

ASSET TOKENIZATION, ASSET AND WEALTH MANAGEMENT

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Executive Summary

At the recent Point Zero Forum held in July 2024, policymakers, regulators and financial institution leaders gathered to explore what it will take to accelerate institutional adoption and scalability for asset tokenization, and its potential to transform asset and wealth management. The insights derived from that roundtable has been distilled into this white paper, written by Rajeev Tummala, Head of Digital & Data, Asia & MENA, HSBC Securities Services.

This white paper provides invaluable insights into the opportunities, driving standards, and capabilities essential for integrating asset tokenization within asset and wealth management. It highlights the transformative potential of tokenization through various opportunities to democratise access to high-value assets, thus enabling a broader range of investors to participate in markets.

It also underscores the necessity of developing comprehensive standards across asset representation, agreements, regulatory risk and compliance, collaborations and partnerships, and immersion learning. These standards are vital for building trust and confidence among investors and ensuring seamless transactions across blockchain platforms.

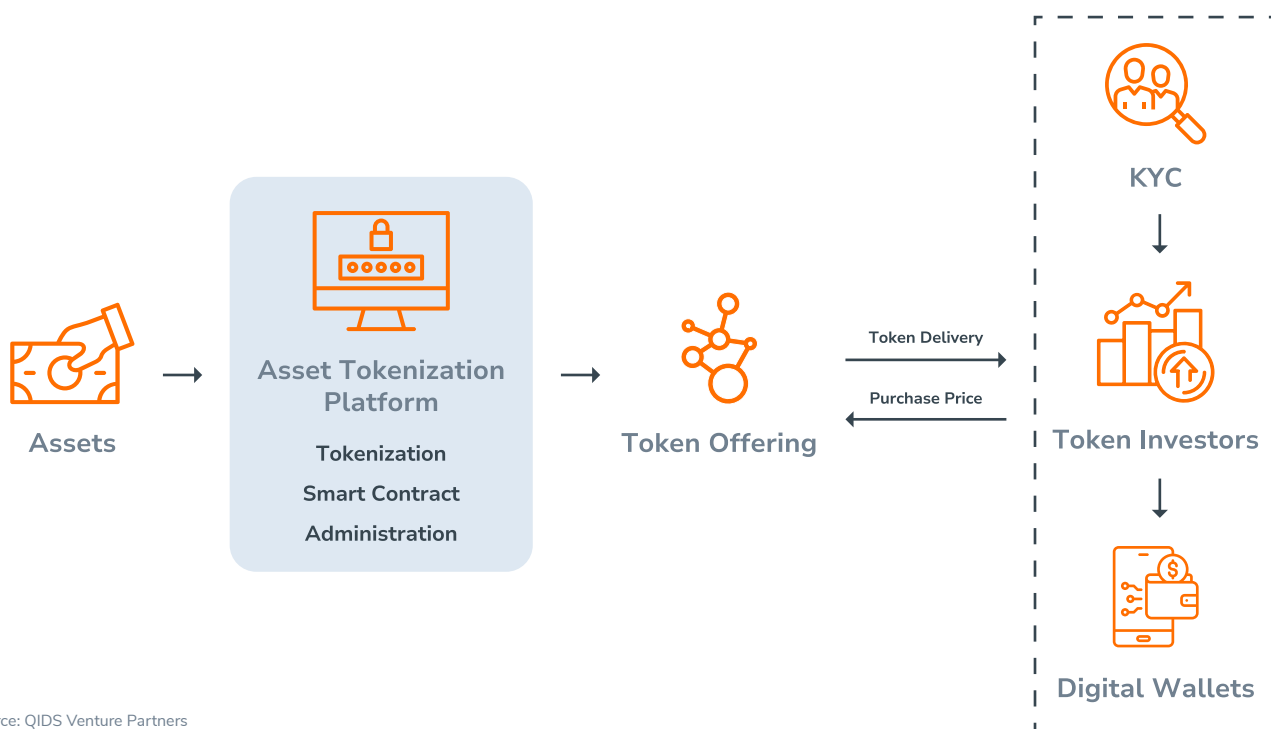
Furthermore, it detailed the necessary capabilities for the effective implementation of tokenization. These include the integration of the value chain, streamlined distribution processes, widespread adoption strategies, enhanced accessibility, scalability solutions, and robust education initiatives. Establishing these capabilities is crucial for creating a resilient and scalable infrastructure that can support the growing demands of tokenized markets.

