SINTRYX

Market Report

Tokenization of Digital and Real World Assets

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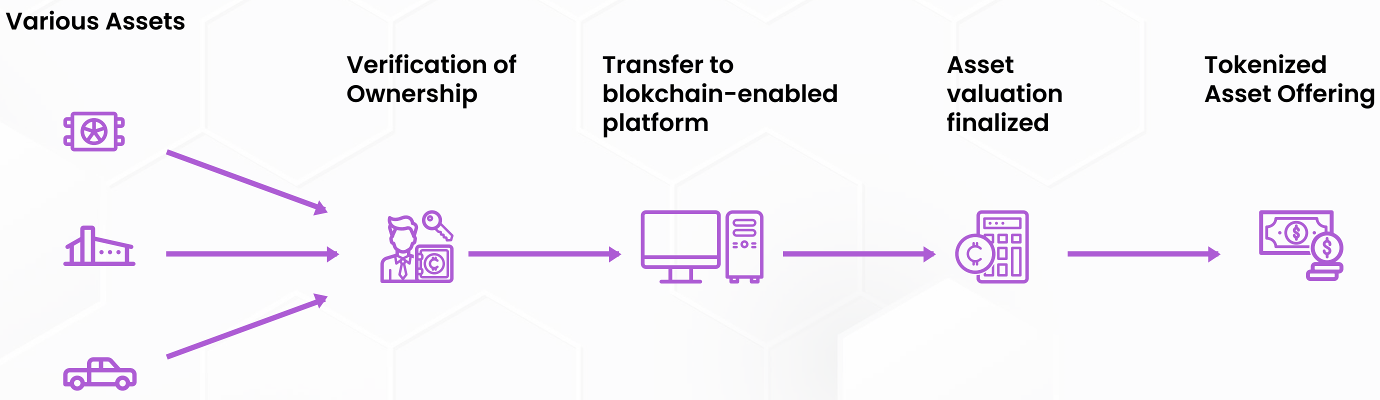
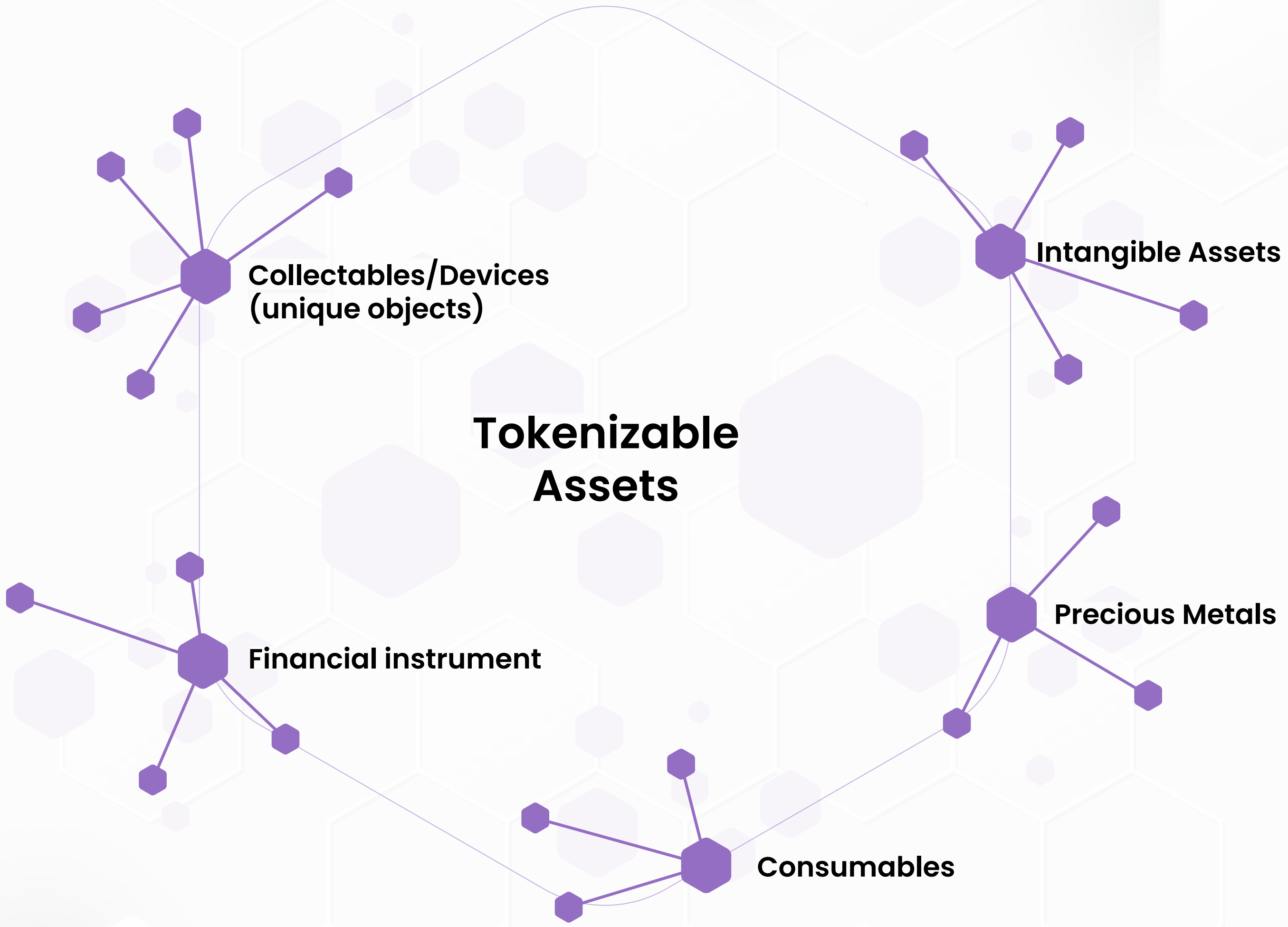
Ledger verification allows virtual disintermediation and decentralization of transactional information facilitating cross-border transactions within the EU and worldwide. An explosive increase of those that recognise the benefit of removing institutional intermediaries in the supply chain have helped shape the current multi trillion cryptocurrency market size [1]. Sintryx provides innovative structures built upon this ideology while simultaneously striving to support the fundamentals around the information sources and resources that comprise our information environment (De Roure, 2011). Through our native token TRYX and implemented smart contract compatibility, partnered parties are enabled to transfer ownership or property rights over the asset through channels without intervention of and in cooperation with traditional intermediaries within the boundaries of regulation requirements. Our platform allows Investors to spread economic functions such that fractionalised dividends from Real Estate, Venture Capital and high valued Metaverse assets can be returned to smaller and bigger participants without compromising the utility nature of the TRYX token (Drasch, 2020). The large-scale deployment of decentralized exchanges (DEX) allowed the DeFi market size to grow 110.00% in one year, as liquidity through automated market makers poured into the cryptocurrency market enabling trading of more than 6000 digital assets. The current 50 billion DeFi market is relatively infinitesimal compared to the 250 trillion yet untokenized market size of private assets such as real estate, venture capital, bonds and commodities. It is expected that by 2027 10% of the total private markets will be tokenized, however, until now liquidity has not poured in due to a variety of legal and subsequent scalable limitations [2]. Sintryx's unique allocation design not only incentivizes market participants to provide liquidity to this undiscovered market, but also solves these limitations through custodians filling our licensed liquidity pools. In this sense, globally brokers and dealers can allow the trading of volatile and liquidity backed Security Tokens (STOs).

