



**BLOCKCHAIN
&
DIGITAL SECURITIES**

2021|Q1 REPORT

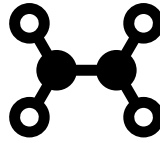
BY ATLAS ONE RESEARCH



Atlas One
DIGITAL SECURITIES

AUTHOR: VLAD ESTOUP

Executive Summary	3
The DSO Market in Numbers	4
Key Figures.....	4
Sector-Specific	4
Notable Developments.....	5
Blockchain Adoption: It's Here.....	6
Cryptocurrencies & Digital Asset Trading	6
Non-Fungible Token (NFT) Mania.....	7
Next target: Private markets	8
Private Markets: a Target for Disruption	8
Real Estate Digital Securities	9
Secondary Exchanges & Blockchain Protocols.....	11
Market Outlook & Top Performers	13



EXECUTIVE SUMMARY

The blockchain ecosystem has seen tremendous growth over the past year. Bitcoin, which is often seen as an index of blockchain trust and adoption, has experienced the largest appreciation since its inception, adding 850 billion dollars to its market capitalization. Most recently, the rise of NFTs (non-fungible tokens) has created a new market for digital collectibles, creating a new use-case for distributed ledger technology in speculative markets.

The digital securities market is still nascent, but as the use case for tokenized ownership becomes more known and understood, private securities issuers are more likely to adopt the new technology.

There are a variety of factors that will determine how fast distributed ledger technology will disrupt private markets. The extent to which broker-dealer networks will be developed, used and adopted by private market organizations, combined with the degree of regulatory innovation, will determine the success of the digital securities ecosystem.

A number of new networks and exchanges are creating tradability to the large yet illiquid private market. Several institutions are already becoming deeply involved with digital assets and cryptocurrency, but institutional adoption of digital securities is only beginning.

Many of the larger players in the space are looking to add real estate tokenization to their portfolio of digital securities solutions. After all, real estate is still an untapped market that can benefit from the liquidity created through digital security offerings, ease of managing new investors, and streamlined corporate actions such as dividend distributions.

Another major trend is real estate digital securities trading on decentralized exchanges. Not only are we seeing demand for real estate-backed digital securities, but we are also experiencing the growth of a decentralized trading ecosystem.

How this market continues to develop will depend much on how many trusted, reputable organizations contribute to a network of digital securities liquidity. There is a great deal of potential for digital securities to disrupt private markets, but the industry's success will depend the ability to great that trust liquidity network for issuers and investors.

THE DSO MARKET IN NUMBERS

● Real Estate ● Finance ● Technology ● Other

KEY FIGURES

Market Capitalization: \$956,709,311.26

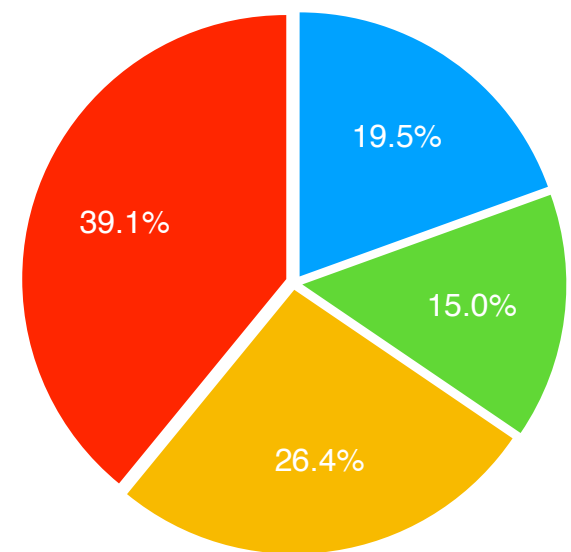
Growth since the start of 2021: 25%

Average Issuer Capitalization: \$14,069,254.58

Median Issuer Capitalization: \$1,350,000.00

Top Performers (YTD): Blockchain Capital (+312%),
tZERO (+115%), Overstock (+50.6%)

