Asset tokenization

Towards the unified secondary market: The evolution of distribution channels and evaluation of Asset Tokenization Benefits

September 2023

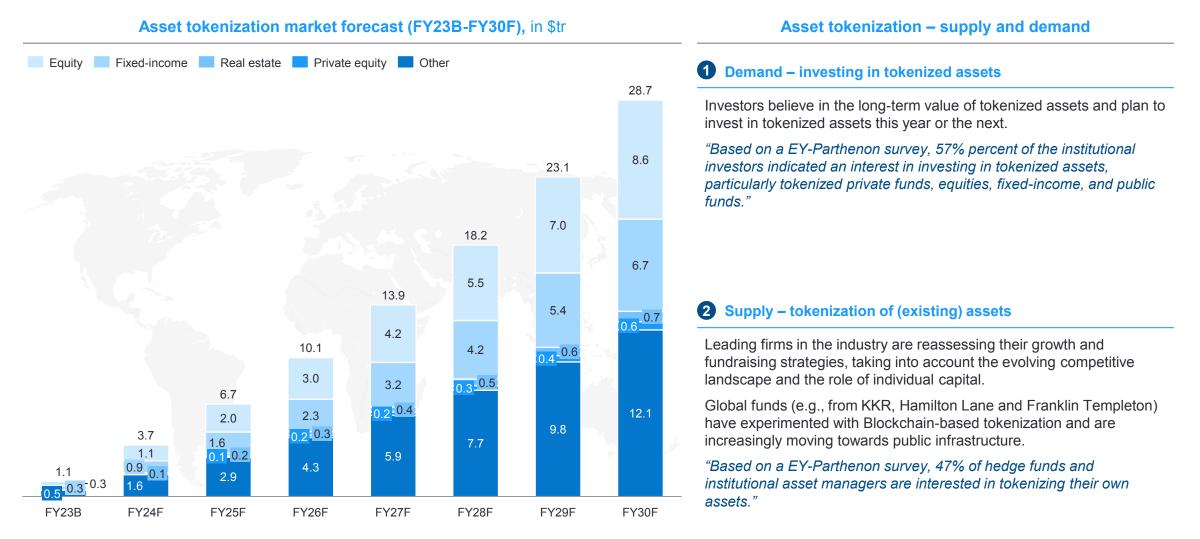
Prepared for



External

Tokenization has the potential to bring trillions in value to blockchains (\$28.7tr by FY30F). This is already transforming the way assets are managed and traded

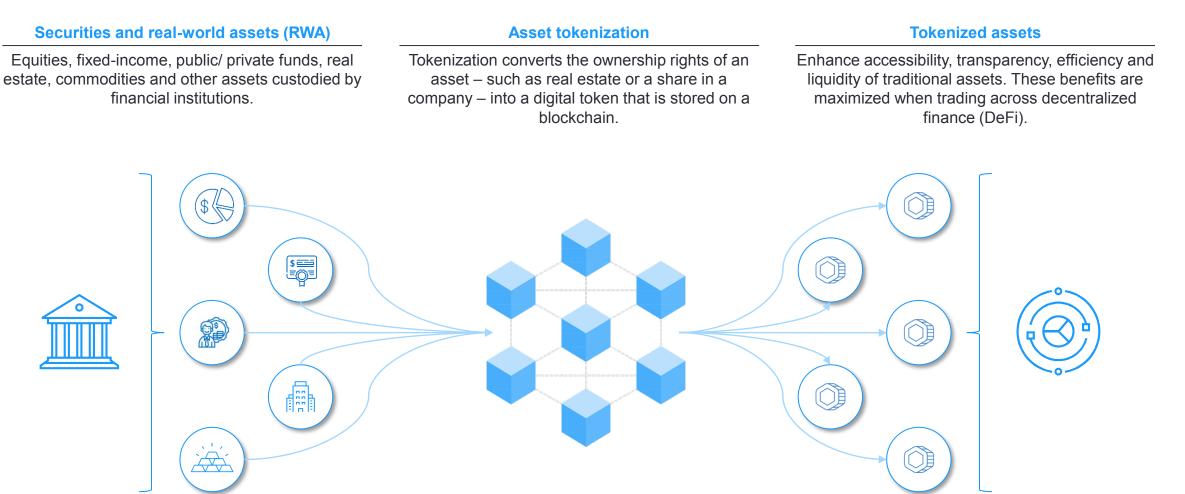
Asset tokenization market





Asset tokenization is the process of converting ownership rights of an asset into a digital token stored on a blockchain, which enhances a.o. accessibility and efficiency

