



Paper:

Tokenised ETF Pilot Project Proposal

March 2025



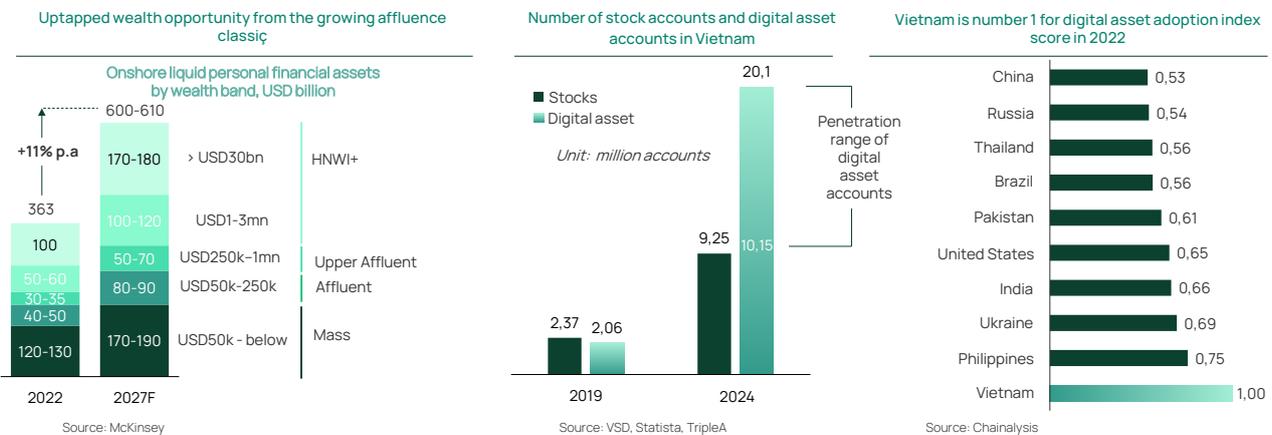
CONTENTS

EXECUTIVE SUMMARY	3
1. CHAPTER 1: VIETNAM'S WORLD-LEADING RETAIL DIGITAL ASSET ADOPTION	5
1.1 High growth of retail digital asset adoption in Vietnam	5
1.2 Retail participation in the capital market is key for Vietnam to become an international financial hub	6
1.3 Lack of investor protection, taxation, capital controls and regulated market infrastructure	7
2. CHAPTER 2: FUND TOKENISATION FOR CAPITAL MARKET DEVELOPMENT IN VIETNAM: A PILOT PROJECT	8
2.1 Fund tokenisation could enhance retail participation in the regulated capital market	8
2.2 Oversight over the tokenised fund products & digital assets	9
2.3 Potential market size of fund tokenisation in Vietnam	11
2.3.1 <i>Case studies of tokenised funds abroad and potential demand in Vietnam</i>	11
2.3.2 <i>Potential for tokenised ETFs and investor demand in Vietnam</i>	12
2.3.3 <i>Potential outcome of the Pilot Project of tokenising an ETF</i>	13
3. CHAPTER 3: TOKENISED ETF LIFECYCLE AND WORKFLOW IN VIETNAM	16
3.1 Parties involved in the pilot project of tokenised ETF	16
3.2 Lifecycle and process of tokenised ETF	17
3.2.1 Preparation and origination of collateralization and issuance of tokenised ETF	18
3.2.2 Tokenised ETF primary and secondary distribution	21
3.2.2.1 <i>General token distribution</i>	21
3.2.2.2 <i>Primary distribution</i>	22
3.2.2.3 <i>Secondary distribution</i>	22
3.2.2.4 <i>Exchanges</i>	25
3.2.2.5 <i>Payment</i>	26
3.2.3 Tokenised ETF primary and secondary distribution	27
3.2.3.1 <i>Custody of tokenised ETF</i>	27
3.2.3.2 <i>Redemption of tokenised ETF</i>	28
3.2.3.3 <i>Asset management for tokenised ETF</i>	30
4. CHAPTER 4: KEY ACTIVITIES AND RECOMMENDATION FOR POLICYMAKERS	31
4.1 Key activities	31
4.2 Tokenised ETF pilot project benefiting future regulatory considerations	33
5. ACKNOWLEDGEMENT	34
6. REFERENCE	35
7. APPENDIX	37

EXECUTIVE SUMMARY

Vietnam's economic boom has led to increased wealth and a surge in demand for diverse investment products, particularly digital assets. Despite the legal grey area surrounding digital assets in Vietnam, the number of digital asset users has outstripped stock account holders in 2024, growing from 2.06 million in 2019 to estimates ranging between 10.15 million (Statista 2023) to 20.1 million (Triple A 2023), compared to 9.25 million stock accounts as illustrated in Figure E1. According to Chainalysis (2022), Vietnam recorded over \$100 billion worth of digital asset transactions on the blockchain between July 2021 and June 2022. This figure does not even include the trading volume on centralized exchanges which are estimated to be in the tens of billions USD in Vietnam each month (VN Express 2023). The shift towards digital assets, underscored by Vietnam's ranking in the top 5 of the Chainalysis Digital Asset Adoption Index for four consecutive years, reflects the robust engagement of Vietnamese retail investors with digital assets, even as they navigate a landscape with limited regulated institutional support. The high retail investor interest in digital assets provides an opportunity for Vietnam to develop its capital market and enhance financial inclusion, aligning with global trends towards increased retail investor influence. However, the absence of a regulated market infrastructure for digital assets, exemplified by the large volume of unregulated transactions, has resulted in a low level of investor protection.

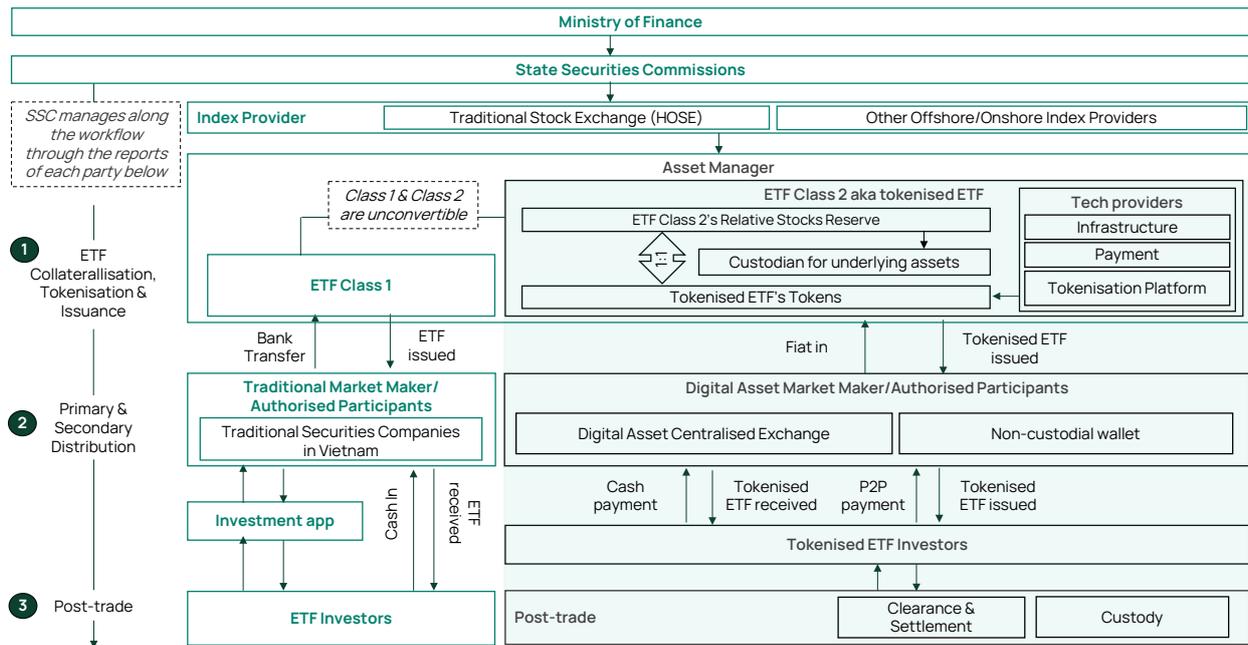
Figure E1: World-leading digital asset retail adoption in Vietnam



This whitepaper proposes a Pilot Project to digitize ETF products using blockchain technology (tokenised ETFs), creating innovative financial products backed by real-world assets and offered by regulated financial companies under regulatory oversight. This initiative aims to draw retail investors into regulated capital markets by marrying innovation with security, blending traditional financial products with the accessibility of digital assets. Figure E2 displays the overview of the tokenised ETF Pilot Project that includes the relevant stakeholders and layers.

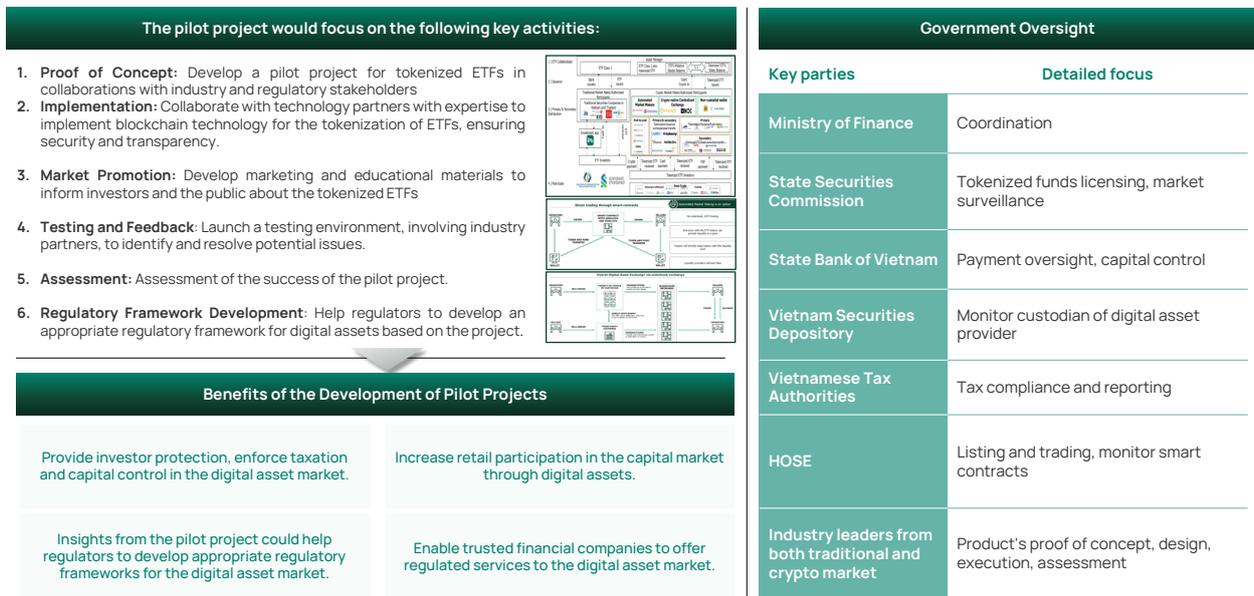
The substantial flow of transactions through centralized exchanges in Vietnam suggests that these platforms could become a focal point for regulatory supervision, ensuring adherence to Know Your Customer (KYC) and Anti-Money Laundering (AML) standards. Through tokenisation, we can bolster retail investor market participation, protect investor interests, and strengthen the financial system with regulatory frameworks. Regulators will have the ability to maintain the integrity of token issuance, oversee secondary market trading, regulate service providers, and safeguard retail investors.

Figure E2: The lifecycle and workflow of tokenised ETF



Moreover, regulatory oversight will enable the appropriate taxation of digital assets and the management of capital flows, thereby promoting a stable and inclusive financial market. This aligns with Vietnam's ambition to boost retail investor engagement in capital markets through a secure and transparent environment. Achieving this is crucial for the development of a mature capital market, which will assist Vietnam in becoming an international financial hub (Figure E3).

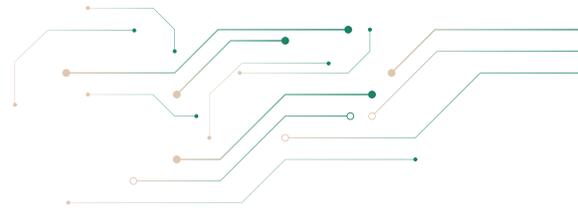
Figure E3: Proposal for fund tokenisation pilot project



Chapter 1 details the rise of digital asset adoption in Vietnam, highlighting the current regulatory and infrastructural deficiencies. Chapter 2 discusses how the tokenised ETF Pilot Project could augment the Vietnamese capital market by increasing investor participation, promoting financial inclusion and assist regulators in policy making. Chapter 3 delineates the specifics of the pilot project and examines the roles of pertinent stakeholders. Chapter 4 provides a concluding roadmap and summarizes the main activities to be undertaken.