Market Cap by Sector



SECTOR-SPECIFIC

	Total Capitalization	Estimated number of Securities	Notable Issuers
Real Estate	\$186,403,092.72	34	RealT, SolidBlock
Finance	\$143,740,780.94	6	MERJ Exchange, Curzio Equity Owners
Technology	\$252,666,364.96	19	tZERO, Blockchain Capital
Other	\$373,899,072.64	15	Overstock

NOTABLE DEVELOPMENTS

2021 has so far been an exciting year for digital securities, particularly in the real estate sector. A number of new firms have delivered a streamlined capital raising process that provides investors with increased liquidity and market flow. Numerous “incumbents”, such as tZERO, have partnered with a variety of both commercial and residential real estate players in order to create the foundations for an enhanced real estate investment ecosystem powered by blockchain technology.

What sounded like a potentially disruptive technology in 2018 is now becoming reality. Smart contracts are currently being used around the world to fractionalize ownership of real estate assets and create an integrated, transparent and efficient investment ecosystem. Several financial institutions and governmental organizations are experimenting with distributed ledger technology, particularly when it comes to securities settlement processes.

Here are some of the most notable developments in the first quarter of 2021:

- **Blockchain venture studio Draper Goren Holm hosted the Annual Security Token Summit** on March 25th, gathering industry leaders and a broad portfolio of venture invested companies to provide an update on the current state of the market.
- **tZERO is working on enhancing their platform’s functionality** to facilitate transactions in exchange-listed equity securities.
- **tZERO partners with Earn.re**, an enterprise software provider for issuing and servicing digital securities backed by commercial real estate. The alliance will increase tZERO’s exposure to commercial property issuers seeking a liquidity solution via their new trading platform, according to their CEO Saum Noursalehi.
- **Germany’s Finance Agency, along with the Deutsche Börse and the Deutsche Bundesbank tested securities settlement using blockchain.** The test is being described as a bridge between blockchain and conventional payment systems to settle securities in central bank money, but did not encompass the use of a central bank digital currency.
- **OSL Digital Securities executes first regulated virtual asset trades in Hong Kong.** The SFC-licensed exchange and brokerage is now live trading, utilizing a modular interface where institutional and professional investors can buy, sell and securely store digital assets such as Bitcoin, Ethereum and selected digital securities.

BLOCKCHAIN ADOPTION: IT'S HERE.

CRYPTOCURRENCIES & DIGITAL ASSET TRADING

The price of Bitcoin is often being cited as an indicator to understand the level of worldwide blockchain adoption. Over the past year, Bitcoin has substantially outperformed the stock market, returning 856% and adding over \$850 billion to its market capitalization.

