within that I also had a crypto journey. Because back in 2013 12, when Spain was blowing up and Europe was blowing up, I started on a project of trying to start the world's safest bank, which is a ludicrously ambitious thing to do. And I was without my debt, but I did it with some quite serious players. And I went around the world trying to set up this bank and realize how difficult it was. And I was speaking to a client of mine, who said, you need to look at Bitcoin more closely. So I started looking at Bitcoin, I probably wrote the first kind of macro framework for Bitcoin back in 2012, or 13. about looking at stock to flow versus gold, I didn't have the same maths abilities as Plan B, who famously created the proper stock to flow model, but I kind of estimated that with gold at 1300 at the time, Bitcoin was probably worth a million dollars, if judged on the same basis. And so started investing in that and started my crypto journey as well as a solution to the mess that the financial industry created of itself. So that's the story in a nutshell.

Jake 11:04
That's an awesome story and appreciate you sharing the details going way back. Let's see, where do I want to poke into start, I guess I'll start on the most recent bit, the Bitcoin and the crypto bit, though, I want to cover pieces of the macro story as well. 2012 2013 pretty extremely early, you know, like people obviously 2009 2010 bitcoins created 2010 2011 like super Oh, geez are finding out about it and starting to invest. And it's a lot of like cryptographers, and you know, libertarians and things like this 2012 2013 still super undiscovered. I don't know what the price was back then. But like, double digits, probably something like that. Maybe even less single digits, dollar, something like that. So you discover this sort of maybe just get a get a tip from one of these guys that you're working with that it's something that might be interesting to you as you're trying to create the world's safest bank.

Raoul Pal 12:04
That's a great story in itself. So the guy who introduced me is a guy who is an O g. But most people don't know him. His name is a millwoods. A male is an ex Goldman guy, ex hedge fund manager. And him and his colleague had decided that they were setting up a hedge fund in New York, and they'd rented new offices. And the offices came with free electricity. And somebody mentioned Bitcoin to them. So they started mining Bitcoin, to see how it worked. And they were buying it at 24 cents, or not buying it mining at 24 cents. And those guys ended up doing extremely work. Well, Chad cast gorilla was the other guy who ended up forming Pac sauce. And so yeah, it was it was amazing to be so early. And but it was very suitable for macro people. Because our job is to live in the future, to look at future probabilities and where the world is going. And that's why a meal as a macro guy had figured it out fast. Somebody showed it to him, and he joined the dots. And that's it didn't take me very long to join the dots really fast.

Jake 13:14
How did you know when you first stumbled upon it, or like maybe a meal sort of helped preview it or something like this, but it was, you know, the white paper calls it like peer to peer electronic cash. And

it's since become clear that it's more along the lines of digital gold. But I don't think people really understood that or thought that back then. Even you know, several years later, that was not necessarily clear. But you're talking about like this stock to flow article that you wrote in 2013. How did you recognize that early on, or did you not?

Raoul Pal 13:45
Yes, I did. I mean, I thought digital gold, the payment system was possible. The digital gold thing made sense to me. So I kind of anchored on the two. But, you know, I also was aware that technology change over time, and when you launch a business, or a technology, you don't know where it ends up. And I was comfortable with that. And again, it was a male who came to me, maybe a year later. Yeah, maybe a year later a year and a half later and said, right? You need to understand blockchain and where this is going. And he then started talking about the attributes of blockchain. And then I started thinking, oh my god, this is the solution to custody, which is actually quite broken in the financial world. rehypothecation how we register derivatives, which is a big mess. And I started seeing, okay, this is much bigger than I thought. And then I started getting back in again, in about 2015.

Jake 14:43
Right, and so I read or heard on a podcast that you basically you were in from, like 2013 through, I believe, 2017 when sort of the, the fork wars were ongoing and you were up quite a bit at that point and you sold out and then you Got back back in like 2019 and went all in on the dip in 2020. Can you tell the story around like sort of your I don't know, if it was like a loss of conviction or just sort of saying, hey, I've got a lot of chips, and it's time to sell out. And then the story subsequently of coming back again, with seemingly even more conviction than you had them.

