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Investing in Metaverse Real Estate: Mind the Gap Between Recognized and Realized Potential

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The Metaverse is an immersive world combining virtual reality and augmented reality, where users are represented by avatars and roam virtual spaces. It comprises a variety of platforms and environments that can be explored, experienced, and developed. Online social games like *Second Life*, *Fortnite* and *Minecraft* are among the first wave of successful Metaverse games.

Now, Meta and Microsoft see the Metaverse as a place to play, live and work. A JP Morgan white paper¹ stated that opportunities in the Metaverse seem “limitless.”

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The bank predicted that virtual worlds will “infiltrate every sector in some ways in the coming years.”

A March 31, 2022 report by Citi² concluded that the Metaverse has the potential to become a \$13 trillion opportunity by 2030, with total global users of between one and five billion. According to Citi, the Metaverse will become a significant part of the next iteration of the internet (referred to as Web3) enabled by a variety of existing and emerging technologies, including 5G connectivity, secure blockchain and payment platforms, crypto assets, cloud computing, artificial intelligence, 3D modeling tools and headset devices.

A Land Rush, Virtually Speaking

Not surprisingly, investors are speculating regarding the value and potential of “virtual land” within the Metaverse, where land sales in 2021 exceeded \$500 million and attracted a lot of attention and hype. The Sandbox,³ Decentraland,⁴ Somnium Space⁵ and CryptoVoxels⁶ are the most active platforms and owners can build almost anything on their virtual parcels. The open-source Ethereum blockchain, with self-executing smart contract functionality, operates as the foundational layer for most platforms. Parcels of land in The Sandbox and Decentraland are purchased with cryptocurrencies

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(called SAND and MANA, respectively) on their platforms and can also be sold and purchased on secondary marketplaces like OpenSea.⁷

Many prominent companies are already investing and participating in the Metaverse. PwC, Adidas, Walmart, Disney, Nike, Gucci and Warner Music have invested in land in the Metaverse.

Everyrealm⁸ (formerly Republic Realm), a virtual land investor/builder, received backing recently in a \$60 million Series A round led by Andreessen Horowitz (also called a16z) from individuals and corporate investors, such as Coinbase Ventures and Dapper Labs.

JP Morgan operates a bank lounge in Decentraland with a spiral staircase, a roaming tiger and an illuminated portrait of Jamie Dimon. In late March, Decentraland hosted a Fashion Week with virtual shows, pop-up shops and digital garments on avatars walking on catwalks. The brands participating, including Tommy Hilfiger and Dolce & Gabbana, offered links to their regular e-commerce sites for customers who wanted to buy real-world fashion collections. Heineken launched a beer in a virtual brewery on Decentraland recently to poke fun at the extremes that companies are willing to go to grab a slice of the Metaverse, describing it as brewed with “binary-coded hops grown by NPC (non-player character) farmers.”

This new world is made possible by “crypto,” an umbrella term used to refer to technologies that have blockchains as a foundational layer, such as digital currencies, non-fungible tokens (“NFTs”) and decentralized finance (“DeFi”).

Advocates argue that NFTs and DeFi will unlock a new marketplace in the Metaverse for scarce digital assets, such as virtual land, purchased with cryptocurrencies and creative financing. Support for this concept from crypto users and investors, technology companies and venture capitalists increased in 2021 and was tied to the rise in sales of NFTs and the rebranding of Facebook to Meta. Critics counter that much of the excitement surrounding all things crypto is the result of marketing buzzwords rather than reality and that enthusiasts have a vested interest in promoting the hype. Critics point to the lack of tried-and-true business models for crypto markets, price volatility within crypto markets, security risks and underwhelming user experiences on many platforms as signs that the Metaverse does not hold the potential that others claim.

Welcome to Unfamiliar Ground

Real estate professionals might assume that their real-world expertise will translate well into the Metaverse, especially when virtual platforms appear to mimic the physical world. However, investors are purchasing

a piece of engineered software code in an interactive video game-like experience, and fundamentally different considerations and risks apply. In short, real estate in the real world and virtual real estate in the Metaverse are distinct in various significant respects.

Platform and Technology Concerns

Platform Risks

The Metaverse comprises multiple platforms that are not connected by a secure architecture. Currently, avatars, virtual assets and data cannot be moved seamlessly between these platforms. That will need to change in the future. Citi warned that the content streaming capability of the Metaverse will likely need a “computational efficiency improvement of over 1,000 times today’s levels.”

According to Goldman Sachs,⁹ the investment required in areas such as storage, network infrastructure, consumer hardware and secure platforms for gaming and commerce will be very substantial. There also appears to be a lack of engineering, software, analytics and IT talent to build out the potential identified by Citi, Goldman Sachs and others. If a Metaverse platform struggles due to UI/UX issues, lack of funding or upkeep, security failures, stronger competitors or general lack of user growth, then the investments within that platform will invariably struggle as well.