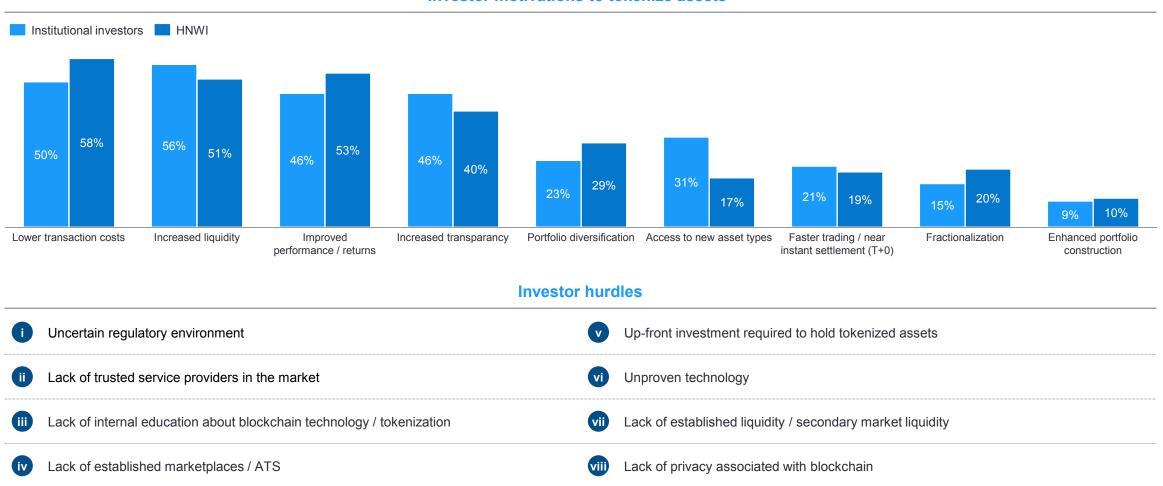
Asset tokenization at a glance





Lower transactions costs, increased liquidity are the main drivers for investors to switch to tokenization. However, uncertainty in regulatory environment holds them back...

Demand – investing in tokenized assets



Investor motivations to tokenize assets¹

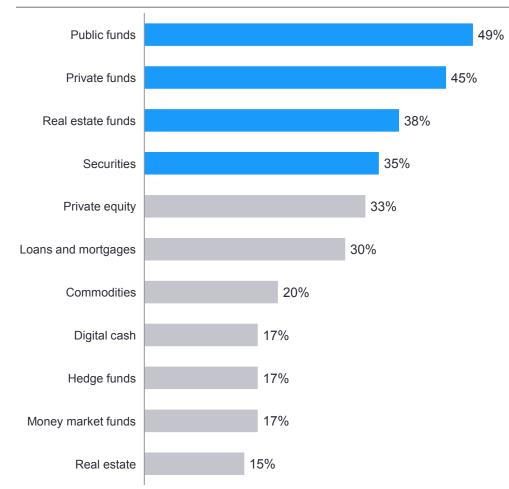
1. Rank order determined by % of respondents that ranked each choice 1, 2 or 3 Source: EY-Parthenon Tokenization Survey (HNWI n=234; Institutional Investors n=78)

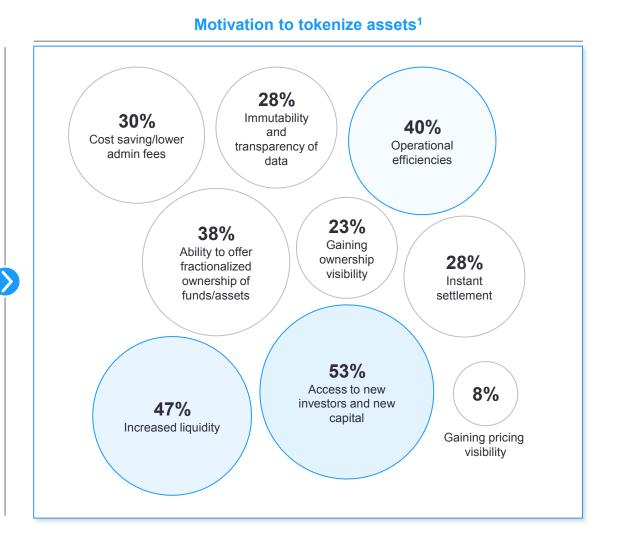
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...institutions are most interested to tokenize funds and securities as they see opportunities to access new capital, increase liquidity and enhance operational efficiency

