INSIGHTS FROM THE BDO ASSET MANAGEMENT PRACTICE

2021 CRYPTO MARKET: Year in Review

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Interest in and adoption of cryptocurrency ("crypto") has been at an all-time high in 2021. In the past year, there have been a number of new, game-changing developments in the space which we will summarize in this piece. In addition to a market update, we will also highlight the most common audit, tax, and advisory themes that our teams have been discussing with our clients.

MARKET UPDATE

The crypto market exploded in early 2021, with bitcoin reaching an all-time high of $65k in mid-April up from its $29K price at the beginning of the year. The growth was fueled by a number of converging factors.

Inflationary concerns highlight the need for good investing options to store value. The public's general familiarity with crypto and blockchain continues to expand and opening a trading account to engage in crypto investing has become much easier compared to previous years. According to a Gallup poll, 13% of U.S. investors between 18 and 49 own bitcoin, up from 3% in 2018. Players in the space continue to add infrastructure and horsepower to their teams to continue to institutionalize their offerings. Coinbase held its IPO on April 14. Celebrities and respected business minds like Elon Musk continued to tweet about the upside of crypto, and the list of large institutions investing into tokens and the blockchain ecosystem, including Tesla, MicroStrategy, Paypal, Square, Visa, Morgan Stanley, and many high-profile VC funds, has continued to grow.

Ethereum has performed even better than bitcoin in 2021, starting the year at $731 and reached all-time highs in November, up 532% as of November 3rd. The interest in ethereum and other blockchain protocols supporting smart contracts, particularly in the decentralized finance ("defi") space, continues to expand as these tokens continue to become a larger proportion of the overall crypto market cap. With so many future possibilities, defi has already begun to cut out rent-seeking middlemen, save time, and create more investing and financial structuring opportunities. Real meaningful change is starting to take place in a financial landscape that has remained relatively static compared to other areas in our lives.

Smart contract protocols also have made NFTs (non-fungible token) possible, and the NFT market really took off in Q1. While many of these NFTs launched with a bang and have cooled off since launch, what is clear is there is an appetite for digital collectibles, as people spend more time online cultivating their digital identity and status. It is unlikely that the trend of increasing time and money spent online will reverse anytime soon. NBA Top Shot moments, CryptoPunks, digital art sold on sites like Rarible and Open Sea, music, digital land titles, and even tweets were sold as NFTs. Much like bitcoin where it took many years for people to get comfortable with the concept of digital currency on a blockchain, one might anticipate that as education increases, execution is refined, and a wider variety of collectibles are released, more and more will buy NFTs.

As is familiar to crypto investors, 2021 has also been marked with volatility and corrections. From its $65k high in mid-April, bitcoin fell below $30k in mid-July, marking an approximate 54% decline. There were several factors contributing to the correction. Government interest and involvement continues to be viewed as a key inhibitor to industry growth, with China again announcing it would be working to reduce bitcoin mining. While most governments are still trying to figure out how they can regulate crypto, at the same time these governments, including China, continue to work on their own central bank digital currency. According to the Atlantic Council, 81 countries, making up 90% of the world's economy are in exploratory stages, with 5 countries in the Caribbean already launching and another 14 (including China) in pilot phases. El Salvador officially adopted bitcoin as legal tender. Mr. Musk also continued to stay busy on twitter, this time noting his concern over crypto mining energy consumption, although more than half the blockchains out there are proof of stake and don't use energy like bitcoin mining.

Since its July low, bitcoin pricing has recovered, reaching new all-time highs in October. Reports noting large corporations like SpaceX, Facebook, the NBA, MLB, and Amazon and their continued acceptance or new work on crypto or crypto-related projects has bolstered confidence. Traditional hedge funds, wall street institutions, and some of the most prestigious venture funds are continuing to heavily invest in the space, and the first bitcoin futures ETF was approved and began trading in October, with several other crypto ETF products awaiting approval.

ACCOUNTING AND AUDITING UPDATE

Accounting

While non-authoritative, the Accounting for and Auditing of Digital Assets practice aid, developed by the AICPA and CIMA, is a key tool we discuss frequently with clients. The aid was originally published in December 2019 and has been updated several times, the most recent occurring in May 2021.

As a refresher, the practice aid provides for differing paths dependent upon the type of entities that are purchasing, holding or selling digital assets.

Entities that are operating companies or entities other than investment companies account for digital assets under the FASB's existing framework with certain clarifying commentary. The practice aid provides a list of characteristics of digital assets for consideration including the following:

- While they are not considered cash or cash equivalents, crypto assets typically function as a medium of exchange and
- Have all the following characteristics:
  - They are not issued by a jurisdictional authority (for example, a sovereign government).
  - They do not give rise to a contract between the holder and another party.
  - They are not considered a security under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The practice aid notes that these characteristics are not all-inclusive, and other facts and circumstances may need to be considered in each entity's assessment. Bitcoin, bitcoin cash, and ether were specifically identified as examples of assets meeting the above criteria.