By addressing these multifaceted aspects, the white paper provides a comprehensive roadmap for leveraging the full potential of asset tokenization. This roadmap aims to foster a more inclusive, efficient, and innovative financial ecosystem, transforming how assets are managed, traded, and accessed.

Introduction

The advent of technology has ushered in a new era of innovation in the financial industry, transforming traditional processes, and creating new opportunities for asset and wealth management. According to a comprehensive study by Credit Suisse and UBS last year, global wealth – encompassing personal holdings of assets from real estate to stocks and shares – is projected to increase by 38% by 2027, primarily driven by growth in emerging markets. As the world is getting progressively richer across all wealth segments, investor expectations are also evolving, seeking more efficient, transparent, and diversified investment opportunities. Today, one of the most promising developments meeting these evolving expectations is asset tokenization.

Figure 1: How asset tokenization work



Source: QIDS Venture Partners

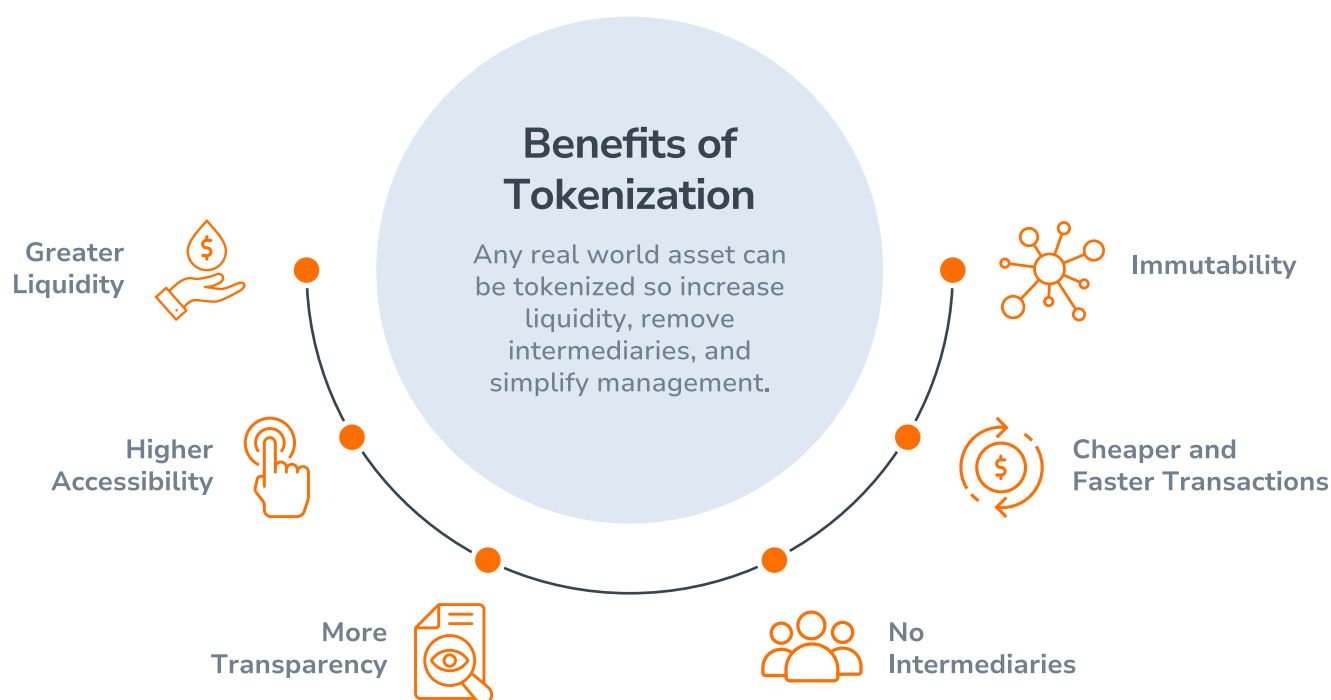
Asset tokenization refers to the process of creating digital tokens on a blockchain or other form of distributed ledger technology to represent digital or physical assets. This innovative approach can revolutionise how assets are created, managed, and traded by introducing unprecedented levels of efficiency, transparency, and accessibility. Nearly any asset, whether physical like real estate or intangible like corporate stock, can theoretically be tokenized. Turning these assets into digital tokens makes them more easily divisible, allowing for fractional ownership that lowers barriers to entry for a broader range of investors, which can in turn make the markets for those assets more liquid.