Analysis will demonstrate how blockchain solutions support disintermediation and scalable implementations to support demand, and provide greater flexibility in the use of assets.




Tokenizable Assets
Collectables/Devices (unique objects)
Intangible Assets
Financial instrument
Precious Metals
Consumables

Tokenization of Private Markets

It is argued that Distributed Ledger Technology (DLT), enables broad cost saving potential, opening channels for growth by mitigating legacy requirements for intermediated trade-processing thanks to its capacity to establish a single source of truth among untrusting parties (Nofer et al. 2017).

the global financial markets[3]. Next to that, the perceived uncertainty around the legal status of any crypto asset and the enforceability of smart contracts under private law may inhibit the wider use and trading of such assets as investors are not confident that their legal rights are appropriately protected.

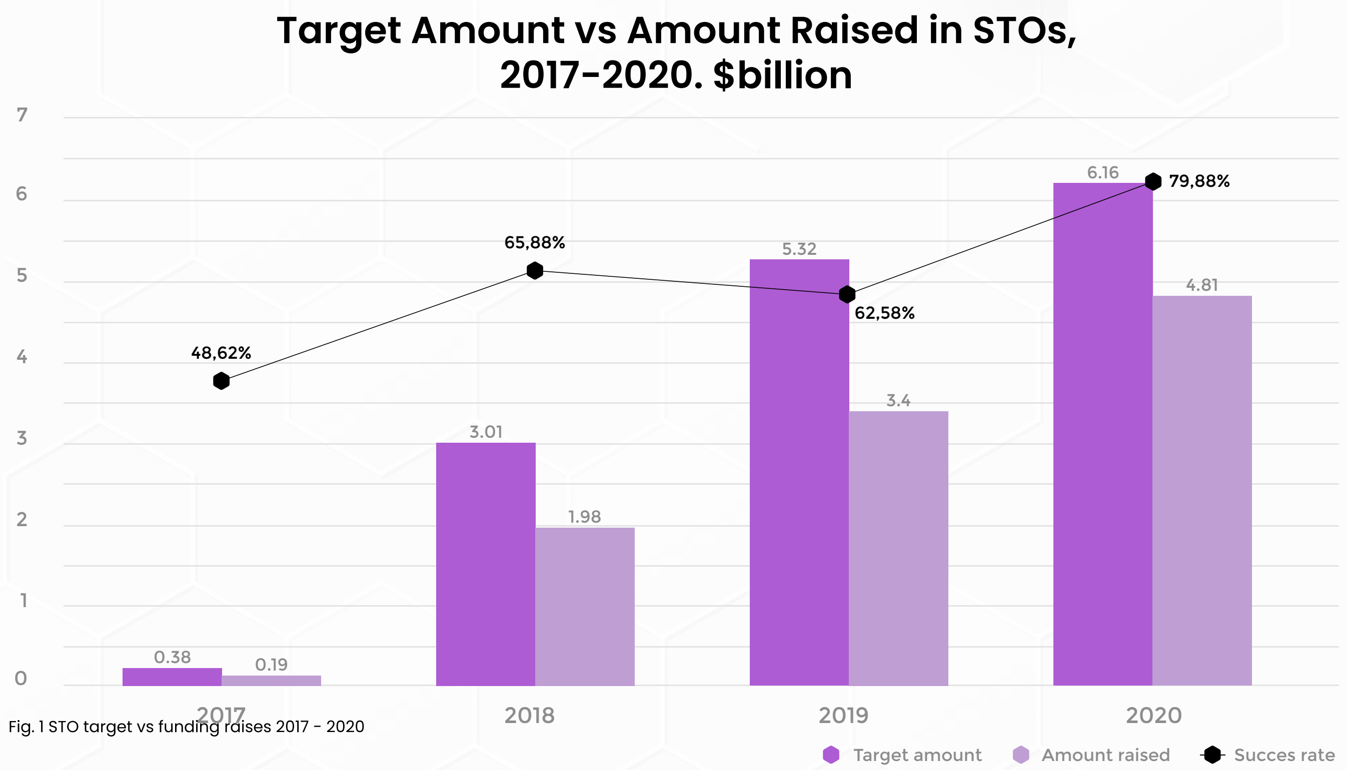


Fig. 1 STO target vs funding raises 2017 - 2020

The tokenization of securities is seen by the market as the branch with the most imminent potential for growth. This is partially driven by the hype around tokens issued in unregulated ICOs and STOs, where Security Tokens (STs) are presented as more 'regulatory-compliant'. At the current rate the ST tradeable volume is marginally low, approximately 11 million dollars a month. As seen in fig.1 STO success rate raises have been steadily increasing since 2017, with a relatively large fraction of the targets being conceived. Large scale adoption of asset tokenization faces a number of challenges related to the underlying technology itself. In general, DLT-enabled networks are still challenged by the DLT-trilemma, scalability for one, which is required to scale tokenization of private assets to

Safeguarding private information

Data protection, privacy, storage of data and regulation applicable to the usage, sharing and storage of data are pertinent in EU GDPR data privacy regimes. These effective data rights management systems can amount to a total antithesis of the immutability of the blockchain and will be harder to address when user-specific information is written on the ledger[4].