2 Supply – tokenization of (existing) assets

Asset classes that are considered for tokenization¹







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Evolution of distribution channels

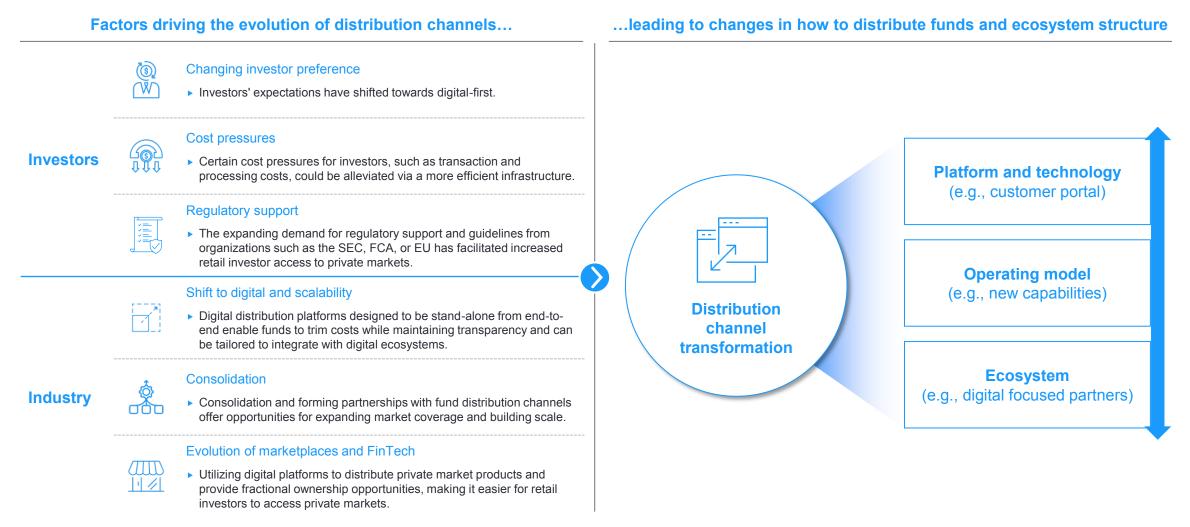
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Evolution of distribution channels

To satisfy investor demand and sustain their competitive advantage, fund managers need to re-evaluate their long-term distribution channel strategy...

Distribution channel evolution

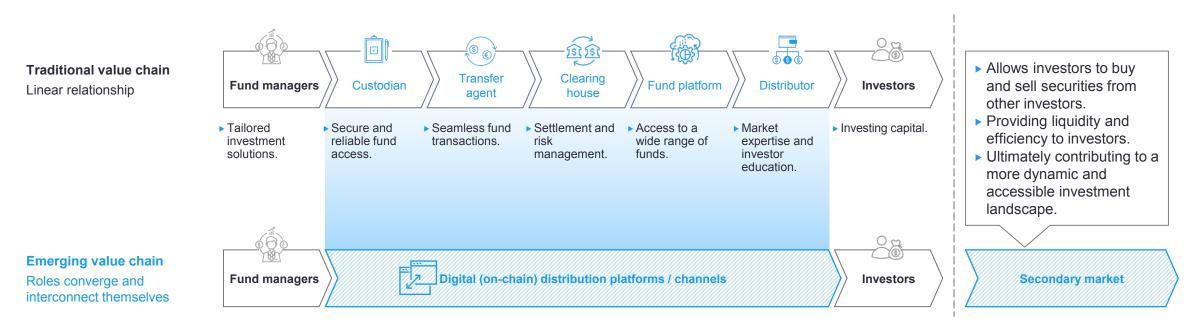


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Evolution of distribution channels

...in particular, fund managers are actively seeking digital (on-chain) distribution channels that can integrate multiple capabilities in the value chain

Fund value chain transformation



- The industry is undergoing a value proposition transformation, prompting traditional channels to adjust to new participants and roles.
- 2 Fund managers are relying on multiple intermediaries and collaborating with digital investment platforms.
- 3 > Distribution channels need to embrace one-stop shop platform capabilities, including efficient fund feeder structures/services and robust compliance measures.
 - > This adaptation enables players in the value chain to stay competitive, streamline processes, and reduce operating costs for a better experience.