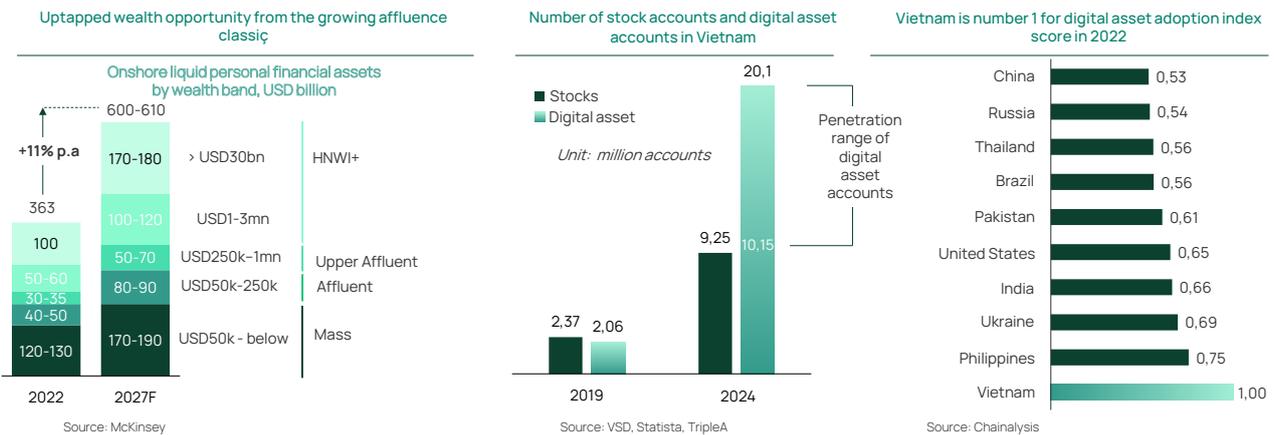
CHAPTER 1

VIETNAM'S WORLD-LEADING RETAIL DIGITAL ASSET ADOPTION



1.1 High growth of retail digital asset adoption in Vietnam

Figure 1: World-leading Digital Asset Retail Adoption in Vietnam



According to McKinsey (2021), Vietnam's economy has thrived in recent decades, leading to a rapid increase in wealth among Vietnamese households. This growth has spurred a demand for a broader range of investment products. Digital assets, in particular, have garnered significant interest from retail investors looking to diversify their portfolios and embrace higher risk opportunities to maximize their wealth.

One striking observation is that the number of stock accounts in Vietnam is likely significantly lower than the number of digital asset users as illustrated in Figure 1. As of 2024, the Vietnam Securities Depository (VSD 2025) reports approximately 9.25 million stock accounts in the country. In contrast, estimates of the total number of digital asset users in Vietnam show a wide range. Conservative figures from Statista (2024), which exclude the NFT (non-fungible token) market, suggest about 10.15 million users. More inclusive estimates from Triple A (2023), covering all types of digital asset accounts, indicate up to 20.1 million users.

This development is particularly significant when compared to the figures from 2019, where the number of stock accounts, reported at 2.37 million by the Vietnam Securities Depository (VSD 2024), was higher than that of digital asset users, which stood at 2.06 million according to Statista (2023). This trend highlights a marked shift in the investment preferences of Vietnamese investors towards digital assets.

This shift towards digital assets in Vietnam is particularly striking considering that these assets are not legally recognized in the country. This legal ambiguity has resulted in a significant lack of regulated institutional participation in providing essential services such as exchanges, custody, payment processing, and on- and off-ramp facilities for digital assets. Therefore, accessing digital asset services in the country poses challenges, as the current unregulated service providers, such as exchanges, typically do not maintain physical offices in Vietnam. Consequently, most services are offered exclusively online.

Nevertheless, Vietnam securing the top 5 position in Chainalysis' Digital Asset Adoption Index (2024) since 2021, and even at the 1st position for 2021 and 2022 indeed, highlights the country's significant role in the global adoption of digital assets. This Index, which assesses various factors such as the number of digital asset users, the presence of digital asset trading platforms, and the regulatory environment, all adjusted for GDP per capita, highlights Vietnam's substantial engagement in the digital asset market. The consistent top-ranking of Vietnam in this index underlines not only the country's significant embrace of digital assets but also reflects a marked shift in investment trends among its population, demonstrating a strong affinity for these emerging forms of investment.

1.2 Retail participation in the capital market is key for Vietnam to become an international financial hub

During the 13th National Congress of the Communist Party of Vietnam in 2021, government officials announced an important objective related to the financial market: transforming Ho Chi Minh City into an international financial hub by 2030. As strategies and plans are being formulated and executed, the potential of new digital technologies like Blockchain emerges as a pivotal factor in achieving this goal. The adoption and experimentation with Blockchain technologies by other international financial hubs such as Singapore, Hong Kong, Switzerland, Great Britain, Japan, and the USA underscore the Blockchain technology's significance (Cointelegraph 2022). These nations are integrating Blockchain into their financial systems not only to strengthen their positions as financial hubs but also to lay the foundation for a digital economy.

The existing high level of retail investor interest and adoption of digital assets in Vietnam presents a unique opportunity for the country. By embracing Blockchain technology, Vietnam can offer a wider array of financial products and enhance financial inclusion. These steps are critical for the development of the capital market in Vietnam and align directly with the country's objectives of becoming an international financial hub. Enhancing retail investor participation is indeed identified as a key trend and objective by the World Economic Forum (2022), acknowledging the growing influence of retail investors in capital markets. The increase in retail investor participation and enhanced financial inclusion can significantly contribute to Vietnam's aspiration to become an international financial hub through several factors:

- **Deepening Capital Markets:** For Vietnam to become a global financial hub, it needs deep and liquid capital markets. Retail investor participation can add depth and liquidity to these markets, making them more attractive to both domestic and international investors.
- **Economic Diversification:** By encouraging retail investment, Vietnam can diversify its economy beyond traditional sectors. This can lead to a more resilient economy, capable of withstanding global economic fluctuations, which is a key characteristic of a successful financial hub.
- **Strengthening Market Stability:** A broad base of retail investors can contribute to market stability. Unlike institutional investors, whose large trades can significantly impact markets, retail investors usually make smaller trades, reducing market volatility.
- **Promoting Financial Literacy and Inclusion:** Financial inclusion ensures that more individuals understand and can access financial products. This education can lead to better investment decisions, fostering a more knowledgeable and responsible investor base. For a financial hub, having a financially literate population is a significant asset.
- **Global Perception and Confidence:** A high level of retail investor participation can enhance Vietnam's reputation as a mature and diversified market. This is often a key consideration for international investors and institutions when they assess global financial centres.
- **Social and Economic Benefits:** Financial inclusion can lead to numerous social and economic benefits, such as poverty reduction and improved wealth distribution. These outcomes can contribute to a stable and prosperous socio-economic environment, which is essential for an international financial hub.

1.3 Lack of investor protection, taxation, capital controls and regulated market infrastructure

Despite Vietnam's impressive retail investor adoption of digital assets, the country faces significant challenges related to investor protection, proper taxation, and capital controls in the digital asset market. The lack of a clear and comprehensive regulatory framework and regulated institutional participation exposes investors to considerable risks, including fraud and market manipulation in the digital asset market. For example, the case involving crypto projects Modern Tech, Pincoin, and iFan, which allegedly defrauded Vietnamese investors of over \$600 million in 2018, highlights these vulnerabilities (Chau & Ha 2018). Numerous other cases have been accused of fraud in recent years, underscoring the urgent need for effective regulatory oversight to protect retail investors.

The ambiguity in tax regulations concerning digital assets in Vietnam presents a challenge for both retail investors and digital asset service providers. Without clear guidelines, it's uncertain whether gains from digital assets fall under taxable income. This uncertainty can lead to non-compliance, either inadvertently or deliberately, as both investors and service providers may not pay taxes due to the lack of regulatory clarity. This gap in the tax framework not only results in potential revenue losses for the state but also creates an uneven playing field within the financial markets. Addressing this issue is critical for Vietnam's financial system as it strives to become an international financial hub. Clear tax guidelines and consistent enforcement are fundamental components of a mature and equitable financial ecosystem, contributing to investor confidence and market stability.

The Chainalysis 2024 Global Cryptocurrency Adoption Index report, which reveals that Vietnamese users transacted over a hundred billion dollars using digital assets, highlights the significant role of digital assets in the country's financial landscape. This figure does not even include trading activities on centralized exchanges, meaning the hundred billion dollars represents actual value moved through digital assets. This volume of transactions is particularly striking when compared to Vietnam's total remittance receipts of only 14 billion dollars in 2023, according to Statista (2024). The sheer scale of digital asset transactions underscores their growing importance in the Vietnamese economy. However, the predominantly unregulated nature of these transactions poses potential risks. Without proper regulatory oversight, there could be challenges related to capital controls and the overall stability of the financial system.

The absence of regulations in Vietnam's digital asset market, leading to a lack of investor protection, clear taxation guidelines, and capital control mechanisms, is compounded by the total absence of regulated institutional market infrastructure. As a result, regulated financial institutions are currently unable to offer services to digital asset investors. This situation forces retail investors to turn to unregulated service providers, such as exchanges, custodians, and market on- and off-ramps. The growing size of the digital asset market in Vietnam underscores the importance of establishing a regulated market infrastructure. Such infrastructure is crucial for the sustainable development of the digital asset industry.

It would provide a secure, transparent, and stable environment for transactions, significantly reducing the risks associated with unregulated operations. Moreover, a regulated framework would likely attract more institutional investors, further contributing to market depth and stability. Establishing regulated market infrastructure would also enable better oversight, helping to prevent fraud, enhance investor protection, and ensure compliance with international standards. This move would be a significant step towards integrating digital assets into the formal financial system, thereby supporting the broader goal of Vietnam to become an international financial hub. Additionally, it would align Vietnam with global trends, where regulated digital asset markets are increasingly becoming the norm.

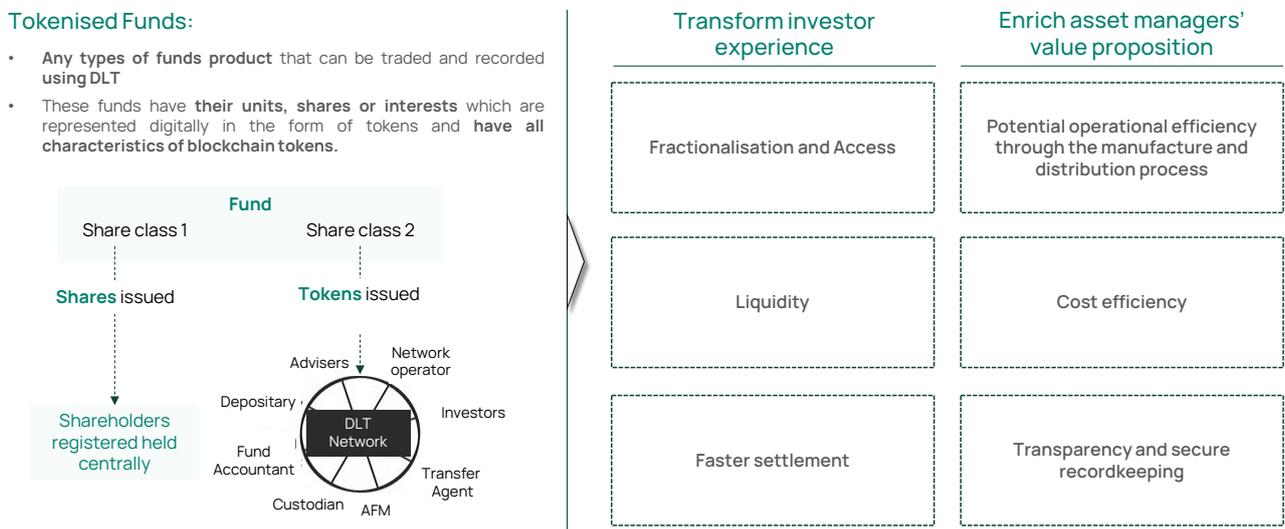
CHAPTER 2

FUND TOKENISATION FOR CAPITAL MARKET DEVELOPMENT IN VIETNAM: A PILOT PROJECT

2.1 Fund tokenisation could enhance retail participation in the regulated capital market

Given the significant adoption of digital assets by retail investors in Vietnam, the potential for bringing real-world assets (RWAs) onto the blockchain through tokenisation, enabling retail investors to participate in the regulated capital market, is immense. The tokenisation of RWAs effectively maps these assets onto the blockchain, transforming them into a new type of digital asset with foundations in the real financial world. This new category of tokenised assets can merge the accessibility for retail investors with regulated financial products from the traditional financial system, offering a unique blend of innovation and security (Samaties 2023). Therefore, in this whitepaper, we propose a pilot project to tokenize an Exchange Traded Fund (ETF), given its status as an established financial product well-known to retail investors. In the subsequent sections, we will outline the rationale behind this proposal, detail the setup of such a project, and identify the key stakeholders involved. This approach aims to bridge the gap between traditional investment methods and innovative digital asset technologies, offering a unique opportunity to enhance retail capital market participation and enhance financial inclusion (Finance Magnates 2023).

Figure 2: How tokenised funds benefit retail investors and enhance financial inclusion in the capital market



The concept of tokenisation can be applied to a wide variety of different funds as well as other real-world assets. In this proposal we focus on the tokenisation of an Exchange Traded Fund (ETF), since ETFs are well established financial products. The tokenised ETF could several advantages for retail investors in Vietnam:

- Lower Investment Thresholds:** Tokenisation allows for fractional ownership of ETFs, enabling investors to buy tokens representing smaller portions of the fund. This lowers the entry barrier, making it more accessible for retail investors who may not have the capital to invest in whole shares of an ETF.