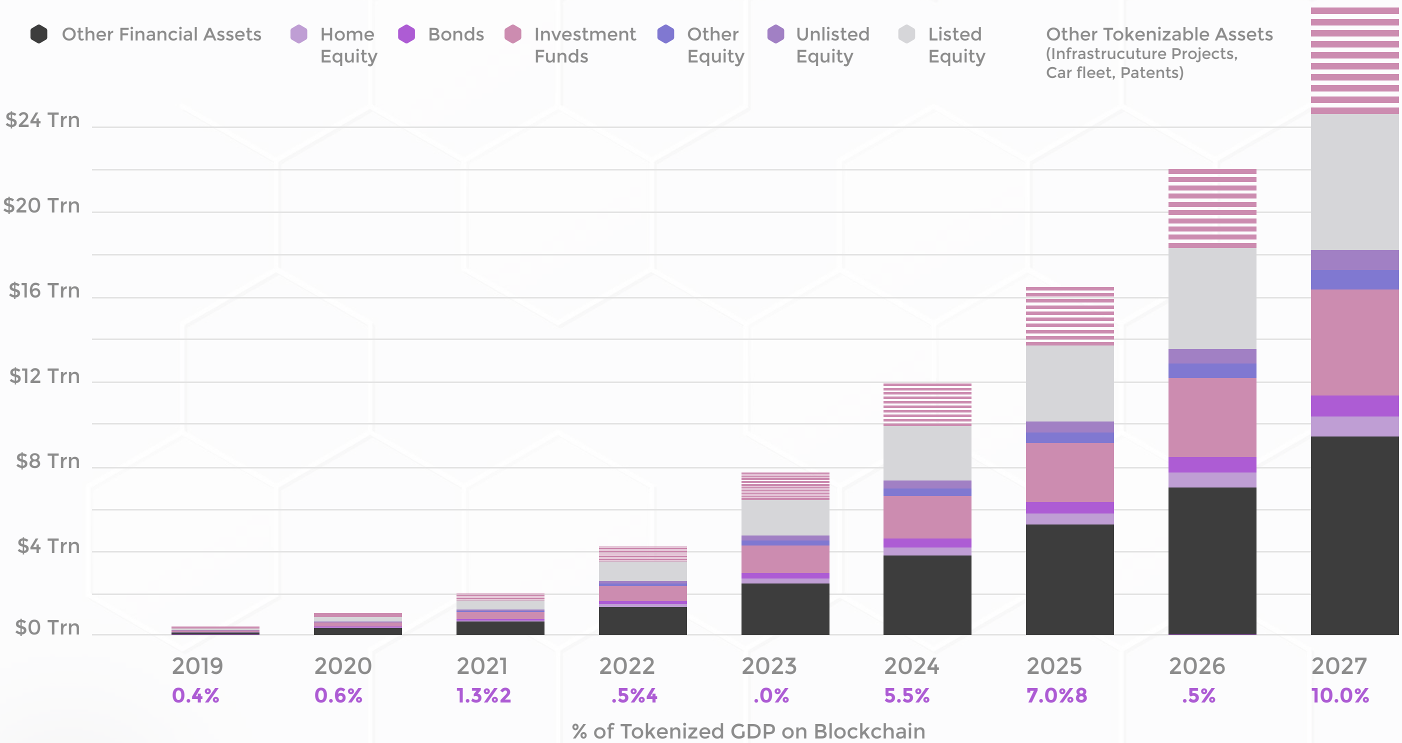
Know Your Customer

Lacking a digital identity, participants are able to drastically affect the price of a digital asset, however such manipulative techniques can be addressed by using strong AML/KYC checks, and the use of regulatory-compliance custodians operating the disbursement of asset-backed tokens.

Liquidity
Automated market makers match buyers and sellers in decentralized markets for crypto currencies and tokenized securities, whereby the matching process is automated and no intermediation is required. The efficiency gain of tokenization of private markets, albeit for returns in fractionalised dividends, is an inverse relationship with the disintermediation of brokers and dealers. However, current operative DLT-based tokenization does not have sufficient liquidity, or the provider of the platform is encouraged to preserve the broker model in a tokenized environment. In this sense, brokers can be useful in decentralized environments for the execution of large-sized orders. This unfolds the potential shape for the future emergence of the yet untokenized market.

In liquidity stress situations, intermediaries connecting sundry actors may mitigate extreme volatility as a result of herding investors moving in the same direction, which is beneficial to Investors and Owners of assets backed by tokens. Simultaneously, guarantee of dealer intermediation is never in full effect, as market-makers tend to pull back from stressed markets, to cover possible losses when market valuations change (Adrian et al., 2013).

Projected Tokenized Market Volume by 2027 in $trn by Asset Class



Subsequently, a wider market benefits from greater liquidity levels as collateral provides 'shock-absorbing' capabilities and can be seamlessly mobilized through licensed liquidity pools, which can be traced in the system.
Tokenization of assets has positive and negative implications on liquidity dexterity. Tokenizing illiquid assets, such as Real Estate, small and medium sized enterprise (SME) securities, Private Equity and Venture Capital Funds, Bonds and Commodities, unfolds the tradability of risk-aversive stra-

tegies with formerly high risk investments of near illiquid assets [5].
Deloitte (2019) estimates that tokenization of illiquid assets will 'unlock trillions of euros, vastly increasing volumes of trade'. Moreover, providing the infrastructure for secondary market trading of the yet untokenized private asset market is vital to promote capital formation. In return, improved liquidity in these asset classes might increase flow of funds into investments financing SMEs, Private Equity and Venture Capital and Real Estate.
On the other hand, parallel trading of tokenized assets on-chain and in traditional markets risks creating a bifurcation of markets with the same asset, leading to potential risk increases of arbitrage causing negative liquidity conditions[6].

