# The Future of Crypto Insurance

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## Abstract

So far, only a few insurers have provided coverage to crypto companies due to the volatility of the industry and the lack of data to back up their investment. However, if regulation on crypto becomes further clarified, crypto insurance could become much more normalized in the future due to crypto's increasing institutional adoption and fundamental role in the decentralized nature of the web today. We have seen insurance catch up with technological advancements like this before, but it is crucial for reinsurers to first be willing to offer coverage to enable primary insurers to take on such a new and potentially unstable industry.

## Introduction

For the last 350 years, insurance has largely operated in the same manner. Companies look to evaluate a statistically significant data set consisting of preferably over a decade's worth of loss exposures to run through simulations in order to project future losses. The idea being, with this wealth of historical data at hand, insurers will be able to compute the premium they need to charge to make a consistent profit and the amount of reserves they need to hold to pay claims. When this is not the case and insurers can't back up an investment from an actuarial standpoint, they almost always back away and refuse to provide any capacity.[1] Herein lies the fundamental reason for the lack of insurance provided to cryptocurrency companies today, leaving many to rely on self-insurance. Despite crypto's nuclear growth ever since the creation of Bitcoin in 2009, with nearly 9,000 different cryptocurrencies in circulation today creating a

market cap of about 1.19 trillion,[2] insurers continue to be cautious due to the volatility of the industry. While this notion is certainly on par with the history of technological entrepreneurship outpacing the stereotypically sluggish insurance industry, there are still a couple insurers willing to provide coverage to cryptocurrencies. However, in order to gain further stability and credibility amidst an industry that lacks oversight and investor protections, the very things that shy insurers away, there is still a larger demand for crypto insurance than supply. In fact, less than 2% of crypto-related risks are currently insured despite cryptocurrencies being one of the most at-risk industries to catastrophic losses.[3]

## What Is Out There Now

While products like general liability and property insurance may not be too difficult for crypto companies to obtain, specialty lines of insurance like directors and officers (D&O), errors and omissions (E&O), and cyber insurance can prove quite challenging to procure. D&O insurance, which protects directors and officers from claims of mismanagement of the company,[4] is crucial because it protects crypto companies and their executives from costs related to investigations or litigation which are extremely common in the industry given its constantly evolving regulation. Also, D&O insurance is often a gate of entry to attract credible board of director members.[5] Similarly, E&O insurance is important in covering claims from clients of malpractice, negligence, and errors which can easily arise considering the monetary fluctuations crypto owners bear through. Likely the most paramount for crypto companies yet riskiest for insurers, however, is cyber insurance, as some estimates place losses from crypto hacking as high as $14 billion worldwide.[6]

Although headlines as startling as Ronin Network losing $620 million worth of Ether (the cryptocurrency behind Ethereum) dominate the narrative of risks associated with cryptocurrencies,[7] with great demand comes great opportunity, and a handful of companies are indeed beginning to reap the potential benefits of offering crypto insurance at high premiums. The first company to offer crypto insurance was Lloyds of London in 2019. Since it is such a rapidly evolving area, however, Lloyd's involved syndicates in the underwriting process including Atrium and Coincover. Their offerings included dynamic, flexible limits as low as 1,000 euros that moved in flux with the price changes of crypto assets, meaning that the insured will always be indemnified of the underlying value of their asset even if it changes over the policy period.[8] Coverage exclusions often tend to get quite extensive when it comes to crypto insurance though. For example, Lloyds offers coverage to BitGo but only in situations where BitGo has sole control over the client's cryptocurrencies. Lloyds also insures Coinbase but does not cover thefts from unauthorized access.[9] Beyond these two specific instances, other common crypto insurance exclusions include the virtual currency exclusion and the creditor and debt holder exclusion. The virtual currency exclusion nullifies the effect that the value of a given cryptocurrency has on the business, making the insurer unbound to the financial stability of the policyholder amidst the constant fluctuations of crypto value. The creditor and debt holder exclusion limits coverage regarding lawsuits that arise from the policyholder's ability to pay accounts including credit or debit.[10] Of course, exclusions vary widely from policy to policy, but these serve as examples of when crypto insurance is offered but in a very conservative manner that is far from all-encompassing, and these exclusions can regularly get to the point where the crypto company is not getting any significant coverage in reality, making it very difficult for insurers and crypto companies to come to a final agreement on a policy.