The benefits of asset tokenization extend beyond liquidity and accessibility. By leveraging blockchain technology, tokenization offers immutable records of ownership and transactions, significantly reducing the risk of fraud and enhancing security. Smart contracts, which are self-executing contract with the terms of the agreement directly written into code, further streamline processes by automating and enforcing contractual terms, reducing the need for intermediaries and lowering operational costs.

Additionally, tokenization opens the door to a new realm of investment opportunities. Investors can now diversify their portfolios with asset classes that were previously difficult to access. Wealth managers can design customised investment products that better align with individual client preferences and risk profiles. The ability to program compliance directly into tokens ensures adherence to regulatory requirements, paving the way for a more secure and efficient financial ecosystem.

In this report, we will explore the transformative potential of asset tokenization, delving into its benefits, challenges, and strategic implementation. We will examine how this technology can enhance liquidity, improve transparency, and drive operational efficiency in asset and wealth management. As we stand on the cusp of a new financial paradigm, it is imperative for industry stakeholders to understand and embrace the opportunities presented. By doing so, we can collectively drive innovation, create new value, and democratise access to financial markets for a more inclusive and efficient global economy.

Figure 2: Benefits of asset tokenization



Source: Coindelta

Opportunities

Private Equity

Private equity has traditionally been an institutional product, typically for institutional investors and accredited investors who meet specific financial criteria. These criteria ensure that the investors possess the financial sophistication and risk tolerance necessary to handle the high-risk, high-reward nature of private equity investments. The barriers to entry are high, making it difficult for average retail investors to participate in private equity without meeting these stringent requirements.

Despite this, there remains a significant untapped market within the target demographic, comprising investors who have the rights, but not the means, to invest in private markets. These investors are constrained by the high minimum investment thresholds and limited access. Ideally, all institutional investors and accredited investors should be able to invest in a private equity solution with contributions as low as a dollar.

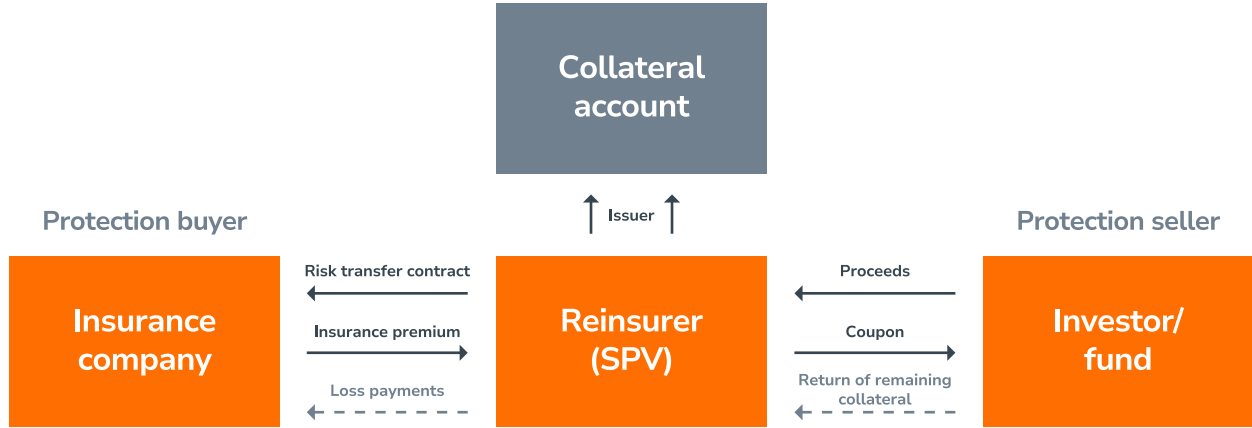
Asset tokenization in private equity offers a transformative solution to this problem by allowing for fractional ownership. This process involves converting ownership stakes in private equity funds or portfolio companies into digital tokens on the blockchain. By breaking down large investments into smaller, more affordable units, it becomes more accessible to a broader range of investors.

Moreover, tokenized assets enhance liquidity, which has traditionally been a challenge in private equity due to the long-term nature of investments and limited secondary market activity. It can be traded more easily, providing investors with greater flexibility and access to their investments. The use of blockchain technology streamlines compliance processes by automating and pre-populating necessary documentation. By lowering barriers to entry, asset tokenization expands private equity's reach to this previously underserved segment, democratizing access and fostering a more inclusive investment landscape.

Investment-linked Securities

Investment-linked Securities (ILS) are investment assets whose performance is not correlated with traditional asset classes and the wider financial markets. Instead, their returns are influenced by factors such as economic strengths or weakness, a company's performance, or geopolitical events. A prime example is catastrophe bonds, also known as cat bonds, which made up about a third of the overall ILS market.

