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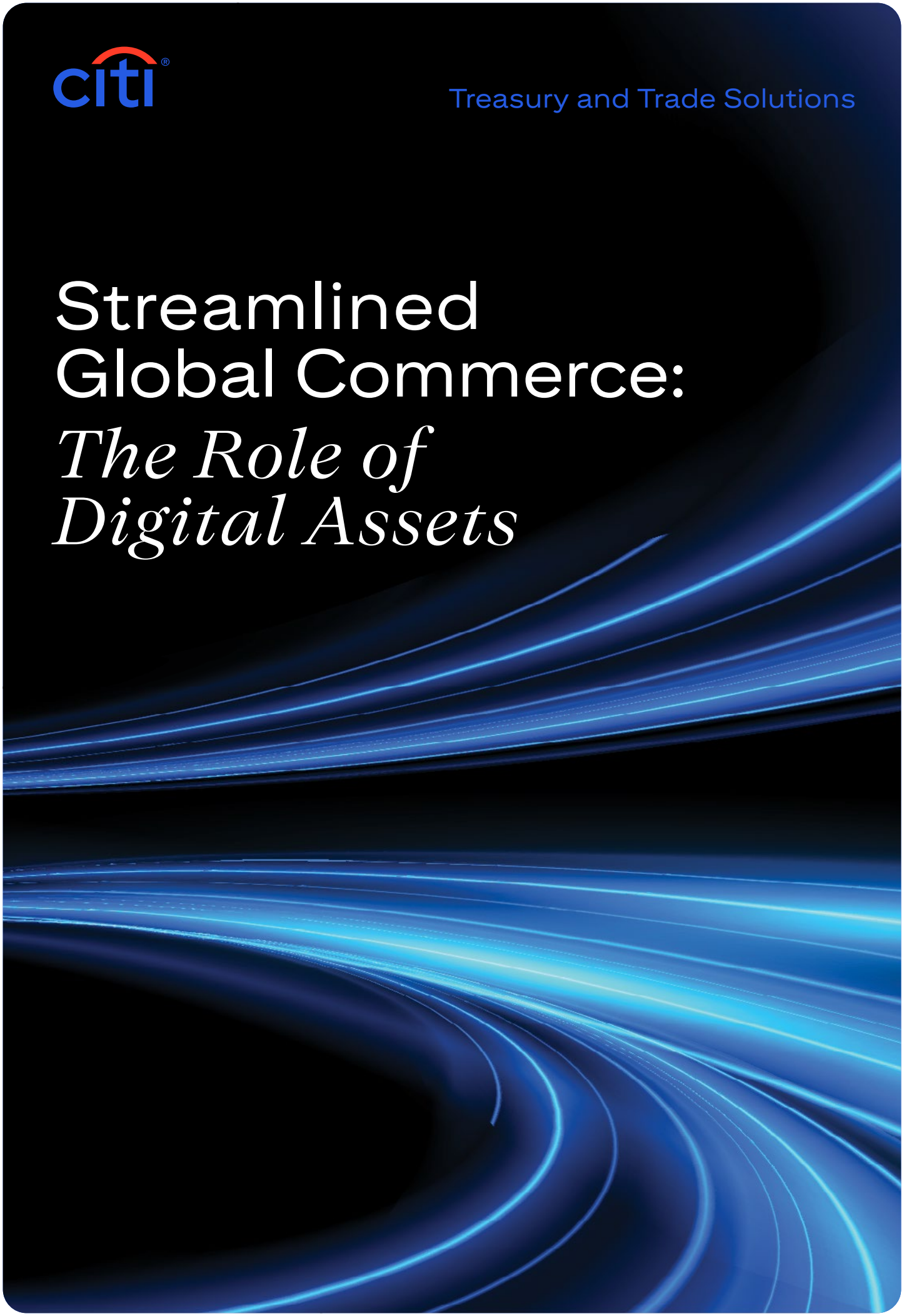
Treasury and Trade Solutions