Raoul Pal 15:18
Yeah, so 2013, I bought it, and it went up 100% in a month. And in macro land, that doesn't happen. So I sold it. I was like, holy shit, I have no idea what this is. But things don't do that. But is now on my radar screen, I'd open that account. I knew how to trade it, I knew

what it was. So it was then on my radar screen, and then bought back in in 2013, and then held it all the way through to 2017 2017. The noise starts rising. And I'm not worried about Fudd. But there was an S curve moment, an S curve moment is essentially when the entire basis of a project is questioned. And it either survives it or doesn't. And I was not sure what the forks meant. They felt like something really wrong to me. And I didn't have the knowledge base. And actually, to be fair, nobody in the space knew what this was gonna mean, you know, was Bitcoin cash gonna, gonna go further than Bitcoin in the beginning looked like it might do? And this kind of stuff was like, No, I'm out. And, yes, sure, those who stayed in, I mean, I'd made I know, 1015 times on money at that point, I didn't have a huge amount in, but they're nothing to make it significant. And I took my money out, and I was more than happy. And I never regretted the next rise up to 20,000. You know, I don't regret stuff like that. And then I was out of Bitcoin for a while, I kind of remember going to the coin desk consensus event in New York City in early December of 2017, saying, I think bitcoins topped and topped I think it was a week later or something, which was a bit of fortuitous timing. And then I kind of got out of the way for a while. I wasn't bearish on it. I just thought, Well, you know, it's it's overdone itself. And it wasn't on my radar screen. There's plenty of macro stuff going on, the dollar was going up, or the markets collapsing, just there's fun to be had trading elsewhere. And then it was back in 2019, an old friend of mine that I've known for a long time, who's also a global macro investor subscriber for a very long time. Dan Tapi, arrow started pestering man, he's a true macro guy. And he started pestering me saying, you need to look at Bitcoin again. I'm like, Damn, I'm busy. And he's like, No, you need to look at Bitcoin again. And, you know, Dan, I take very seriously, he's a really, really smart guy and a great macro thinker. So Vince, I just gave up because I got bored of him, pestering me. So I said, Come on real vision. And tell me what you thinking. And he laid out this immaculate case of why he was accumulating a lot of Bitcoin. And why right now. So after that, I started just doing technical analysis waiting for price action. And it had been consolidating in this wide ranging kind of wedge or triangle pattern for a period of time now, all the way through this whole thing from 2008. Well, 2013 onwards, when I first discovered Bitcoin, I said, Well, the next recession is when crypto macro meet, because the next recession is going to create extreme outcomes for central banks. And people will not be comfortable with it. And it will completely accelerate adoption into this new digital world. And I've been talking about this parallel financial universe for since 2013. And it was very clear to me where it was all going. And so it was March, I very done a very good job predicting the COVID crisis and a recession that was coming anyway. And the acceleration of those two things into one point, I knew was going to be really ugly. And I was very long bonds into that. And short equities and did extremely well. But into that March sell off, Bitcoin collapsed to the bottom of the range of that wedge. And that was it. That was my signal because that chart pattern, I'm usually pretty good with figuring out that it means something. And it was the kind of time horizon pattern that works well, for me, the harvest had happened, everything was in place. So I was like, Okay, I'm gonna start buying this. So I bought it, and then it broke the top of the wedge, and I said, right, that's, that's the confirmation. So I added to it and then as the next few Developed in Bitcoin accelerated, I started looking at the charts of Bitcoin versus other assets, because I have a finite amount of capital. And I'm like, Where can I make the most returns? And I looked at it and realized that Bitcoin was about to outperform everything on Earth, including the Fed balance sheet I the amount of monetary printing of debasement that's going on. And if that was the case, then it was suboptimal to have my money in any single other asset on Earth, except Bitcoin. So that was it, I put every single penny that I had, and, and subsequently, every bit of cash that I've had spare since that day into crypto, I then was 100%. Bitcoin up until about, let's say, October, November. And I've been following the charts of eath and the eath, Bitcoin cross. And I realized that Ethereum was likely to outperform Bitcoin. I've been a fan of eath. From the beginning, I thought the first phase would be the store of value, and then that would drive understanding of the broader crypto opportunities and, and what was going on and defy had obviously just started taking off, and was coming on the radar screens. And so I thought, okay, so I started allocating to eath, reducing my Bitcoin, and then eventually had a larger weight in eath than Bitcoin and then started adding alt coins. And these were, what I did, I took a dumb basket of, of cryptocurrencies and tokens, because I couldn't pick one from the other. So I did the typical macro thing, I took an equally weighted basket of a bunch of large caps, that basically broadly covered the space from defy to decentralized exchanges, etc. And then just bought those and sat on them. And they exploded higher as people started going out the risk curve, which is very typical in financial markets. So you know, let's say an equity market bull markets, usually what happens people buy the s&p or whatever first, then they start looking at smaller stocks, and then they start going to emerging markets, and then they end up in frontier markets. Really, really common. This is how you drive returns over the cycle. So that's what I did. And then I've started adapting that position even more, so I sold more Bitcoin boom, more eath. And then also added to where I felt the macro bets lay in the space, as opposed to the dumb bet of the all the old coins in a basket. And the macro bet for me, is social tokens. And the metaverse, which is where I think this is all going. And that's probably a five year time horizon. Much like my time horizon was in crypto when I first looked at it. It's like this is where it's all going. everything's happening. Now the fighting over should you buy bitcoin or not, is noise.