More recently, Relm Insurance has taken over as a leading specialty insurance carrier for digital assets like cryptocurrency. Along with providing reinsurance for the Crypto Shield product Boost Insurance and Breach Insurance rolled out to protect retail wallet holders,[11] Relm's launch of Relm II offers the first ever fully regulated collateralized reinsurance. Its initiation announced at the 2022 Bitcoin conference, the key distinction in Relm II becoming fully regulated is that it is able to accept both fiat currencies and cryptocurrencies as collateral. This enables Relm to utilize substantial pools of aligned investor capital to support the aforementioned critical lines of coverage like D&O and cyber. Ultimately, Relm II will allow Relm to offer higher limits, particularly for their smart contract failure line. With smart contracts, or self-executing programs that automate actions required in an agreement,[12] having over $225 billion across almost 2,000 projects locked in, these higher limits are practically necessary.[13]

## Regulation Clarity

While the craze of crypto has exponentially increased over the past decade and more and more people continue to become educated on the industry, for crypto insurance to become normalized and extend past just a handful of willing insurers it is crucial that it becomes better defined what cryptocurrencies fundamentally are. Is crypto a commodity? A security? Some other, newly defined entity? Well, the answer to that may depend on both when you ask and the type of cryptocurrency you are asking about. Therein lies the confusion when it comes to insurers determining how to interpret cryptocurrencies and how they are regulated. Bitcoin, for example, has been deemed a commodity by the U.S. Commodities Trading Future Commission (CFTC). Commodities are generally regarded as natural resources like gold or cotton, but they are more ambiguously defined as goods that can be bought and sold at prices that are influenced by supply and demand and that each unit of the good is interchangeable with one another.[14]

Thus, Bitcoin would fit under this umbrella given its constant price fluctuations based on supply and demand and the fact that each bitcoin is equal to one another. Ethereum, the second largest cryptocurrency, is also considered a commodity, however, countless other currencies have not been ruled whether they are commodities or not.

The recent SEC ruling about Ripple's cryptocurrency, XRP, fits right within this ongoing debate on what cryptocurrencies really are. For years, the SEC has contended that cryptocurrencies were securities just like stocks and bonds are and should be subject to the same strict regulations as such. However, after the SEC sued Ripple back in December of 2020 for violating securities laws, the judge ruled on July 13th of 2023 that XRP is in fact not a security in the first place.[15] The primary determinant in if a financial instrument is an investment contract, and thus a security, is a four element examination called the Howey Test. The four prongs are that it involves "[1] An investment of money [2] in a common enterprise [3] with expectations of a profit [4] to be derived from the efforts of others." Where cryptocurrencies like Bitcoin, Ether, and now XRP fail this test is in the second and fourth section. Since cryptocurrencies are designed to be decentralized, they don't produce a return from a "common enterprise."[16] Also, they are not "derived from the efforts of others" because even though crypto investors are obviously investing in order to make a profit, passing the third prong, there is nobody pushing these cryptocurrencies to increase in price the way that an executive managing a company would be.[17]

Although Ripple is not necessarily out of the woods quite yet since the SEC can appeal the judge's decision, they can take the ruling as a short term victory at the very least as the decreased stringency from going from a security under SEC regulations to a commodity under the CFTC had the price of XRP surge 76% to 82 cents and the value of all cryptocurrencies jump

6% to $1.3 trillion.[18] The crypto industry as a whole saw such a jump in hopes that cryptocurrencies will continue to gain similar rulings down the road. This is the first time that the SEC has lost a crypto case because in the past they have had a tendency to go after weaker crypto companies who could not mount a proper defense. However, with Ripple having the fortitude and resources to sufficiently fight back against the SEC, the sentiment is that this decision could set a precedent for cases down the road for cryptocurrencies to escape SEC regulation.[19]

Nonetheless, the turf war between the SEC and CFTC will likely still rage on since the SEC continues to carve out aspects of the crypto ecosystem that they can control. For example, initial coin offerings (ICOs), or when a cryptocurrency first releases itself to be traded in the open market in order to raise capital, has been under SEC regulation since 2018. Understandably, an ICO is far too similar to an IPO in the eyes of the SEC to not fall under their authority. With hundreds of ICOs occurring every year nowadays, this gives the SEC plenty of opportunity to keep regulating new and upcoming cryptocurrencies. The other main aspect of crypto that the SEC remains battling for jurisdiction over is decentralized finance (DeFi), a system that allows crypto users to borrow and lend without being controlled by a single person or entity.[20] On April 14, 2023, in a proposal for amendments to rule 3b-16 under the Securities Exchange Act of 1934, the SEC argued to broaden the definition of "exchange" to "include systems that offer the use of non-firm trading interest and what [they] termed "communication protocols" to bring together buyers and sellers of securities,"[21] hereby considering DeFi to be an exchange. This proposal received tremendous blowback though, with experts contending that it would be impossible for DeFi to operate under the SEC. Even the SEC themselves admitted that these amendments could "significantly reduce the extent to which the system is 'decentralized' or otherwise operates in a