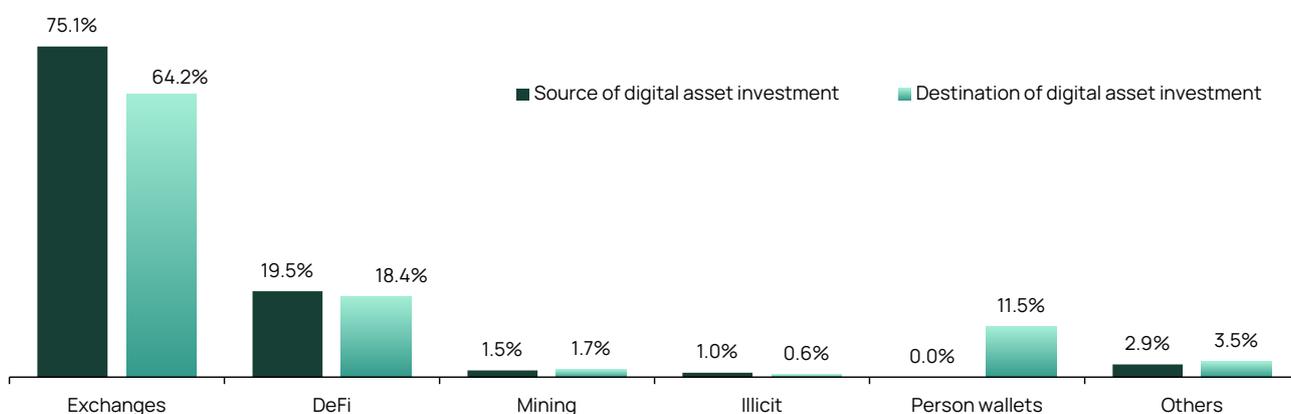
- **Increased Liquidity:** Tokenised ETFs can be traded on secondary markets similar to cryptocurrencies, potentially offering higher liquidity compared to traditional ETFs. This means retail investors can more easily enter and exit positions.
- **Enhanced Accessibility:** The digital nature of tokenised ETFs simplifies the transaction process, making it more accessible, especially for those who are already familiar with digital assets. This can encourage more participation in the investment market.
- **Diversification Opportunities:** ETFs are known for offering diversified investment portfolios. Tokenisation can further broaden these opportunities, allowing retail investors to diversify their investments across various assets with smaller amounts of money.
- **Transparency and Security:** Leveraging blockchain technology ensures transparency and security in transactions. Every transaction is recorded on a blockchain, providing a clear, tamper-proof audit trail.
- **Reduced Costs and Fees:** Tokenisation can streamline the process of buying and selling ETFs, potentially reducing transaction costs and management fees. This cost efficiency can be particularly attractive to retail investors.
- **Real-time Trading:** Unlike traditional ETFs, which are traded at the end-of-day net asset value, tokenised ETFs can potentially be traded in real time, providing more flexibility and immediate response to market movements.

In conclusion, tokenised ETFs present a novel and efficient way for retail investors in Vietnam to participate in the investment market, combining the advantages of traditional ETFs with the innovative features of blockchain technology.

2.2 Oversight over the tokenised fund products & digital assets

Figure 3, illustrating the sources and destinations of digital assets in Vietnam, provides valuable insights into the flow of these assets among Vietnamese users. It reveals that a significant portion of digital asset transactions in Vietnam involve centralized exchanges. Specifically, 75% of the sources of digital assets are from centralized exchanges, and 64% of the destinations for these assets are also centralized exchanges (Statista 2023). Since the data indicates that a significant portion of digital asset transactions in Vietnam occurs through exchanges, regulators could potentially exercise oversight over the majority of these transactions by focusing on centralized exchanges.

Figure 3: Digital asset source and destination in Vietnam (source: Chainalysis 2022)



While tokenised fund products must adhere to traditional financial market regulations such as Know Your Customer (KYC) and Anti-Money Laundering (AML) requirements, they have the potential to reach a segment of investors who have previously not engaged with the traditional capital market. The appeal of tokenised funds lies in their ability to bridge the gap between the innovation of digital assets and the regulated framework of conventional finance. By offering a more accessible and flexible entry point, these products can attract individuals who are comfortable with digital technology and are looking for alternative investment opportunities outside the traditional market offerings. This can lead to increased participation and investment from a wider, more diverse investor base, further contributing to the depth and resilience of the financial market.

In the context of fund tokenisation, regulators can play a crucial role in overseeing various aspects of the process, which can have significant benefits:

- **Oversight of Token Issuance:** Regulators can monitor the issuance of tokens to ensure that they comply with securities laws and other financial regulations. This includes verifying the legitimacy of the underlying assets, ensuring proper disclosure of risks and terms, and checking compliance with investor protection laws. By doing so, regulators can help prevent fraudulent activities and protect investors from potential scams.
- **Regulation of Secondary Market Trading:** By overseeing trading on centralized exchanges where tokenised funds are bought and sold, regulators can ensure market integrity and fairness. This includes monitoring for market manipulation, insider trading, and ensuring that the exchanges meet certain operational and security standards. Proper regulation of these platforms is crucial to maintain investor trust and market stability.
- **Supervision of Service Providers:** Regulators can oversee service providers involved in tokenised funds, such as custodians, wallet providers, and payment processors. This ensures that these entities adhere to standards for security, transparency, and customer protection, which is essential for safeguarding investor assets and maintaining orderly market conditions.
- **Protection of Retail Investors:** Through these regulatory measures, the interests and rights of retail investors can be better protected. Ensuring that tokenised funds and their trading platforms are safe, transparent, and compliant with regulations helps in building investor confidence and promoting a healthier investment environment.
- **Control of Capital Flows:** Regulatory oversight can also help in monitoring and controlling capital flows in and out of tokenised funds. This is important for financial stability and can aid in preventing illicit activities like money laundering or capital flight.
- **Enabling Taxation of Digital Assets:** With a clear regulatory framework, tokenised assets can be appropriately taxed, which is beneficial for both revenue generation and the establishment of a level playing field with traditional financial instruments.
- **Increasing Retail Participation in Capital Markets:** By creating a regulated and secure environment for tokenised funds, more retail investors may be encouraged to participate in the capital market. The accessibility and efficiency offered by tokenisation, combined with regulatory safeguards, can attract a broader spectrum of investors, including those who may have been hesitant to engage with traditional investment avenues.

In summary, fund tokenisation does not circumvent regulation; instead, it presents regulators with an opportunity to protect investors, enforce taxation, and implement capital controls more effectively. By embracing the potential of blockchain technology within a regulated framework, tokenisation can enhance transparency, security, and efficiency in financial markets.

2.3 Potential market size of fund tokenisation in Vietnam

2.3.1 Case studies of tokenised funds abroad and potential demand in Vietnam

Figure 4, showcasing examples of tokenised funds, reflects the growing interest and experimentation among traditional financial institutions and regulators in this innovative approach. A notable instance is the collaboration between the Monetary Authority of Singapore and UBS, where they are working together to tokenize a variable capital company (VCC) fund on the Ethereum Blockchain. This collaboration is a significant example of how traditional financial entities and regulatory bodies are exploring the potential of blockchain technology to modernize and enhance financial products, aligning with the evolving dynamics of the global financial landscape

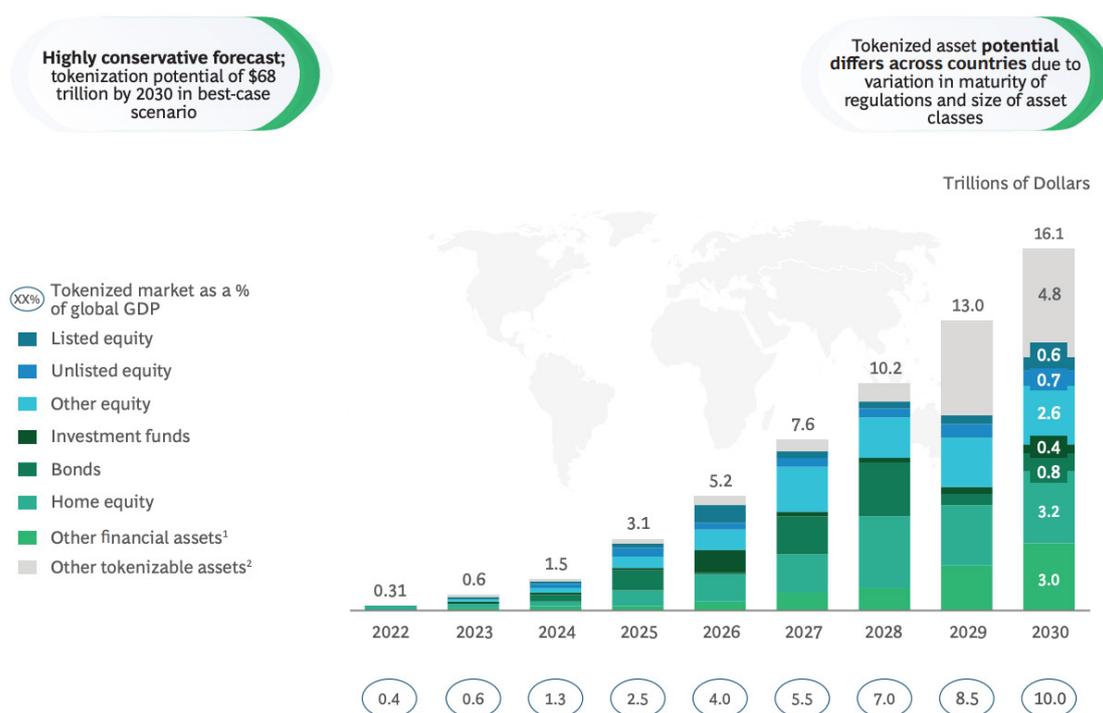
Figure 4: Case studies of fund tokenisation

Institutions	Fund name	Tech provision	Chain in use	Target Investor	Fund Size	MM
UBS Asset Management, Monetary Authority of Singapore (MAS)	Tokenized Variable Capital Company (VCC) fund	UBS's in-house tokenization platform	Ethereum	Accredited investors with or an income of more than \$200,000	A USD 50 million tokenized fixed-rate bond issued in Dec 2022 and over USD 28 million of tokenized structured notes in 2023	N/A
KKR	Health Care Strategic Growth Fund II (Private equity)	Securitize	Avalanche	Accredited investors with a net worth of more than \$1 million or an income of more than \$200,000	USD 200 million	N/A
Hamilton Lane	Equity Opportunities Fund V (Private equity)	Securitize	Polygon	Individuals to access historically high-performing private equity asset class, with minimum investments reduced from an average of \$5 million to just \$20,000	USD 2.1 billion	N/A
Partners Group	Tokenized Private Equity	ADDX	Ethereum	Investors who participate through digital tokens on ADDX can also trade them daily on the ADDX exchange	USD 200 million	N/A
Vanguard	Tokenized S&P500 ETF	Symbiont, Coinbase	Ethereum	Anyone	USD 150 million	The Valley Forge, Symbiont, an unnamed U.S. ABS issuer, BNY Mellon, Citi and State Street
BlackRock	BlackRock USD Institutional Digital Liquidity Fund (BUIDL)	Securitize	Ethereum	Accredited investors with a minimum investment of \$100,000	USD 520 million (as of Sept 2024)	N/A

2.3.2 Potential for tokenised ETFs and investor demand in Vietnam

The potential market size for fund tokenisation in Vietnam is substantial. As the technology matures and gains broader acceptance, it is poised to attract a diverse range of investors, from retail to institutional, leading to considerable growth in the country's capital market. According to a study by the Boston Consulting Group (2022), the global tokenised securities market is projected to exceed \$16 trillion by 2030 (see Figure 5). This projection indicates a significant opportunity for the Vietnamese capital market to engage in this digitalization trend of the financial market, which could be a key driver in its development into an international financial hub.