Jake 22:50
That's awesome. I want to keep going on. You just hinted at the metaverse. I have a question there. And I hesitate to skip over these other interesting questions or comment in my head along the way. But I want to keep going deeper for a little bit. So you mentioned the metaverse, I've heard you talk about how the metaverse from your perspective, and correct me if I'm wrong on this, but you said it could double global GDP because it's almost like discovering the Americas. Again, it's this new world. It's not in the physical world, but it's very much real world. Can you expand on that? What is the metaverse? Why are you so bullish on what it could do for the global economy.

Raoul Pal 23:26
So we live in a digital age, and the internet connected everybody. And at the same time, as Moore's Law continues to work, and continues to increase computing power, what we're able to do with that combination of things gets more extraordinary. And we saw the rise of gaming over the last 10 years. And the quality resolution and experience of gaming meant that people were happy living in games as a way of spending their free time. They start then meeting their friends in games. So

they're living in a virtual world. So they don't need to go to see their friend next door. They can all hang out together, shooting things or solving puzzles or whatever they're doing. That morphed into people wanting as humans do to have more status within the community. And they earn themselves credits for doing certain things or and getting tools given to them unlocked by their gaming skills, which have value. They also then started wanting to to have status in terms of what they want and that was the rise of skins. So what this was creating with things of digital value. So now not only is it a game, but it was digital value. Then people started creating things of digital value within these metaverse is these games, which is a digital representation of of a world doesn't have to be our world. And they started being able to then create these things and sell them to others. So now we have an economy that started. And that when I discovered all of this, I realized that's where everything is going. So it's, it's kind of the Ready Player One World, it can be VR, it can be just on your computer screen or your mobile phone, or it can be augmented reality is the combination between everything and it doesn't matter. But those virtual worlds also allow for other things if, if they prove that digital goods have value, and NF T's are proof that subsequently then therefore, digital real estate has value. And therefore digital economies have value. And then you suddenly start finding out that there are architects firms who earn their living, getting paid in eath, building out buildings in decentraland, or crypto voxels. You realize that people are undertaking tasks of which they earn things, people are lending out swords in games and getting a yield for it. And you're realizing you're creating a complex adaptive society in the digital world, of which you don't need to actually have a physical manifestation. And you can be who you want in it. And the advent of cryptocurrencies blockchain technologies, and interoperability meant that you can move from one universe to another, and carry your wealth across them. Okay, so now we've created a platform of wealth, creation, and storage, and a meaning and a society that exists that didn't exist before. So now we're living in an avatar world. And an avatar world means you can be anybody you want to be. So now you can be a kid in Ethiopia, and you're on a level playing field, because nobody cares about where you're from your skin color, your educational background, none of that matters in this new world. So that's pretty interesting. But then you think where can it all go?

