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Digital assets in corporations

A treasurer's perspective



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Introduction: Rapid adoption of digital assets

Worldwide revenue of digital assets is projected to reach \$56.42B in 2023 and \$102.7B by 2027. The number of users by 2027 is projected to reach 994.3M with a user penetration of 12.5%.¹

In a post-COVID-19 world, the rapid increase in excessive budgetary spending and injected stimulus into the economy has led to inflationary concerns, a potential looming recession, and currency fluctuations. As day-to-day operations, cash concentration mechanisms, investment vehicles, and payment methods become more intricate and volatile, organizations have been searching for alternative methods to adapt in an ever-changing, dynamic environment. Organizations that effectively deploy digital asset strategies and solutions can significantly bolster their investment, operational, and transactional footprint in the global arena, giving them a competitive edge. However, with this tremendous opportunity comes macroeconomic risk, as highlighted by recent banking collapses and instability of crypto exchanges. Through broad education and advisement on leading practices, organizations become better equipped to persevere against the intrinsic and extrinsic circumstances that can adversely impact their business.

Treasury's purpose is to effectively manage liquidity of an organization to determine proper funding and projections while mitigating risks. This places emphasis on the importance of treasurers being involved during an organization's digital asset

adoption. An essential component of digital assets is having an extensive treasury strategy that adheres to the organization's established policies, procedures, and risk tolerance blueprint. Whether it be payment utilization of stablecoins, deploying digital assets to a counterparty via custodianship, or determining digital asset positions through pooling processes, many of these impact and encompass treasury operations. With durable procedures in place—whether it be hedging and derivative contracts, intercompany funding, treasury management system integration (TMS), balance sheet exposure tracking, internal controls, and much more—an organization can significantly reduce its risk and function more effectively.

This paper focuses largely on insights into deploying and utilizing digital assets into current and future treasury environments. What follows is not a step-by-step prescription, but instead a high-level guided tour of the wide terrain companies cover when considering deploying digital assets. Additionally, note that what is stated here cannot necessarily be extrapolated and applied to all areas.

Digital asset bridge: Custodians and wallets

The digital asset landscape is complex as it is ever growing and expanding, which magnifies the importance of understanding how the traditional operating model fits within this new space. Ample comparisons of the current financial environment are quintessential to not only comprehension but optimization and efficiency. The main difference between the current and future landscapes is boiled down to reducing counterparty risk. Digital assets provide institutions the ability to become their own banks or custodians, more account management options, and the flexibility and accessibility to overall risk reduction based on wallets utilized.

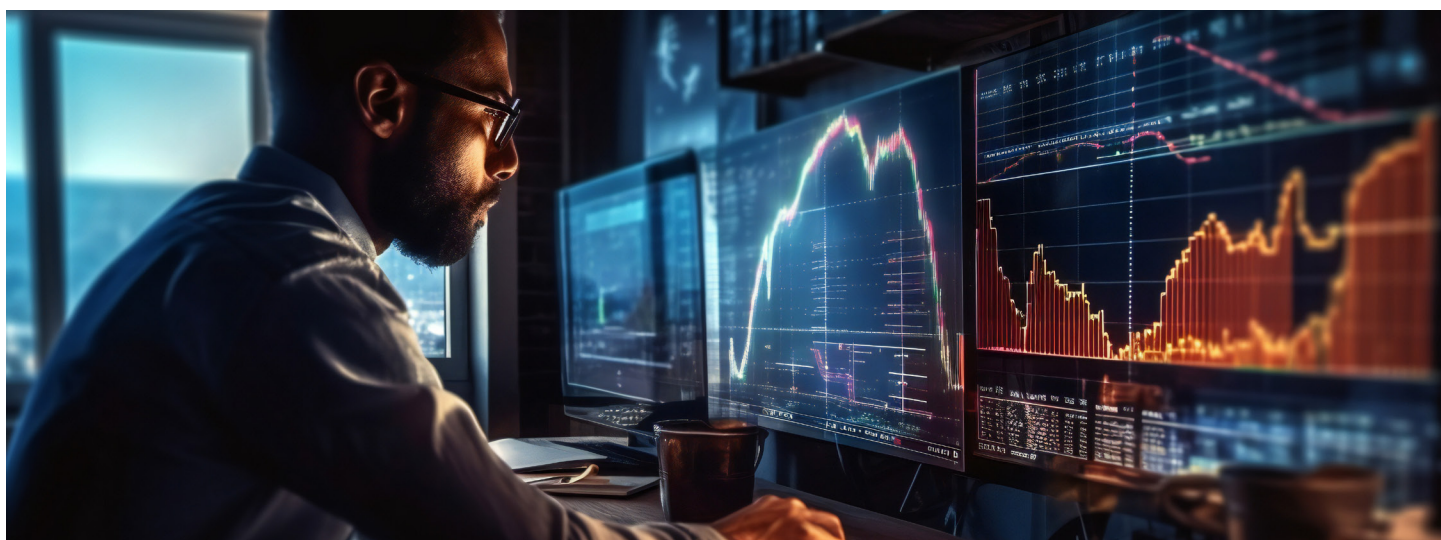
Custodians:

- **Traditional banking environment:** In the current landscape, a custodian bank is a bank whose responsibility as a financial institution is to hold its customers' securities for safekeeping to prevent them from being stolen or lost. A custodian bank may also hold stocks or other assets in electronic or physical form on behalf of its customers, keeping them safe by minimizing the risk of theft or loss.

- **Digital assets environment:** This is similar to traditional banks where one can store coins, manage liquidity, and protect assets from theft. Yet, just like physical assets, one has the option to store money personally using a non-custodial option where a corporation can protect itself and safeguard its assets by managing them directly via wallet or storage.

Wallet management:

- **Traditional financial environment:** A bank account, whether it be physical or online, renders services to allow financial transactions via applications or online software. Individuals and corporations alike utilize these bank accounts for various activities ranging from invoicing, to paying bills, to transferring money from account to account.
- **Digital assets environment:** A digital asset wallet is exactly the same as a traditional bank account; however, it has more options spanning hardware and online wallets, which provides a plethora of conveniences, including speed, transparency, simplicity, and accessibility. Digital wallets render traditional wallets/purses obsolete, and only a smartphone is needed to perform all management and POS (point of sale) transactions.



Targeted treasury considerations: Liquidity and payments

In the realm of corporate treasury, the landscape of financial transactions and liquidity management is evolving rapidly. Traditional payment systems and liquidity management solutions are being complemented, and sometimes even replaced, by the emergence of digital assets and cryptocurrencies. While adoption in corporate treasury requires careful consideration, there are attractive advantages for businesses looking to streamline their payment processes and enhance liquidity management.

Considerations:

- **Regulatory environment:** Before integrating digital assets and cryptocurrencies into corporate treasury operations, businesses should carefully assess the regulatory landscape. The legal status of cryptocurrencies varies across jurisdictions, and compliance with local regulations is crucial to ensure adherence to anti-money laundering (AML), know-your-customer (KYC) requirements, and SWIFT sanctions screening.
- **Volatility and risk management:** Cryptocurrencies are known for their price volatility, which can pose risks to corporate treasury functions. Treasury professionals need to implement robust risk management strategies to mitigate exposure to price fluctuations. Hedging mechanisms and well-defined risk appetite frameworks can help in managing these risks effectively.
- **Infrastructure and security:** Establishing a secure and reliable infrastructure to handle digital assets is paramount. Companies must invest in robust cybersecurity measures to protect against potential hacking attempts, fraud, and theft. Building internal expertise or collaborating with trusted technology providers can help navigate these challenges.

Advantages:

- **Improved liquidity management:** Cryptocurrencies can offer alternative investment options for corporate treasury departments. Companies can invest their excess liquidity in digital assets, potentially earning higher returns compared to traditional investment instruments. Additionally, by leveraging blockchain-based liquidity protocols, businesses can access decentralized finance (DeFi) platforms, enabling efficient lending and borrowing of funds such as notional pooling and concentration mechanisms.

