THE INFLUENCERS: DIGITAL TRANSFORMATION

TRANSCRIPT

HENRY ELDER

Leo von Gerlach (00:06.796)

Welcome everybody to another session of The Influencers, our podcast conversation on digital transformation and law. I'm Leo von Gerlach and with me today is Henry Elder. Henry is managing director and head of decentralized finance at Wave Digital Assets. Wave is one of the providers of investment products and related services in the sphere of digital and more specifically crypto assets.

Henry, before we zoom in on your area of expertise, decentralized finance, let's speak about Wave, their offering and their type of customers. Just familiar me and our listeners who you are and what you catering.

Henry Elder (01:22.154)

Absolutely, Leo. And thank you so much for having me on the podcast. It's such a pleasure to be here. And I'm very excited to talk about Wave and what we do and get deeper into some of these topics. Starting at the top, Wave is a registered investment advisor here in the U.S. We were started in 2018 primarily to service high net worth investors in the crypto space. And we developed a pretty broad range of products, both bespoke for separately managed accounts for individual investors, in which we could craft any sort of a custom portfolio strategy for those investors to service whatever need that they had for their crypto assets. To more off-the-shelf, you know, sort of retail oriented products, which are usually more yield focused – although we have a number of different sort of baskets of exposure to crypto assets and real world assets as well.

Leo von Gerlach (02:29.636)

Staying with that for a second, you spoke about the investment portfolios and the strategy that you apply. Do you have any type of specific recipe of how you pick your investment target, how you design your funds, your portfolios? So what's the magic sauce?

Henry Elder (02:53.238)

Yeah, so it differs depending on which side of the business we're looking at. So if it is on the bespoke side of the business with the separately managed accounts, then typically we are working with the client to see what is the composition of their portfolio and what is the goal that they would like to achieve with the assets that they hold. And that can be anything from ... slowly moving out of a certain position. Let's say that they have, you know, a whole bunch of Bitcoin that they've bought in the past and they want to slowly draw down on those positions over time, take profit, and maybe move into a different asset. We can facilitate that. But what a lot of it is typically focused on is some form of yield generation, which has become an increasingly important part of all crypto asset management as the capital markets built around crypto have evolved over time. And a lot of this was focused on centralized counterparties in the early days of Wave. But this

has evolved over time to face more and more decentralized counterparties in the sort of decentralized finance realm.

And then oftentimes we will take some of the most popular strategies that we are building on the separately managed account side, and we will turn those into retail focused funds. So we have something called the Bitcoin Income and Growth Fund, which just generates yield on Bitcoin using a covered call strategy. We have an index fund, which just gives you sort of broad-based exposure to crypto assets. If you would like a solid exposure there, but you don't want to manage the basket yourself. And then we have this exposure to real world assets, which our first fund of that series was actually holds whiskey barrels. So whiskey as it ages over time increases in value at a very steady state, right? Whiskey is in high demand, and it's very difficult to plan the supply several years ahead of time. So it's a fantastic asset class. But before the whiskey is bottled, and no pun intended here, the investment is not very liquid. And so the ability to take this illiquid investment that's basically sitting in a cask for a certain number of years and tokenize that and create some form of liquidity for that capital has been a very interesting mechanism.

Leo von Gerlach (05:49.304)

So there are so many interesting aspects I want to drill down further on, but let's start with you mentioning exposure on several occasions when you just described your investment products. Exposure kind of translates into risk. And we all know how volatile digital assets and crypto assets in particular can be. And that needs to be translated into some sort of risk management and the way you offer your different products to your customers and the risk appetite individuals may have. So how do you go about risk management and how you offer and tailor this to your customers?

Henry Elder (06:37.65)

It's an interesting question and it's not one that I may be best placed to answer in the perspective that you're looking for. And the reason I say that is that an institutional investor I think looks at the volatility of crypto and thinks very much of that as risk, right, which is I think how any traditional financial investor sees volatility. Since most of our clients are crypto native, right, they made their money in crypto originally, or they invest the majority of their assets in crypto, they are in a way almost inured to the volatility, right? They're used to the volatility. They expect it. They have been through multiple extremely volatile market cycles in crypto. And so their primary concern oftentimes is not to limit the volatility or reduce their exposure to the volatility, but to actually increase the amount of crypto, the nominal amount of crypto in their portfolio, which is why they're so yield focused. So for instance, if a client comes to us with a hundred Bitcoin, their ask is typically not, you know, hey, I want to remove the volatility from this Bitcoin portfolio. If it's going up, I want you to sell it. If it's going down, I want you to buy it. That's typically not the ask. The ask is I'm giving you 100 Bitcoin and in a year I want 110 Bitcoin. I want more Bitcoin. I want more Ethereum. I want more crypto, which is why the yield piece of our services have