Streamlined Global Commerce: *The Role of Digital Assets*



Streamlined Global Commerce – *The Role of Digital Assets*

Introduction: The Financial Revolution

The financial services sector is undergoing a profound transformation, driven by the relentless march of technology and the ever-evolving expectations of clients. In a world where cross-border payment flows are projected to reach $250 trillion by 2027,[1] competition is fierce as financial institutions (FIs) seek to address the most pressing concerns regarding speed, transparency, and cost. Blockchain technology, in particular is emerging as a powerful solution to these challenges.

Citi, in collaboration with PwC, recognizes this fundamental shift. Together, in this white paper, both institutions explore how digital assets and blockchain technology can power financial solutions that meet customer needs and expectations – while helping to define the future of payments and the movement of capital.

Navigating the new landscape

In this shifting landscape, global market participants are confronting new challenges. They are often ill-equipped to navigate the rapidly changing global environment, where 24/7 access to liquidity and cash management tools has become the new norm. Corporations, in particular, often struggle to access real-time payments and efficient cash movement during non-standard hours, hindering their growth and liquidity management. They need dynamic, customizable solutions that enable them to meet the evolving needs of their customers.

These global market participants want to partner with FIs that provide these capabilities. There is, therefore, an increasing pressure on the existing operational processes and technology infrastructure of FIs. Moreover, these FIs face the risk of customer and deposit flight if they cannot define and execute on a strategy to meet and anticipate the evolving needs of their corporate clients.

Digital Assets: A New Frontier

The digital asset market is evolving at a rapid pace and presents a new frontier in the world of finance. Digital assets, in various forms, have the potential to reshape traditional business models. Digital assets, in essence, have the potential to be viable alternatives to fiat currencies and evolve existing financial structures.

FIs can harness the power of digital assets to empower their corporate customers to explore innovative solutions that were previously unattainable, including tokenization of assets. Tokenization involves converting both traditional assets, such as stocks and bonds, and alternative assets, such as carbon credits and real estate, into digital tokens issued and managed on a blockchain or distributed ledger technology (DLT) platform. Tokenization may improve settlement times, enable automation, and allow for fractional ownership, which could significantly enhance liquidity and market accessibility.

Historically, financial networks have played a crucial role in promoting innovation. Just as Citi contributed to the establishment and growth of SWIFT – a global messaging network for secure and efficient information exchange – today, we find ourselves at a similar inflection point with blockchain and distributed ledger technology. DLT, which refers to technology that enables the operation and use of distributed ledgers which are designed to be tamper resistant, append-only, and immutable, containing confirmed and validated transactions, offers the financial industry a platform for continued innovation, potentially benefiting all parties involved. Such networks have provided greater opportunities to innovate, for both clients and the FIs that developed them.

"Adoption of emerging technologies like blockchain is a natural next chapter in how banks are evolving to adapt in an increasingly digital economy. The ability to move money 24/7/365 in a programmable manner that is 'always-on' and reduces manual operational functions is really what we want to enable for our institutional clients."

Ryan Rugg, Global Head of Digital Assets, Treasury and Trade Solutions, Citi

The Need for Agility and Innovation

However, embracing these emerging technologies requires a deep commitment on the part of FIs. Existing financial payment rails may suffice today, but future requirements will necessitate substantial technological enhancements. The unique characteristics associated with blockchain[2] – a distributed digital ledger that enables a programmable, transparent, and tamper-resistant record of transactions – will require thoughtful upgrades to enhance or replace existing technology infrastructure and dedicated resources for workforce training and upskilling.

Moreover, regulatory clarity is essential and there are encouraging developments happening globally on this front. Progressing these efforts is imperative for the creation of the interoperable network required to support a fully digital and connected world. Interoperability is essential for different payment systems and FIs to communicate and process transactions. It can enable seamless transfer of funds and information between banks, payment networks, and other financial entities.