- **Transparency and auditability:** The blockchain technology underlying cryptocurrencies provides transparent and immutable transaction records. This feature enhances transparency and simplifies audit processes, making it easier for treasury departments to track and verify transactions. The ability to conduct real-time audits can improve internal controls and reduce the risk of fraud and errors.
- **Enhanced efficiency:** Traditional payment systems often involve intermediaries, resulting in slower settlement times and higher transaction costs. Digital assets and cryptocurrencies, on the other hand, enable near-instantaneous peer-to-peer transactions, removing the need for intermediaries and reducing settlement times and associated costs.
- **Innovation and future potential:** By embracing digital assets and cryptocurrencies, corporate treasury departments can position themselves at the forefront of financial innovation. Early adoption of emerging technologies can provide businesses with a competitive edge to opportunities for collaboration and partnerships within the rapidly evolving ecosystem.
- **Global accessibility:** Digital assets have the potential to facilitate cross-border transactions with greater ease. By leveraging blockchain technology, businesses can optimize financial intermediaries, resulting in faster and more cost-effective international payments. This accessibility can significantly enhance liquidity management by reducing the time and costs associated with moving funds across borders.

While careful consideration must be given to regulatory, volatility, and security aspects, the potential benefits of enhanced efficiency, global accessibility, improved liquidity management, transparency, and innovation make them an intriguing option for forward-thinking businesses. As the landscape of finance continues to evolve, it benefits corporate treasurers to stay informed and nimble to leverage the opportunities presented by digital assets and cryptocurrencies.



Targeted treasury considerations: TMS integration and interoperability

As digital asset use cases and real-world applications converge, the expressed need for integrated systems and platforms becomes essential. Organizations' "technology stack" consists of software, tools, and frameworks to build and operate digital asset-related applications and systems.

Considerations:

- **Logical access management:** Before launching and implementing a new TMS, it's critical to align to the organization's risk and policies and procedures to limit behavior and activity that can distress operations.
- **Platform design and capabilities:** As digital asset solutions continue to evolve, system providers and platforms are constantly adapting and evolving to be able to support digital asset solutions, without detriments, in addition to being able to tailor custom solutions to fit the strategy and vision of various organizations.
- **Risk mitigation:** As the volume of digital asset activities naturally rises, recourse and disaster recovery plans are in place to access private data, key management procedures, reporting mechanisms, backup cloud infrastructure, and financial contingency.
- **Workflow automation and analytics:** By integrating digital asset capabilities into a TMS, treasurers and management can utilize analytics to make savvy decisions to enhance daily treasury operations and digital asset activity within the organization. TMS integrations can incorporate digital automation workflows to mitigate manual errors and unauthorized digital asset transactions, limited fraud, and administrative errors throughout the organization.
- **Infrastructure and security:** Establishing a secure and reliable infrastructure to handle digital assets is paramount. Companies should invest in robust cybersecurity measures to protect against potential hacking attempts, fraud, and theft. Building internal expertise or collaborating with trusted technology providers can help navigate these challenges.

Advantages:

- **Enhanced visibility:** Integrating digital asset solutions into a TMS can offer organizations real-time visibility into their current cash and cash-equivalent positions, foreign exchange exposures, increased forecasting capabilities, and liquidity management for ongoing short-term and long-term funding requirements. Counterparty systems act as a bridge between banks and digital asset parties for proper account mapping and correct imported data.
- **Working capital management:** Organizations can configure and set parameters within these systems to ensure all current assets and liabilities and other obligations are properly accounted for, with current digital asset activity in a streamlined way with proper authorizations.

There are various considerations and advantages to be cognizant of when integrating TMS capabilities with digital asset activity. While detailed consideration needs to be given to logical access management, platform design capabilities, and proper recourse, the potential benefits of enhanced visibility, working capital management, data analytics, automation and robotic process automation, counterparty connectivity, and infrastructure and security create additional opportunities for the foreseeable future. As the digital asset arena continues to evolve, organizations with a soundproof, effective technology ecosystem will prosper and have the expertise to lead their businesses.