The Need for 3rd Party Custodian

Tokenization of assets will depend on the existence of a trusted and credible central authority that will guarantee the backing of tokens issued by the real world assets, especially when holding such assets in custody. The central role of third party trusted licensed authorities, otherwise called custodians, guarantees the connection of the off-chain real world assets to the on-chain ledger verification ecosystem[7].

The role of custodians is partially reflected in ensuring that the digital representation of assets on the Blockchain is unique, and not represented by multiple tokens on multiple platforms. Most importantly, safeguarding the assets at all times, similar to conventional custodianship, is required in the infrastructure transitioning value from the real-world to the digital plane.
There are three functions performed by custodians (Swift, 2016):

- Confirmation of asset existence, and its characteristics, of transacting party identities and of legal and regulatory requirements that they need to comply with.

- Recording data around transactions, reconciling data and preserving records for all transactions.

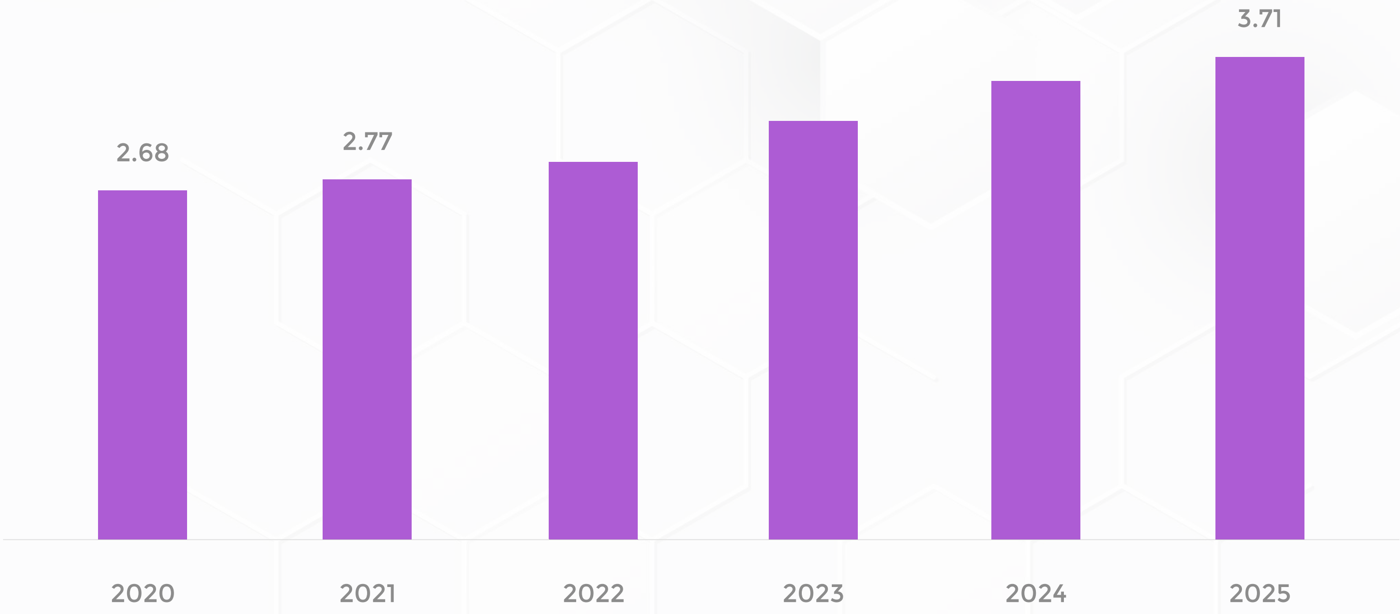
- Safeguarding transactions and assets

Custodians might play a key role in the fundamental development of yet untokenized markets as a centralized trustee with authoritative command

under the wing of responsibility for guaranteeing the backing of tokens representing one of a kind real world assets. The accuracy of information circumventing the asset in question needs to be validated by centralized protocols and communicated with on-chain partners. Above all, the reduction in delays benefits the settlement cycles and those parties involved through the DLT-speed of change of asset ownership.

Security Token Market Cap on Secondary Markets is Expected To Breach $1 Billion By August 1, 2021