Smart contracts on Ethereum platforms are only as effective as the programmers who code them. Mistakes and vagueness are difficult to correct. They are subject to software bugs and need reliable external data inputs to self-execute correctly. Smart contract enforcement in court may be difficult because precedent on the enforceability and interpretation of smart contracts in various jurisdictions is scarce. Scalability is also considered to be a concern on Ethereum-based platforms due to the price volatility of ether (its cryptocurrency), slow processing speeds and high fees (referred to as “gas”) imposed when conducting transactions on the network.

At present, most of the major Metaverse platforms are based on the Ethereum blockchain. As platforms are developed based on other smart contract protocols with the potential for better scalability, processing speed and lower fees, such as Solana, Avalanche and Cardano, existing platforms could lose market share and become less valuable. Early investors risk being left behind as better, faster, and more reliable platforms are developed.

Security Risks

Crypto has a scamming and a hacking problem. Currently, there is no clear answer as to how such

activity will be policed in the Metaverse. Platforms typically have terms of service that govern the conduct of users but the enforcement of remedies, such as blocking access, restricting use or confiscating assets, is unclear and untested, especially because bad actors can be anywhere in the world and difficult to locate.

On March 29, 2022, it was announced that the Ronin Network, an Ethereum-linked network used for the Axie Infinity game, where players fight cartoon pets to earn cryptocurrency and collect NFTs, was the victim of a \$600 million hack.¹⁰ The platform is owned by Sky Mavis, a Vietnamese company, and even though it is working with law enforcement officials and forensic cryptographers to attempt to recover the funds, reimbursements (if any) may take months or years. Options for seeking restitution are limited and recourse is minimal. Remarkably, the company admitted that the hack started in November 2021 when the user base swelled to an unsustainable size and it “forgot” to retighten its security.

According to the BBC,¹¹ crypto heists in the past year have exceeded \$2 billion due to factors like poor infrastructure, badly designed code or carelessness. Crashes in crypto markets tend to be accompanied by technical snafus or unexplained outages, including an inability to withdraw funds. Communications with investors by crypto companies following scams and hacks are notoriously bad.

In some instances, the bad actors allegedly have been the crypto companies themselves. For example, in late 2021, the creators of the Squid Game coin, which had no affiliation with Netflix or its popular show, *Squid Game*, apparently scammed investors¹² and made off with an estimated \$3.38 million. Such stories are unfortunately common in crypto headlines.

Financing Risks

Metaverse platforms have been adding new features, including DeFi offerings and other financing options more akin to traditional asset-based lending. As mentioned above, NFTfi allows Metaverse NFTs to be used as collateral for obtaining loans and other platforms offer more complex products. Some offerings will come with significant additional risks, however.

Investors must do their diligence regarding the details of each offering. Crypto markets are notorious for not implementing restrictions and protections that would be viewed as commonplace in traditional markets. For instance, Binance, the largest crypto exchange, allows its customers to use enormous leverage, even if they are inexperienced investors. It also trades on its own

platform, creating conflicts of interest that are not permitted in traditional finance.

Decentralized autonomous organizations (“DAOs”)

Metaverse platforms, including both The Sandbox and Decentraland, are often structured as DAOs controlled by owners with voting rights (similar to a homeowner’s association) with no governing entity and often minimal centralized management. While DAOs are touted as a more transparent and democratic corporate governance structure, there have not been many success stories to date. Until the benefits have been proven, investors in virtual land should be wary of DAOs. The use of professional real estate management companies in the real world offers a stark contrast.

Artificial Scarcity

The Sandbox will make 166,464 land parcels available for purchase. Decentraland will make 90,601 parcels available. These platforms are intentionally making virtual land scarce to mimic physical real estate, which has generally increased in value because it is a finite resource.

Scarcity is one of the key factors behind bitcoin and ether valuations, as well. However, in the Metaverse, scarcity is artificial. There are no immutable rules or technology constraints preventing platforms from offering more parcels or creating better platforms in the future. On April 1, 2022, The Economic Times¹³ reported that Shiba Inu, a popular digital coin, would offer more than 100,000 plots of land on its own Metaverse platform to compete directly with the existing platforms. As more virtual land inevitably becomes available, and as interoperability among platforms is developed, the impact on early investors could be significant.

User Experience

If a platform functions poorly, has unattractive features or disappointing user experiences, or shuts down due to inadequate maintenance, then the NFTs will quickly lose value or become irretrievable.

Some critics note that platforms like The Sandbox and Decentraland currently look unrealistic and are similar to older video games, with dated graphics and underwhelming performance.

Decentraland was described in the Financial Times¹⁴ as “a city planner’s worst nightmare, a mishmash of sci-fi structures and facsimiles of real buildings.” Poor quality-controls and performance could dissuade some potential investors.

On the other hand, some investors and users have pointed out that these concerns are temporary –

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Metaverse platforms have already made major improvements in their short histories and will continue to do so. Discounting platforms that have the first-mover advantage because of problems which are (potentially) solvable could be a larger risk.

Either way, companies must remain aware of how the user experience on Metaverse platforms will affect their investments.