Risk management: Identification

The first step in developing a baseline for treasury digital asset risk management is identification. Organizations must first systematically identify and document potential risks that can affect the organization in an adverse way. Incorporation of digital asset processes bears various risks, which emphasizes the importance of implementing and adhering to a broad risk management plan.

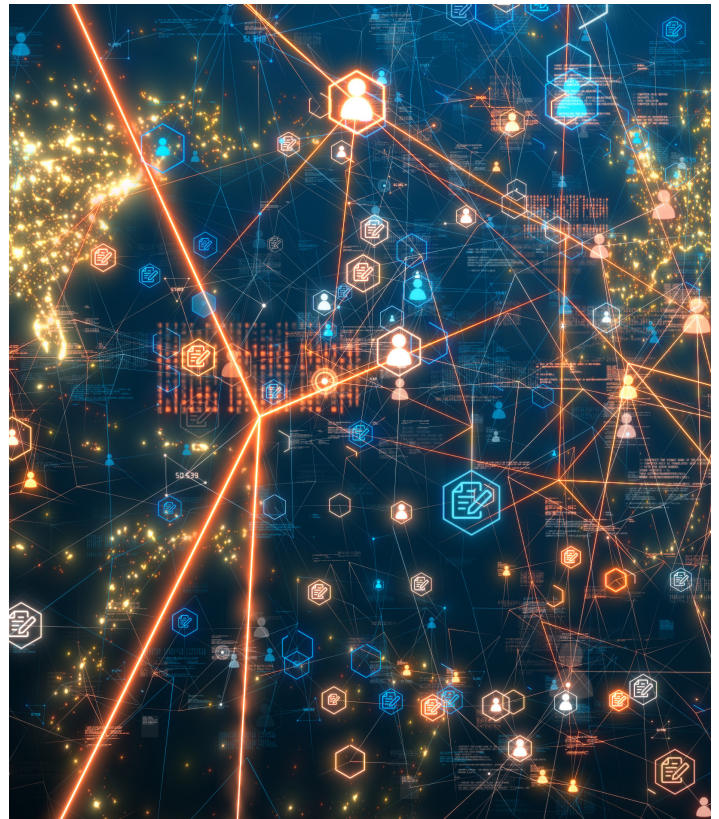
Key risks to identify:

- **Liquidity risk:** An organization should assess how digital assets will affect both its day-to-day short-term operations and long-term considerations.
- **Concentration/counterparty risk:** An organization should have an overall understanding of inherent risk with counterparties and customers/vendors in which it engages.
- **Regulatory risk:** An organization should have an overall local and global understanding of compliance standards for digital assets.
- **Operational risk:** An organization should highlight potential operations weaknesses and failures that can arise within the treasury function that can trigger a loss.
- **Market risk:** An organization should understand the macroeconomic events and indicators that can have an impact on the business.
- **Reputational risk:** An organization has the responsibility to implement a positive, all-round image to the public and its shareholders.

Treasurers have a responsibility to perform adequate risk identification procedures before moving into a risk assessment phase.

“In a recent survey taken across multiple industries and their respective CFOs, more than 54% of respondents indicate that enhancing liquidity risk management and identifying the correct liquidity risk is the most critical mandate to the treasury function.”