**Global Real Estate Market,
Forecast Market Size, 2020 -2025, $ Trillion**



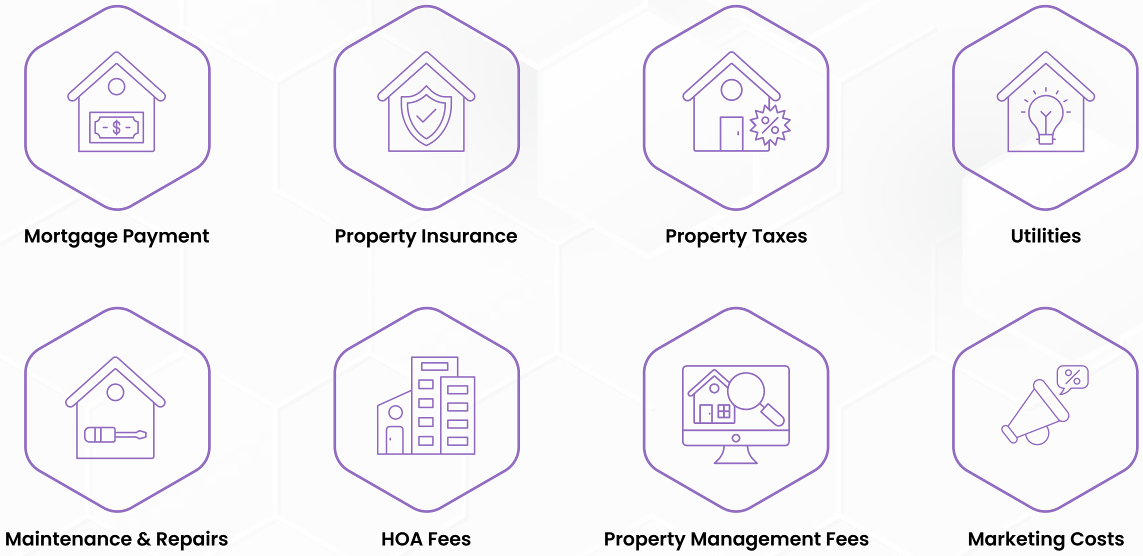
Real Estate

Despite the impact of the COVID19 pandemic on global markets, the Real Estate sector has remained fairly buoyant. The real estate market reached 9.6 trillion US dollars by 2019 attracting investors for high cash yields and lower correlative properties to the overall capital market size. The pending and projected growth of the human race to 10 billion by 2050 harnesses potential for stable market size increases globally. The main inability for the real estate market growth is marked by a lack of structured access to investment opportunities for property developers and investors, and sourcing financing for real estate projects. DLT might be able to handle these impeding challenges in the form of Securitized Tokens (STOs)[8]. Slowly, legal frameworks to implement guidance for the global STO architecture are on the rise paving the way for clear and specific education and awareness amongst market participants. STOs provide efficiency, achieving a medal for an additional capital raising method for asset owners and companies of various sizes and scales. The increasing aging demographic begs for catered housing for the elderly, and the pandemic has shifted investments more heavily into industrial and logistic properties. Overall, there is an increasing demand for private lending to meet funding requirements for development.

Private Lending

When undertaking a development project real estate developers require intensive capital and are currently mostly sourced through bank loans and private investments. However, comparatively, there is a decrease in bank loans from 2016 to 2020 and an increase in private lending in both public and private markets. However, access to investment opportunities is narrowed to institutions or high net worth investors with barriers to entry marked by illiquidity of real estate investments being locked up for periods of 10 years or longer. Consequently, secondary markets are challenged by low liquidity and subsequent high transaction costs, while private market vehicles are involved with heavily negotiated deals, exclusive rights and notary side letters. Accessing investment opportunities in the steadily growing real estate market might be addressed by democratized fundraising opportunities that breach the illiquidity and current administrative tenuous channels [9].

Typical Carrying Costs on Real Estate Investments



Bricked Drawbacks

There are five types that bring together the total transaction costs of the real estate market.

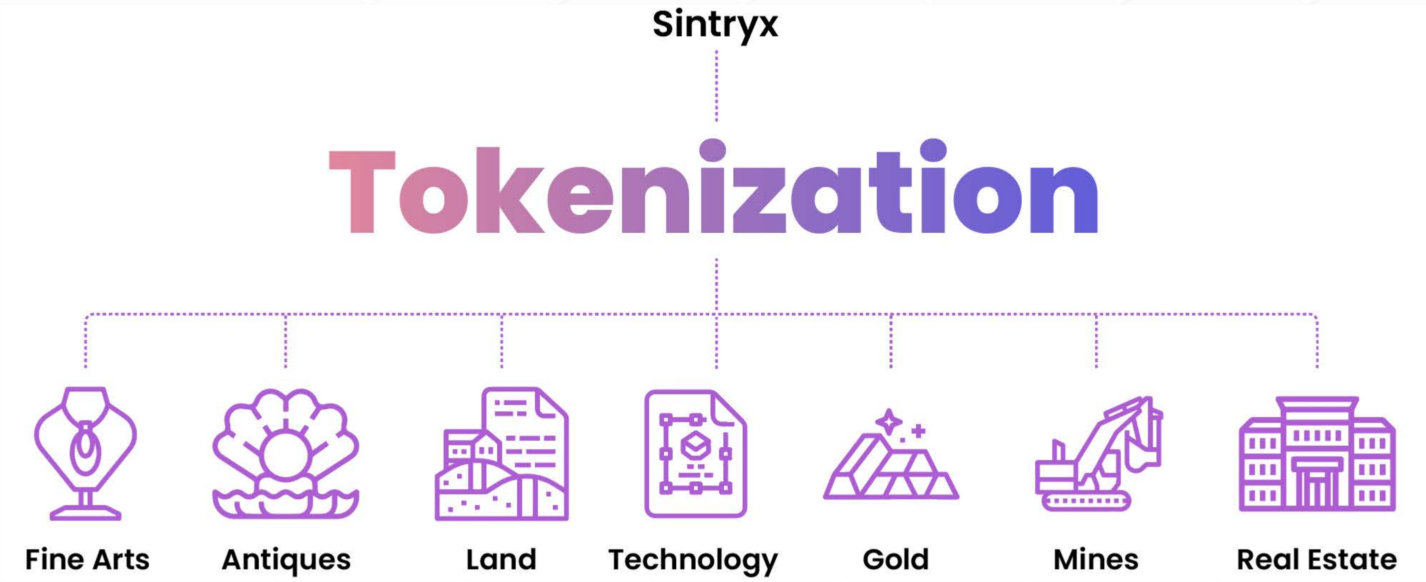
The first is information retrieval costs, which constitutes the amount of value and time sellers and buyers are spending on researching information on real estate objects, but also advertising, views, visits and price comparisons[10]. Real estate firms calculate some of these services in their strategy such that these costs are covered and turn into measurable profits. Realtor commission varies from 1% to 6%, and the dense information, like exaggerated intermediary commission and inaccurate reviews cause hurdles for the investment ecosystem. Digitized services, like Airbnb, charge commissions up to 12% from guests and 3% from homeowners, aiming to cover the large workforce behind the short-term lease platform. Companies like Booking and Expedia are showing similar charging schemes up to 30% from affiliated hotels.

The second arm is the costs of transaction conclusions and negotiations not limited to time and costs for travel, hospitality, administrative work, obtaining information, drafting a contract and the organization of bidding in the case of auctioning properties[11].