become such an important piece of what we provide and in such high demand, because basically everyone who comes to us wants more crypto. And so the volatility is oftentimes actually a boon. For example, with the Bitcoin Income and Growth Fund, we are taking that volatility and we're converting it into more yield. And with a call override strategy, we are capping the upside on the Bitcoin. And that is actually oftentimes the biggest risk that our clients are worried about. They do not want those calls to be in the money because they don't want to sell their Bitcoin. They just want more Bitcoin.

Leo von Gerlach (09:05.16)

That makes total sense. So you basically take out the volatility out of the equation and whoever invests focuses on the yield. They hope for an increase in value and they just live with the downside risk that it may decrease at certain points in time. Fully understood. Let's go back one more time to the whiskey you mentioned because I think that's a fascinating topic and it is something that bridges the real asset world with the digital asset world. What is a typical challenge that you face when you try to make real world assets liquid for the digital cryptified asset world?

Henry Elder (09:52.594)

Yes. So my background actually before I got into crypto was real estate. And the way I got into crypto was trying to take real estate and put it on the blockchain. So this was real world assets on the blockchain before that phrase even came into being. This was in 2017 and 2018. So the biggest problem with bringing real world assets onto the blockchain is that the number one driver of this activity is to create liquidity for those assets. But you cannot simply bring an asset on chain and then magically have liquidity appear, right? It's not this binary equation. And so, especially in '17 and '18, and even when we launched the Whiskey Fund, there were no secondary markets for these assets.

And even today, these secondary markets for anything, whether it's whiskey, cars, real estate, U.S. treasuries that has been tokenized and brought onto the blockchain, those secondary markets are still embryonic. They're small. It's not very liquid. And they are trying to grow. But this is a new way, basically, of securitizing assets, which is also, I think, a term that the RWA industry probably tries to shy away from, because securitization, of course, comes with compliance. And compliance and crypto are still becoming friends. They're in the early stages of their relationship, which is something that we struggle with quite a lot. As a regulated entity, you know, we have to have a very strong focus on compliance and especially operating in the decentralized finance space, that is something that we have to impress upon our partners who oftentimes don't have the centralized capabilities to implement compliance. And then circling back to your original point, that compliance can also have a restrictive effect on the growth of liquidity in the secondary markets for many of these real-world tokenized assets. So it's this kind of multi-partner dance that is occurring where you have regulators, you have regulated institutions, you have institutions that claim that they don't have to be regulated, and then you

have these regulated assets that are being brought on chain, and everyone is sort of interacting and trying to figure out how to make this all happen in a compliant manner, and how to create the structures and the formats that will allow this secondary market liquidity, which is the ultimate goal of basically all of this, to grow and flourish.

Leo von Gerlach (13:05.252)

That makes total sense and as you mentioned at the beginning, I think the cryptification just gives an additional, just new tool to bring more real world assets into the digital form on a secondary market, which was much more difficult in previous times when it was possible for release date, but was more difficult for just less fungible products as whiskey or the like. Great. Perhaps we move on to your area of expertise and focus at this point in time and that's decentralized finance. Perhaps you just familiarize our listeners to what decentralized finance stands for and how that ties into investment products that you are just devising.

Henry Elder (13:54.39)

Absolutely. So decentralized finance is sort of an umbrella term that encapsulates a number of different what we call protocols. And I want to draw a firm boundary here, because this actually became very important last year, that there are many institutions that claim to be decentralized finance but are not. And a good example of this last year was a company called Celsius that went bankrupt. And Celsius tried to make people believe that they were a decentralized finance, but they were not. They were a centralized entity with a completely traditional structure of a financial institution. They tried to position themselves in a way that perhaps was incorrect. True decentralized finance is a protocol, and I say protocol or decentralized app, because it is a code base effectively. There's oftentimes some entity or organization behind it, but that is ancillary to the actual code base. The point of a decentralized finance application or protocol is that it can stand on its own without any centralized entity. It is effectively just a set of code that performs a particular financial service, whether this is exchanging one asset for another or providing insurance on an asset or providing lending against a collateral asset. You can do basically anything with decentralized finance. But the point is that you write the code and the code is meant to be self-executing and effectively autonomous. Of course, you always need some sort of maintenance of the code. If a flaw is found, somebody needs to be there to protect it, which is what the organization behind it is for. But unlike your bank where you have to go to an actual, you know, you have to go in and speak to a person, or you need to, you know, file some sort of papers to open a bank account that are going to be reviewed by a human being. None of that exists in the decentralized finance space. It is just the code, and the code is autonomous.