—Deloitte Global Treasury Survey²



Risk management: Assessment

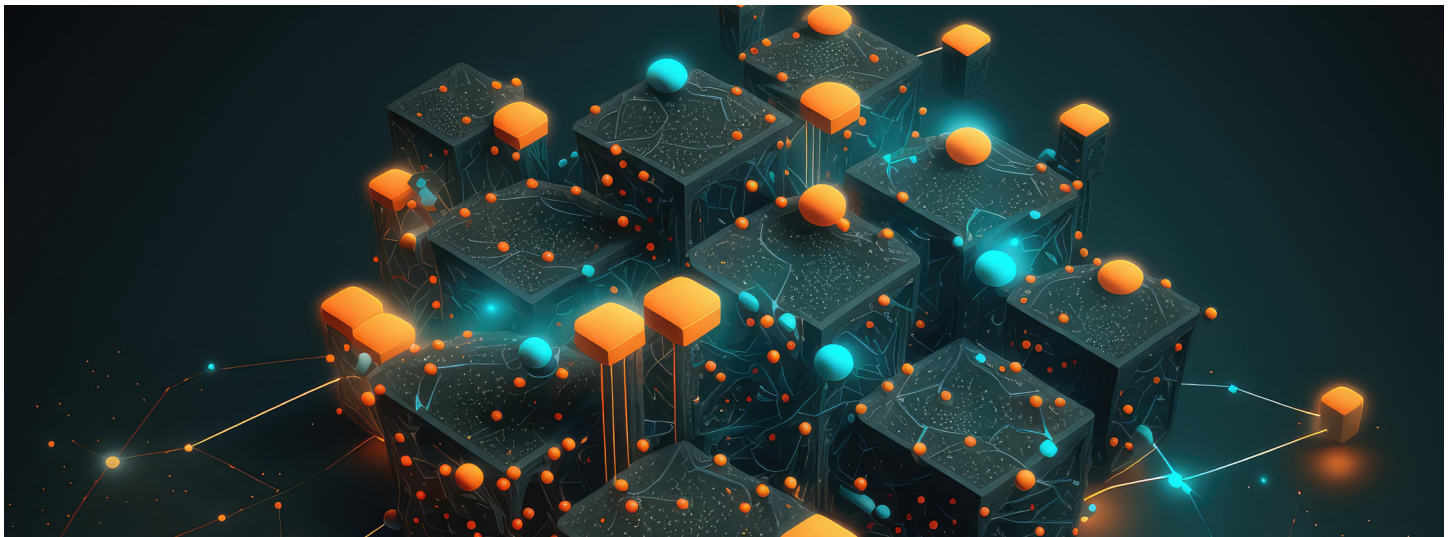
The next step in the risk management process is assessment, which consists of four main parts. If an organization can take a broad approach to assessing the risks from the identification process, it can help limit its total risk exposure. Treasurers interested in digital asset capabilities should determine which digital assets are viable options for their unique business and assess those risks accordingly.

Assessment steps:

- **Quantification:** Digital asset instruments provide a myriad of benefits and impacts to an organization's structure and operations. This further stresses the importance of assessing balance sheet impacts, real-time visibility, payments, and regulator non-compliance and litigation losses for an organization.
- **Likelihood:** Upon calculating the impact to treasury digital asset processes, an organization then should assess the likelihood of such an event occurring. Treasurers can look to market trends, economic indicators, regulation, etc., in determining their outcome. Quantitative factors can consist of price volatility frequency and value at risk, historical and current financial benchmarking, counterparty ratings, and other factors, while more qualitative ratings can refer to TMS infrastructure, capabilities, and human capital.

- **Impact:** Once the quantity and likelihood are determined and calculated, an organization can determine the estimated impact of the digital asset life cycle in treasury and can analyze and view risks on a scale to determine which ones may be worth taking and which ones can be mitigated.
- **Prioritization:** An organization can rank its risks and determine which ones are aligned to policies and procedures. Risk preference and tolerance vary by organization. For example, one organization may justify single custodial services for its vendors with one singular counterparty while another may want to diversify its holdings if there is a larger notional amount at stake.

After risks have been identified, treasurers then quantify risk (where possible) to assess the notional amount at risk. Assessing risk may lead organizations to analyze and identify potential hazards should one occur. The potential of interruption of sensitive business processes is evaluated by the overall capacity of risk an organization carries, which can be remediated through additional risk management strategies.



Risk management: Mitigation and monitoring

The third step in the risk management process is implementing strategies to mitigate the identified and assessed risks and the subsequent continuous monitoring of those risks. Risk identification and assessment are the building blocks for risk mitigation and monitoring and provide a tactical approach to develop various methods to reduce threats or risks.