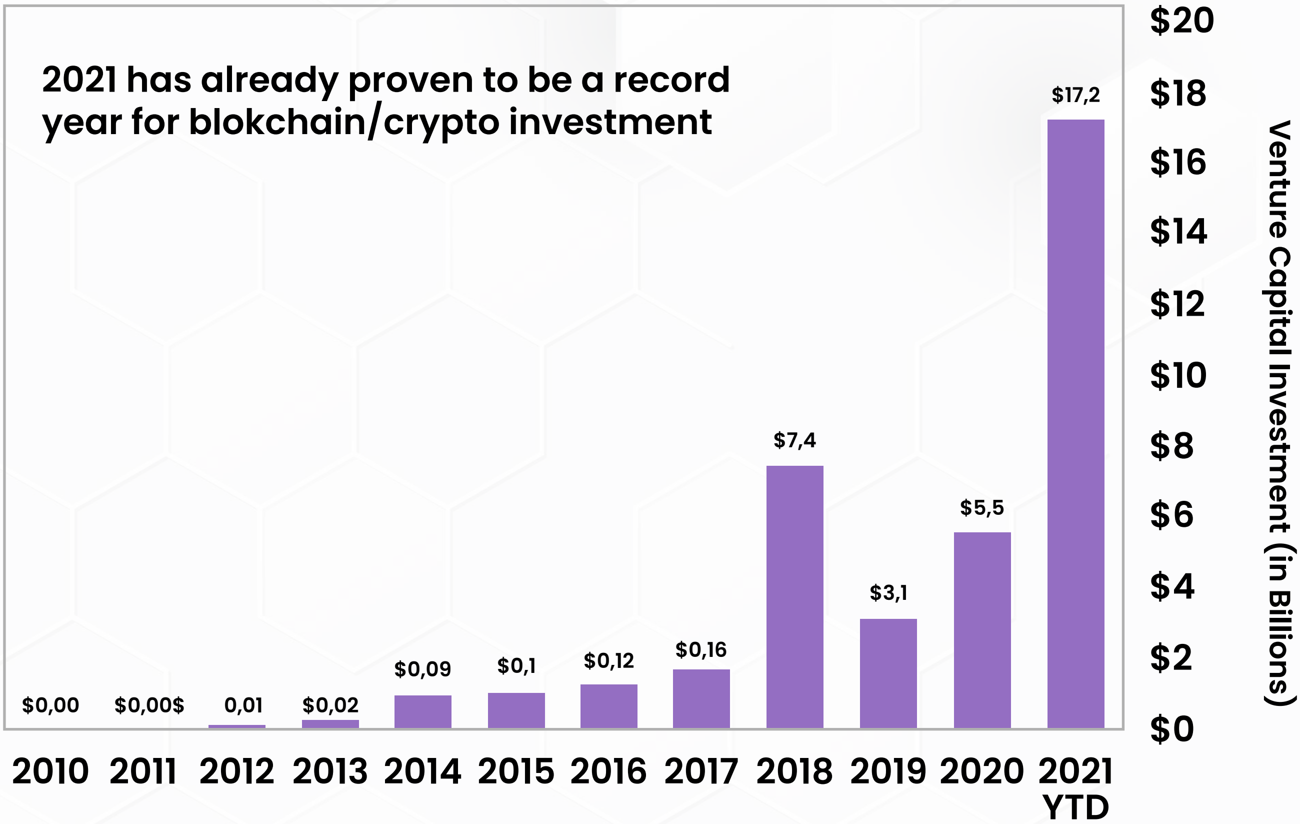
The real estate market is marked by ill transparency and information asymmetry market composition. Measurement costs, the third leg, are factored by the quality of materials, the location, design, convenience and its philosophized beauty, while also concerned by the strength and safety of the facility and utilities. There is no unequivocal assessment of aforementioned features before investing in or renting an object[12]. Investors are thus dependent on the reputation of the developers based on reviews, which are weighted by advertisements and their effect which in turn influence overall transactional costs.

The legal implications to specify and protect property rights can drive transaction costs, as such, notary costs and registration services are standardized[13]. The process of funding through obtaining a bank loan or other forms of credit, such as collateral, loan agreements, insurance and documents for object appraisers and technical inventory, can make cuts in the budgets and are time consuming. Unfortunately, the real estate market is one of the most criminal ones, with multiple examples spanning a size of the market with deliberate abuse of bargainers. Some examples are the obfuscation of property rights or the double sale of land and housing. Subsequently, judicial protection of rights, buta also the restoration of rights, as well as the judicial and state bodies ensuring law and order on the market are additional transaction costs.

Lastly the costs of opportunistic behavior, like evasion of contractual obligations in case of shared construction, right registry, repair, and right restoration of defrauded buyers are all part of possible costly contingencies.


Sintryx
Tokenization
Fine Arts
Antiques
Land
Technology
Gold
Mines
Real Estate

Venture Capital Investments in Crypto Industry



Security Tokens - Market Hybridization

A security token (STO) is a regulated investment contract hosted on a distributed ledger defined by cryptographic techniques to validate data processing, and asymmetric encryption reflecting public and private key pairs. STOs can be created for blockchain or non-ledger related investment consisting of a courtesy duplicate stored in a traditional database by a centralized entity outlining ownership rights, and a digital copy on the Blockchain which is tradeable 24/7 or can be used for lending[14]. These attributes open up previously untapped liquidity and possibilities for investors. The investment contract of the underlying asset represented by an STO can be recognized as stocks, bonds, funds or even real estate investment trusts (REIT).

However, the current regulated trading of STOs hovers around $900 million, with a total trading volume of approximately $7.6 million, giving the impression of an unattractive market for investors.

