

A hand is shown interacting with a futuristic digital interface. The interface consists of glowing hexagonal shapes and bright, colorful lightning bolts (yellow, blue, purple) against a dark background. The hand is positioned in the center-right, with fingers touching the glowing elements. A yellow rectangular box is overlaid on the left side of the image, containing text.

Digital assets and distributed ledger technologies

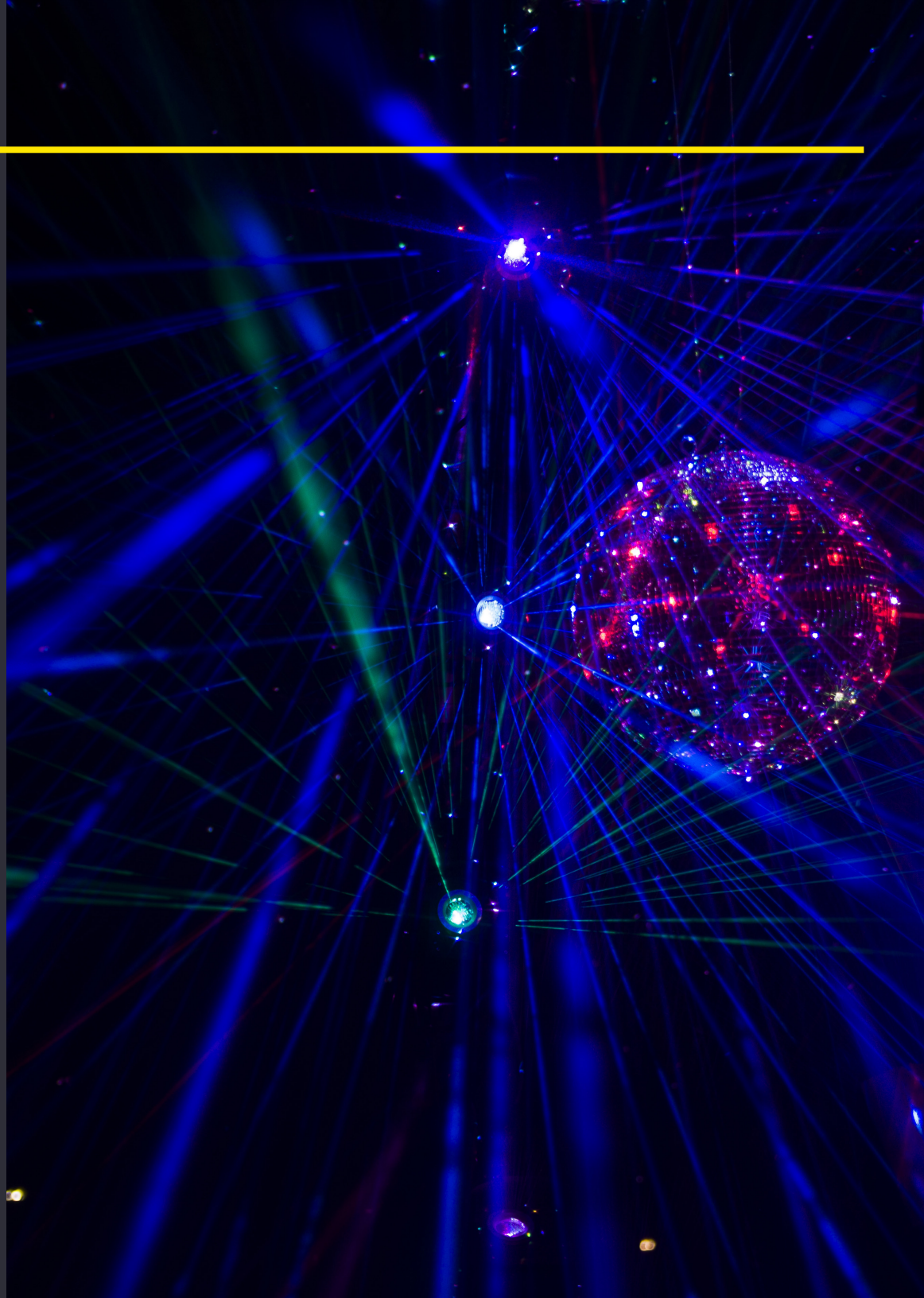
Opportunities for corporate treasury



Building a better
working world

Over the past several years, corporate treasury functions (or treasury) at financial institutions have evolved rapidly by using data and technology transformation and moving from manual processes to analytics-based decision-making and reporting. More recently, distributed ledger technology (DLT) and the digital asset ecosystem have emerged with compelling opportunities to take this treasury transformation journey to the next level. By accelerating the speed of transactions, automating execution and settlement, increasing transparency, reducing cost, and optimizing liquidity, these solutions can provide significant opportunities for treasury.