Legal Concerns

Regulatory Uncertainty

According to a November 2021 report¹⁵ by the Law Library of Congress, nine countries have banned digital currencies outright and many more have severely restricted them over the past few years. Although China banned cryptocurrencies last year and stated it was concerned about crypto mining's effect on the environment and the use of cryptocurrencies by criminals, it continues to support its own digital yuan currency and NFTs.

On March 9, 2022, President Biden issued an executive order¹⁶ to develop a comprehensive policy approach to crypto assets and new participants in the crypto world. The existing legal regime in the United States was not designed for the crypto world and non-existent or ill-fitting regulations create significant legal risks for investors. Any crypto regulation with teeth will require coordination between international authorities. Determining which laws apply to a platform that provides content to a global user base will be challenging.

Enforcement and Tax Compliance

The Securities and Exchange Commission ("SEC") has shown its willingness to aggressively enforce U.S. securities laws in cases involving digital tokens that are deemed to be securities. On March 2, 2022, Bloomberg reported that the SEC was demanding information from NFT creators and exchanges to better understand whether certain crypto products fell under its jurisdiction. The Commodities Futures Trading Commission ("CFTC") regulates derivatives and allows virtual currency derivatives to trade on exchanges that it supervises. Cryptocurrency exchanges are legal money transmitters in the United States and fall under the Bank Secrecy Act.

An exchange must obtain a license from the Financial Crimes Enforcement Network ("FinCEN"), implement an anti-money laundering and sanctions program and submit reports to authorities. FinCEN does not consider cryptocurrencies to be legal tender. The Federal Trade Commission ("FTC") has stated its intention to pursue fraudulent NFT creators.

The Internal Revenue Service ("IRS") defines cryptocurrencies as "a digital representation of value that functions as a medium of exchange, a unit of account or a store of value." Any profits from investing in cryptocurrencies are subject to tax. NFT sales are understood to receive similar tax treatment. The IRS has issued subpoenas to cryptocurrency exchanges seeking information and it may target Metaverse platforms in a similar manner.

On March 22, 2022, the Organisation for Economic Co-operation and Development ("OECD") released a draft report¹⁷ on what they termed "Crypto-Assets," including NFTs, to provide a framework for standardizing how they should be treated for tax purposes globally.

Intellectual Property Rights

A purchaser of an NFT should confirm that the seller has the right to transfer and has secured any required consents and permissions from third parties. Some NFTs may be inauthentic or not duly authorized and intellectual property ("IP") rights may be misused or stolen. Purchasing an NFT could be more complicated than purchasing a physical asset.

Ownership of an NFT does not automatically give rise to ownership rights in the underlying virtual asset. Copyright could remain with the creator or most recent copyright owner. To effectively transfer intellectual property rights (copyright, trademarks and patents), an express assignment in the smart contract, in a separate written agreement or in the website terms of use will be required. When IP rights are transferred with an NFT, then, prior to purchase, the title chain of the IP should be verified in the government-operated databases specified by statute.

After the purchase, the assignment should be recorded in the same databases. NFTs that derive value from an association with a person's identity (like an author of the underlying work or a celebrity) should be reviewed for compliance with that person's right of privacy. In some cases, a purchaser may be obtaining a non-exclusive, non-transferable and restricted license to the underlying digital asset for certain purposes only. The use of the asset can be as open or restrictive as the transferor of the rights elects. Important economic rights, such as the right to a royalty payment on each subsequent sale of the NFT, may be retained.

After the transfer or license is completed, a purchaser must act in accordance with the applicable smart contract or written agreement or be subject to claims for breach of contract or infringement of intellectual property rights.

Privacy Concerns

The Metaverse will amplify real-world privacy concerns because platforms will capture much more data and new types of sensitive data from headsets and sensors, such as biometric data from hand gestures, facial expressions or eye movements, which might reveal information such as the medical conditions of users. Ideally, virtual land platforms will embed privacy and data security into products and services but that is less likely when the legal regime has not been well-established. NFTs may include illegal or offensive content and cause reputational harm to users of a platform.

The privacy and data security policies and practices of platforms should be reviewed by virtual land investors. The data security concern raised by the Metaverse will grow with the integration and connection of different systems and platforms, which will result in even greater vulnerability to hacks, fraud and bad conduct.

Conclusion

Companies will continue to invest billions of dollars in the Metaverse, even though it is in its infancy and there is no broad consensus regarding what it is or will become. Additionally, crypto markets and the Metaverse will continue to attract increased scrutiny from global regulators and policymakers. Clearer laws and regulations should ultimately be beneficial.

Opportunities for early real estate investment in the Metaverse are worthy of serious consideration, but they come with significant risks, especially if the rationale for investing is speculative. Any “fear of missing out” should be tempered by the areas of concern described above. Appropriate due diligence should be conducted, and less sophisticated investors with limited funds should be extremely cautious and diligent. Given the obstacles,

uncertainty and risks, it will take many years to fully develop the Metaverse and realize its potential.

Notes

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