Well, clearly, education is going to go on to this clearly without question, it's a better place to engage young people. And therefore you can level the playing field and education globally. Okay, that becomes super interesting. So now you can work in here, educating here, and socializing here, you've then got culture going on. So you've got NF T's and art galleries and music events, with 20 million people in Minecraft, joining a Travis Scott event, and marshmallow getting 5 million people or whatever the numbers he got. And then you're really realizing Okay, we've now got a robust world, of which people can work in and live in and operating. So now on a global playing field, where there's about three and a half billion gamers, you can start people in countries that would have no access to education, or the relative earning power of Western democracies. They can compete on the level playing field in all of this. So you're creating a global economy, bring in the smartest minds around the world who can get paid and learn all in the same place. So that's the scale of it. So where are we now? A blew my mind when I was talking about this from somebody and somebody just said, Hey, check out this gallery in crypto voxels. So they sent me a coordinate in crypto boxes, like a web address. And I clicked on it. And suddenly, I'm in a room where there's an avatar that has given me a temporary avatar, and I'm in a room flicking through NF T's looking at this gallery watching videos, that music player and I could change the music and I had this whole experience was like, Okay, well, that's the end of websites. And then when you start thinking about the logical conclusion is, okay, so we can all create our own spaces. So we have a jade chrome and you can have your podcast stuff set up, you can have, you know, market prices, you can have the research, you read your Twitter account, all of this displayed in a way that you want it in a 3d structured format. That is not the kind of tubidy windows experience. So you've got the new version of Windows, well, that's the end of platforms. Why do you need to be on a platform when all platforms can come together at this point? So I think the amount of change that this is bringing is something that most people cannot simply comprehend. But it's not like I'm a futurist talking about something that's not happening. This is happening in real time, at a speed of which people will not be able to grasp something that I call the exponential age where there's a number of these things all happening at the same time, or with exponential adoption curves, where the world will look wildly different in 10 years time than it does today.

Jake 29:55
Wow. Yeah, that first of all, just that was pretty awesome. The picture that you just painted for me and for everyone listening, I think that was just a crazy vision and crazy, not in a, like crazy, but crazy and just a very cool way. And I haven't heard it depicted exactly like that before you said you're not a futurist, and it might be coming soon in the next five years, but I still think you are not just a macro investor, but a futurist as well to be able to sort of foresee something like that and and articulate it the way you just did. The thing about that, that, you know, one thing I think I also saw that you said was something along the lines of like, the biggest impediment to to Bitcoin adoption is going to be Bitcoin maximalist. And I'll say how this connects in my mind. So you talked about how people could be, you know, architects in VR, or vi architects, if you'll humor that, and, you know, get paid in aetherium. And, you know, they're creating buildings in decentraland, where I can go and host my podcast in a room and, and all these different things. There's this huge vision that depends in many ways, you know, obviously, there's like the VR component, but it also depends on crypto to be able to, you know, you're not going to be in these worlds paying with a credit card, or certainly not with cash or gold or anything like that. And so there's this element where all of this, like incredible future, I think, hinges on the success of crypto as a whole moving forward and to think that it's just gonna be Bitcoin, from my perspective, you know, while while it could end up that Bitcoin ends up being, you know, 90 or 95%, or 99% of all crypto value, or whatever it might be, I have a hard time for seeing that. And yeah, maximalists will say, you know, any other coin is a shit coin and even aetherium, which I think is sort of crazy to say at this point. But my question for you is, you know, as a macro guy, as an investor, you look at Bitcoin and it's like, okay, you even recognized this in 2013, like, okay, digital gold, got it. And you look at Gold's like $10 trillion market cap. Okay, so Bitcoin can be probably $10 trillion, probably more than that, because you know, millennials, like a better or whatever it is Gen, Gen Z. But you have like a rough approximation, whereas aetherium is sort of, unlike anything, you know, we can't

compare it to anything. And it's like, it's just very hard to sort of appreciate what could happen to value and money and like a very fundamental way, how do you think about the broader landscape of crypto in that way, where it seems like you've very much gone from someone who was just focused on Bitcoin to now focused on everything and taking a very much of a, you know, I can't know which one is going to be super successful, but there's going to be a lot of winners here.