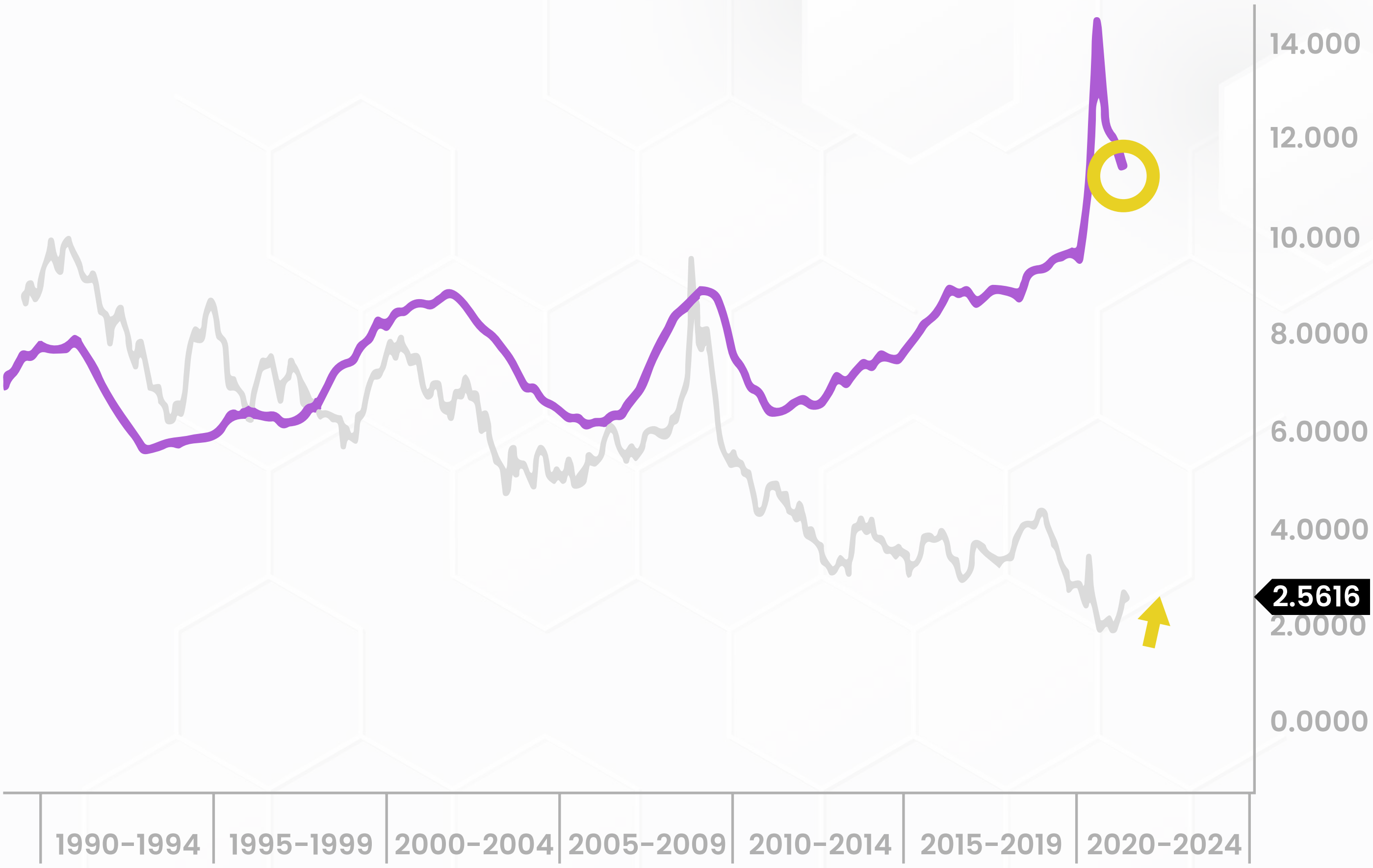
Currently, many market participants view STOs as derivatives, however STOs can be converted into traditional stocks due to their regulated nature in conjunction with centralized and regulated entities, otherwise known as custodians[15].

Tokenized Profit and Revenue Participation Rights

A popular instrument used for corporate financing is participation rights. With the capital raised from investors, the company sublimes the profits made by means of shares representing parts of the company value. The profit participation rights can be repayable or non-repayable, such that participants receive fractionalised dividends without rights to be involved in the affairs of the company. In this sense, tokenizing shares in a company turns the token into a transferable security under EU law making it a flexible multi-purpose investment vehicle[16].

In contrast, instead of reflecting the profit

US Corporate debt vs. Bond Yields



and loss of the company reflected in the value of the tokenized share, tokenized revenue participation rights are specifically designed to return revenue made by the company. To some extent, profit participation rights can be manipulated by investments done by the company, such that the profits and losses are equivalent, leaving minimal dividends for investors.

Both methods provide capital to small and medium-size enterprises (SMEs), which is a type of online fundraising from a pool of investors. The crowd-sale of securities such as debt, unit participation and equity is known as equity crowdfunding. The regulatory body covering raising capital for SMEs is locally specific, however, globally the cap for raised capital through equity crowdfunding is around $5 million. With possibly higher than raised costs for launching projects specified in, for example, compliance research, it forces equity funding seekers to also receive funding elsewhere or minimize the scope of initial raised funds.

Tokenization of the Ownership of Tangible or Intangible Assets

Recent years tokenization in precious stones and metals, but also shares in apartment buildings and royalties from music have been of growing interest in the market. Instead of financing, which is usually not necessary for existing products, the focus is to open up the value of these illiquid assets aiming to transform them into accessible tradable assets. The aforementioned 3rd party Custodian, acting as a trustee, can act as a licensed appointee over the tokenized assets.

Total Value Locked (USD) in DeFi

Total Value Locked (USD)

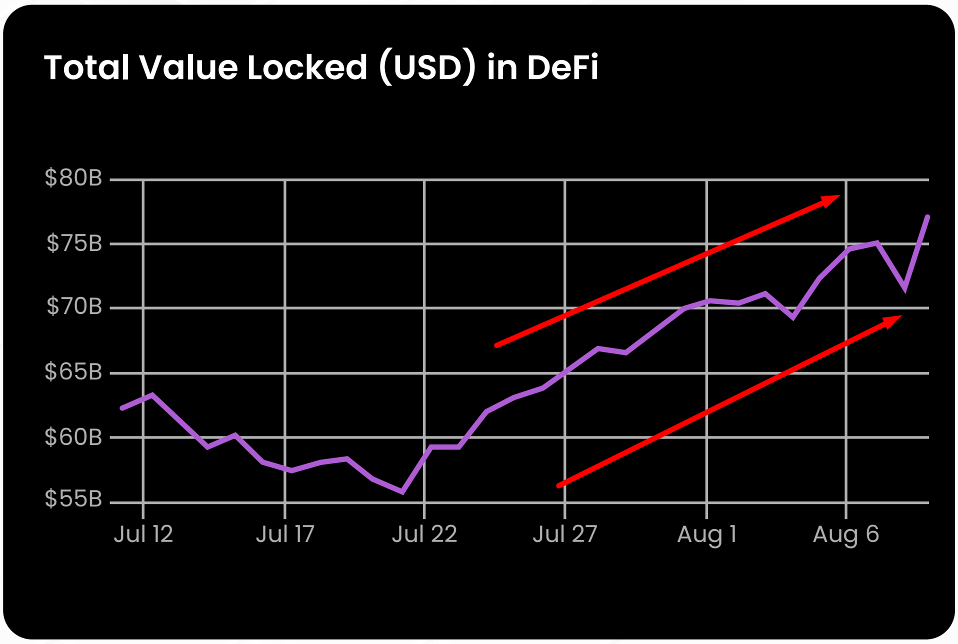
$78.21B

Aave Dominance

15.89%

DeFi Pulse Index

361.94 -20.82 (-5.44%)