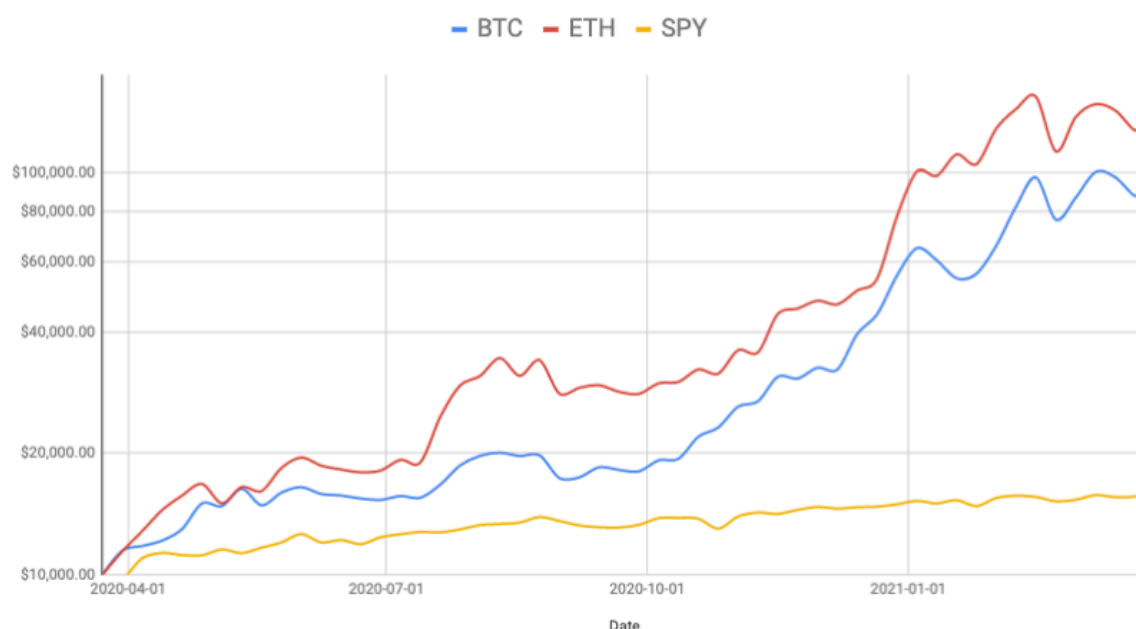
Throughout the last months of 2020, we saw the beginnings of a new wave of institutional adoption of Bitcoin. The latest large-scale corporate buyers include Microstrategy, Tesla and payments giant Square. Visa and Mastercard now allow cryptocurrency payments on their ubiquitous rails. But what truly made headlines around the world was Tesla's decision to accept Bitcoin as payment for their cars, stating that they would not convert the proceeds to fiat currency.

The value proposition of Bitcoin, however, was already proven when it solidified its place as the clear cryptocurrency leader, dominating over 50% of the entire market's capitalization and being used in the developing world as a hedge against inflation.

Ethereum, a distant second in the cryptocurrency arena, has also gained a large following. By becoming the largest and most used tokenization platform on the internet, Ethereum is currently the leader in terms of smart contract protocol. With the launch of Ethereum Layer 2 scaling solution Optimism, the network will be transitioning from proof-of-work to proof-of-stake, and hopefully reducing its heavily criticized gas fees. Unfortunately, Optimism has postponed the public launch of its mainnet until at least July 2021.

The following graph illustrates the performance of a \$10,000 investment into Bitcoin and Ethereum compared to the S&P 500 over the past year:

\$10,000 Growth in Bitcoin, Ethereum and S&P 500



Source: Atlas One Research

A noteworthy market trend has been the explosion of both digital assets and emerging cryptocurrencies being traded on Uniswap, the leading decentralized exchange platform. Uniswap's volume grew by over 80% since the start of 2021 (from \$495b to \$894b), showing the incredible demand for a worldwide trading system without intermediaries. Uniswap operates through liquidity pools, where users deposit funds and are rewarded through dividends (from trading fees) deposited directly to their "liquidity tokens".

RealT's real estate-backed digital securities actively trade on Uniswap, providing investors with liquidity and offering a gate into the cryptocurrency market.

The fact that digital securities are trading on decentralized exchanges is a clear sign that traditional settlement processes are outdated and inefficient. The need for a regulated stablecoin settlement system (potentially through a central bank digital currency) is higher than ever. In our [Central Banks Digital Currency Report](#), we outline the various government projects and experiments to digitize money that are currently underway. Until such a process is implemented, we are likely to see decentralized venues and stablecoin settlement continue to gain traction.

NON-FUNGIBLE TOKEN (NFT) MANIA

Non-fungible tokens have become a trending meme over the past couple of months. The NBA launched a collaborative project with Dapper Labs, called NBA Topshots, to sell blockchain-based dunk video cards. Nifty Gateway, an emerging digital art marketplace, has sold art collections from celebrities and artists such as Steve Aoki, 3lau and deadmau5 in the form of non-fungible tokens. Even Twitter founder Jack Dorsey's first tweet was tokenized and sold for \$2,900,000.