This article explores key use cases that DLT and digital assets have to offer for treasury, and the benefits and challenges that treasurers need to understand as they move forward in their journey of integrating these emerging technologies and asset classes in their organizations.



Operational liquidity optimization

Financial institutions require significant liquidity to ensure efficient operations in a regulatory compliant manner. Operational friction such as settlement timing, market fragmentation and other issues require a level of liquidity “working capital” that is expensive to fund. DLT has the potential to significantly reduce these frictions and their associated liquidity requirements.

For example, to facilitate gross intraday settlement activity, treasurers are often required to maintain intraday liquidity and pay for intraday credit lines. This has an impact on the financial institution’s profitability and ability to raise funding during stressed market conditions.

DLT-based intraday liquidity solutions, such as intraday repos, and real-time collateral and FX swaps, offer access to liquidity with transactions that settle instantaneously or within minutes using smart contracts. DLT enables this liquidity to be used for shorter time periods than traditional solutions. For example, using a DLT solution a treasurer may be able to borrow intraday liquidity for 30 minutes if that is all it’s needed for. This allows financial institutions to decrease their reliance on their intraday liquidity buffers and credit lines, minimizing

funding costs. These DLT-based solutions also offer additional benefits, such as programmable trade terms that increase control and reduce counterparty risk, real-time transparency of trade lifecycle and collateral ownership, automated settlement and maturity of trades and liquidity for assets previously unavailable to be used as collateral. While in the current regulatory environment most solutions are offered leveraging private blockchains or private versions of public blockchains, the long-term solutions could leverage liquidity over public infrastructure.

For global institutions, the need to hold liquidity in multiple entities and geographic regions may be reduced by using DLT-based solutions. For example, some global banks have tokenized cash and implemented a global centralized intercompany liquidity pool that allows liquidity to be transferred on an intercompany basis instantaneously around the clock, reducing entity level liquidity requirements. This may significantly reduce liquidity costs and allow current processes to be simplified and optimized in a regulatory-friendly manner.

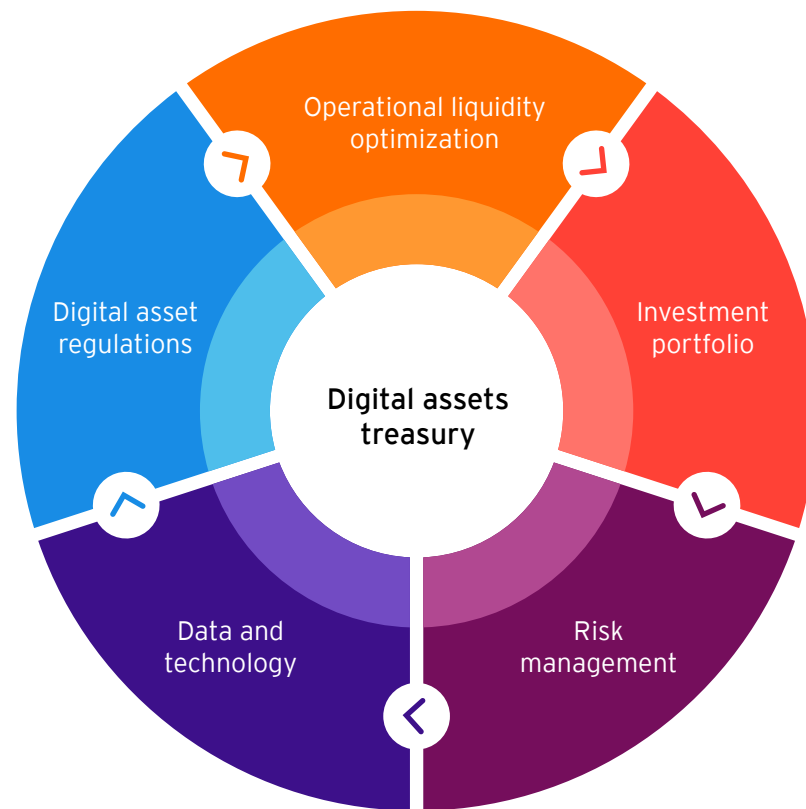


Figure 1: DLT and digital assets opportunities and considerations for treasury

Operational liquidity optimization (cont.)

Another key area of opportunity DLT provides to treasurers is in payments. Blockchain-based payments can be made instantly on a global basis, removing costs and friction associated with traditional payment rails. Importantly, while a common area of concern with blockchain or crypto-based payments is anti-money laundering (AML) and fraud, these payments have a built-in audit trail and traceability since all transactions are recorded on the blockchain. In addition, DLT-based payments can be programmed to address other needs. For example, a tokenized bond could be programmed to make its own principal and interest payments. Similarly, a payment for services could be programmed to make a required tax payment.

The launch of stablecoins by established financial institutions and higher adoption of public-permissioned infrastructure opens the door for broad adoption of blockchain-based payment solutions for financial institutions.