Figure 3: Structure of an Insurance-linked Instrument



Source: Schroders

Cat bonds are designed to transfer the risk of catastrophic events, like natural disasters, from insurers to investors. If a predefined event, such as an earthquake, occurs, the bond's principal may be lost or reduced to cover the insurer's claims. Otherwise, investors receive regular interest payments and the return of principal at maturity. This unique risk-return profile makes cat bonds attractive to investors seeking diversification and uncorrelated returns.

Asset tokenization of ILS leverages on blockchain technology and smart contracts¹ to enhance efficiency and transparency. Smart contracts help to automate and streamline the payout process, ensuring that payments are made promptly and accurately based on predefined conditions. For instance, a smart contract can be programmed to determine payouts based on the size and region of the catastrophe event. This eliminates the need for manual intervention, reducing the risk of errors and delays.

Additionally, the use of smart contracts enhances transparency and trust for both market participants and regulators. Investors benefit from the automated and precise execution of terms, reducing the risk of fraud and increasing confidence in the investment. Meanwhile, regulators can benefit from the immutable and transparent nature of blockchain technology, which simplifies compliance and auditing processes.

Utility

Asset management has always focused primarily on generating returns for investors. However, we believe there is a growing demand for assets that provide some form of utility in addition to financial returns. Asset tokenization provides significant opportunities for meeting the growing demand for utility in investments by enabling the creation of innovative financial products that offer both returns and tangible benefits.

Through blockchain technology, assets can be fractionally owned and embedded with smart contracts that automatically deliver utility features, such as access to exclusive events, voting rights in company decisions, or contributions to social and environmental projects. This dual value proposition not only attracts a wider range of investors but also enhances engagement and satisfaction by aligning investments with personal values and lifestyles. By integrating utility into financial returns, asset tokenization paves the way for more diversified, purpose-driven investment opportunities, transforming the traditional landscape of asset and wealth management.

This shift reflects a broader trend towards more meaningful and purpose-driven investment strategies. As a result, asset managers must adapt by offering products that not only promise financial gains but also deliver real-world benefits that align with the evolving preferences and values of their clients.

Efficient Infrastructure

With the proliferation of digital platforms and blockchain technology, the barriers to entry for financial transactions have significantly decreased. The asset and wealth management sector is believed to be experiencing significant growth through the transition to low-value, high-volume transactions, driven by technological advancements and changing consumer behaviours. Asset tokenization plays a pivotal role in facilitating this transition by providing an efficient infrastructure that supports the rapid execution and settlement of these microtransactions. With its ability to enhance liquidity, reduce transaction costs, and ensure transparency, tokenization is an ideal solution for handling high transaction volumes.

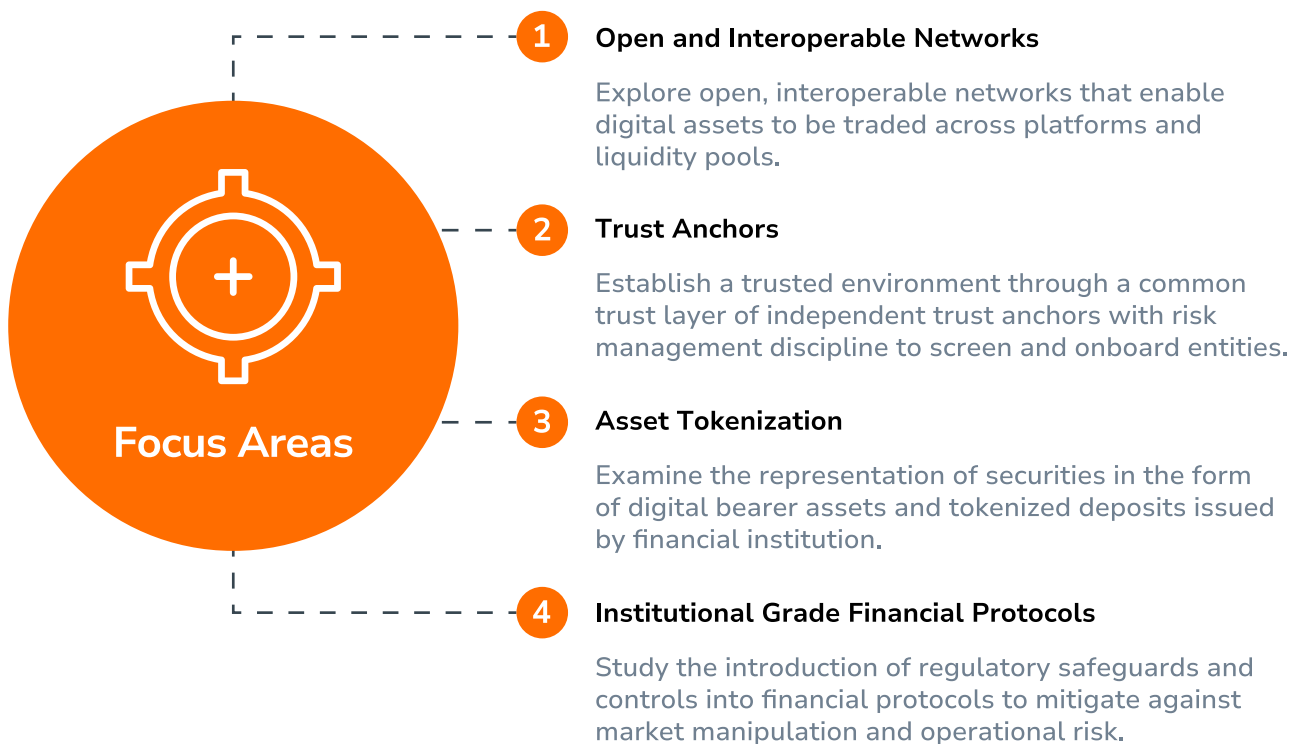
To effectively manage this shift, the underlying infrastructure must be robust, scalable, and flexible. It needs to support the seamless integration of various digital assets and handle the complexities associated with high transaction volumes. Moreover, the infrastructure should be capable of producing highly customised or personalised products at scale, catering to a broad range of client segments. The ability to offer tailored solutions and maintain operational efficiency will ensure firms remain competitive in a landscape increasingly dominated by digital transformation and evolving investor expectations.