Raoul Pal 32:51
So the internet from 1990 to 2000, grew at 63% a year was the fastest adoption of any technology in recorded history by comparing the number of users and matching them up, Bitcoin has been growing since 2013, at a rate of 113% a year so basically double that it's the fastest not Bitcoin, sorry, crypto. So crypto adoption is the fastest adoption of any technology in human history now. And it's growing so fast that people can't get their heads around it. The Bitcoin maximalist are looking at a past, there is no way that Bitcoin can catch up to what is really going on, because things are moving too fast. Now, this is all based around network effects, and network effects. Basically, Metcalfe's law states that the value of a network is essentially the number of nodes in what network and the number of connections between them. Now Bitcoin has that element. And it's very good. People are highly incentivized to bring new people into the network. But actually, the number of connections on the network between them is still relatively limited. The lightning layer is being built out, then nowhere near on NF T's in a meaningful way, although they're working on it. But essentially, the truth is there are more developers working on aetherium. It's adoption rates faster and Bitcoin has ever been. It has more developers, more nodes, more use cases than anything we've seen before. It looks more like the internet in its in that respect. But but so let's step back and say okay, what numbers can we get to? Firstly, I don't think Bitcoin will remain dominance in any way, shape or form. It will continue to grow, it'll do well, it'll get to its whatever. 20 trillion market cap, maybe it goes above that fine, all well and good. I'll own some of it. And that's great. The rest of the space is going to dwarf that. And if I look at, let's say the global equity market, the global bond market global FX market Well, FX is larger. But you know, you're talking these things in like $200 trillion markets. Now, if I continue to follow, the extrapolation of

the rate of change of adoption of crypto basically gets to a billion people by 2024. Now that could easily be solved just by Facebook dm, or central bank digital currencies, which are all crypto. And they will create on ramps and off ramps for everybody into all the rest of the crypto world. So we get to a billion people by then, and that's lowering the rate of growth from 63%. From 113%, a year to 83%. Just because I don't want to be wildly over optimistic. Well, you start getting numbers by let's say 2020, or 2030, let's say $200 trillion for the crypto space, which is logical because it's the size of the Securities Industry sort of thing. Now, I think all securities are gonna go into crypto too, it's going to be bigger than all of this thing will be bigger than all of them put together. But that's basically the magnitude. So we look at it now with I don't know where it is today. One point something trillion market cap, we hit two at peak, we've got like 100x from here. I mean, I mean, this is the biggest wealth generating machine we're ever going to see ever. And that's the frustrating thing for me, is the Bitcoin Maximus, just they're on the wrong narrative. It should be Bitcoin is at the epicenter of this, it is the kind of pristine collateral of this all, and all of this world is being built around it. And this is fantastic. We can all participate in any way we want. Do your own homework, understand where you're taking risk, understand what's less risky, Bitcoin may be less risky, other things are more risky. That's okay, that's absolutely normal. And this constant attention of this is a scam that is a scam is just simply ridiculous. Because basically, this whole crypto space is like real time VC investing, things fail. things work. People are scammers, and people try their hardest and fail. And that's all part of it. And you size your bets accordingly. And then once you see network adoption, taking hold, you can add to your bet because once you get reasonable network adoption, then you get reasonable assurity that is going to follow Metcalfe's law, which is basically a logarithmic trend, ad infinitum. And it's clear that if theorem is is ticked every single box of that, and I'm no theory maximalist either. I think there's so many interesting things coming. You know, we're going to talk about community tokens and stuff like that. I mean, people have, literally they're trying to live in the present day, or the past and assess where this is going. That is the absolute wrong way of doing it. Or they try and assume that the world is not an adaptive complex society, where things don't change, and even sub optimal things end up succeeding, much like VHS beat out Betamax in video wars, even though it's suboptimal. That is the way of things. It's all about adoption.