Leo von Gerlach (16:31.5)

Sounds almost as if you take the issuer or the custodian or the manager somewhat out of the equation. Just perhaps to make this more concrete, could you give us an example of how that translates into a given product or a given service?

Henry Elder (16:50.046)

Yeah, so I think Uniswap is a great example. Uniswap is something, it's called a decentralized exchange, and it is comprised of a number of effectively self-contained smart contracts, which is the code. And each one of these is called an automated market maker. And Uniswap really innovated this idea. And what an automated market maker does is it is a piece of code that pairs two assets against each other. Let's say it's Ether and USDC, right? Ether is the base asset of the Ethereum blockchain. USDC is a very well-known and highly used stable coin, which is a dollar pegged cryptocurrency. It's supposed to be free of the volatility of other crypto assets, right? So if you want to purchase Ether with dollars, you can use USDC and you can go to Uniswap, which has a very simple, easy to use interface where you just type in how much USDC you want to use and it will spit out how much Ether you can buy, and then you basically click execute depending on what wallet you're using because you have to use online wallets in order to interact with crypto and DeFi. Depending on what wallet you're using, you will confirm it in the wallet. And then 15 seconds to 60 seconds later, the USDC leaves your wallet and the corresponding amount of Ether appears in your wallet.

And there is no, there's nothing behind that except just the code. And the code is this, the automated market maker is this self-contained little piece of code that holds those two assets in a pool. And this pool of liquidity is how it facilitates the trade, right? And the pool basically maintains a price of these two assets against each other based on the ratio of assets in the pool. So if more USDC goes into the pool and ETH comes out, right, because when you're trading with the pool, if you're buying Ether with USDC, you are putting USDC into the pool and you're pulling Ether out. And the smart contract looks at the ratio of those two assets, which is just changed and changes the pricing of the Ether to reflect the changed ratio. And so in this self-contained piece of code, you now have the liquidity to facilitate the trade and you have a self-referencing price that allows the execution of that trade. And so there are no people there, there's no capital behind it. The code itself is fairly simple and doesn't require a lot of upkeep. And the capital that sits in the pool is provided by other investors called liquidity providers. And those liquidity providers, every time that someone trades with that pool, they pay a small fee to the pool, let's say 50 bits. And the liquidity providers get half of that fee. And then the protocol Uniswap itself gets the other half of that fee. And so now you have this yield generating activity that incentivizes other investors to deposit their assets into this pool to facilitate trading with other counterparties who want to either buy or sell Ether.

Leo von Gerlach (20:44.44)

Let's look a little bit closer into that self-contained code or protocol or the smart contract that governs this functionality by converting one asset into another. One of the challenges is what happens if an error occurs or the system, I think, is prone for an optimization, for a change. How is that

brought about if there is no central person or institution that has the power to just easily switch the flip to do something different than before.

Henry Elder (21:25.982)

Yeah, so that is one of the core risks of DeFi, but it is also one of the biggest strengths. So because there is a lack of fail-safes, there's not necessarily no fail-safes. Sometimes they have a switch, like you said, where if somebody notices something is wrong, a sort of predefined council can flip this switch by a majority vote. And if they move quickly, then they can protect the users from the fallout of whatever the error was. However, that is a manual process, right? And so if people don't catch it, you could end up losing hundreds of millions of dollars as has happened in the past when there's been errors. So what that does, is it raises the cost of those errors to the point where there is a higher burden on the developer to provide effectively error-free code. So unlike your sort of Web 2.0 centralized FinTech, right, where you oftentimes get these very buggy apps that nothing seems to work right, and it's very frustrating, and they push updates every once in a while, and all of that stuff. It doesn't matter, right? If something's wrong with the app, there's not some sort of catastrophic issue that will arise from that. Whereas in DeFi, that can happen, and so therefore, the code that is pushed is typically very rigorously tested. Not always, not always. I don't want to say that this is even industry standard because DeFi is an industry, as decentralized as it is, it's difficult to point to any particular industry standards. However, best practices, typically the code will be forked from something else that is heavily battle tested and then will be audited multiple times by firms that their entire purpose is simply to try to break this code. But the more important piece of that, going back, is that the code is typically forked from something that's battle tested. Since DeFi is effectively autonomous, if someone is able to find an error in the code, they stand to benefit to the tune of millions of dollars. And because this code is all open source and it's just out there available to anyone to attack or to inspect or to whatever, DeFi code is under constant assault. It is under constant scrutiny. And so if you have a protocol that has been in existence for multiple years with hundreds of millions or billions of dollars of assets being protected by the code and that code has not been broken, that is probably one of the greatest guarantors of the strength of that code because it's such an adversarial environment and you know that it has been resisting attack for years. Highly, highly motivated attacks.