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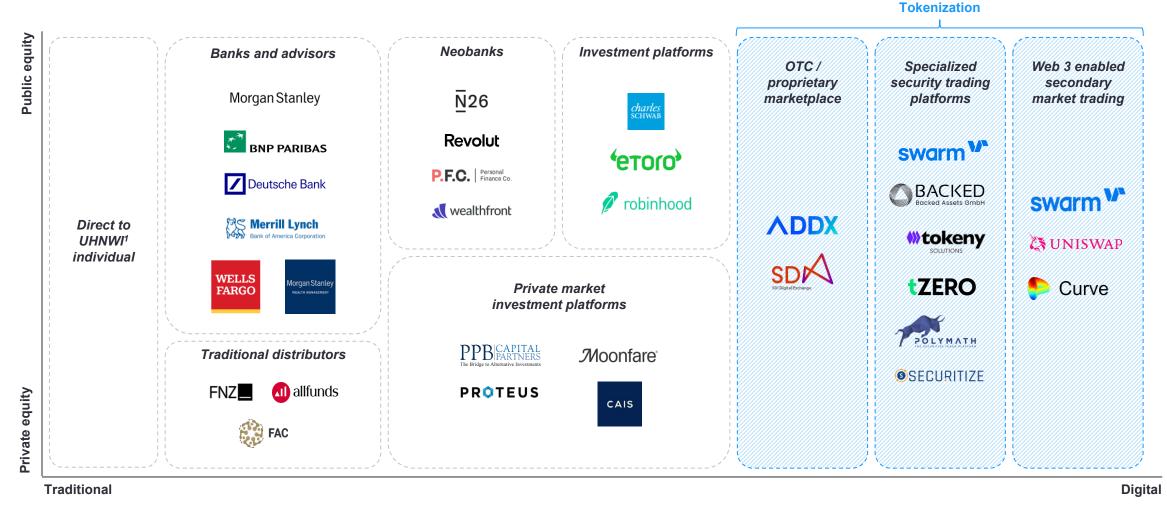
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Evolution of distribution channels

The distribution landscape primarily comprises traditional segments, but innovative players are introducing digital and tokenized solutions in public and private markets

Distribution channel landscape

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Tokenization channels

Traditional channels

1. UHNWI: Ultra High Net Worth individual Source: EY-Parthenon analysis EY Parthenon

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Tokenization is better suited for inefficient and illiquid assets that are easy to authenticate, such as real estate, which are currently inaccessible to most investors

Asset tokenization benefits per asset class

| | Expanded upon in the subsequent pages►2 | | | | | | |
|-------------------------|---|--|---|-------------------------------------|--------------------------------|------------------------------|-------------------------------|
| Ass | Benefits et class | Access to new capital/ asset classes | Increase liquidity via secondary market trading | Enhance operational efficiencies | Fractionalization | Enhance transparency | Reduce costs |
| Public equity funds | | | | | | | |
| Private equity funds | | | | | | | |
| Equity securities | | | | | | | |
| Fixed income securities | | | | | | | |
| Cash / currencies | | | | | | | |
| Real estate | | | | | | | |
| Commodities | | | | | | | |
| | Access to new capital/ types of assets: Tokenization can lower the minimum investment required to access certain assets, making them more accessible to a wider range of investors, particularly in private capital markets. | | | | | | |
| | Increase liquidity: Tokenization can increase liquidity in traditionally illiquid markets by allowing investors to buy and sell tokens on secondary markets, but regulatory uncertainties currently pose obstacles to the liquidity of secondary markets. A forward-looking approach to token design is required to unlock the liquidity potential of tokenized assets. | | | | | | |
| FZ | • Enhance operational efficiency: Tokenization can automate various tasks through smart contracts, including administrative processes, reconciliation, auditing, and transaction execution. | | | | | | |
| | Fractionalization: Asset tokenization enables fractional ownership of assets, such as real estate properties, which improves liquidity and allows for broader participation in the investment process. | | | | | | |
| | Enhance transparency: Blockchain technology, which underlies tokenization, provides a transparent and immutable record of transactions on-chain, which can help build trust among investors and increase confidence in the market. However, it's important to note that the internal operations of the security or fund may not be included in the transparency. | | | | | | |
| 1,71% L | Reduced costs: By using of lower fees. | ing smart contracts, transactio | ns can be automated, reducing | the need for intermediaries and | potentially lowering operation | al costs, which can be passe | d on to investors in the form |



Source: EY-Parthenon analysis

Extent of benefit derived from asset tokenization.