Jake 38:11
Right. And so, you've talked about, you know, how, why you just mentioned, I guess, the concept of community tokens. And you've talked previously about how this happens, not just finance, but all business models, it changes fundamentally where value coalesces around communities rather than companies and, you know, stocks and things like, Can you expand on what, you know, what's your perspective in regards to community tokens? You're obviously not just about a theory, I mean, these things, what is the community token? In your mind? What are you seeing now? What do you expect in the future?

Raoul Pal 38:47
So if we're entering a world where Metcalfe's law is the most successful business model, then it needs to be applied? So if you look at why that happened is, you know, people like Facebook, Google, Twitter, LinkedIn, I mean, everybody basically learned from Daniel Kahneman, the godfather of behavioral economics, how to apply this to create network effects around platforms. those platforms became the fastest rise of any businesses to a trillion dollars in history. Because the business model of network effects means that the network is worth more than all the cash flows. But in addition, there are behavioral incentives to increase the size of the network. Bitcoin basically came out of that and follows the same law. But then we've then seen a coalescing of power around what is known as influencers. What's an influencer? an influencer is somebody with a large audience online, that that uses it for whatever purpose usually it's a mission. And that we've seen the rise of communities so communities have driven online all over the place, whether it's on YouTube, whether it's on podcasts, whether it's on Twitter, all over the place, like TWITCH has big FinTech been to IT community or crypto community. Then we've seen the rise of celebrity influencer business people who have recognized this and have taken it to new levels. So Elon Musk would be the classic example. He built an enormous community by using a mission statement and a sense of purpose, and coalesced a group behind him that followed that, pretty much how you control controls probably the

wrong word, how you organize complex adaptive societies, in general religion is basically based around exactly the same thing as his government. So that's what Ilan did. And that allowed him to build a more robust business, because he could they the community, as long as he didn't betray the community, they will forgive him for being Ilan, and his antics and his misdemeanors, and his false starts, because they wanted him succeed. And that gave him basically unlimited capital access to capital, people who wanted to buy his shares. And his community was so powerful that politicians don't want to stop him. Right, that's genius. The other person who does really well was chairman, Chairman realized that he had a mission, his mission was that you're all being screwed, and that the whole system needs to be disrupted. very enticing for the young population. They followed him there millions, and he's been able to build businesses on the back of it. Kathy would also built a business on the back of mission statements, purpose and community. So these things are really meaningful. Now these people have more power than businesses that don't have communities. And that becomes extremely interesting. Now, how do you really organize large groups of people? Well, the other thing missing from the equation outside of the mission statement, and the purpose, and the kind of rules societal rules is money. Once you add money into the equation, you now can organize that society totally. So that's what tokens offer society, society tokens, community tokens, social tokens, whatever you want to call them, creator tokens, are basically a way of organizing and rewarding a community for being the community. So they get to earn, spend, save community tokens that have value to them. And that gives them different benefits, whether it's for a music star, they get more access to that musician, or NF T's of album drops, or, or tickets or whatever it may be. But it gives the person at the center of the community direct access to their community, and they don't now have to rent it back from Facebook, Google and all the others that act as kind of gatekeepers to your community, and also extract value from your community. So musicians famously lose about 80% of all of the economics because of all of the middlemen. And basically all this token stuff, stops all of that. But this works for major brands, too. It works for good businesses that there is no way that Apple will not tokenize Google or certainly YouTube will tokenize Facebook is tokenizing. That's what dm is all about. We will see almost every business model move towards tokens. Why because a it drops your marketing costs massively, because virality is the predominant force of nature behind Metcalfe's law. So the community itself is rewarded in increasing the value of the community token. It creates this internal economy where people don't leave. So it's stickier than traditional business models. It has so many benefits, that it becomes obvious that this is going to be the predominant model. And in fact, I'm working on some really big opportunities in this space. And we will also do it for real vision to where we will end up tokenizing the community. And that creates a whole layer of value that didn't exist before the value of community. And that wasn't really reflected in the share price. Maybe it was it was reflected in the some of the share prices of some of the firms that had network effects as part of their core business model. But most of those didn't have community like Facebook doesn't have community communities, basically rent space or Facebook to access their communities. So I think we're gonna see this huge drive towards tokenization of these communities. It's going to create enormous amounts of wealth. It's going to create engagement and ring fences around businesses that have never existed before. those businesses are already coalescing around Tao structures, which are the kind of decentralized autonomous organizations where there is no organizational hierarchical structure, and that they organize a society about a bunch of rules which the Dow share people involved in the Dow will vote for all the time. token holders vote for, and then people can share in the economics of the community. So yeah, this is all coming. And again, people cannot get their heads around it. But everybody, from Disney, to Universal Music, to Apple, to Facebook, are all going to tokenize. And it's gonna happen at a pace that people can't understand. Let's face it, governments are just about to tokenize to, that's essentially what central bank digital currencies are. They're creating a digital rendition of their own currency structure to be able to fit into this new world of metal versus community tokens, crypto currencies, digital assets, NF T's and all of it.