The AICPA indicated in its practice aid that digital assets are not tangible assets and therefore are intangible assets and should be accounted for under the FASB's ASC 350. This accounting treatment has led companies to determine that their digital assets are indefinitely lived assets that are subject to periodic impairment testing. As a result of the treatment of digital assets as indefinite lived intangible assets, companies have incurred impairment charges when market prices for digital assets decline. ASC 350 does not provide companies with the ability to record writeups to intangible assets in the event markets or other factors increase the fair value of those assets.

Entities that are determined to be investment companies under ASC 946 account for those assets in a manner similar to other investments at fair value under FASB's ASC 820. Investment companies should recognize unrealized and realized gains and losses on digital assets in the same manner as other investments.

We recommend that clients refer back to the question and answer section of the guide frequently as they establish their valuation policy with their current portfolio, and revisit as new digital asset products come to market. Practical considerations to highlight:

As with other types of investments, funds should continue to apply pricing obtained from the principal market, or when the principal market cannot be determined, the most advantageous market. Funds should consider the exchange they utilize to trade their digital assets and compare the volume traded on that exchange vs. the volume of other exchanges that they can access. An exhaustive search is not required, and there are several market aggregator sites with specific exchange volume readily available. Additionally, it is not appropriate for funds to adjust the fair value of their digital asset holdings to reflect the size of their holdings (no block discounts), and for level 1 inputs, it would be very rare that any sort of discount be applied. Because the crypto markets never sleep, it is also important for funds to establish in their valuation policy the exact cut-off time when striking the closing price (11:59 pm UTC is a common time used). As it relates to a fund's policy on determining whether a specific digital asset falls within level 1, 2, or 3 of the fair value hierarchy, we recommend the fund include measurables in their valuation policy for what it defines as an active market, to help differentiate between level 1 and 2 investments. Daily trading volume is a common metric used.

Audit

The auditing section of the guide was updated in May 2021 with the addition of two new sections: i) Risk Assessment and Processes and Controls and ii) Laws and Regulations and Related Parties.

The Risk Assessment and Processes and Controls section is broken down further into the following areas that auditors should assess to assess risks of material misstatements: Understanding the Entity and Its Environment, Understanding and Evaluating the Entity's Risk Assessment Process; and Understanding the Entity's Processes and Controls.

The Laws and Regulations and Related Parties section discusses auditor considerations related to compliance and related party identification and disclosure.

Additionally, a Blockchain Universal Glossary was added to the practice aid.

We will be releasing another thought leadership piece discussing key audit as well as tax considerations that digital asset funds should discuss with their public accountants as part of 2021 audit and tax planning.

TAX UPDATE

What has made cryptocurrencies so attractive is their decentralized and relatively unregulated nature. Combine that with an inherent anonymity that is nearly impossible to find elsewhere, and you have an asset that that appeals to both retail and institutional investors alike. These same features that make cryptocurrency so attractive to some are precisely what make it a challenge for regulators.

To date, we have seen very little guidance from tax regulators when it comes to cryptocurrency. The first glimmer of hope came with IRS Notice 2014-21 which addressed 16 questions and answers. While many of the items that were discussed in the notice were geared towards the casual retail investor, the most notable takeaway from this notice was that the IRS did not consider cryptocurrency to be a currency for tax purposes and instead treated it as personal property. Since 2014, the IRS has posted the original FAQs to their website and continued to update with more along the way. The latest piece of formal guidance came with Revenue Ruling 2019-24 which discussed the recognition of taxable income in the case of hard forks and airdrops.

While the guidance so far has been sparse, we have recently seen a refocus of attention from regulators around cryptocurrency. On September 13th, the House Ways and Means Committee proposed legislation that would change the way gains and losses are recognized on certain cryptocurrency transactions. In the absence of this proposed legislation, certain tax adjustments that apply to transactions involving securities do not apply to digital assets as they do not meet the definition of a security. The proposed legislation

specifically targets the Wash Sale rule under Section 1091 and the Constructive Sale rule under Section 1259 to extend these sections to cover transactions involving digital assets. While this is not entirely surprising, it is certainly an unwelcomed development as investors in cryptocurrencies could benefit from tax losses at year end generated through these types of transactions.