Figure 5: Market size of fund tokenisation from 2022 to 2030

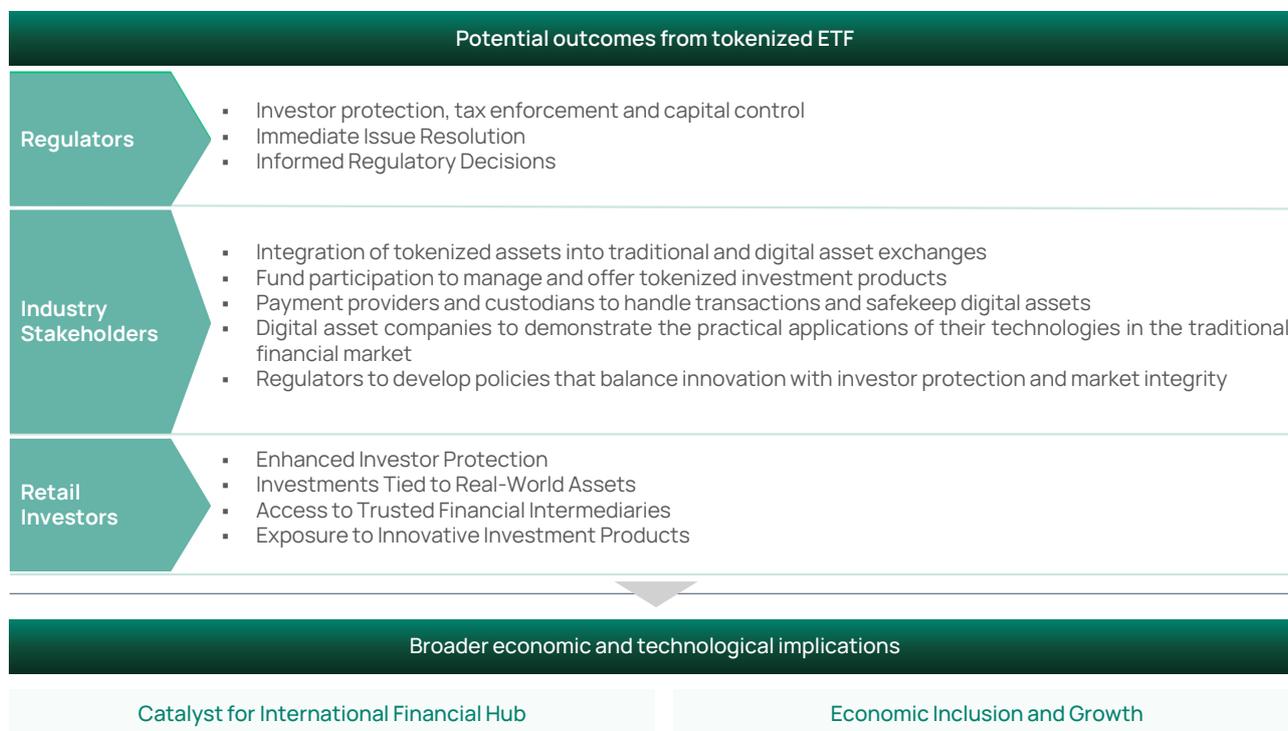


The tailwind and enthusiasm of Vietnamese retail investors in the digital asset market is a promising sign that tokenised digital assets may meet substantial investor demand. Nevertheless, the adoption of tokenised funds in Vietnam hinges significantly on educational levels and efforts about that digitalization of financial products. To encourage incremental participation, it is imperative to establish diverse educational channels and activities that empower individuals with the knowledge and understanding needed to navigate this evolving financial landscape. These educational initiatives should encompass a range of resources, including online courses, seminars, webinars, and informational content. Examples can be drawn from historical experience when new financial products were introduced into the Vietnamese capital market. For example, the launch of ETFs was accompanied by great educational efforts to establish the ETFs as they are today in the capital market.

More importantly, the involvement and collaboration of regulated financial institutions and regulatory bodies are crucial in providing the necessary trust, insights, and guidance for potential retail investors, particularly in a market like Vietnam where the population is increasingly tech-savvy and demands digital, accessible investment options (Vietnam Law & Legal 2022). Especially among younger generations, there is a growing interest in innovative investment methods, making tokenised funds an attractive option due to their alignment with preferences for instant trading, reduced costs, and global accessibility. However, the current landscape in Vietnam's digital asset market is challenged by a lack of regulations and the limited participation of regulated financial institutions. This gap has exposed Vietnamese investors to significant risks, including financial frauds and market manipulation. Additionally, the difficulties in transitioning into and out of the digital asset market (the on- and off-ramp challenges) further complicate the situation.

2.3.3 Potential outcome of the Pilot Project of tokenising an ETF

Figure 6: Potential outcome of ETF tokenisation



The proposed pilot project of tokenising an ETF could bring the following benefits to regulators, industry stakeholders and retail investors:

- ▶ **For regulators**, overseeing activities related to tokenised ETFs – including filings, primary issuance, secondary trading, and redemption processes – along with monitoring associated private stakeholders like exchanges, funds, payment providers, and custodians, will grant them greater control over and insight into the digital asset market. This enhanced oversight is crucial for several reasons:
 - **Investor protection, tax enforcement and capital control:** Overseeing activities related to tokenised Exchange Traded Funds (ETFs) offers regulators a comprehensive approach to managing the digital asset market, focusing on critical aspects such as investor protection, tax enforcement, and capital controls. By closely monitoring the issuance and trading of tokenised ETFs, regulators can ensure compliance with investor protection laws. This involves verifying the accuracy and transparency of disclosures regarding risks, fund performance, and associated fees, as well as ensuring that the funds are managed with the investors' best interests in mind. In terms of taxation, the transparency and traceability afforded by tokenised ETFs provide regulators with an effective means to track and enforce taxes on gains derived from digital asset transactions. Furthermore, the oversight of tokenised ETFs enables regulators to maintain capital controls effectively. By monitoring the flow of funds into and out of these ETFs, regulators can ensure adherence to capital control regulations, which is crucial for preventing illicit financial flows and maintaining the overall stability of the national financial system.
 - **Immediate Issue Resolution:** By closely monitoring the activities related to tokenised ETFs, regulators can swiftly identify and address any issues that arise in the digital asset market. This proactive approach ensures that problems are tackled before they escalate, thereby maintaining market integrity and investor confidence.

- **Informed Regulatory Decisions:** Engaging directly with tokenised ETFs and their stakeholders allows regulators to gain firsthand experience with these new financial products. This practical exposure is invaluable for understanding the nuances and unique challenges of the digital asset market. The insights gained from overseeing tokenised ETFs can inform the development of formal regulations. Regulators can use this experience to craft rules and guidelines that are both effective and tailored to the specific needs and characteristics of the digital asset market. Regulators' experience with tokenised ETFs can also aid in the establishment of a regulatory sandbox. Such a controlled environment allows for testing and refinement of regulations in a real-world context, enabling the safe and controlled experimentation of new financial products and services.
- ▶ **For industry stakeholders** like exchanges, funds, payment providers, custodians and digital asset companies, engaging in the pilot project of tokenizing ETFs in Vietnam offers numerous benefits. Participation in this initiative allows them to experiment with new technologies in a practical setting, providing valuable insights into the operational and technical aspects of blockchain and tokenisation:
- **For traditional and digital asset exchanges,** this project offers an opportunity to be at the forefront of integrating tokenised assets into their platforms, potentially attracting a new segment of investors interested in digital assets. It enables them to develop and refine the necessary infrastructure to handle tokenised ETFs, setting the stage for future expansions into other tokenised assets.
 - **Funds:** participating in this project gain firsthand experience in managing and offering tokenised investment products. This exposure can be invaluable in understanding investor behaviours and preferences regarding digital assets, thereby informing future product development and marketing strategies.
 - **Payment providers and custodians** involved in the project can explore innovative solutions for handling transactions and securely storing digital assets. This experience is crucial for adapting to a financial ecosystem that increasingly incorporates blockchain technology and digital assets.
 - **For digital asset companies,** this pilot project provides an opportunity to demonstrate the practical applications of their technologies in the traditional financial market. It allows them to showcase the benefits of blockchain and tokenisation to a wider audience, potentially leading to increased adoption and acceptance.
 - Moreover, by **working within regulatory guidelines,** these stakeholders can contribute to shaping the evolving regulatory landscape for digital assets. Their participation and feedback can assist regulators in developing policies that balance innovation with investor protection and market integrity.
- ▶ **For retail investors** in Vietnam, participating in a tokenised ETF pilot project offers several key benefits, especially in the context of the digital asset market:
- **Enhanced Investor Protection:** Tokenised ETFs, especially those part of a regulated pilot project, provide a safer investment environment in the digital asset space. Regulatory oversight ensures that these products adhere to investor protection standards, reducing the risks associated with fraud and market manipulation that are often present in unregulated digital asset markets.
 - **Investments Tied to Real-World Assets:** Tokenised ETFs allow investors to engage with digital assets whose value is derived from real-world financial assets. This linkage offers a tangible connection to the traditional financial market, potentially reducing the volatility and speculative nature often associated with purely digital assets.
 - **Access to Trusted Financial Intermediaries:** By investing in tokenised ETFs, retail investors can utilize the services of established and trusted financial intermediaries. This is a significant shift from relying on unregulated companies and peer-to-peer (P2P) platforms, which may carry higher risks and less accountability. Traditional financial institutions often have a track record of reliability and are subject to stringent regulatory standards, offering a layer of security and professionalism.
 - **Exposure to Innovative Investment Products:** Participation in a tokenised ETF pilot project enables retail investors to experience innovative investment products that merge the benefits of traditional ETFs with the efficiencies of blockchain technology. This includes potentially lower transaction costs, greater transparency, and improved liquidity.

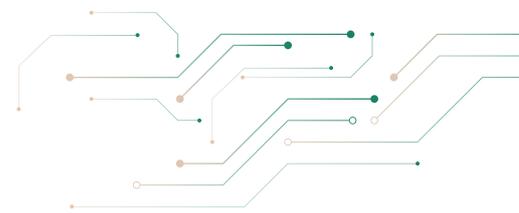
► Broader Economic and Technological Implications

- **Catalyst for International Financial Hub:** The tokenisation project can act as a catalyst for broader digital transformation in the financial sector, encouraging the adoption of blockchain technology to enhance the capital market development and retail investor participation. This directly contributes to the country's goal of becoming an international financial hub.
- **Economic Inclusion and Growth:** By lowering entry barriers and transaction costs, the project can contribute to greater financial inclusion, potentially stimulating economic growth and innovation.



CHAPTER 3

TOKENISED ETF LIFECYCLE AND WORKFLOW IN VIETNAM



3.1 Parties involved in the pilot project of tokenised ETF

Piloting tokenised ETFs in Vietnam would require collaboration and involvement from various parties to ensure its successful implementation. Here are the key parties in this process:

- **Regulator:** The Ministry of Finance (MoF) and State Securities Commission (SSC) are instrumental in coordinating the pilot project overseeing and monitoring the operations of the pilot project as well as engaging with relevant stakeholders.
 - **Index providers:** The Ho Chi Minh Stock Exchange (HOSE) would be key in facilitating the index provision for the tokenised ETFs.
 - **Asset Management Companies:** The asset management firms would be responsible for creating and managing the tokenised ETFs. They would need to design investment strategies, manage the underlying assets, and ensure compliance with investment guidelines and regulatory requirements.
 - **Custodians:** Custodian banks or financial institutions would play a critical role in safeguarding the underlying assets of the tokenised ETFs. They would ensure the safe storage and transfer of digital assets, reducing the risk of theft or fraud.
 - **Payment providers:** Banks and financial institutions can support the tokenised ETF ecosystem by offering services such as payment processing of tokenised ETF transactions.
 - **Digital asset exchanges:**
 - Engage in primary listing and facilitate trading in the secondary market for the tokenised ETF.
 - Act as market makers and liquidity providers for the tokenised ETF.
 - Complete the KYC for investors buying and selling tokenised ETF.
- Moreover, some other involved stakeholders could include:
- **Blockchain and Technology Providers:** Companies specializing in blockchain technology and digital asset management systems would be essential in developing the technology infrastructure for tokenised ETFs.
 - **Auditors and Accounting Firms:** Independent auditors and accounting firms can provide assurance and transparency in the management and reporting of the assets held by the tokenised ETFs. Their audits can instill confidence in the fund's financial health.
 - **Educational Institutions and Industry Associations:** Organizations specializing in finance and blockchain technology education can contribute by offering training programs and resources to ensure that all parties involved understand the complexities and benefits of tokenised ETFs. Industry associations can also provide guidelines and best practices.
 - **KYC/AML providers:** Help issuers comply with securities regulation requirements in an automated instead of a traditional manual one.
 - **Legal service providers:** Assist in submitting regulatory filings and structuring the token offerings.

Collaboration among these parties is crucial for a successful pilot program for tokenised ETFs in Vietnam. Each party plays a specific role in the ecosystem, and their cooperation can help establish a thriving market for these innovative financial products.

3.2 Lifecycle and process of tokenised ETF

Ecosystem Assembly

Figure 7: Overview of the tokenised ETF

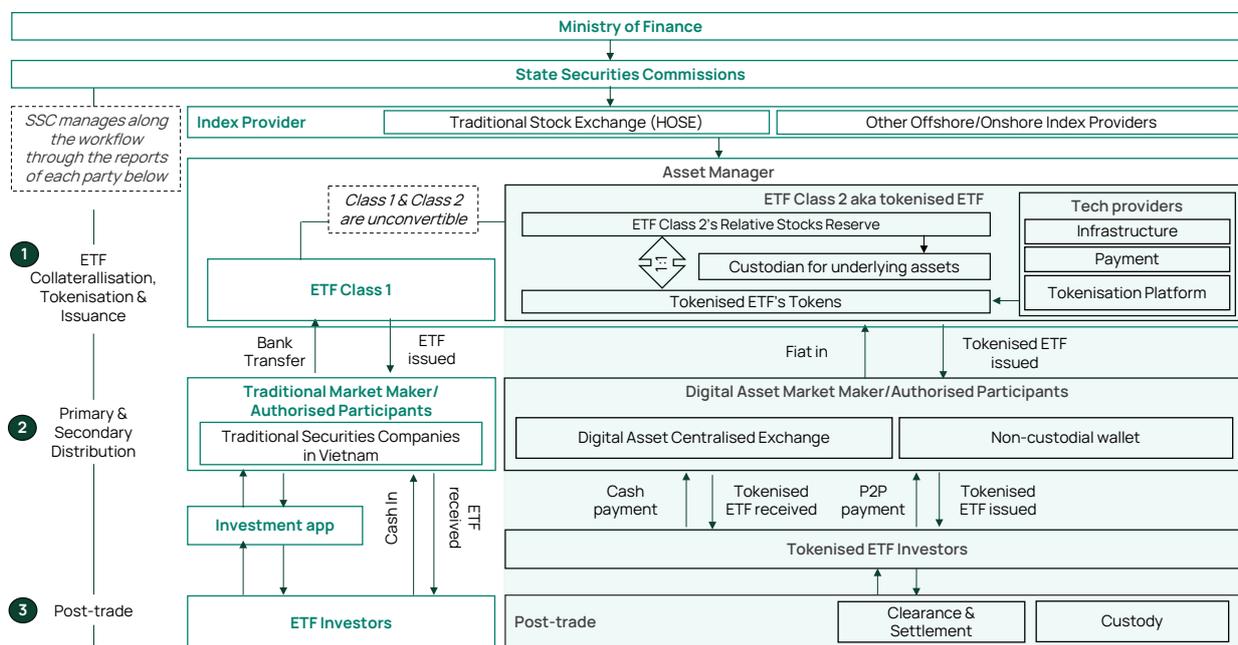


Figure 7 illustrates the overview of the tokenised ETF pilot project involving the key stakeholders and steps. The tokenised ETF life cycle in Vietnam involves a structured process overseen by the Ministry of Finance with the State Securities Commission (SSC) to ensure regulatory compliance. In the following we will explain the three main steps including (1) ETF collateralisation and issuance, (2) primary and secondary distribution and (3) post-trade.