Jake 45:42
Great. So if we are indeed headed into this crypto future, sort of the way you that you project it, or at least something that that rhymes with that vision? What happens to the stuff that you started your

career working with what happens to traditional finance and, you know, hedge funds who are invested all across the board, they might have 1% of their money in Bitcoin or something. Like you mentioned your first your first meeting, I think with Paul Tudor Jones, he had a phenomenal document that he put out, I don't know, maybe a year ago year and a couple months ago, before this bull cycle, basically giving all the reasoning for why this bull cycle will be coming and how, you know, Bitcoin specifically presented a great hedge against inflation, which is coming. But you know, he's not talking, I would assume he's not talking with his, you know, investors about things like, you know, the metaverse, and, and maybe I'm wrong, but the average traditional investor is not quite as forward thinking, I think, in a lot of these areas as you are, it's enough to get them on Bitcoin, which is still a relatively small asset in their eyes. So what happens to the current world or the old world, as you might call it, as crypto evolves from what you said, could be like, a million and a half dollar asset class into 100 million or $200 million asset class and who knows if it's even termed in dollars at that point?

Raoul Pal 47:15
Yeah, and it's already happening so I can see it. So first was Dan Morehead x Tiger management, one of most famous hedge funds in the world, he starts his new hedge fund called Pantera. Close it down sounding 100% crypto. So he was the visionary, then I think probably after that was john Burbank. Passport capital, good friend of mine. Amazing, amazing macro visionary. He shut down his fund went to crypto and exponential age style bets down, tap the arrow, mark your scope, all did the same thing. And then now we're seeing. So all of those guys understand the metaverse, they understand social tokens, they're probably not invested yet, because it's still early, but they understand where this is going. Then the next big shift was probably Alan Howard Allen's a legend in in, in the hedge fund world. And he's basically 100% this now. And, and so on. So bit by bit, everyone's migrating across this new world. Why? Because we're hedge fund guys. And we're after superior returns, it's as simple as that. And the original asset world offers suboptimal returns compared to this, there's currently seven and a half 1000 crypto assets. And that gives you because there's not that much capital in the space yet. It gives you ability to generate supernormal returns and access alpha, which

will continue for a long time as this space grows. So here, you've basically got the financial markets, God knows, like in the 60s, where you know, George Soros, and all these guys were making huge returns, but the returns are larger, because there's all driven by network effects. So that's going to suck in everybody. And I've spoken to pretty much every major hedge fund that all moving this way they understand they have to move, but they they're slow. They're still getting Bitcoin and then yeah, we get a theory on when and how to deal with the rest of the space. But there is a migration across as other assets return less in value. But there's another big thing going on the macro world is the central banks are crammed into a corner. Because of the debt supercycle the aging demographics. And they're like, well, we can't let rates rise. So the right market is dead. We can't let equities fall because then the boom of baby boomers are gonna be wiped out. It's gonna hit the economy. So we can't do that. So equities are kind of supported. While the credit markets nobody's allowed to blow up anymore, because the Fed bull credit in the last recession. So we've now seen junk bonds in real terms trading negative rates. So that's the end of that market. You're kind of left with the FX market. But I don't think governments are gonna allow FX to move. So they're going to keep it range bound because they can't let it blow up. So you're basically taking the returns out of the markets. And you're left with equities. And particularly these, what I call the exponential age equities, the ones, the new technologies that are seeing mass adoption. And we'll see over the next 10 years, they will drive supernormal returns, as they've always done. And then it's crypto. So you're crowding out investment, and pushing it into this alternative world, which is fantastic. The central banks are doing our job for us, they're going to make us rich by doing this, because we can all invest in this. And you can be poor and invest in this. You don't need all of the Wall Street brokers and bankers and middlemen and all of this stuff to be involved. And who knows, you might get rich, owning a social token in your favorite recording artist, because that artist blows up as a huge album as a massive tour. Suddenly, their community quadruples, and your tokens worth a lot more money or event in the metaverse. So I think the wealth generating opportunities from this are gigantic. So institutional investors, retail investors, there's only one place to go well, to this, and these kind of tech adoption curves.