manner consistent with the principles that the crypto asset industry commonly refer to as DeFi."[22] Regardless, even if the CFTC holds a stronger argument to regulate crypto by definition of a commodity versus a security and also provides a more favorable atmosphere for cryptocurrencies themselves, there is sufficient reason to believe that the SEC will continue to be a large player in crypto regulation due to its strategy to attack certain elements of crypto, its resources, and its overall appetite for enforcement. The bottom line is, whether it is the SEC, CFTC, or anybody else in charge of regulating crypto, formal regulatory developments are the main component enabling insurers to become more comfortable with the risks involved with crypto. In turn, for crypto insurance to become more widespread, the primary concern should be achieving an agreement among regulators as to who oversees crypto, or, at the very least, greater cooperation among them rather than a war over control.[23]

## Institutional Adoption

Increased regulation and clarity on who is in charge of how cryptocurrencies are to be traded also promotes the entry of institutional investors and traditional financial institutions into the crypto market. Given that these entities often have higher risk management requirements, crypto insurance could be an attractive option to protect their investments. As a result, improved regulation could create a chain reaction where increased trust in crypto leads to institutional adoption, ultimately leading to insurers becoming more comfortable with providing crypto coverage. In fact, we have already seen several instances of this taking place. For example, Goldman Sachs began offering digital assets like Bitcoin to its wealth management clients starting in 2021 and has continued to invest millions of dollars in crypto firms even after the frightening collapse of FTX due to a liquidity crisis.[24] They made this move in order to respond to one of their primary rivals, Morgan Stanley, becoming the first bank to offer funds that enable

ownership of bitcoin.[25] Other dominant players like J.P. Morgan have also gotten involved with crypto. J.P. Morgan created the first bank-led blockchain platform called Onyx which was built under the Quorum project. Using the Ethereum network internally, the Quorum blockchain project hosts J.P. Morgan's own cryptocurrency, a stablecoin (meaning it is pegged to the US dollar) called JPM. JPM is not available for public purchase, instead, it is used to facilitate and expedite business to business transfers by companies who hold deposits in JP Morgan bank accounts.[26] With this capability, it is put to work to operate the Interbank Information Network which includes over 300 banks.[27] Goldman Sachs, Morgan Stanley, and JP Morgan serve as just a few examples amidst an ongoing trend of major financial institutions integrating their services with the crypto industry, giving crypto more credibility along the way that can offer insurers more assurance that it is a viable industry with a promising future rather than a flash in the pan.

## It's Happened Before

As the old adage goes, history tends to repeat itself, and the transformation of insurance coverage throughout the years appears favorable to crypto insurance becoming more normalized in the future. Cyber insurance, for instance, now an integral component of the insurance industry and projected to reach a market value of $28.25 billion by 2027, was not standard practice until the early 2000s. Similar to the current early stages of crypto insurance, when cyber insurance was first introduced, its coverage was very limited, only really covering things like extortion and the loss of digital assets. Today, cyber insurance can cover a multitude of areas beyond data breaches including ransomware, damaged reputation expenses, corporate identity theft, and much more.[28]

Another technological innovation that insurers have progressively crafted coverage for is autonomous driving. With the liability no longer lying in the hands of the driver, but rather with the vehicle itself, insurers had a tough time determining appropriate premiums considering the lack of historical data at hand to assess risk much like with crypto. However, with both typical insurers as well as manufacturers like Tesla offering insurance for their vehicles themselves, autonomous vehicle insurance has become so commonplace that its safety features have actually lead to even cheaper rates than normal car insurance.[29] While there are countless other examples of insurance eventually catching up to technological advancements, these two serve as direct instances of spaces that were once seen as too volatile and unknown to insure but their coverage has become customary, and there is ample reason to believe that crypto insurance will progress in a very similar manner.