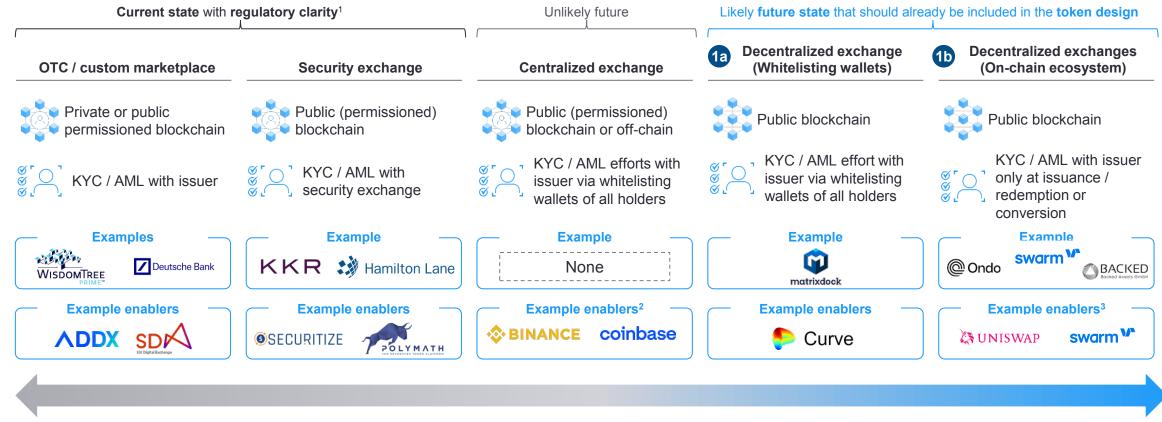
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Tokens should be designed with the intention of being traded on an open decentralized market, thereby enabling the liquidity potential of tokenized assets...

Increased liquidity via secondary market trading



Less secondary market liquidity

More secondary market liquidity

Less accessible, efficient and cost-effective

Less (as-is) risks / challenges (e.g. regulatory)

More accessible, efficient and cost-effective

More (as-is) risks / challenges (e.g. regulatory)

1. In the future, the traditional value chain enabled by blockchain technology is expected to continue existing because many traditional investors are unlikely to participate in a fully decentralized ecosystem.

2. Parties that could enable it, in practice no centralized exchanges support security trading currently

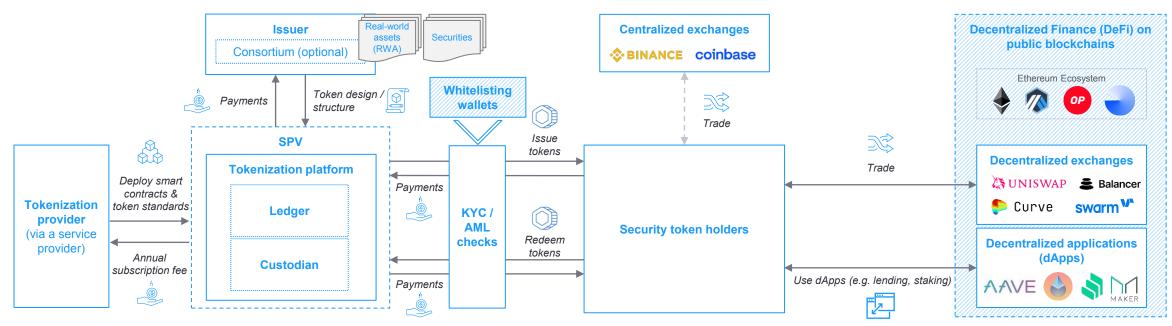
3. Secondary market liquidity is currently very low due to regulatory uncertainties around security trading on decentralized exchanges, liquidity pools exists but not supported on the platform front-end Source: EY-Parthenon analysis



...however, the lack of clear regulations hinders secondary market liquidity. One interim solution is to "whitelist" wallets in close cooperation with regulators to operate in DeFi...

1a Interim solution – Whitelisting wallets

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Design tokens on a (permissioned) public blockchain network where peer-to-peer trading is possible, while taking into account investor protection regulations.