The workflow begins with collaboration between the asset manager and an index provider, which can be an onshore entity like the traditional stock exchange (e.g., HOSE). Two distinct classes of ETF are established: ETF Class 1 mirrors traditional ETF structures, while ETF Class 2 is tokenised.

To initiate the tokenised ETF, a relative stock reserve is stored at a bank custodian and is collateralized at a 1:1 ratio with the token. Utilizing ERC-1400 Blockchain token is highly recommended for token standard, as it is more flexible in terms of recovery mechanism, KYC and AML features. The asset manager collaborates with technology providers and tokenisation platforms to develop smart contracts, determine tokenomics based on the prospectus, and select a platform for token issuance.

Distribution of tokens involves cooperation with primary digital asset market makers or authorized participants. Initially, focus is placed on partnerships centralized exchanges operating in Vietnam and non-custodial wallets, aligning with KYC requirements prevalent in these platforms, where over 70% of digital asset capital flows in Vietnam are concentrated. This approach ensures government oversight and regulation compliance.

Subsequently, Vietnam-based digital asset centralized exchanges and non-custodial wallets handle the distribution of tokens to investors through secondary trading. On-ramp and off-ramp methods could include bank payment channels and mobile wallets. After acquiring the tokens, investors have the flexibility to choose custody and settlement methods tailored to their preferences, securing and managing their assets effectively within the tokenised ETF framework.

Tokenised ETFs represent a significant innovation in the world of investment. In Vietnam, as in many other countries, the preparation for the issuance, primary and secondary distribution, post-trade asset management, and redemption of tokenised ETFs requires careful consideration of various factors. In the following, we will explore the intricacies of these processes, from blockchain network selection to smart contract setup, legal considerations, and the role of different market participants in ensuring the success of tokenised ETFs in Vietnam.

3.2.1 Preparation and origination of collateralization and issuance of tokenised ETF

Figure 8: Key building blocks of tokenised ETF

#	Details
1	The choice of and requirement for blockchain network (e.g., public/private, permissioned/permissionless)
2	The information to be encoded in the token (e.g., the private placement memorandum and compliance requirements for the transfer of tokens)
3	Smart contracts setup for the tokens

3.2.1.1. Blockchain network type

The selection of a suitable blockchain network is pivotal. Ethereum and Ethereum-compatible Blockchain networks are commonly used for tokenised ETFs. The choice depends on factors like flexibility, security, scalability, and developer support.

3.2.1.2. Security token creation

Figure 9: Different token standards' considerations for tokenised ETF

ERC-20 Standard	ERC-1400 Standard	ERC-721 Standard	ERC-1155 Standard
Fungible tokens (e.g. ETH, MKR, UNI)	Security tokens	Non-fungible token standard (e.g. CryptoKitties)	Fungible and non-fungible token standard (e.g. ENJIN NFTs)
Transfer of value between users	Transfer of value between users without losing the holder's identity	Transfer of rights	Transfer of value or rights
No KYC/AML	In-built KYC and AML	Built-in KYC and AML	Built-in KYC and AML
No recovery mechanism	Recovery mechanism available	Recovery mechanism - when false address - return to the wallet + only 2-step transaction	Recovery mechanism available
	ERC-20 compatible	Partially ERC-20 compatible	Partially ERC-20 compatible, ERC-721 compatible
Minting and burning available	Minting and burning available	No minting/burning	Minting and burning available

The next step after ecosystem assembly is to configure the token to represent the asset. Coding and programming a token's characteristics and the related smart contracts are critical in a successful tokenisation process.

Overall, the most commonly used Blockchain token type/standard for securities tokenisation is the ERC-1400 Standard that allows for more flexibility in terms of recovery mechanism, KYC and AML.

3.2.1.3. Compliance setup and KYC

Figure 10: Onboarding digital asset users into regulated traditional financial products through lower KYC barriers



Onboarding digital asset users into regulated traditional financial products: Digital asset exchanges in Vietnam can leverage their existing Know Your Customer (KYC) processes to facilitate access to tokenised Exchange-Traded Funds (ETFs). This strategy capitalizes on the significant user base of digital asset platforms compared to traditional stock investors in Vietnam. By utilizing KYC data already collected by these exchanges, which is compliant with securities laws, users verified on these platforms can be swiftly enabled to acquire and trade in tokenised ETFs. The potential for tapping into an additional retail investor base, as highlighted in Chapter 1, could encompass millions of users. This significant number underscores the vast opportunity presented by simplifying access to financial products through digital asset platforms.

This approach offers several advantages:

- **Streamlined Access:** The KYC process, often a barrier to entry in financial markets, is already completed for a large number of digital asset users. This removes a significant hurdle for users interested in diversifying into traditional financial products like ETFs.
- **Compliance with Securities Law:** Utilizing KYC data that complies with securities law ensures regulatory requirements are met, particularly concerning anti-money laundering (AML) and counter-terrorism financing (CTF) standards.
- **Market Expansion:** This strategy can significantly broaden the market base for traditional financial products. Digital asset users, who may not typically engage with traditional financial markets, are given an accessible pathway to invest in these products.
- **Financial Inclusion:** Enabling a broader segment of the population to access diversified investment products aligns with the broader goal of financial inclusion. This is particularly relevant in Vietnam, where the digital asset market has seen substantial growth.

In conclusion, leveraging existing KYC data from digital asset exchanges to enable trading in tokenised ETFs represents a strategic approach to expand the reach of traditional financial products in Vietnam. This strategy not only aligns with regulatory standards but also promotes financial inclusion by tapping into a previously untapped investor base.

The option to onboard the next segment of digital asset users through simplifying the KYC barriers:

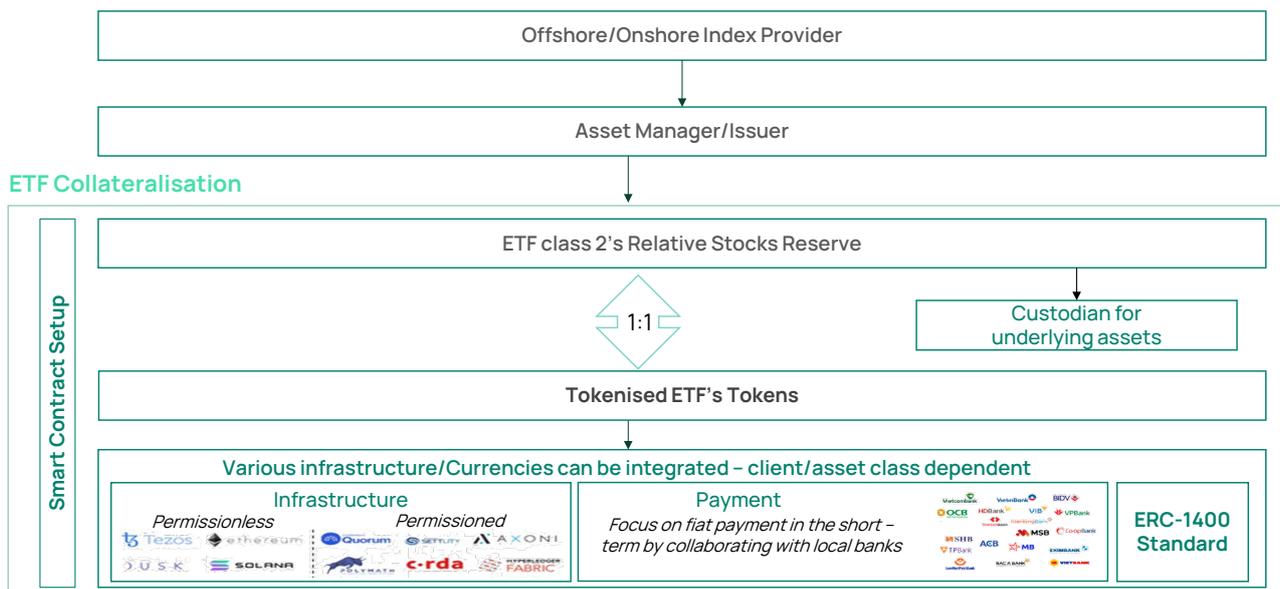
To expand the user base in the digital asset market even more, there is the option to expand the next phase of this pilot project focusing on further onboarding digital asset users via centralized exchanges. This phase could allow different parties to simplify KYC barriers, thereby enhancing accessibility for new participants. Simplifying the KYC process could draw in users who may otherwise be deterred by the complexity or daunting nature of traditional KYC requirements.

- **Simplifying KYC Barriers:** Simplifying the KYC process can be a significant draw for new users. By reducing the complexity and time required for KYC verification, more users may be inclined to explore investment opportunities in tokenised ETFs.
- **Pilot Project for Reduced KYC Requirements:** Implementing a pilot project that allows for lower KYC requirements specifically for tokenised ETF users could be a strategic move. This pilot can serve as a testbed to assess the viability and impact of reduced KYC norms on market participation and regulatory compliance.
- **Increased Retail Investor Participation:** Lowering entry barriers is likely to attract a broader segment of retail investors to the traditional capital market. Tokenised ETFs offer an innovative and potentially more relatable investment option for digital asset users, bridging the gap between the digital asset market and traditional financial instruments

3.2.1.4. Smart contract setup

Collateralization ensures that tokenised ETFs have sufficient backing. This could involve holding a reserve of the underlying assets in a custodian's vault or using other collateral mechanisms like over-collateralization. Smart contracts are at the heart of tokenised ETFs. They define the rules for issuance, redemption, and management. These contracts need to be carefully audited to ensure that they function as intended and are free from vulnerabilities.

Figure 11: The mechanism on the token creation and pegging system of tokenised ETF

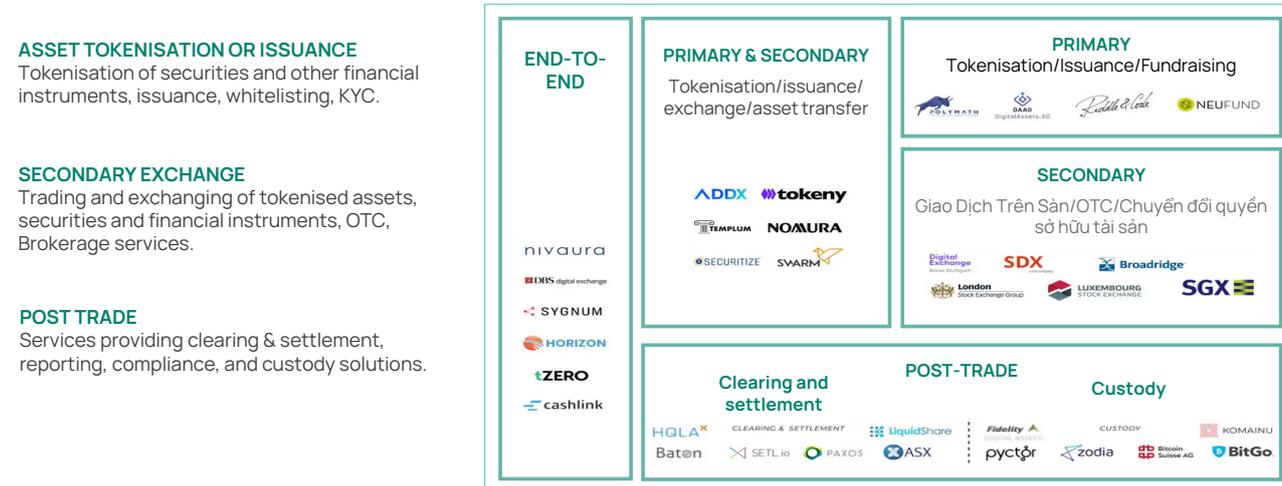


For the step of ETF collateralization, smart contract setup should be as follows:

- The code must include the creation and redemption process done by authorized participants.
- The smart contracts must code all the rules that the fund follows, which index it will track, how often it will be restructured, and which rules will be followed in such restructuring.
- Since ETFs conduct all their process based purely on rules, they are the best kind of fund to be tokenised.

Tokenisation platform service providers could help the issuance preparation of tokenised ETF by assisting the asset managers to collaborate with blockchain infrastructure providers, KYC providers, and then, select the best-fitted token standard together with the setup of relative smart contracts.