The Biden administration recently released a report including proposed legislation which would effectively seek to classify stablecoin issuers as banks. Issuers would be required to be insured as depository institutions, they would be subject to federal oversight being required to meet certain risk-management standards, and they would be required to comply with restrictions on commercial entity affiliation. While no action has yet been taken by Congress, the report indicates that certain U.S. financial oversight agencies like the SEC and the CFTC will take action to address concerns as they arise to the extent the issues fall within their respective jurisdictions even without new legislation.

As we keep up with changes from regulators, we continue to see our clients looking for reprieve wherever possible. For years, investment funds have been sensitive to Unrelated Business Taxable Income (UBTI) and Effectively Connected Income (ECI) which can be problematic for tax-exempt investors and non-US investors respectively. As we have received further guidance, it has become clear that these same issues would extend to investors in crypto funds, particularly when it comes to mining and staking activities. These are areas where BDO has been able to provide value to our clients by considering alternative organizational structures both onshore and offshore to mitigate these impacts to investors.

ADVISORY UPDATE

We continue to provide clients and market participants with general education to help them get up to speed on the important considerations when looking at the digital asset market. Key discussion points:

One of the unique aspects of the crypto market is that it is almost completely governed by code (smart contract). The usual characteristics of digital tokens such as their availability and transferability, are completely governed by a set of rules that have been transformed into a computer program. As such, once the transfer of digital tokens has occurred and has been processed on the blockchain, it is very difficult, if not outright impossible, to undo that transaction; such a process would require the consensus of 51% of the miners on the blockchain to revert back to a previous version of the blockchain that precedes the date of the transfer. Another option is to submit a reversal of the entry so both the original transaction and the reversal receive consensus by 51% of the miners. The parties that are part of the transaction also need to agree, which could be difficult if one of the parties does not want to reverse the transaction.

There are examples of individuals who mistakenly transferred a significant number of digital tokens to an incorrect address only to learn after the transaction was complete that the destination wallet address was mistyped, and their funds are irrevocably lost. The near immutability of the transfer of digital tokens is very attractive to malicious actors because once an unauthorized transfer of tokens is completed, the victims have very little recourse to recapture the lost tokens. Therefore, while the technology platform (blockchain) provides

a secure method of conducting transactions, the actions by the parties involved can result in errors or unintended activities. It is paramount to implement effective cyber security controls associated with the processes and technology associated with digital transactions, including security for private keys and wallets used with digital tokens.

Test Transactions – Multiple Transactions

An effective way to reduce the risk of an improper transaction is to determine the destination address is valid by transferring tokens in multiple transactions (i.e. conduct an initial test transaction). The first transaction would contain a negligible number of tokens or low value and would be used solely for the validation of the destination address. Once the test transaction is completed and the funds are confirmed to have reached the correct address, the rest of the tokens can then be transferred. In order to make this a repeatable activity, this would be a process incorporated into the transaction methodology an organization would use for all transactions.

Multi-signature wallets

Multi-signature (multi-sig) wallets are wallets that require two (2) or more private keys before initiating a transaction. The private keys are distributed amongst the various participants who control the wallet. Even if the private key of one individual is compromised, no transaction can be initiated since the transaction requires the other key holders to approve the transaction.

Hardware wallets

Tokens that are actively traded should be stored in a hardware wallet. A hardware wallet stores the private keys in a hardware device. When the user is ready to trade, they connect the device to their computer to authorize the transaction. The hardware wallet is similar to a multi-factor authentication token, where the user needs to know both the password as well as have physical possession of the device in order to successfully login.

Cold-storage

Tokens that are not expected to be traded in the immediate future, should be stored in cold storage; a hardware wallet that is not connected to an electronic device or to the internet. Cold storage offers an additional layer of protection, since malicious actors would not be able to access the device remotely and would need to gain physical access to the cold-storage device in order to initiate a transaction. Cold storage wallets are still able to be on the receiving end of a transaction since only the public address is required to receive tokens. For sending tokens, the device would be connected to an intermediate device (like a laptop) and the token would be transferred to an active wallet of the user.

Network Segregation

Institutional users who trade large amounts of tokens should establish a dedicated network for their crypto activities. The network should be segregated from other technology used for online activities. The network should employ security mechanisms such as intrusion detection and intrusion prevention software, IP whitelisting to only allow communication with approved endpoints and should avoid the usage of wireless access points.

Endpoint protection

Users who deal with crypto transactions should have computers dedicated to this activity. The dedicated computers should not be used for the day-to-day browsing and should be restricted to managing crypto transactions and wallet management. There are several security controls that should be implemented on these systems:

- The computers should have application whitelisting software to prevent unauthorized applications from running. Only approved and vetted applications should be allowed to execute.
- The computers should be running the latest copy of the operating systems and security software to minimize the risk from known security vulnerabilities. Therefore, a patching and updating process needs to be followed for the computer.
- Personal firewall software should be enabled.
- The computers should have full-disk encryption to minimize the risk of data compromise in the event the computer is lost or stolen.