Driving Standards

The financial industry stands on the brink of a transformative revolution with the advent of asset tokenization. However, as with any nascent market, the lack of standardised practices poses significant challenges to its growth and scalability. Establishing and driving standards around asset tokenization in asset and wealth management is the foundational building block to ensuring its sustainable development and widespread adoption. Asset tokenization is in its early stages, and the importance of driving standards cannot be overstated.

Project Guardian represents a significant step towards establishing standards in the nascent field of asset tokenization. Initiated by the Monetary Authority of Singapore (MAS), this collaborative effort between policymakers and the financial industry aims to enhance liquidity and efficiency of financial markets through asset tokenization. It addresses key areas such as regulatory compliance, technical interoperability, security, and operational efficiency, setting a valuable precedent for other regions and markets. Some of the current pilots in Project Guardian include initiatives in asset and wealth management, fixed income and foreign exchange. These initiatives are paving the way for broader adoption of blockchain technology in financial services, addressing key pain points in current systems and demonstrating the potential for digital innovation to transform the financial industry. The successful implementation of these pilots could lead to widespread changes, setting new standards for efficiency, transparency, and accessibility in financial markets.

Figure 4: Main objectives of Project Guardian

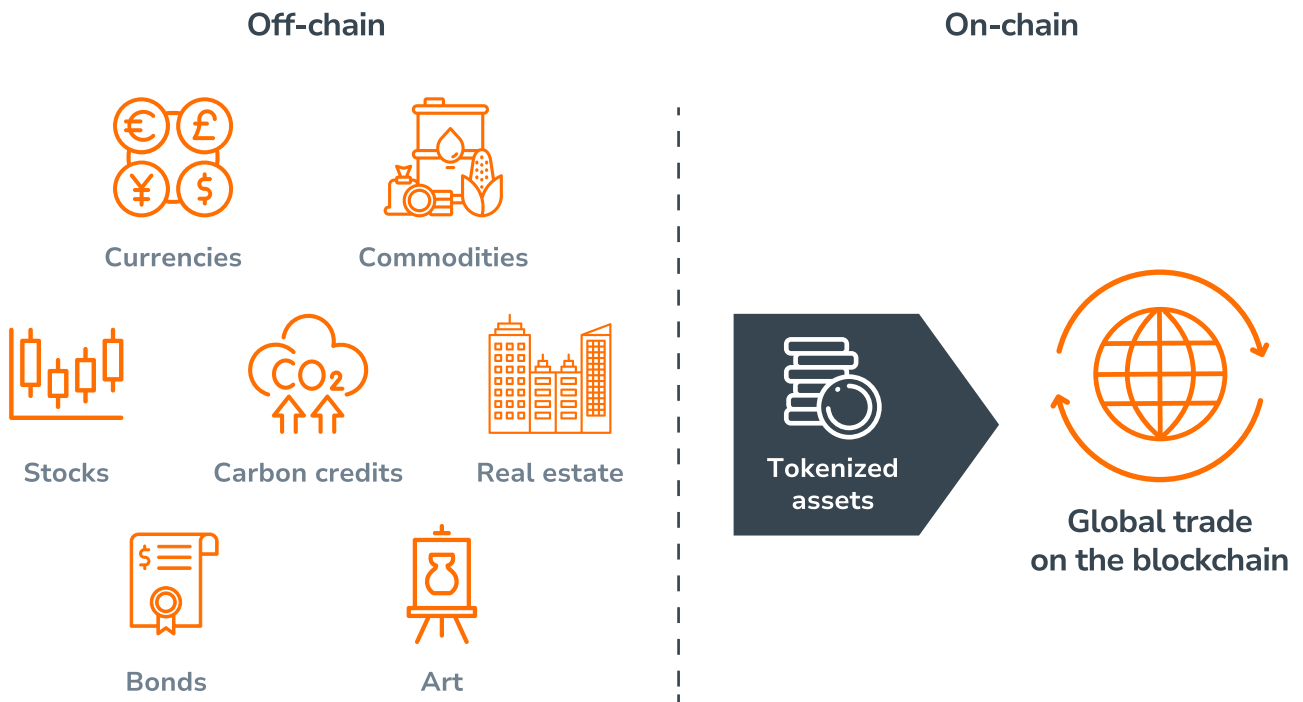


Source: MAS

Asset Representation

To ensure consistency and reliability, it is of utmost importance to establish standardised methods for representing tokenized assets. Proper representation outlines the correlation between a token and its underlying asset, covering aspects such as value, ownership rights, and transferability. Accurate representation ensures that each token accurately reflects the characteristics and value of the real-world asset it represents, which is essential for maintaining market integrity and trust. It also facilitates clear legal and regulatory compliance by establishing unambiguous rights and obligations associated with the token, thus safeguarding against disputes and fraudulent activities.

Figure 5: Real World Assets represented on a blockchain



Source: defichain

Infrastructure