BNP Paribas subsidiary L'Atelier has announced that the total trade volume of the non-fungible token market had surpassed \$250,000,000 as of January 2021 (representing 400% growth since 2019), and the total capitalization of tokens representing an array of items, including artwork and collectibles was close to \$338,000,000¹.

Currently, the market capitalization of the NFT market is likely to have surpassed the \$500,000,000 mark, representing over 100% growth since the start of the year.

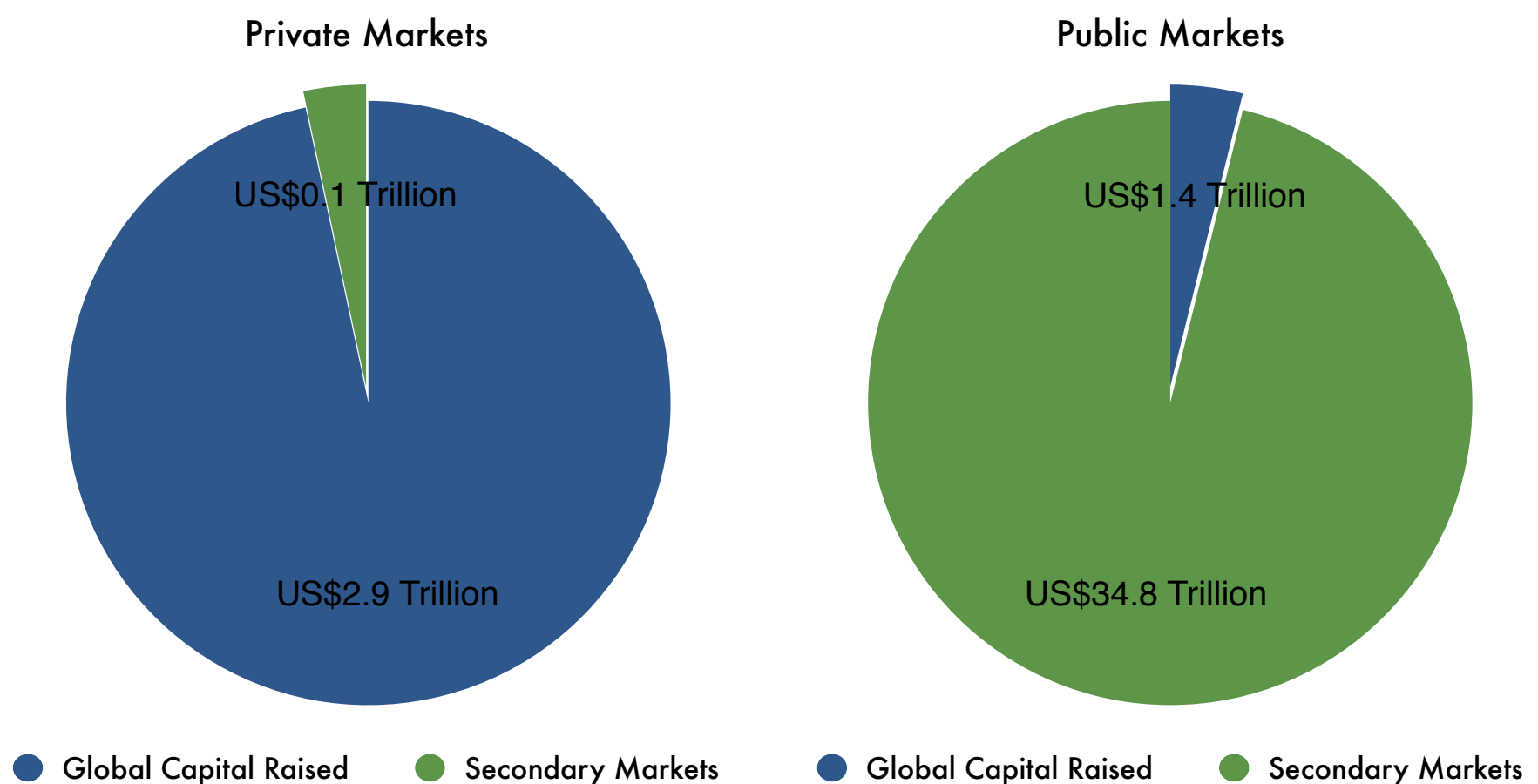
Although the NFT market is possibly in the midst of a mania, its recent rise has demonstrated the incredible benefits of blockchain technology in terms of value transfer, ownership and liquidity.