Innovation and agility are also fundamental for the success of digital asset adoption and innovation. As witnessed with the evolution of previous payments networks, such innovation will likely be difficult at first, but as adoption increases and new financial market infrastructures crystallize, so will the ability of market participants to fuel innovation.

Rising Demand for Digital Assets

The demand for digital assets is rising as clients seek tech-enabled solutions to address existing payment frictions. Tokenization, for instance, has led to significant reductions in operating expenses, improving the bottom line for FIs and clients alike. This technological advancement has enabled the development of liquidity solutions that optimize capital allocation and facilitate the swift settlement of transactions across multiple currencies – a highly sought-after capability for global companies with complex hierarchical structures.

When combined with smart contracts – which are self-executable code, shared on a blockchain, capable of settling terms and conditions on the occurrence of pre-defined events and recording those actions on the blockchain – digital assets open up new dimensions of operational efficiency, especially among highly manual processes such as trade finance or supply chains.

Smart contracts empower businesses to create unique solutions that were previously unattainable, such as automated intercompany and cross-border capital movements. The savings generated from these improvements are significant, savings which are increasingly important in the current challenging macroeconomic environment. The pressure to improve efficiency will likely continue in this environment, potentially pushing companies to seek additional ways that innovative technologies can help improve the bottom line. Multiple use cases are being explored across Treasury and Securities Services, including:

- **Automated Conditional Payments:** Empowering round-the-clock settlements by leveraging smart contracts to automatically execute and guarantee conditional transactions when predetermined criteria are met.
- **Liquidity Management:** New solutions allow the pooling of a client's or bank branch's liquidity buffers, leading to potentially optimized allocation of capital, reduced counterparty risk, and faster settlement times.
- **Atomic Settlement:** Enabling near-instant asset transfers, thereby potentially reducing the time and costs associated with traditional settlement processes, as well as potentially reducing risk and volatility – all while enabling transparency and greater control.

Empowering Corporate Treasuries

Digital assets are increasingly finding utility in corporate treasuries, the integral divisions within a business entity responsible for managing and overseeing its financial resources, liquidity, and financial risks. Digital assets would enable a more comprehensive cash management cycle that unlocks hidden value in working capital and free cash flow. This is important because corporate treasuries are facing new global demands and internal trends, including working capital optimization and real-time payment and settlement, creating an imperative for these corporate treasuries to transform themselves further.

Corporate treasuries are increasingly seen as strategic partners in the organization. They are involved in strategic financial planning, risk management, and supporting the overall business strategy. And, with emerging technologies, treasurers gain the tools and insights needed to contribute to the company's growth and profitability.

Client-Centric Approach: The Key to Success

To meet these shifting client demands, FIs must consider not only customers' immediate banking needs but also their operational requirements and end-users' needs. A client-centric approach is vital, enabling corporates to develop unique use cases tailored to their business model. If FIs fail to provide these capabilities, they risk clients seeking solutions elsewhere.

"PwC helps clients identify and prioritize foundational capabilities that can unlock value for their customers while placing the organization in a position to adapt as market and client needs evolve. We encourage our clients to be thoughtful with how they engage with emerging technology and focus on use cases that align with their strategic goals, product suite and brand."

Matthew Blumenfeld, PwC US Web3 & Digital Assets Leader

Hence, the initial and most critical step is to ascertain the value proposition for clients. This process entails the identification and prioritization of well-known client challenges, shedding light on areas where emerging technologies can drive improvements. A one-size-fits-all strategy is insufficient in this context. Once the client's unique value proposition has been identified, it becomes imperative to evaluate its economic viability, both in the short term and with an eye on long-term growth prospects.