The infrastructure for supporting tokenization must ideally be chain agnostic, enabling seamless interoperability between different blockchain networks. In a chain-agnostic system, tokens can be issued, transferred, and redeemed across multiple blockchain platforms without compatibility issues, which is vital for fostering a dynamic and versatile ecosystem. This flexibility allows asset managers and investors to choose the most suitable blockchain for their needs based on factors such as transaction speed, cost, and security features. It also enables the seamless integration of diverse assets, enhancing the proefficiency and liquidity of the tokenized market.

Agreements

Standardised agreements governing the exchange of tokenized assets are essential to ensuring transparency and trust among market participants. These agreements should comprehensively outline the rights and obligations of all parties involved, including issuers, investors, and intermediaries, thereby providing a clear legal foundation for transactions. By clearly defining these roles and responsibilities, standardised agreements help prevent disputes and misunderstandings, fostering a more stable and predictable market environment. Furthermore, it can simplify and streamline the process of token issuance and exchange, making it easier for new participants to enter the market and for existing participants to scale their operations.

Regulatory Risk and Compliance

As tokenized assets traverse various jurisdictions and regulatory environments, adhering to a comprehensive set of controls and risk disclosures is crucial for protecting investors and ensuring market integrity. Effective regulatory compliance helps mitigate the risk of legal and financial repercussions by aligning tokenized assets with established legal frameworks and standards. This not only safeguards against fraudulent activities and regulatory violations but also enhances investor confidence and promotes market transparency. Moreover, a well-defined regulatory framework fosters innovation by providing clear guidelines and reducing uncertainties, which can encourage broader participation and investment in tokenized assets.

Collaboration and Partnerships

Collaborations and partnerships are pivotal for establishing and advancing standards in asset tokenization, as they bring together diverse expertise, resources, and perspectives essential for developing a cohesive and effective framework. Financial institutions, technology providers, regulatory bodies, and industry consortia each play a vital role in this collaborative effort. By working together, we can create unified protocols and guidelines that promote interoperability, security, and efficiency across the tokenized asset landscape. This collaborative approach not only accelerates the adoption of asset tokenization but also builds a robust and reliable ecosystem that benefits all participants and fosters sustainable growth in the market.