¹ Non-Fungible Tokens Yearly Report 2020, L'Atelier (BNP Paribas)

NEXT TARGET: PRIVATE MARKETS

PRIVATE MARKETS: A TARGET FOR DISRUPTION

When it comes to private market metrics, the aspect that particularly stands out as an appealing phenomena to digital securities proponents is the lack of liquidity. Private markets have raised over \$2.9 trillion worth of capital for issuers, but the annualized trading volume is around \$100 billion. In public markets, however, we have the opposite scenario. About \$1.4 trillion worth of capital has been raised, but there is over \$34.8 trillion worth of annualized trading volume across public markets. In short, private markets are raising larger amounts than public markets but they are over 300 times less liquid.



Source: Harmonization of Securities Offering (SEC) page 78; Setter Volume Report FY 18, World Federation of Exchanges 2020 Market Highlights

In a report by McKinsey in 2018², the consulting giant presented a set of imminent applications of distributed ledger technology. They emphasized blockchain's potential to disrupt "low-trust environments", where investors generally can't trade directly with each other and there is a lack of reputable intermediaries. Given the lack of liquidity and market opacity, private markets fit this description fairly well.

However, the network of broker-dealers offering digital securities is still relatively small, which is likely a result of the outdated settlement solutions approved by regulators.

² http://www3.weforum.org/docs/48423_Whether_Blockchain_WP.pdf

A number of stablecoins are currently being used to pay dividends and trade securities on decentralized exchanges, such as Circle's USDC and most recently XDai.

In order to address the lack of liquidity and interconnectivity of private markets, the FinP2P protocol is being launched. FinP2P is providing enterprises with the ability to connect to one major network that allows issuers to broadcast assets from their own networks to the larger ecosystem for secondary trading and greater liquidity. It is essentially a network of ledgers that allows market participants to interact with each other. Symbiont, a provider of digital securities solutions, has already connected its enterprise blockchain platform to the FinP2P protocol, and Ownera is coming out as an active contributor to the cross-ledger network.

Although some progress is being made towards the digitization of private securities, there is still a long way ahead before the entire private markets begin to see a fraction of the liquidity of public markets. Once there is a widely accepted solution for cross-ledger transactions and secondary liquidity, we are likely to see a spillover effect into public markets.