KYC and AML has to be performed at issuance and redemption, but also on everyone who acquires tokens on the secondary market. Engagement with regulators is required to determine the rules and guidelines for these checks.



To take the burden away from exchanges, issuers can perform KYC / AML checks and whitelist all wallets that are allowed to trade securities on every platform. This unlocks secondary market trading potential.

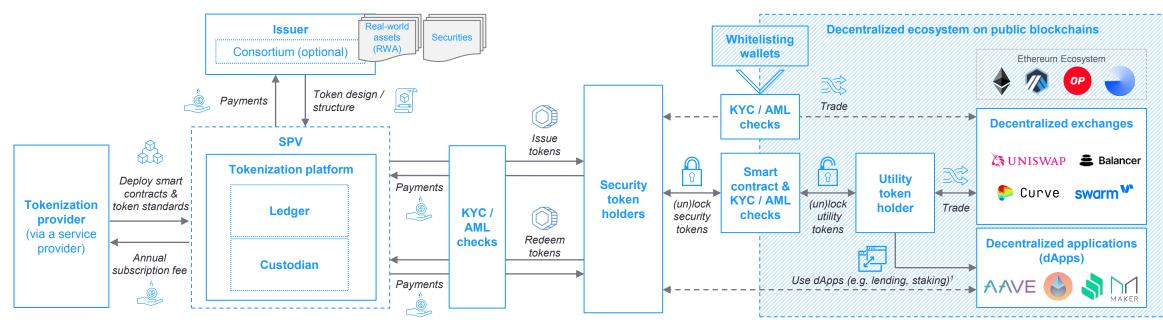




...in the long term, free trading could occur by proactively steering regulations towards the concept of locking security tokens in a smart contract and unlocking a utility version

1 On-chain ecosystem (with KYC / AML at conversion)

ILLUSTRATIVE



Highlight the distinctions between utility tokens and security tokens, emphasizing that security tokens require KYC and AML verifications before they can be transferred. Additionally, clarify the characteristics that classify a token as a security.



Initiate dialogue with regulatory authorities and educate them about the concept of securing security tokens within a smart contract to access utility tokens without security features. It's essential to emphasize that this step entails the mandatory KYC and AML checks.



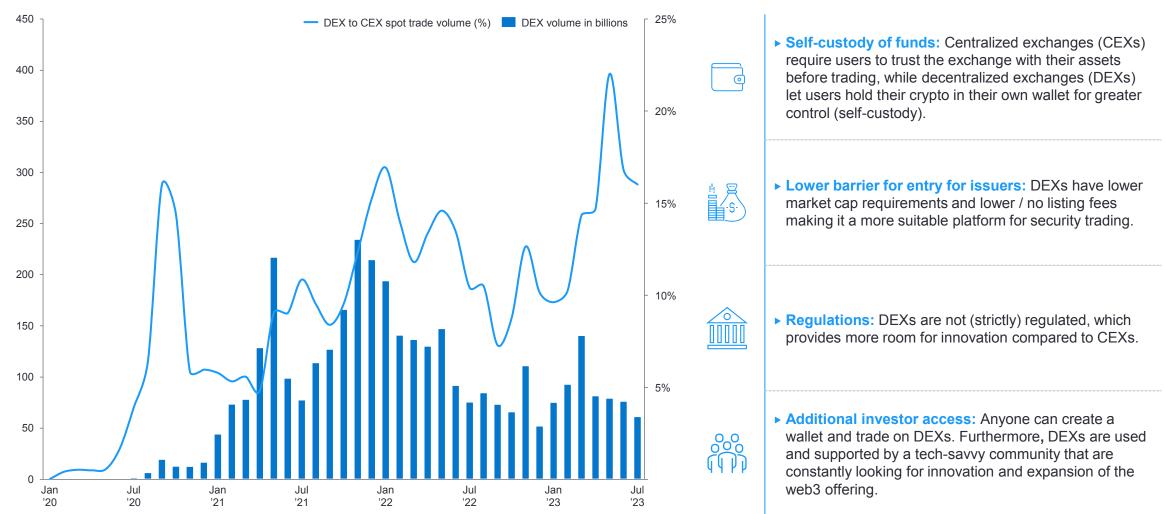
The decentralized ecosystem's true value lies in the ability to trade tokenized real-world assets (RWA) without barriers, which results in maximum secondary market liquidity.