Figure 12: Asset tokenisation ecosystem



3.2.2 Tokenised ETF primary and secondary distribution

3.2.2.1 General token distribution

Token distribution is the process of transferring tokens to their intended recipients. This process is like a primary issuance and usually proceeds as follows. First, interested investors transfer funds to an entity in charge of the distribution process, usually a broker-dealer. Once the external broker-dealer receives the funds, it requests the custodian holding the tokens to transfer them to the investor's private wallet or custodian. Once the investor gets the token, the issuer instantly receives the payment of the retained funds by the broker-dealer. This process resembles the traditional distribution of securities but is cheaper and quicker. It is also more secure due to using a unique, immutable, and public transaction record through blockchain, which is the only source of truth against any agent's complaints. Therefore, the asset distribution process through blockchain technology provides automated, transparent, and reportable transactions during the initial and future token distribution processes.

During the token distribution process, the pilot project will initiate a bidding process to select an exclusive issuer. The chosen issuer will be presented with specific pricing, minting, control, and custody opportunities. This distribution framework empowers the exclusive issuer to establish pricing tiers for their tokens based on arrival orders and market demand. Moreover, it enables the issuer to allocate tokens to various potential stakeholders, including market makers, liquidity providers, authorized participants, and digital asset centralized exchanges. Furthermore, the token distribution mechanism facilitates the transfer of tokens in exchange for funds in any currency, be it fiat or digital assets, as determined by the issuer. Regarding token minting, the issuer has the flexibility to pre-establish a set of requirements, such as intended recipients or selling restrictions. The process ensures transparency and visibility of records, providing significant control to the exclusive token issuer and other stakeholders. Ultimately, the issuer and investors can collaborate to establish a custody service that securely holds tokens throughout the token distribution process.

3.2.2.2 Primary distribution

The primary distribution of tokenised Exchange-Traded Funds (ETFs) in Vietnam represents a pivotal stage in the lifecycle of these innovative financial instruments. In the following, we will explore the roles of market makers, authorized participants, and liquidity providers, highlighting their significance in the primary distribution process. We will also examine key players in both the digital-asset-native and traditional sectors, including exchanges, brokerages, and custodians, to gain a comprehensive understanding of the primary distribution setup for the pilot project.

▶ [The Role of Market Makers & Authorized Participants](#)

- **Market Makers/Liquidity Providers:** Market makers play a crucial role in the primary distribution of tokenised ETFs. They are entities that provide continuous bid and ask prices for these assets, ensuring liquidity in the market. Market makers stand ready to buy or sell tokenised ETF shares, facilitating transactions between investors.
- **Authorized Participants:** Authorized participants (APs) are entities that work directly with the issuer of the tokenised ETF to create and redeem shares of the ETF. When new shares of the ETF need to be issued, or when investors want to redeem their shares for the underlying assets, APs facilitate this process. They usually work in large quantities, creating or redeeming ETF shares based on the net asset value (NAV) of ETF. In Vietnam, APs are essential for creating and redeeming tokenised ETF shares efficiently, ensuring that the ETF's market price closely tracks its NAV.

▶ [Key Players in Primary Distribution](#)

Digital Asset Exchanges, Brokerages, and Custodian Landscape:

- **Digital Asset Exchanges & Brokerages:** Exchanges specializing in digital assets, are pivotal in the primary distribution of tokenised ETFs. These exchanges offer the trading infrastructure for these assets, allowing investors to buy and sell tokenised ETF shares. Brokerage platforms provide investors with a user-friendly interface to trade digital assets, including tokenised ETFs. They may also offer advisory services to help investors navigate the complexities of these innovative financial instruments. Digital asset exchanges usually also provide brokerage services.
- **Digital Asset Custodians:** Custodians in the digital asset landscape play a vital role in the secure storage of digital assets. They hold the reserve assets of tokenised ETFs, ensuring that they are safeguarded from theft or loss.

3.2.2.3 Secondary distribution

The secondary distribution of tokenised ETFs in Vietnam represents a critical phase in their lifecycle, as it allows investors to trade these assets in the open market. In the following, we will delve into the secondary distribution through centralized exchanges. Additionally, we will explore the roadmap for Vietnam in navigating these distribution channels to ensure a seamless and secure trading environment for tokenised ETFs. There are three main ways through which investors can acquire the tokenised ETFs including (1) buying directly from the centralized exchanges, (2) buying/selling in the P2P marketplace provided by the centralized exchanges and (3) trade other digital assets for the tokenised ETFs. In the following, the steps for each method is presented.

▶ Investors buy directly from the centralized exchanges:

Figure 13A: How retail investors buy ETF tokens from the centralized exchanges

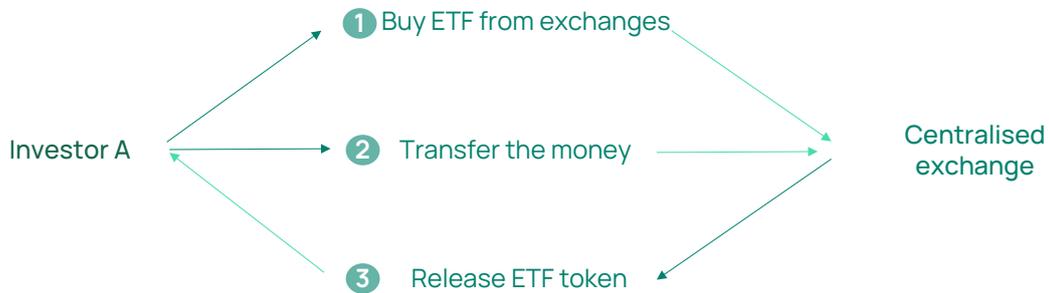


Figure 13A illustrates how retail investors could buy ETF tokens from the exchanges:

1. Investor A select an offer to buy the ETF tokens from the exchange.
2. Investor A transfers money to the bank account of the centralized exchange.
3. The exchange releases the ETF tokens to the account of Investor A.

This step is particularly important at the beginning of the secondary trading where tokens need to be distributed to the wider investor base.

▶ Investors buy/sell in the P2P marketplace:

Figure 13B: How retail investors buy/sell the ETF tokens in the P2P marketplace

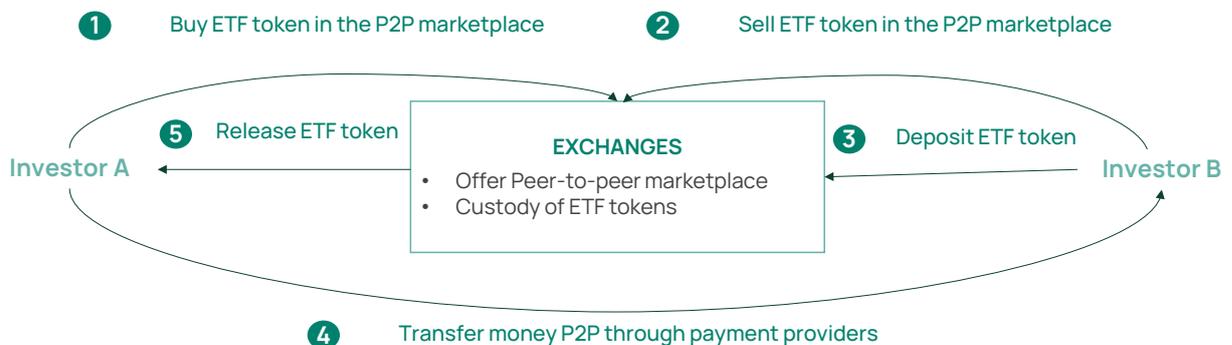


Figure 13B illustrates how a retail investor A could buy/sell the ETF tokens in the P2P marketplace which is usually provided by the exchanges:

1. Investor A selects an offer to buy the ETF tokens.
2. Investor B provides an offer to sell the ETF tokens.
3. Investor B deposits ETF tokens into the exchange and the exchange holds the custody of the ETF tokens.
4. Investor A transfers money to the bank account (or mobile wallet) of Investor B. Investor B confirms the receipt of the bank transfer at the exchange.
5. The exchange release ETF tokens to the account of Investor A.

Investor A could sell the ETF tokens in the P2P marketplace again following a similar procedure.

▶ Investors exchange other digital assets with the ETF tokens on centralized exchanges:

Figure 13C: How retail investors holding digital assets exchange them with the ETF tokens



Figure 13C illustrates how retail investors holding digital assets could exchange them with the ETF token.

1. Investor A who holds other digital assets on the exchange select a suitable trading pair to acquire the ETF token. For example, Bitcoin/ETF token, i.e. exchange their Bitcoin for the ETF token. Investor A then make a buy order.
2. Investor B who holds the ETF token on the exchange select a suitable trading pair to sell the ETF token. Investor B then make a sell order.

The exchange will match the buy and sell order through the order book and trades are executed. Enabling the conversion of various digital assets into the tokenised ETF token can significantly channel capital into the Vietnamese financial market. Currently, when users purchase digital assets with Vietnamese Dong (VND), it often equates to domestic investors acquiring foreign assets. By allowing investors to exchange foreign digital assets for the tokenised ETF token, capital is effectively redirected back into Vietnam's domestic capital market. This mechanism not only retains capital within the country but also strengthens the local financial ecosystem.

Centralized exchanges (CEXs) play a pivotal role in the secondary distribution of tokenised ETFs in Vietnam. This is particularly important, as over 70% of the digital asset transaction volume occurs through centralized exchanges as highlighted in Chapter 1. CEXs provide a familiar, regulated, and user-friendly platform for investors to buy, sell, and trade these innovative financial instruments. Key aspects of secondary distribution through CEXs include:

- **Liquidity and Accessibility:** CEXs offer a high level of liquidity, ensuring that there is a ready market for tokenised ETFs. This liquidity is crucial for price discovery and ensures that investors can enter or exit positions with ease.
- **Regulation and Compliance:** CEXs will operate under regulatory oversight and are subject to compliance requirements. This ensures that investors have a certain level of protection and that trading activities are conducted in a transparent and secure manner.
- **User Experience:** CEXs provide a user-friendly interface that appeals to a broad range of investors, including those who may not be familiar with decentralized platforms. This enhances accessibility and ease of use for a wider audience.
- **Custodial Services:** CEXs could also provide integrated custodial services, securely holding users' digital assets, with regulatory oversight in the pilot project.

3.2.2.4 Exchanges

In early 2025, following the issuance of Directive No. 05, the Vietnamese Government formally committed to establishing a regulated exchange for digital assets, positioning it as a cornerstone of Vietnam's broader digital economy strategy. The directive mandates the Ministry of Finance (MoF) and the State Bank of Vietnam (SBV) to develop a robust legal framework and implement a pilot programme for a government-sanctioned domestic exchange dedicated to digital asset trading.

The launch of this regulated exchange presents an important strategic opportunity for tokenised ETFs to serve as the inaugural asset class listed on the platform, primarily issued by asset managers. Tokenised ETFs, which digitally represent traditional ETF units on blockchain infrastructure, effectively bridge traditional finance and emerging blockchain technologies. Their inherently structured and regulated nature aligns closely with existing compliance standards, enabling Vietnam to safely and effectively introduce financial innovation within a controlled and transparent market environment.

Key considerations underpinning the selection of tokenised ETFs for issuance and listing on the exchange include:

- **Regulatory Alignment:** Tokenise ETFs closely parallel traditional ETFs, enabling regulators to apply established compliance frameworks seamlessly. This alignment simplifies regulatory processes, promotes clarity, and ensures effective risk management.
- **Investor Familiarity and Confidence:** Investors are already familiar with traditional ETFs. Tokenised ETFs leverage this familiarity, facilitating easy adoption and building trust among retail and institutional investors alike.
- **Market Transparency and Efficiency:** Listing tokenised ETFs on a government-sanctioned, exchange significantly enhances transparency, reducing risks associated with fraud, market manipulation, and illicit financial activities common in unregulated markets.

- **Framework for Future Digital Securities:** Successfully implementing tokenised ETFs establishes a regulatory blueprint that will guide the tokenisation and listing of other financial instruments, including government bonds, corporate securities, and tangible assets.

The initial issuance and domestic listing of tokenised ETFs clearly underscores the proactive alignment with the nation's strategic policy objectives. This foundational step not only strengthens domestic capital markets but also strategically positions Vietnam for future global expansion. Over the medium to long term, to align with the objective of transforming Ho Chi Minh City into an International Financial Center by 2030, achieving double-digit GDP growth through increased capital inflows, tokenised ETF will be issue for for global trading by international investors. These tokenised ETFs hold significant potential to evolve into globally traded financial instruments, enabling seamless integration into international exchanges and investment platforms. Such global accessibility will attract a diverse array of international investors, increasing capital inflows into Vietnam and bolstering liquidity across domestic markets.

As tokenised ETFs issued in Vietnam gain international visibility and credibility, they will act as a catalyst for further financial innovation, stimulating deeper connections between Vietnam's capital markets and global financial networks. Ultimately, this strategic evolution will amplify Vietnam's financial market reputation globally, reinforcing its attractiveness as a reliable and dynamic investment destination, and solidifying the country's position as a key player in the worldwide digital finance landscape.