REAL ESTATE DIGITAL SECURITIES

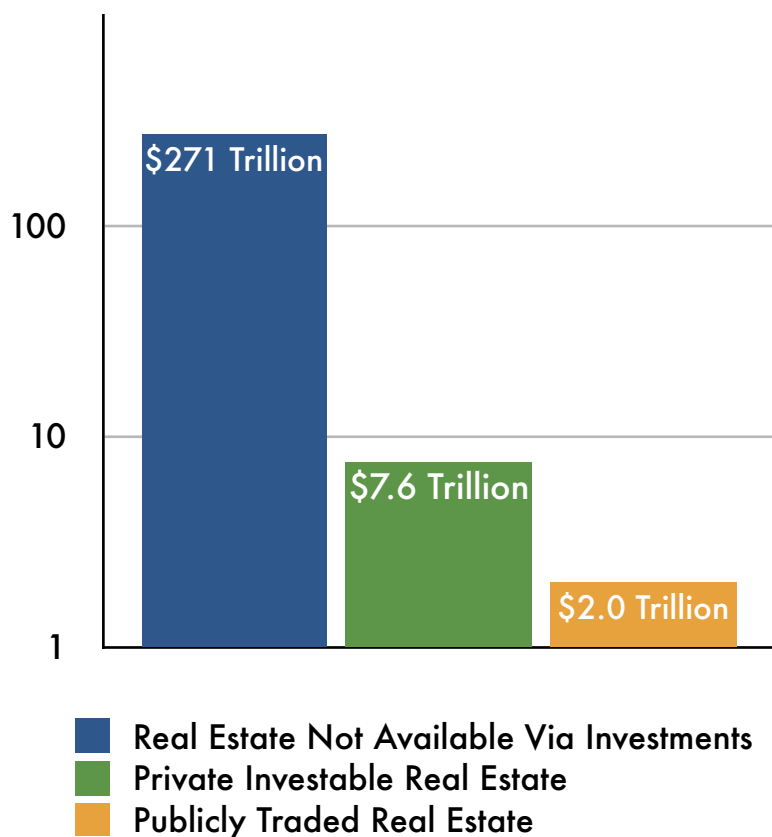
Real estate digital securities are worth close to \$200 million. With the rise of new real estate digital securities platforms like Atlas One, RealT, Akru, and Earn.re, individuals can now access real estate investments through a variety of market makers. Transacting in the real estate market is still extremely costly and inefficient. In the residential market, transaction fees can top 6% to 8%, [as outlined in our Real Estate DSO Cost-Benefit Analysis](#), on top of mortgage and property management fees. In commercial real estate, the average loan can be as high as 6.5%. For listed real estate investment trusts, capital raising costs can be as high as 6% of the total assets under management.

Another big gap in real estate investments is the lack of liquidity. The world's real estate market is about \$280.6 trillion³, but only \$9.6 trillion is available through investment vehicles. The global real estate market is projected to generate commercial and residential rental and other revenue of \$4.26 trillion by 2025⁴, underpinning large untapped cashflow backed issuance. Digital securities address both how this revenue will be distributed to investors. Find out more in our [Private Real Estate Marketplaces Report](#).

³ <https://www.savills.com/impacts/market-trends/8-things-you-need-to-know-about-the-value-of-global-real-estate.html>

⁴ <https://www.grandviewresearch.com/press-release/global-real-estate-market>

Real Estate Market by Investability



Sources: Savills 8 Things to Know about Global Real Estate Value; Nareit REITS by the Numbers

By raising capital from numerous investors through digital securities, real estate can become similar to other dividend-paying securitized assets.

When transaction and capital raising costs are lowered, income-producing real estate can be an attractive investment for those seeking a consistent cash flow with the potential for long-term capital appreciation.

The opportunity for digitization is highest for assets that are abundant, profitable, desired and inaccessible to the average investor.

With less than 3% of the world's real estate market being available via investment vehicles, this is an opportunity to securitize at scale.

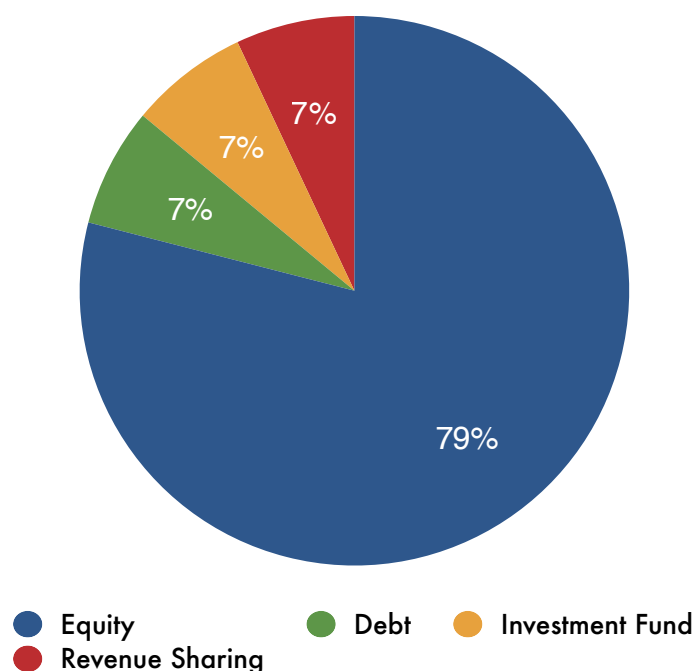
Within the 3% of real estate that is available through investments, less than one third is listed on public markets. In other words, over two thirds of the world's investable real estate sits in private markets, with very limited liquidity and transferability, as mentioned earlier.