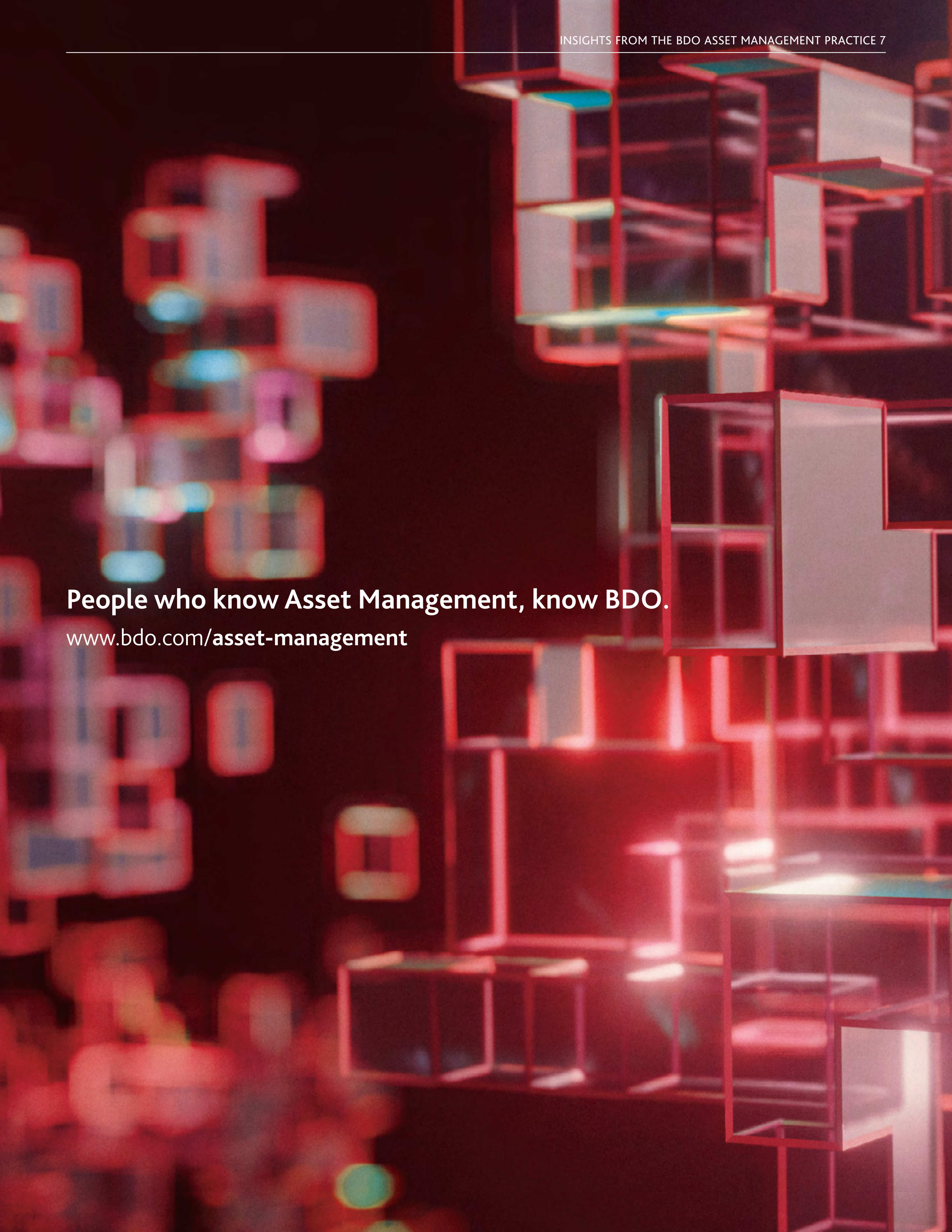
Password Management (seed) and Physical Security

A seed is a set of random words that can be used to recreate the private and public keys of a particular wallet. It is paramount to store the seed securely since anyone with access to the seed can regenerate the private keys and control any associated tokens.

One option to consider is to store the seed in a fireproof, waterproof and shockproof container. In the event access to a wallet is lost, the seed can be used to regenerate the keys in an effort to regain access to the tokens.

CONCLUSION

The blockchain/crypto space continues to evolve at a blistering pace, and it is an exciting time to contribute our experience and knowledge with clients, industry participants, and other thought leaders. Stay tuned for other blockchain/crypto thought leadership pieces and market events we have planned for the upcoming year.



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