Figure 6: Example of collaborations and partnerships in Ethereum’s ecosystem



Immersion Learning

Immersion learning can help industry professionals understand the intricacies of blockchain technology, tokenization processes, and regulatory requirements. It is crucial to set a minimum consistent level of standard for all participants, ensuring a baseline proficiency in tokenization concepts and practices. By establishing and adhering to these standards, the industry can maintain a high level of competency and reliability. As participants gain more experience, the standards should be continually reviewed and enhanced to reflect new developments and best practices. This iterative process of standard setting and improvement ensures that the industry remains at the forefront of innovation and is well-equipped to navigate the evolving landscape of asset tokenization.

Driving standards of asset tokenization in asset and wealth management is a multifaceted endeavour that requires the establishment of robust business and technical standards, collaboration among stakeholders, and comprehensive learning initiatives. By addressing these key areas, the industry can unlock the full potential of tokenization, creating a more efficient, secure, and inclusive financial ecosystem. The journey towards widespread adoption of asset tokenization is complex, but with concerted efforts and a shared vision, the industry can achieve transformative change that benefits all participants.

Capabilities Needed Beyond Standards

Integration of Value Chain

The existing financial ecosystem is characterised by deeply entrenched legacy systems, which pose significant challenges for the seamless adoption of asset tokenization. To navigate this complexity, the focus must be on the integration of value chain, emphasising the interoperability between dematerialised and digital infrastructures. Legacy systems, although robust and reliable, often lack the flexibility and innovation that blockchain technology brings. By creating a cohesive ecosystem where traditional financial platforms and modern blockchain networks can interoperate, we can ensure that tokenized assets are managed, transferred, and settled efficiently. This integration will bridge the gap between old and new financial paradigms, ensuring that tokenized assets can be easily managed, transferred, and settled across different platforms, enhancing efficiency and reducing operational complexities.

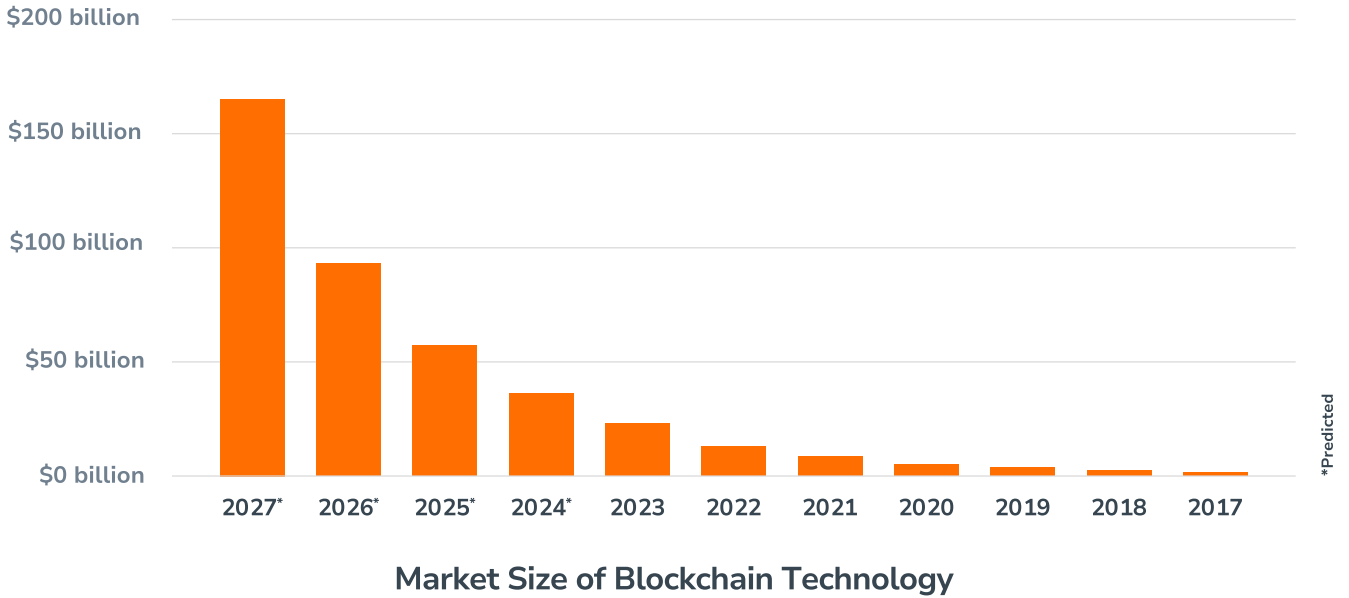
Distribution

Leveraging on the blockchain's decentralised nature can streamline the distribution process, enabling peer-to-peer transactions and reducing reliance on intermediaries. This decentralised approach not only enhances efficiency but also empowers investors by providing them with direct control over their assets. Moreover, tokenization platforms must be designed to support robust secondary markets, enabling seamless trading of tokens, and creating a dynamic and liquid market, where tokens can be bought and sold with ease, thereby increasing market participation and liquidity. A well-structured and efficient market environment will attract a more extensive and diverse investor base, fostering greater inclusivity and driving the overall growth of the asset tokenization ecosystem.