Currently, the real estate digital securities market represents less than a fraction of 1% of the private real estate investment market. Most real estate investment products still rely on outdated, paper-based processes and offer little to no liquidity to participants. Furthermore, the barriers to entry into private real estate are relatively high, which results in limited opportunities for the average investor.

By digitizing real estate ownership, we are likely to see more transparency in the market. RealT has already showed the returns that can be achieved in the single-family sector, averaging 11.17% in passive income distributions to its investors and adding 25 properties to their real estate tokenization platform in 2021 alone.

Equity investments, however, are only one part of the real estate digital securities market. Debt offerings backed by real estate are also emerging, allowing for the financing of development projects whilst offering lower volatility to investors.

Real Estate Digital Securities by Asset Type



Source: research.atlasone.ca

Real estate investment trusts present investors with built-in diversification, meaning they have exposure to numerous properties and revenue streams while only investing in one particular security.

Most recently, [Atlas One started offering Alliance REIT⁵](#), a Toronto-based real estate investment trust that has been outperforming the major equities indices over the past 5 years. Alliance generally purchases large, vacant single-family homes in vibrant up-and-coming Toronto neighbourhoods and turns them into exceptional multi-family investment properties.

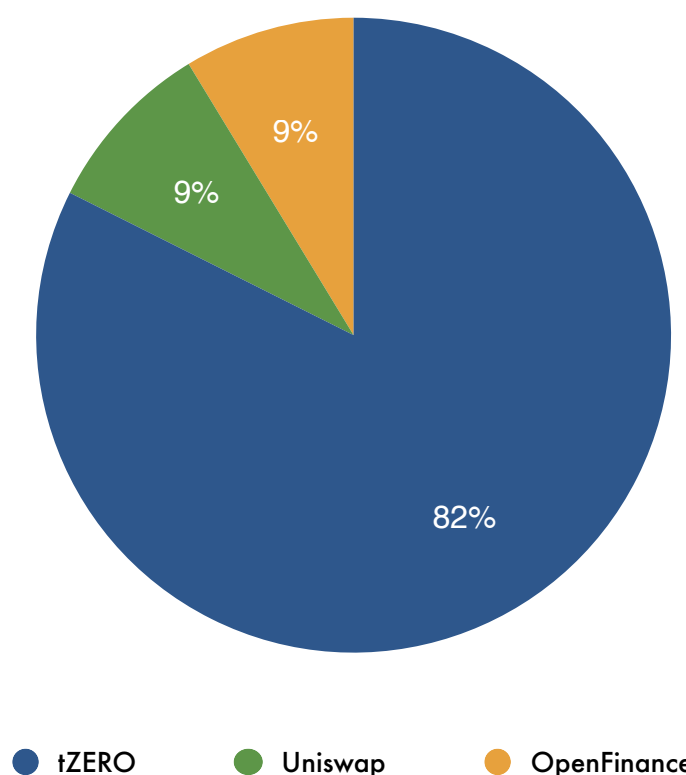
[Atlas One has also listed SolidBlock's real estate-backed London Digital Bond](#), providing investors with access to international real estate investment proceeds. London Digital Bond combines world-class expertise in London residential real estate from London Chelsea with Solidblock, a leading digital securities platform that provided smart contract services for the St. Regis resort's equity token, Aspencoin.