Mitigation and monitoring strategies:

- **Internal controls:** The incorporation of digital assets into existing internal controls provides an extensive framework of preventive measures to be integrated into operations. The main difference between existing internal controls and digital assets is a thorough risk management policy and overall domestic and international compliance. By incorporating these treasury controls, adverse effects can be minimized and monitored effectively to help prevent fraud, security breaches, AML, insolvency, fines and regulatory compliance, conflicts of interest, market manipulation, and system failures.
- **Operational support:** In addition to internal controls, an organization should ensure it has the correct human capital and system automation to support innovative digital asset processes. Treasurers should be educated and educate team members on procedures and actions to be taken in the case of negative circumstances. There should be a degree of understanding and competence for individuals managing these products and

solutions, with mandatory trainings and requirements. For example, staff may need to be competent in managing the manual intervention required for a TMS when the system does not reconcile cash and digital assets properly from the custodial vendor or a legacy system.

- **General liquidity and recourse:** As a treasurer, one should be able to understand the given liquidity of the business at any point in time. Treasurers need to ensure there are adequate reserves for short- and long-term obligations, hedging, and derivative instruments to reduce negative digital asset price volatility and help reduce translation losses as well as diversify holdings and control.

To ensure proper credit facilities and backup financing is in place, multiple counterparties can be utilized in case digital asset allocations cannot be accessed. In an event of financial losses or illicit activities, automated parameters can be set through ratios or balances to highlight scenarios and sensitivities with non-base-case effects.

By applying this sort of logic to the overall mitigation and monitoring process, a treasurer can be better equipped to handle the nuances and inefficiencies that can occur with digital assets, deter illicit behavior, prevent massive financial losses, and further adversely affect the business. The goal is to execute the risks in a mitigated manner to maximize opportunity and operations.

“Cybersecurity is a growing concern among corporate treasurers (45% ranked security and control as part of one of the top 5 challenges) and during the pandemic, companies have been more exposed to payment fraud. While treasury systems and banking platforms tend to comply with the security requirements of most organizations, fraud usually occurs through phishing emails, ad hoc payment requests, social engineering, digital asset manipulation or internal fraud. Usually, the response to fraud involves enhancements of internal controls and governance, company-wide awareness and training, and extended IT support involvement.”

—Deloitte Global Treasury Survey³

Risk management: Communication and reporting

The final step in the risk management process is communicating the overall results and generating reports based on the risks taken. Treasurers should be able to relay the outcomes to management and other individuals, such as the CFO, within the organization as well as externally to stakeholders, if necessary. By reporting these outcomes on risk exposures, mitigation strategies, dollar impact, and so forth, treasurers can create an “audit” trail and a record of progress in addition to bolstering transparency and accountability.

Communication and reporting considerations:

- **Financial:** An organization can communicate and report its outcomes through a financial manner to its stakeholders. This can be done through various risk metric frameworks, financial statement impacts, reporting disclosures, dashboards and visualizations, target and future operating models, board meetings, etc. An organization can understand how digital assets affect revenue and profits, current assets, and liability/working capital liquidity; adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA); and earnings per share (EPS) metrics, impairment analysis, and much more.
- **Nonfinancial:** Treasurers should also be able to explain the qualitative impacts of these treasury offerings to internal and external members. For example, externally present the results during client calls, summits and conferences, and shareholder meetings, with a focus on internal treasury operations and tone at the top.

This final step brings together the risk management process in a cohesive manner. The results should generally be beneficial toward the treasury function and business, through the ability to logically articulate the risk management process. By communicating and reporting these outcomes in a positive manner, businesses and treasurers can continue to foster the new age of innovative digital assets into treasury processes, enlarging the entire ecosystem.



Other considerations

Proposed FASB ASU reporting requirements

Once issued, the new crypto asset ASU (Accounting Standards Update - Subtopic 350-60) proposed by the Financial Accounting Standards Board (FASB) will have a significant impact on companies holding digital assets in their treasury. If the digital asset held is within scope of the new standard, companies will be required to measure and record the cryptocurrency at fair value on their balance sheets, with changes in fair value recorded in earnings. In addition, the new ASU will require companies to disclose more information about their digital asset holdings including the fair value and cost basis of those assets, a roll-forward of activity during the period, and the amount of any gains or losses on their holdings with the appropriate disclosures and significant policies in place. Fair value remeasurements will be required to determine if these digital assets' fair value is impaired to not distort financial statement and overvalue assets for investors, creditors, and other key stakeholders. Overall, the new digital asset ASU—once issued—will provide greater clarity and transparency into how companies account for and manage their digital asset holdings.