3.2.2.5 Payment

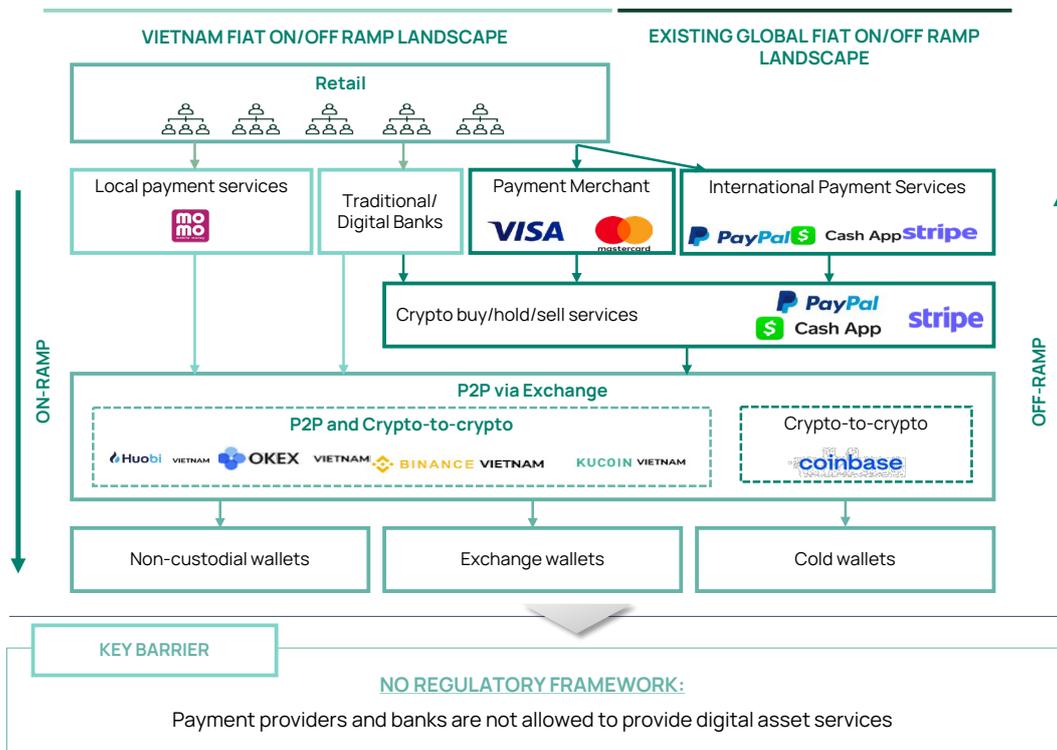
The process of on-ramp and off-ramp in the context of tokenised assets involves converting traditional fiat currency into digital assets (on-ramp) and vice versa (off-ramp). Payment solutions often play a crucial role in facilitating these transactions. Some considerations may include:

- **Regulatory Compliance:** Ensure that any tokenised ETF platform complies with the relevant financial regulations and guidelines set by authorities in Vietnam. This may include licensing requirements and adherence to anti-money laundering (AML) and know your customer (KYC) regulations as mentioned above.
- **Payment Gateways:** Collaboration with payment gateways that support cryptocurrency transactions or allow the conversion between fiat and digital assets is essential. This involves integrating with established payment processors that can handle transactions securely and efficiently.
- **Local Partnerships:** Collaborating with local banks or financial institutions can streamline the on-ramp and off-ramp processes. Establishing partnerships with entities familiar with the local financial landscape can provide added credibility and ease of operation.

The lack of on-ramp and off-ramp options is a significant obstacle to retail blockchain adoption in Vietnam (Figure 14). Currently, retail investors can only use P2P transfers via traditional or digital bank transfers and mobile wallets to exchange VND for digital assets. However, these settlement approaches are primarily used in the unregulated grey market, making it challenging for investors.

In this pilot project, banks and payment providers will be able to facilitate payment transactions related to tokenised ETFs enabling retail investors to easily access and sell the tokenised ETFs. This is similar to the practices in other countries where retail investors could use traditional payment channels, such as Visa and Mastercard or international payment services like Cash App, PayPal, and Stripe for the on/off ramp process.

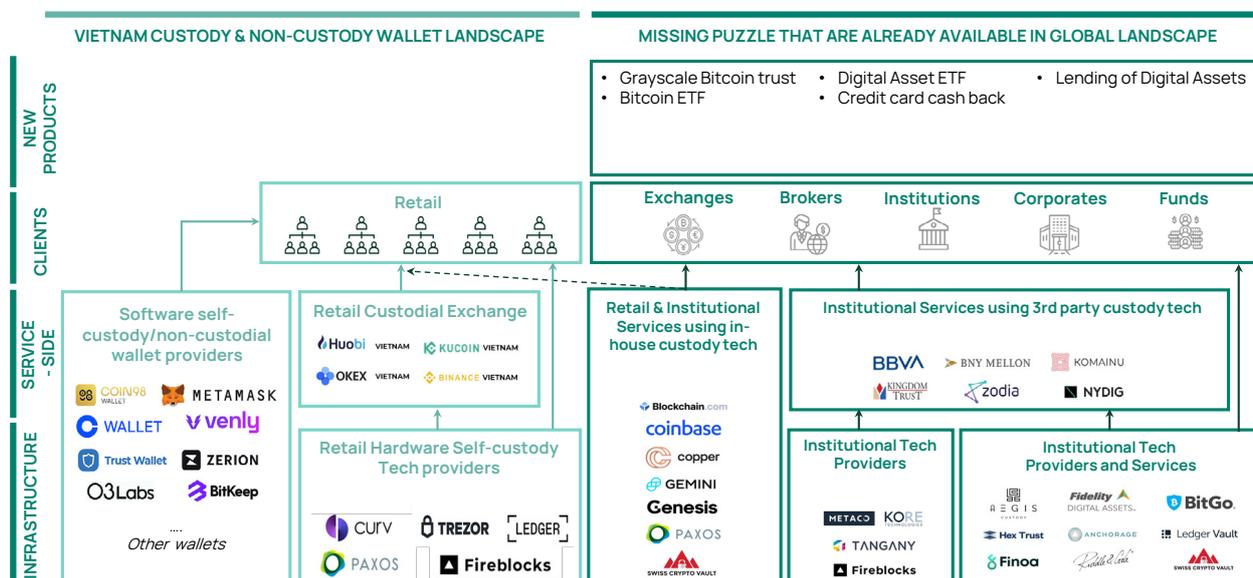
Figure 14: On/off ramp landscape in Vietnam for digital assets



3.2.3 Post-trade management

3.2.3.1 Custody of tokenised ETF

Figure 15: Custody landscape for digital assets and tokenised assets



After the retail investors acquire the tokens, the pilot project could allow the users to have the option to keep the tokenised ETF tokens in (1) the custody of the exchange, (2) custody of a third party or (3) self-custody.

Holding on the Exchange: Investors keep their tokenised ETF tokens within their account on the exchange where they were purchased.

- Benefits: This is often the most straightforward and user-friendly option. The exchange usually offers an integrated interface for managing and trading tokens.
- Risks: The primary risk is that of the exchange being compromised, either through hacking or internal fraud, which could lead to loss of assets. Additionally, the investor relies on the exchange's solvency and security practices.

Holding with a Custodian: A third-party custodian, typically a financial institution or a specialized digital asset custodian, holds the tokens on behalf of the investor.

- Benefits: Professional custodians usually have robust security measures, insurance, and regulatory compliance, reducing the risk of theft or loss. This option is often preferred by investors who are not comfortable managing their own digital asset security.
- Risks: Investors must trust the custodian's ability to safeguard their assets and remain solvent. There's also the risk of limited access or control over the tokens, as transactions might require going through the custodian.

Self-Custody: Investors store their tokenised ETF tokens in their own digital or hard-ware wallet, rather than relying on a third party.

- Benefits: This offers the highest level of control and autonomy. Investors are not dependent on the financial health or security protocols of an exchange or custodian.
- Risks: The main risk is tied to the investor's ability to securely manage their private keys (which are needed to access the tokens). Loss of private keys can result in permanent loss of access to the tokens. There's also a higher risk of falling victim to scams or cyber attacks without the protective infrastructure of professional custodians or exchanges.

Figure 16: How could investors approach digital asset custody?

Criteria	Self-custody Wallets	Custodial Exchange	Custodian Service Providers
Description	Self-manage private key(s)	<ul style="list-style-type: none"> Gives control and management of public and private keys to an exchange Maintains access via an online wallet 	Safeguarding of a client's private keys of digital assets
Types of storage measures used	Hot, cold, warm storage and other software	Hot storage	Hot, cold, warm storage and other software
Possession of Private keys	Yes	No	Yes
Insurance coverage	No	No	Yes
Security level			
Liquidity access			
Economics (pricing/feed)			
Operational Efficiency			
Regulatory Compliance			
	<i>Retail Investors</i>	<i>Retail Investors</i>	<i>Institutional Investors</i>

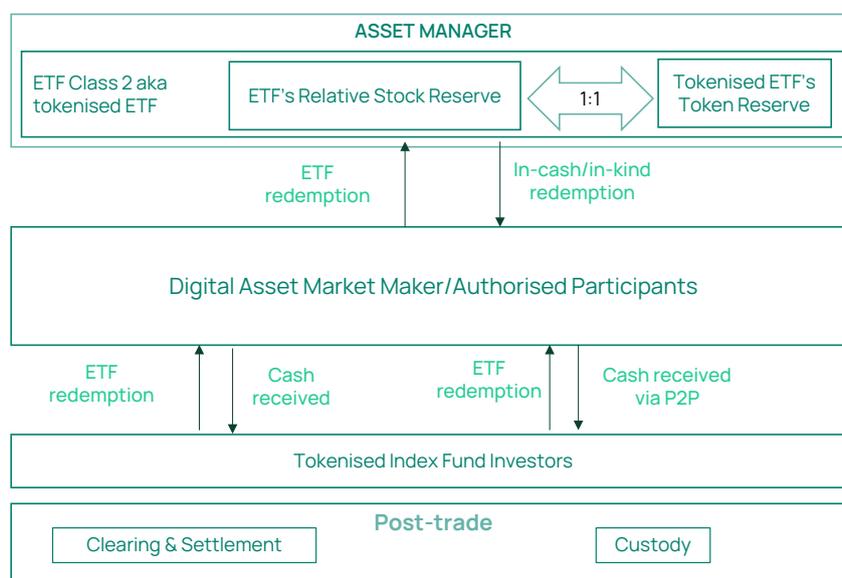
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Nguồn: Finoa

3.2.3.2 Redemption of tokenised ETF

The redemption process of tokenised Exchange-Traded Funds (ETFs) in Vietnam represents the critical phase where investors can convert their tokenised ETF shares back into the underlying assets. This process is essential in providing flexibility to investors and ensuring that the tokenised ETFs maintain their value. In this policy paper, we will explore the redemption process of tokenised ETFs in Vietnam, examining the key steps and considerations involved.

Figure 17: Redemption of tokenised ETF



The redemption of tokenised ETFs in Vietnam involves several key steps:

- Initiating Redemption:** The redemption process typically begins with the investor expressing their desire to redeem their tokenised ETF shares. This can usually be done through the centralized digital asset exchanges or service providers that issued the tokenised ETF.

- **Verification:** To prevent unauthorized redemptions, the service provider or custodian will verify the identity of the investor and ensure that they hold the requisite number of tokenised ETF shares for redemption.
- **Calculation of Redemption Value:** The redemption value is calculated based on the current net asset value (NAV) of the tokenised ETF. The NAV reflects the total value of the underlying assets divided by the number of outstanding shares.
- **Settlement:** Once the redemption value is determined, the service provider will arrange for the transfer of the underlying assets or their equivalent value to the investor's designated account. The method of settlement can vary, and it may involve the transfer of digital assets, fiat currency, or other assets.
- **Custodian Verification:** The custodian, responsible for holding the underlying assets, will ensure that the correct assets are transferred to the investor and that the redemption is executed correctly.
- **Confirmation:** After the redemption is completed, the investor receives a confirmation notice, certifying the successful redemption of their tokenised ETF shares.

Several important considerations must be taken into account regarding the redemption of tokenised ETFs in Vietnam:

- **Regulatory Compliance:** Redemption processes must adhere to Vietnamese regulatory requirements. This includes ensuring that the redemption process complies with local securities laws and regulations.
- **Custodial Services:** Custodians play a pivotal role in verifying and facilitating the redemption process. Choosing reputable custodial services is vital to ensure the security and integrity of the assets.
- **Redemption Fees:** Service providers may charge fees for the redemption process. Investors need to be aware of these fees and their impact on the redemption value.
- **NAV Calculation:** The accurate and transparent calculation of the NAV is essential to ensure that investors receive a fair and accurate redemption value.
- **Liquidity:** Adequate liquidity is crucial to ensure that the redemption process can be executed promptly. If there is insufficient liquidity, investors may experience delays or difficulty redeeming their shares.

The redemption process offers several benefits to investors in Vietnam:

- **Flexibility:** Investors can exit their positions in tokenised ETFs at any time, providing them with liquidity and the ability to respond to changing market conditions.
- **Fair Value:** The redemption process ensures that investors receive the fair value of their tokenised ETF shares based on the NAV.
- **Risk Management:** Investors can use the redemption process to manage risk, especially in volatile market conditions.
- **Transparency:** The redemption process is typically transparent, allowing investors to track their redemptions and gain insight into the tokenised ETF's value.

The redemption of tokenised ETFs in Vietnam is a crucial aspect of their functionality, providing investors with the ability to exit their positions, maintain flexibility, and access their fair share of the ETF's assets. This process is facilitated through a well-defined and regulated procedure, ensuring that investors' interests are protected and that the tokenised ETF maintains its value and transparency. As the adoption of tokenised ETFs continues to grow, a well-structured and efficient redemption process is essential for a thriving investment ecosystem in Vietnam.