The highest growth segment of STOs is Real Estate and comprises the largest segment of the current tokenized market, however, tokenized stocks traded on exchanges do not correlate 100 percent with the actual stock, leading to arbitrage inefficiencies that can increase market interest in the coming years. The Real Estate market size is 280 trillion, however tokenized bonds are estimated to be worth $2.6 trillion by 2025[17].

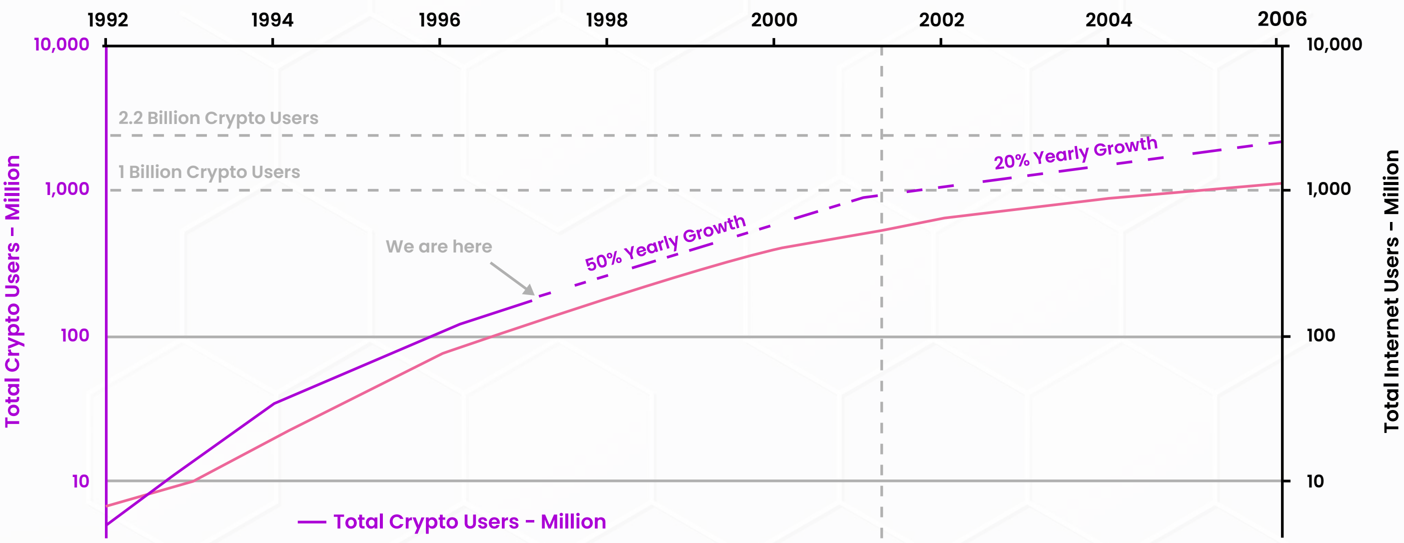
Tokenization of Subordinated Loans

Security Tokens can also have subordinated loans as underlying assets issued, which are debt instruments which have a periodic repayment with increased interests to decrease the risk for the lender. Because the loan is hierarchically inferior to outstanding non-subordinated loans, higher recurring interest rates are requested, providing a cushioning of losses in cases of liquidation or bankruptcy. In case loans issued by the lender can not be paid back fully or in installments, the lender is unable to force legal proceedings on its subordinate creditors. This type of bond is extremely high risk, nonetheless the equity crowdfunding industry has shown favored use over other lending and borrowing structures. Because the promised interest and repayments are sold as a product, the subordinated loan becomes a transferable security under EU law[18]. The company determines on which terms the money is to be borrowed, which inherently relates to the underlying terms and conditions of the token.

The commonality of this high risk type of bond is probably due to the choice of interest arrangements which can be fixed in installments or variable in end-term repayment. Variable interest rates can then be correlated to external parameters like inflation indexes or commodity prices, or to internal parameters like sales and Earnings Before Interest and Tax. For example, interest rates on subordinate loans can increase when the inflation rate of a commodity portfolio of a Venture Capital increases, and interest rates can decrease vice versa. In this way variable interest can be hedged against long-term inflation risk, ensuring repayable installments decreasing the lenders' risk.

In case of collateralization of assets for the granting of loans, DLT-technology can yield more favorable interest rates on the market and without provisional intermediaries that deprive companies of their freedom to manage their assets.

Technology Adoption Curve - Log Scale



In 2021, the market for security tokens grew bij 314% to approximately $1 billion and the trading volume grew by over 500%. In terms of STO production and the amount raised, Real Estate took the lead with notable institutional STO adoption including the Bank of Thailand, Austrian Government, Bank of China, HSBC, and the Bank of Germany. Just like 2020, the USA leads the world with the highest number of issued Security Tokens, followed by Switzerland. The growth of the STO market is predicted to rise as dynamically as the DeFi space in 2021 when liquidity for tokens will be increased to a market size of $10 trillion by 2025. The current market competition is between traditional exchanges, banks, startup token exchanges, decentralized exchanges and cryptocurrency exchanges all trying to conquer a share of the market. Unfortunately, to date the most active exchanges are limited in transactional volume averaging around $7 million in monthly volume. As the regulatory framework around Security Tokens will crystallize over time, and prosperous interest is manifesting from key industry players, a lateral optimism is shared among individuals. Sintryx does not only share that optimism but acts as a catalyst for the emergence of substantive infrastructural improvement through its innovative identity, forging the gates for wider market adoption leading to a possible replacement of the current securities market.

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