Continuous assessment of custodians used

Custodians play a key role in limiting operational and security risks with respect to owning digital assets. As discussed, treasury functions need to evaluate the risks associated with their chosen custody solution. Additionally, a System and Organization Controls (SOC) report over the custodian's controls should be assessed on a regular basis to ensure that risks identified by the treasury function are being addressed by the custodian. Risks that are not addressed should have appropriate complementary user entity controls designed and implemented to ensure cohesive risk mitigation practices that are aligned to the organization's overall strategy, objective, and mission. The continuous assessment of service organizations' controls over safeguarding of assets will help treasury functions mitigate the risk comprising digital asset balances.

Considerations over data used in reporting

In order to perform internal and external reporting on digital asset balances held, data can be obtained from different types of reporting sources and solutions. A treasury function may utilize reports from a custodian, subledger solution, or third-party blockchain reader. It is essential that the reports are accurate, complete, and verified. The SOC report of a reporting solution can provide assurance that the controls are operating effectively and that standard reports are accurate and complete. Key queries, fields, and parameters used by a treasury function should be compared to the SOC report to ensure they are addressed and covered by the organization's controls. The treasury function can enable key segregation of duties and logical

access management controls in place to ensure the right users are accessing the correct data and the proper counterparts have the correct decision and reporting capabilities. In some cases, certain fields or custom reports may not be covered by the SOC report. In these cases, procedures should be designed to verify the accuracy and completeness of reports including balance reconciliation to standard reports.

Determining appropriate pricing sources

In accordance with US Generally Accepted Accounting Principles (GAAP), the fair value of an asset should be derived from its principal market. A principal market is defined as "the market with the greatest volume and activity for the asset." Note that this is based on markets accessible to the company and not the company's own level of actual activity. The validity of the data coming from the principal market should be considered and evaluated by the treasury function for reliability and accuracy. If principal markets are not available, which in some cases they may not be, GAAP further indicates that valuation should be derived from the most "advantageous" market, in which digital assets should be compared on a level I, II, or III input basis to determine an accurate comparable such as identical digital assets in unactive markets or similar digital assets in active markets and so on.

Tax considerations

Appropriate planning for direct and indirect taxes is necessary in implementing a successful digital asset treasury strategy. Because digital assets are generally treated as property for US federal income tax purposes, sales, intercompany transfers, cross-border contributions and distributions, and use of digital assets may result in a taxable realized gain or loss. As such, implementing processes to manage tax basis tracking and recovery on disposition is an essential step to mitigate undesired tax outcomes. Further, the use of hedging instruments on digital assets and other methods of mitigating risk associated with price volatility may impact the taxation of the underlying digital assets.

Digital asset ecosystems do offer novel tools such as DeFi platforms, which may be an efficient way to earn a return on treasury assets; however, these constructs may result in undesired tax implications making it necessary to analyze and understand how these activities may be treated for tax purposes. Lastly, some uses of digital assets may be subject to value-added tax when used in certain transactions globally. Given the lack of consistent rules across jurisdictions, proactive planning is necessary to implement an efficient tax strategy for the use of digital assets in a treasury function.



Concluding thoughts

As macroeconomic events and banking collapses shake the foundation of the traditional finance world, it accentuates the imperative need for a broad risk strategy. Adoption of digital asset utilization is a key area that will likely require new processes and controls that span and permeate all areas and terrains incorporated with treasury. The possibilities raise newfound opportunities that can be executed incrementally, providing ample time for organizations to develop and implement a digital asset strategy.



Endnotes

1. Statista, "[Digital assets – worldwide](#)," April 2023.
2. Deloitte, [Deloitte Global Treasury Survey](#), November 2022.
3. Ibid.

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