Leo von Gerlach (25:00.201)

I think that sounds fascinating. What you have is the idea of a speed evolution …

Henry Elder (25:05.429)

Yes.

Leo von Gerlach

… it is really a fight for survival and make it to the next generation of investment product …

Henry Elder (25:10.6) Exactly.

Leo von Gerlach (25:26.136) … by simply being resistant to error attacks that you see just not being successful and those that just have not been just able to withstand the attack just being wiped out by competition and evolution. That's great.

Henry Elder (25:29.41) Exactly. Leo, it is a Darwinian pressure cooker. That's what DeFi is. It is so adversarial. And so the code that underpins something like Uniswap or Aave is probably some of the most secure code that has ever been written in the history of software.

Leo von Gerlach (25:51.192) That's great. So we pinned down the technology challenge that DeFi products are exposed to, and which kind of, as you explained, Henry, so capably, makes them actually stronger. Let's just turn to the legal challenges. We read so much about the exposure of crypto assets to legal challenges in particular in the U.S. You are SEC regulated. Perhaps you can also say something on that aspect before we conclude.

Henry Elder (26:27.11) Yeah, absolutely. So the legal challenges take multiple avenues, right? There's the legal challenge of the actual formation of the entity, the structure of the entity behind these DeFi applications. Some of them have no entities whatsoever. Some of them have Cayman Foundation. Some of them have BVI entities. They're all over the world.

And so there is a question there of, you know, do these entities convey limited liability upon the token holders that sit behind the DAO, right? That is a whole question that frankly has not been settled yet and is one that I probably shouldn't even opine on yet. Then there's also the issue of, you know, are these things securities? Are some of these entities issuers of securities and therefore do they need to comply with securities laws? And you know their claims to the contrary do they make sense? Do they hold up? You know a lot of litigation around that is also in process. Then you have the legal avenue of AML and KYC compliance, right? Many of these organizations or you know – I use the word organization loosely. Many of them claim that since they're decentralized, they don't need to comply. They have no compliance obligation, which is not typically true, right? I mean, AML, if you're providing any sort of a financial service, you have a compliance obligation with anti-money laundering. And the OFAC makes it actually quite easy to provide at least some sort of baseline compliance by publishing a blacklist of crypto addresses that are associated with illicit financing. And so one of our roles basically in this ecosystem as a regulated institution that provides a lot of capital to DeFi applications is to impress upon them the importance of at least a bare minimum compliance, right? At least creating some sort of a reference to this library of blacklisted addresses, not just for our protection, but for theirs as well, right? Because even if this is a decentralized application, somebody wrote that code, right? Somebody maintains that code. There is always, if you dig deep enough, a person somewhere who's involved. And I think that what we've seen over

the last couple of years is that regulators are certainly starting to dig deep enough to find those people and hold some of them responsible. And so, I don't think – DeFi is built on these principles of disintermediation and allowing easy access to sophisticated financial services to everyone and anyone. And I think that many DeFi founders look at compliance obligations as a roadblock to facilitating that access. But the way that we look at it is if you are trying to provide financial services to the underbanked around the world, but you're also giving ISIS or some other terrorist organization, the ability to finance itself, you're basically just canceling out the good that you're doing. And it's, I think that there are sophisticated enough technological solutions available today to allow you to provide services to the underbanked while, at least making it very difficult for illicit organizations to participate.

Leo von Gerlach (30:44.18) Henry, thank you so much for just showing us this fascinating world of decentralized finance to us and familiarizing us with the challenges, with the opportunities. I love that pressure cooker of evolution to make the code ever safer and better and we learn so many other things. So thank you once again.

Henry Elder (31:17.186) Thank you, Leo. Great speaking with you.

Leo von Gerlach And thank you all for tuning in and I hope you join again for our next session of The Influencers, which is coming up soon. For now take care. Have a good day all!