Adoption

The adoption of asset tokenization hinges on demonstrating its value proposition to various stakeholders. Asset managers, investors, and financial institutions need to understand the benefits of tokenization, such as increased liquidity, fractional ownership, and enhanced transparency. Collaborative efforts between technology providers, regulators, and industry participants are essential to showcase successful use cases and pilot projects. Additionally, fostering partnerships with established financial institutions can provide the credibility and trust needed to drive adoption. By demonstrating tangible benefits through real-world applications and successful case studies, the asset and wealth management industry can accelerate the adoption of tokenization, ultimately transforming the financial landscape and providing greater value to investors.

Figure 7: Expected market size indicating increased adoption



Source: demandsage

Accessibility

Ensuring accessibility to tokenized assets is paramount to democratising investment opportunities. Tokenization platforms should be designed with inclusivity in mind, catering to investors with varying levels of financial literacy and technological expertise. Simplified onboarding processes, intuitive interfaces, and comprehensive customer support are key to lowering entry barriers. Moreover, leveraging mobile technology can extend accessibility to underserved and remote populations, enabling them to participate in asset markets that were previously out of reach. By making tokenized assets accessible to a broader audience, asset tokenization can promote financial inclusion and empower a more diverse investor base.

Scalability

Scalability is an essential determinant of the long-term viability and success of asset tokenization. For tokenization platforms to thrive, they must efficiently handle a high volume of transactions without sacrificing security or performance. The inherent scalability features of blockchain technology are crucial in meeting these demands, allowing the infrastructure to grow and adapt as transaction volumes increase. Furthermore, scalability involves broadening the spectrum of tokenizable assets, encompassing a wide array of asset classes. By enhancing the scalability of tokenization platforms, the industry can accommodate diverse investor preferences and requirements, offering tailored solutions across various sectors.

Education

Education is fundamental to the broad acceptance and adoption of asset tokenization. Insufficient knowledge and the lack of national and international market regulations that would improve investor trust and transaction security remain a barrier to active participation. Therefore, investors, asset managers, and financial professionals must understand the complexities of blockchain technology, smart contracts, and the advantages of tokenization. Educational programmes should include webinars, workshops, online courses, and detailed documentation to clarify the technology and dispel common myths. Building a well-informed community will support the growth and evolution of the asset tokenization ecosystem, driving greater resilience and innovation.

Conclusion

To fully realise the transformative potential of asset tokenization, it is imperative for industry stakeholders to take decisive actions. Firstly, creating a robust and interoperable infrastructure that seamlessly integrates traditional financial systems with blockchain technology is essential. This infrastructure must support efficient management, transfer, and settlement of tokenized assets across different platforms, enhancing liquidity and reducing operational complexities. Ensuring scalability and flexibility in this infrastructure will be critical to accommodate diverse asset classes and high transaction volumes, thereby meeting the evolving needs of investors and asset managers.

Secondly, developing and adhering to common standards ensures consistency, transparency, and legal compliance across the tokenized asset landscape. Standardised methods for representing tokenized assets, agreements governing their exchange, and regulatory compliance protocols will foster trust and reliability. These standards will facilitate clear legal frameworks, reduce disputes, and safeguard against fraudulent activities. By setting a precedent for best practices, common standards will promote wider acceptance and integration of asset tokenization within the financial industry.

Lastly, continuous collaboration among financial institutions, technology providers, regulatory bodies, and industry consortia is vital for ongoing improvements in the infrastructure. Collaborative efforts can drive innovation, address emerging challenges, and refine standards to keep pace with technological advancements and regulatory changes. Partnerships will also enable the sharing of expertise and resources, accelerating the adoption of asset tokenization. With cooperation, stakeholders can create a dynamic and resilient ecosystem that supports sustainable growth and provides greater value to all participants.

By focusing on these actionable items, the industry can drive innovation, enhance market participation, and create a more inclusive and efficient financial ecosystem. This concerted effort will unlock the full potential of asset tokenization, transforming the landscape of asset and wealth management and democratising access to financial markets for a broader range of investors.

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