## Not Going Anywhere

Although it may often seem like the value of crypto is extremely unreliable when the price of a cryptocurrency like dogecoin can sometimes live and die by a singular tweet, the reality is that crypto is not going anywhere anytime soon and will likely continue to become more and more ubiquitous. Sure, crypto fell victim to the bear market in the spring of 2022 and saw a dip in market cap that topped out at $2.977 trillion in November 2021, but we have seen dips after major surges before in crypto like in 2017-2018 and the market cap bounces back in the long term. Plus, the overall market cap of crypto still sits at about $1.19 trillion today.[30] The main thing that should keep crypto's growth optimistic, however, is that transaction value is projected to continue to rise another 55.4% in 2023 to exceed $16 billion after already surging 70.5% in 2022 to reach $10.40 billion.[31] The more crypto is used for tangible transactions, the more legitimate and stable it inevitably becomes. This validity is further enhanced when large,

reliable companies accept such payments, and with 85% of businesses with more than $1 billion in annual online sales accepting some form of crypto payment,[32] smaller companies should continue to follow suit and crypto will become increasingly legitimized.

## Web 3.0/Metaverse

Beyond pure market trends and payment utilization, the next generation of the internet, highlighted by the development of Web 3.0 and the metaverse, suits the growth of crypto extremely well. To understand what Web 3.0 is and how it affects crypto, it is important to know what the first two iterations of the web were. Web 1.0, taking place in the 1990s for the most part, consisted of static, read-only web pages that lacked many interactive features. Web 2.0 began in the early 2000s and marked the beginning of dynamic content on the internet where users could create their own content and communicate with each other, most notably via the invention of social media platforms. Web 3.0, although still being defined in the present day, revolves around the idea of decentralization and the contents of the internet being owned by users themselves rather than big data companies. In turn, Web 3.0 lends itself perfectly to crypto because cryptocurrencies are inherently decentralized in that they operate using a distributed ledger that is not controlled by a single entity. Perhaps the most intriguing factor of Web 3.0 is the explosion of DeFi and its ability to reduce fees, increase transaction speed, and allocate capital more efficiently by replacing central authorities like banks with peer-to-peer financial transactions on the blockchain. Naturally, crypto will take off under this environment as the primary currency behind these blockchain transactions. Contrary to its common skepticism, blockchain technology and its enhanced transparency considering all transactions are publicly accessible actually improves security and privacy of user data from breaches and misuse from large corporations.[33] Thus, any insurers' concerns over the protection of crypto amidst the

evolution of DeFi are largely baseless as correctly coded DeFi exchanges are in fact more secure than traditional financial transactions.

The instantaneous and secure nature of the blockchain meshes perfectly with the exponentially growing popularity of the metaverse. Many may view the metaverse as a trendy video game for kids who got a VR headset for Christmas, but in reality, the global metaverse is currently valued at $234 billion and is expected to have a 69.2% compound annual growth rate to reach a market size of $3.41 trillion by 2027.[34] To pay for something in the metaverse, whether you want a cool new outfit, to head to a virtual concert, or of course, the infamous NFT, it is all done using cryptocurrencies. Hacks in the real world can certainly be devastating, but in an environment like the metaverse where the underlying platform is online, security goes from important to vital. So, the immutability of the blockchain makes it ideal for the metaverse which relies so heavily on the trust of its users having privacy and preventing all of their data getting sold away to big companies the way the internet largely failed to do. Plus, the essentially instantaneous transactions that crypto can make across borders at the fraction of the cost that fiat-based payment systems can makes it a much more plausible solution for the metaverse that involves users across the world. Whether the metaverse will ever truly mirror the real world or even surpass it remains to be seen. However, its monetary growth and increased validity with massive companies such as Microsoft and Nike investing serious money into carving out a role make the metaverse an undeniable staple of our future, and crypto right along with it.[35]

## Conclusion/Role of Reinsurance

The combination of the regulatory developments, institutional adoption, Web 3.0, and the overall continual improvements we have seen to the crypto space cement it as an industry that

will continue to grow for the foreseeable future. Nonetheless, it is still an extremely volatile industry that has a lot of work to do before it becomes fully normalized for insurers to cover crypto. One thing is for sure though: reinsurance will play a crucial role in the evolution of crypto insurance. Reinsurers will need to act as keys to unlock primary insurers ability to provide coverage because very few, if any, will be willing to offer coverage on their own. With the aforementioned potential for uncertainty remaining with crypto, in order to properly mitigate risk, reinsurance is all but necessary. We have seen a select few like Relm grant such reinsurance for crypto lines, but the examples are few and far between. Yet, with the perpetual growth of crypto, just as we have seen before with things like cyber insurance and autonomous driving insurance, we would be foolish to think that insurers will not eventually dive deeper and deeper into this near unchartered territory to create more business, particularly when we eventually move away from the current hard market and coverages broaden as underwriting criteria relaxes. At the end of the day, supply for crypto insurance will creep toward demand as crypto continues to evolve toward being a routine part of our daily lives.

# Footnotes

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