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Treasury investment portfolio and capital market access

As a part of prudent liquidity risk management and regulatory requirements, financial institutions hold a large portfolio of unencumbered high-quality liquid assets in their treasury portfolios. During periods of stress, and as evidenced in the recent banking crisis, available liquidity in the market and the ability to monetize these assets substantially decline.

Asset tokenization and fractionalization can enable financial institutions to access deeper pockets of liquidity across a broader market base and geographies, thereby expanding their monetization channels and reducing dependency on traditional capital market intermediaries. Near real-time settlement could also provide opportunities to access liquidity for traditional assets with long issuance time (such as mortgage and other asset-backed securities) and illiquid assets.

Financial institutions can issue short-term and long-term tokenized debt more efficiently and frequently with smaller issuance size. Tokenized debt will provide better traceability of counterparties holding the bank debt, which continues to be a challenge with traditional debt issuance channels in the secondary market.

Treasury investment portfolios can be optimized to include tokenized cash (such as tokenized commercial bank cash, central bank digital currencies, stable coins) and high-quality tokenized assets in their investment portfolio. For example, the tokenization of government securities is increasingly common. By converting some of their portfolio holdings to tokenized assets, financial institutions can take advantage of 24/7 liquidity to manage their cash flow requirements and a broader access to monetization channels.

Risk management, governance and controls

DLT and digital assets introduce novel risk elements across the various risk stripes. As financial institutions consider capitalizing on digital asset opportunities, the associated processes, risks and controls need to be assessed and embedded into the existing enterprise risk management frameworks.

Treasury teams should enhance the existing process for ongoing measurement, monitoring and reporting of risk to encompass new digital asset products, with a focus on areas such as risk metrics and limits, early warning indicators, liquidity and capital stress-test scenarios and assumptions, and crisis management capabilities (contingency funding, and recovery and resolution plans). Additionally,

financial institutions should assess the impact of nonfinancial risk stripes. These nonfinancial risks, such as operational risk (e.g., third-party risk, key management), technology risk (e.g., smart contract exploits) and regulatory risk (e.g., regulatory actions, changes in regulations related to digital assets), can result in financial losses and manifest as financial risk.

Lastly, financial institutions should assess the impact of digital assets on governance and define appropriate roles, responsibilities and committees specific to maintaining digital asset exposure. Internal and external controls should be evaluated to ensure compliance with management and regulatory expectations.

Treasury data and technology infrastructure

DLT provides real-time data on demand that is consistent across transactions. Access to this information can help optimize internal controls, streamline processes and allow for informed decisions based on real-time data. Digital asset technology capabilities and data infrastructure design can also support effective operational and financial risk management.

But to get this strategy right, treasury teams need to carefully analyze the impact on their existing technology, data and reporting infrastructure. This includes due diligence on treasury management systems (TMS), capabilities across vendors and integration with existing architecture, data strategy for on-chain and off-chain data integration, real-time reporting setup along with required enhancements to existing calculation engines, analytical capabilities, and reporting infrastructure.

Digital asset regulations for treasury

In the US, there are still ongoing discussions and questions that overhang the digital asset space, and more regulatory clarity is likely to unfold. Treasurers should continue to monitor these developments as regulations can impact how digital assets are adopted across the industry.

That said, in line with existing regulatory framework, customer compliance requirements such as AML and know your customer (KYC) need to be adhered to while undertaking any digital asset activity. Based on regulatory guidance provided so far, treasury teams should consider the impact of digital asset custody requirements (such as Staff Accounting Bulletin (SAB) No. 121);¹ liquidity regulatory reporting

including FR 2052a, liquidity coverage ratio (LCR) and net stable funding ratios (NSFR); and internal liquidity reporting). Separately, as indicated in the joint statement issued by banking agencies on liquidity risk,² financial institutions should monitor the digital assets-related exposure (specifically sources of funding from digital asset-related entities) and make enhancements to their liquidity risk management practices.

DLT and the digital asset ecosystem provide opportunities for financial institutions, and treasurers should take prompt actions to understand the implications on their treasury operating model and embark on the journey of proof of concepts and iterative learning. Financial

institutions have an opportunity to use DLT and digital assets to optimize their liquidity and capital usage, expand treasury portfolios, and gain access to a broader investor base and geographies in real time. It is also crucial that treasurers understand the new risks associated with DLT and digital assets, and assess their impact on governance, risk and controls, technology, data, and reporting infrastructure.

¹Staff Accounting Bulletin No. 121, Securities and Exchange Commission, 2022, <https://www.sec.gov/oca/staff-accounting-bulletin-121?msclkid=a64e8079b12311ec8d13ae51f42a473d>.

²"Joint Statement on Liquidity Risks to Banking Organizations Resulting from Crypto-Asset Market Vulnerabilities," Federal Reserve, 23 February 2023, <https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20230223a1.pdf>

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