To guide the development of a client-centric digital asset strategy, Citi and PwC have established a set of principles:

- **Client-Centric Design:** Prioritize building out key core capabilities first that enable a wide net of use cases that address both existing and future frictions for internal and external clients.
- **Trust through Transparency:** Create a trusted environment with transparency, proactive regulatory alignment, and communication.
- **Prioritize Timely Economic Viability:** Apply stringent standards for enabling economic viability in a timely manner, whether additional revenue generation or cost reduction.
- **Enable Interoperability:** Confirm programmability, interoperability, and multi-asset functionality across internal and, potentially, external networks and systems.
- **Drive Network Effects:** Evaluate stakeholder incentivization to promote adoption by client and internal network participants.

These principles serve as a framework to align products and services with clients' unique needs, fostering a more interconnected financial ecosystem. This will likely help ensure customer growth or a reduction in operating costs. These new products and services can enable new use cases for FIs such as:

- **Settling Tokenized Securities Transactions:** This is the process of completing and finalizing the transfer of ownership or rights to securities represented as digital tokens on a blockchain. In traditional financial markets, settlement involves the exchange of securities for payment, and this process can be complex and time-consuming. However, tokenized securities aim to streamline and enhance the settlement process.
- **Tokenization-as-a-Service:** This is a technology and service offering that allows traditional securities, such as stocks, bonds, or other financial instruments, to be converted into digital tokens that are issued and managed on a blockchain or DLT platform. It could increase market accessibility, reduce settlement times, and make it easier for a broader range of investors to participate in the ownership of various asset classes.
- **Multi-Asset Transfers:** This represents a significant advancement in the world of blockchain and DLT, offering the capability to facilitate a diverse range of financial transactions on a single, unified chain. This concept fundamentally transforms how various asset classes would be handled, including foreign exchange (FX), Central Bank Digital Currencies (CBDCs), and security swaps by bringing them together on the same blockchain infrastructure, which would enable more efficient transfers.
- **Smart Contract Library:** This serves as a repository of pre-built, customizable smart contracts that encapsulate a variety of financial and digital asset-related functionalities. This library would be designed to streamline the development, deployment, and management of smart contracts, which would ultimately empower users to harness the transformative potential of programmable money.
- **Automatic Interbank Transfers:** These transfers offer near instantaneous and irrevocable settlement of financial transactions between different institutions. This innovative approach would transform the way financial markets operate and establish the network as a pivotal component of the financial market infrastructure.

- **Fluid Payments:** This is an innovative approach to financial transactions, particularly in the context of invoicing, loan repayment, and various financial agreements. These payments introduce a dynamic and adaptable method of transferring funds, which would provide increased customizability and flexibility for both payers and payees.

The Path Forward: A Changing Financial Landscape

The world of financial services is evolving with or without the active involvement of banks. Generally, regulators are cautious about certain digital assets due to key concerns related to (among others) consumer protection and financial stability. Nevertheless, there are more than 130 CBDC pilots[3] underway around the world – so it's likely that many governments may utilize DLT at some point in the near future. FIs will need to adjust their business models to accommodate this development.

In addition, the recent market turbulence – particularly in the bond market – is both a sign of the fragility of the system as well as an opportunity for traditional finance, with its regulatory structure and history of risk management, to drive progress – by investing in risk management and compliance infrastructure to support the development of digital asset solutions.

The adoption of these solutions will only continue to grow as consumers and businesses alike become more familiar with them, and as user experiences become simpler. Moreover, as policymakers and regulators gradually provide clarity on policy and regulatory developments applicable to various digital assets, digital assets are likely to continuously gain market recognition as effective financial instruments. Traditional business models are continually being transformed by the adoption and growth of digital assets, offering new opportunities for clients and FIs alike.

To learn more about defining a digital asset strategy and accelerating your business transformation, reach out to Citi and PwC:

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[1] https://www.citigroup.com/global/insights/citigps/future-of-cross-border-payments-

[2] https://www.iso.org/obp/ui/#iso:std:iso:22739:ed-1:v1:en

[3] https://www.atlanticcouncil.org/cbdctracker/

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