Jake 51:13
Yeah, that's amazing. And I take your point on, you know, anyone having access, it's, uh, you mentioned earlier how, like, you know, looking at crypto is almost like being a VC, the difference being I think that, like, to your point, you know, anyone with internet access, essentially can go and invest in crypto, and it should only get easier and easier in the next, you know, it's happening every month basically. Whereas VC, you need to be, you know, accredited investor and permission from so and so. And same with all these institutional investors. So, I think, you know, there's always a devil's advocate, but I think the, the optimistic view is that, hopefully, people from around the world so long as you're sort of, you know, if you can find your way on the internet and find yourself some smart people to listen to, and some good resources on on YouTube, or podcasts or whatever it is, you can have the opportunity to recognize this sort of stuff early. And, you know, place a small bet here and there, or whatever, and maybe data that helps, you know, I think there's a lot of wealth inequality, probably around the corner as well. This is

Raoul Pal 52:21
a, this is a key point about wealth inequality as well. So tokenization solves that. So right now, how do the rich get rich, they get these opportunities for accredited investors early. Because they're allowed to have which less well off people can't. Because apparently less well off, people are not deemed to be able to take risk. While they're allowed to go to the bookmakers and make bets. I mean, it's ludicrous. But that's that that's the decision made somewhere. So that that changes because you kind of equalize that. But the rituals have got really rich in property markets, and property markets have become unaffordable to most, and particularly the properties that go up a lot, which are the expensive properties because there is a lot of money and limited demand stock higher stock to flow. So that's why you know, a lot of people got rich buying, you know, $20 million apartments in Manhattan that went up to $50 million. That's out of all of our realm. But once you tokenize real estate, the rich guy can put 10% here his assets in and you and I can and it can be doesn't really matter how much. And that's a game changer. You

know, right now, sunshine, the share prices, like Berkshire Hathaway are too expensive for the average investor because you can't fractionalize them. Well, that's starting but tokenization of equities will help immensely too. So people don't need to worry about the price. And they're learning that with Bitcoin. They still keep saying, Oh, it's expensive. It's you know, 35,000 Yeah, it's not expensive, because you can buy a small fraction of it, and people will learn this. So it becomes hugely democratizing and egalitarian, helping broaden out the wealth effects, not just to the people who can afford the scarce assets. You can tokenize Ferrari's you can tokenize artwork as the NFT world has just shown, so everybody can participate in the same things and that is a game changer.

Jake 54:18
Totally agree. Well, Rob, well, I know we're coming up on time and want to be respectful of yours. But this has been a fascinating conversation and really mind opening for me and for everyone else listening I'm sure. So appreciate you taking the time and sharing your perspective. Where can people go to follow you and everything you're working on and as all of this develops to see what the latest thing is? That was to say?

Raoul Pal 54:44
Yeah, so the two places is I'm very active on Twitter. I try and reply to people do what I can although my Twitter followings getting a little bit big to do it, but I do my best I'm very active. And that's at Raul ra o Ul GM II. You Find me there. But if you are interested in crypto, it's a no brainer to sign up to real visions free crypto channel, which is real vision comm forward slash crypto, it's free. Just put your email address in. And there's a piece of new content every day on all of these new protocols, the macro thinking behind it, where it's all going for metaverse, social tokens, you name it. It's all that the broadest set of interviews and analysis of the whole space that exists anywhere. So just go there. It's free.