1. Security token holders can only use decentralized applications (dApps) without additional KYC / AML checks if they do not transfer ownership of the token. Source: EY-Parthenon analysis

DEXs are gaining more market share compared to CEXs due to a.o. self-custody, easier entry for issuers, fewer regulatory obligations, and additional investor access

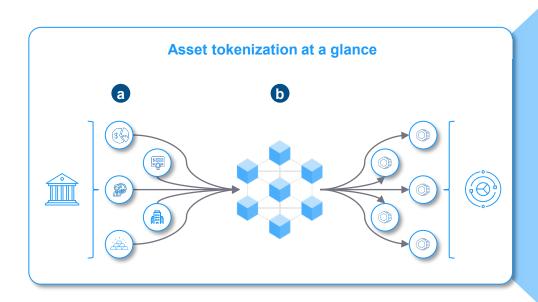
Increased liquidity via secondary market trading





Investors desire greater asset transparency, but tokenizing assets often results in onchain transparency instead of asset transparency, which can potentially cause confusion

2 Enhanced transparency





- Asset transparency refers to clear and accessible information related to assets represented by digital tokens on a blockchain.
- Investors benefit more from understanding the underlying assets' characteristics, risks, returns, and how they are managed within the tokenized ecosystem compared to the visibility on the blockchain.

Illustrative metrics

Asset / fund composition

Asset / fund performance

Compliance

b On-chain transparency

Blockchain exploration and transaction tracking

- Due to the nature of blockchain (decentralized and immutable), stakeholders can verify and trace platform actions. On-chain transparency contributes to the trustworthiness of the network.
- This level of visibility extends to tokenized assets, providing access to transaction histories, ownership records, and other pertinent data directly on the blockchain.

Illustrative metrics



Market cap

Transactions



Content

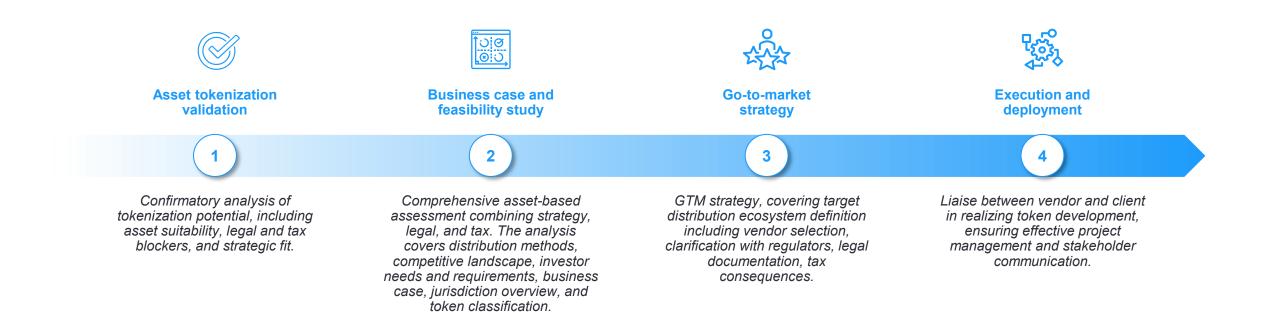
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EY-Parthenon tokenization approach

Our comprehensive approach encompasses the breadth of EY services, thoroughly validating the tokenization concept, before entering the market

EY-Parthenon's tokenization approach





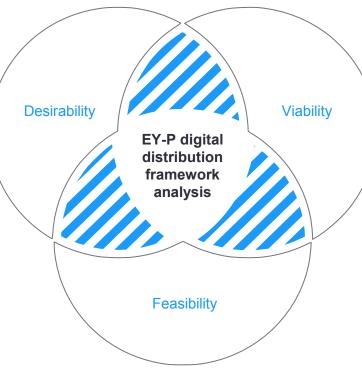
EY-Parthenon tokenization approach

The EY-Parthenon strategy framework ensures that the tokenization concept aligns with market needs, is financially viable, and can be realistically executed

The EY-P digital distribution analysis framework

Assess strategic rationale and market attractiveness

- Review strategic plans and objectives
- Assess current market dynamics
- Analyze fund capabilities
- Identify first follower advantages
- Determine potential (cost) pressure headwinds



Examine the practical aspects of each distribution option

- Assess risk appetite, effort, costs, and legal implications
- Assess the target ecosystem

Determine top -and bottom-line implications

- Model potential decreases in operational cost
- Assess secondary market opportunities
- Sensitivity analysis
- Assess the upside potential



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