3.2.3.3 Asset management for tokenised ETF

- ▶ **Pegging Maintenance to the Physical Reserve:** Maintaining the peg of tokenised ETFs to their physical reserve is paramount. If the token is meant to represent a certain value or asset, asset managers must take measures to ensure that the value of the token corresponds to the value of the reserve. This may involve regular audits, accounting for any discrepancies, and taking corrective action.
- ▶ **Rebalancing Mechanism:** The rebalancing of the ETF's portfolio is crucial to ensure that it adheres to its investment strategy and performance objectives. Asset managers should periodically assess the composition of the ETF and make adjustments as needed to achieve these goals.
- ▶ **Smart Contract Adjustment for Portfolio Rebalancing and Management:** Smart contracts are employed to facilitate automatic portfolio rebalancing and management. These contracts can be programmed to execute trades, adjust asset allocations, and ensure that the ETF remains in line with its investment strategy.
- ▶ **Reporting:** Transparent reporting is an integral part of post-trade asset management. Investors need access to timely and accurate information about the performance and holdings of tokenised ETFs. Reporting includes:
 - **NAV Updates:** Regular updates on the ETF's net asset value, which provides investors with insights into the fund's performance.
 - **Portfolio Holdings:** A comprehensive list of the assets held by the ETF, allowing investors to understand the fund's exposure and investment strategy.
 - **Audit Reports:** Reports from third-party auditors confirming that the ETF's assets match its reported holdings and that the assets are stored securely.
 - **Regulatory Disclosures:** Compliance with regulatory requirements regarding reporting and transparency is crucial to maintain the trust of investors.

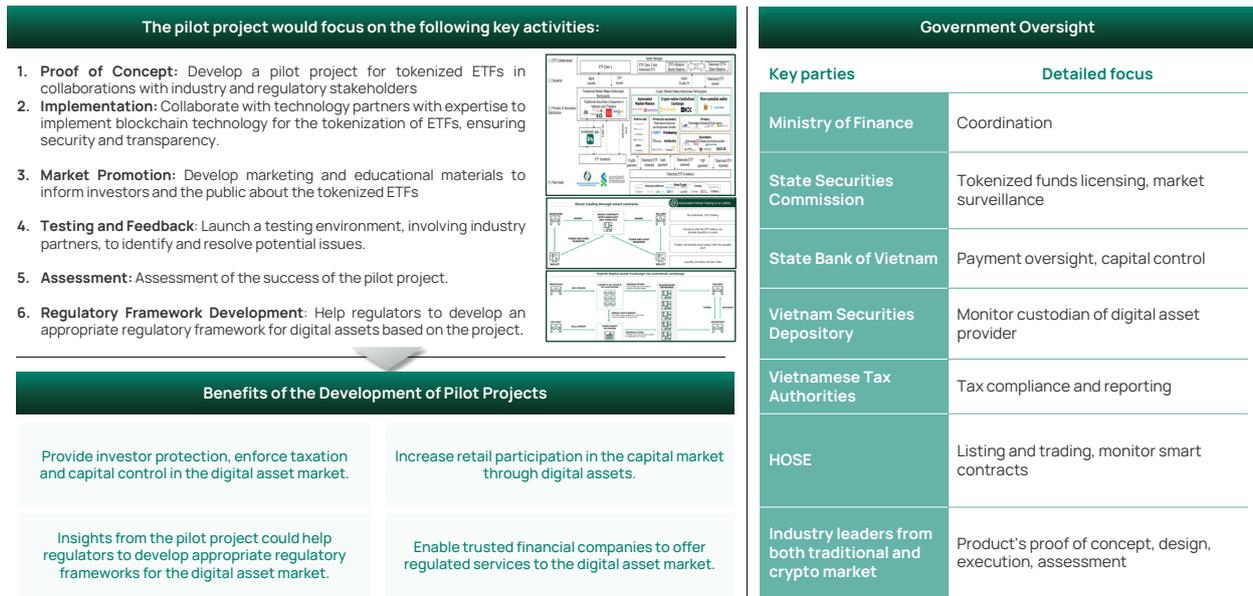
The post-trade asset management of tokenised ETFs in Vietnam is a multifaceted process that involves secure custody of assets, maintaining pegs to physical reserves, implementing rebalancing mechanisms, and effective smart contract management. Additionally, the roles of market makers, authorized participants, and liquidity providers ensure market stability and liquidity. Transparent reporting mechanisms are essential to provide investors with the necessary information to make informed decisions. Together, these elements help create a secure and efficient environment for managing and trading tokenised ETFs in Vietnam.

CHAPTER 4

KEY ACTIVITIES AND RECOMMENDATION FOR POLICYMAKERS

4.1 Key activities

Figure 18: Proposal for fund tokenisation pilot project



To successfully launch a fund tokenisation pilot project, several key activities are critical to ensure the project's security, transparency, and overall success, which are essential for a comprehensive proposal for a fund tokenisation pilot project. Figure 18 summarizes the key steps of implementation of the pilot project and main benefits.

- ▶ **Proof of Concept:** One of the foundational steps in the launch of a fund tokenisation pilot project is the development of a proof of concept. This includes:
 - **Collaborations:** Establish partnerships with industry stakeholders, including financial institutions, regulatory bodies, and technology experts, to collectively design a pilot project for tokenised ETFs.
 - **Project Scope:** Define the scope, objectives, and key performance indicators (KPIs) of the pilot project, setting the stage for successful implementation.
- ▶ **Implementation:** The successful implementation of blockchain technology is crucial for the tokenisation of ETFs. Key activities include:
 - **Technology Partnerships:** Collaborate with technology partners experienced in blockchain to develop a secure, scalable, and efficient infrastructure for tokenised ETFs. This partnership ensures the reliability of the platform.
 - **Security Measures:** Implement robust security protocols, including encryption, cold storage, and multi-factor authentication, to safeguard digital assets and investor data.
- ▶ **Market Promotion:** Creating awareness and fostering investor confidence is a key element in the success of a fund tokenisation pilot project. Activities include:
 - **Marketing Materials:** Develop marketing materials to inform the public about tokenised ETFs, including their benefits, features, and investment opportunities.
 - **Educational Campaigns:** Conduct educational campaigns to enlighten potential investors about the technology, risks, and advantages of digital asset investment.

- ▶ **Testing and Feedback:** Prior to a full-scale launch, a testing environment is crucial to identify and address potential issues. Activities include:
 - **Beta Testing:** Launch a controlled environment involving industry partners to test the tokenised ETF platform, gather feedback, and identify technical and operational challenges.
 - **Issue Resolution:** Collaborate with partners to address and resolve any identified issues promptly to ensure a seamless experience for investors.

- ▶ **Assessment:** Evaluating the success and impact of the pilot project is vital to determine its viability for future expansion. Key activities include:
 - **Data Analysis:** Analyze performance data and user feedback to assess the effectiveness of the tokenisation pilot project.
 - **KPI Evaluation:** Assess the project's performance based on predefined KPIs and objectives to determine its success and identify areas for improvement.

- ▶ **Regulatory Framework Development:** One of the overarching objectives of a fund tokenisation pilot project is to help regulators develop an appropriate regulatory framework for digital assets. Activities include:
 - **Collaboration with Regulatory Bodies:** Engage with regulatory authorities to provide insights and expertise based on the experiences and lessons learned during the pilot project.

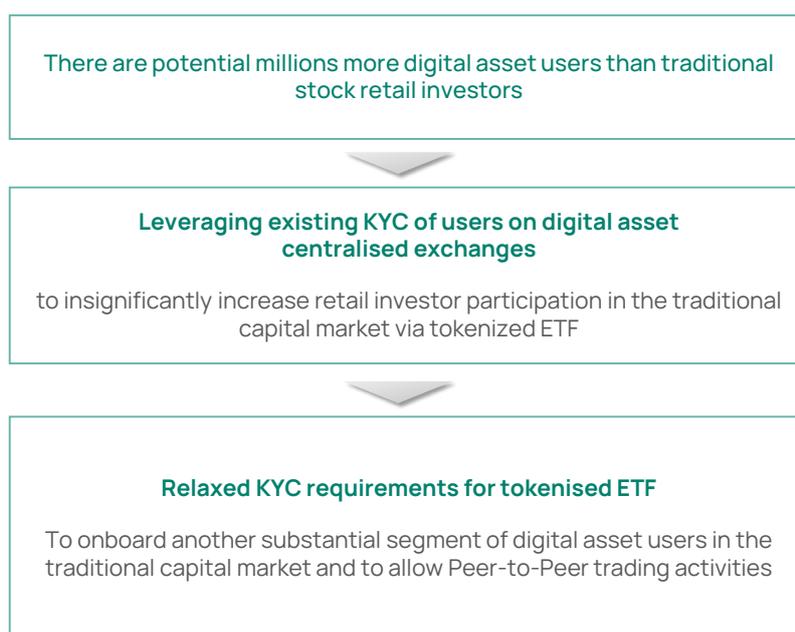
A comprehensive proposal for a fund tokenisation pilot project involves a sequence of key activities ranging from proof-of-concept development to the assessment of project success and regulatory framework development. Success in the world of fund tokenisation demands a concerted effort among industry stakeholders, regulatory bodies, and technology experts to ensure transparency, security, and investor confidence. Proper planning, technology implementation, and close collaboration are essential to transform the financial landscape and make digital assets more accessible and secure for investors.

4.2 Tokenised ETF pilot project benefiting future regulatory considerations

Engaging directly with tokenised ETFs and their stakeholders allows regulators to gain firsthand experience with these new financial products. This practical exposure is invaluable for understanding the nuances and unique challenges of the digital asset market. The insights gained from overseeing tokenised ETFs can inform the development of formal regulations.

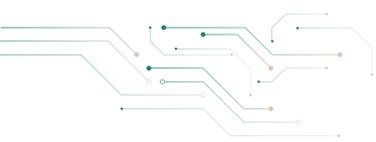
For the middle-term and regulatory sandbox: Policymakers in Vietnam can utilize the insights and experience gained from the fund tokenisation pilot project to develop a regulatory sandbox for digital assets by closely analyzing real-world data and operational challenges encountered during the project. This hands-on experience will enable them to identify key areas for regulation, understand the practical implications of digital asset transactions, and tailor a sandbox environment that encourages innovation while ensuring robust consumer protection and market integrity, thus creating a balanced and effective framework for nurturing and testing emerging fintech solutions in a controlled yet dynamic setting. The sandbox could create opportunities for experimenting with a variety of blockchain-based financial products under the guidance of policymakers.

Figure 19: Tokenised ETF pilot project benefitting future regulatory consideration



For the long-term and regulatory framework: The experience and insights gained from participating in the fund tokenisation pilot project can be instrumental for policymakers in Vietnam as they develop formal regulations for digital assets. This process can further be informed by examining the regulatory frameworks of major financial centers around the world, particularly in Asia, which have already established robust guidelines for digital assets.

- ▶ **Digital asset classification:** A key aspect of this endeavor involves defining digital assets within the Vietnamese context, taking cues from how other financial centers classify these assets as commodities, securities, or currencies. The challenge for Vietnamese policymakers lies in adapting these classifications to the local financial landscape, aligning them with the nation's economic objectives and market dynamics. This classification will set the foundation for compliance requirements and regulatory oversight, determining how digital assets are traded, taxed, and managed.
- ▶ **Regulations of digital asset exchanges and custodian:** Participation in the fund tokenisation project offers regulators in Vietnam vital insights for effectively regulating digital asset exchanges and custodians. Through this involvement, they gain a deeper understanding of the unique operational complexities and risks in this sector, enabling them to establish tailored licensing criteria, appropriate capital adequacy requirements, robust cybersecurity protocols, and enhanced transparency measures. Additionally, this experience is instrumental in developing effective Know Your Customer (KYC) and Anti-Money Laundering (AML) standards, all of which are crucial for ensuring the integrity and stability of the digital asset market. This comprehensive approach ensures a well-regulated and secure environment for digital asset transactions.
- ▶ **Educating and protecting users:** Through their involvement in the project, regulators gain an in-depth understanding of how digital assets are used, the common challenges faced by users, and the potential risks involved. This knowledge is invaluable in formulating educational initiatives aimed at informing users about their rights, the inherent risks of digital asset transactions, and the legal implications of their activities. By doing so, regulators can empower users to make informed decisions, enhancing their protection in the digital asset market.
- ▶ **Innovation and risk:** Moreover, the hands-on experience gained from the project enables regulators to witness firsthand the intersection of innovation and risk in the digital asset space. This perspective is critical for developing a regulatory framework that strikes a balance between fostering innovation and ensuring user protection. Such a framework would allow for the flexible use of digital assets, encouraging technological advancement and market growth, while simultaneously implementing safeguards against fraud, market manipulation, and other risks. Measures like stringent KYC and AML standards, transparent reporting requirements, and consumer education initiatives can be part of this balanced approach.



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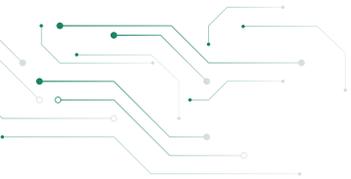
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APPENDIX

Appendix 1: The life cycle and work flow of tokenised ETF