SECONDARY EXCHANGES & BLOCKCHAIN PROTOCOLS

The emergence of decentralized exchanges demonstrates the importance of having a regulated liquidity solution for digital securities. Since these decentralized protocols generally cannot discern between investors, KYC compliant organizations are unlikely to integrate with them.

Some real estate-backed securities, however, are currently being traded on Uniswap and most recently, Levinswap. These decentralized exchanges are leveraging Ethereum to bring liquidity to otherwise illiquid assets.

Trading Volume by Exchange

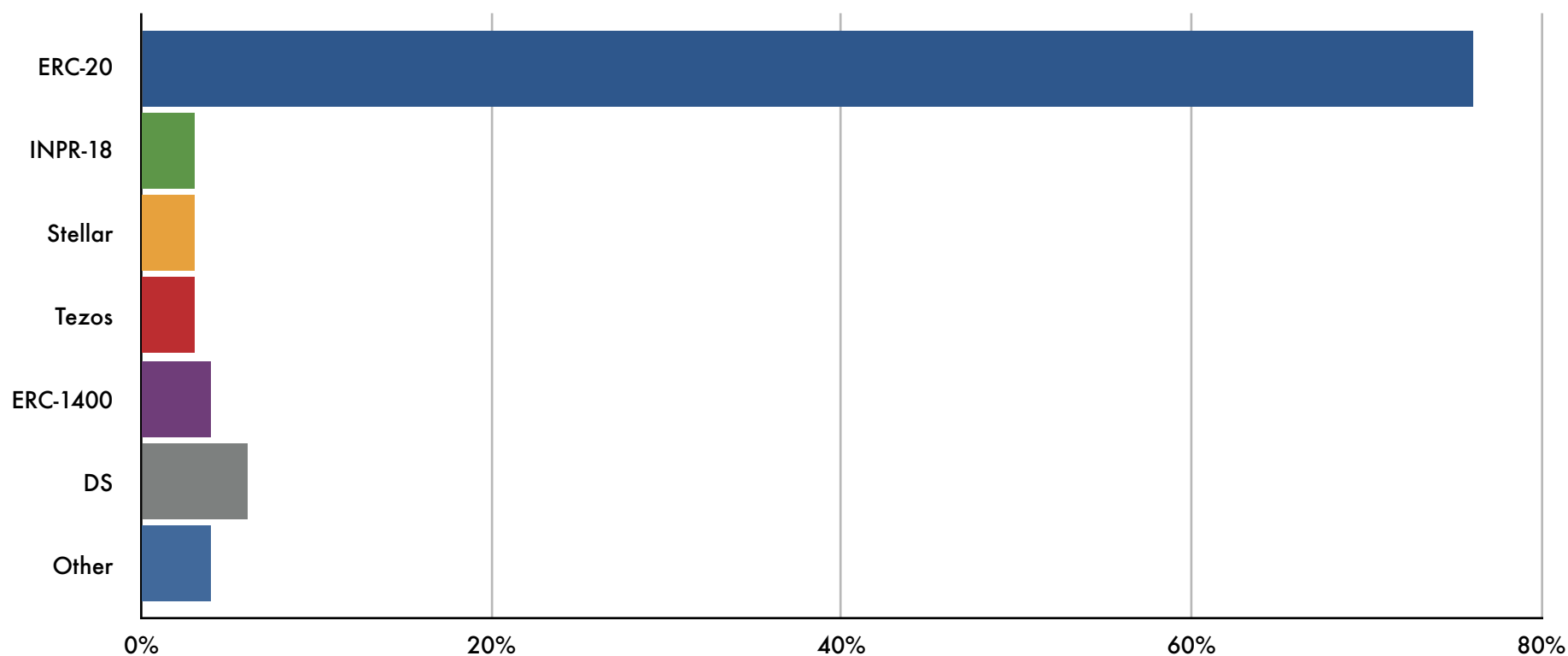


⁵ Available only to eligible investors

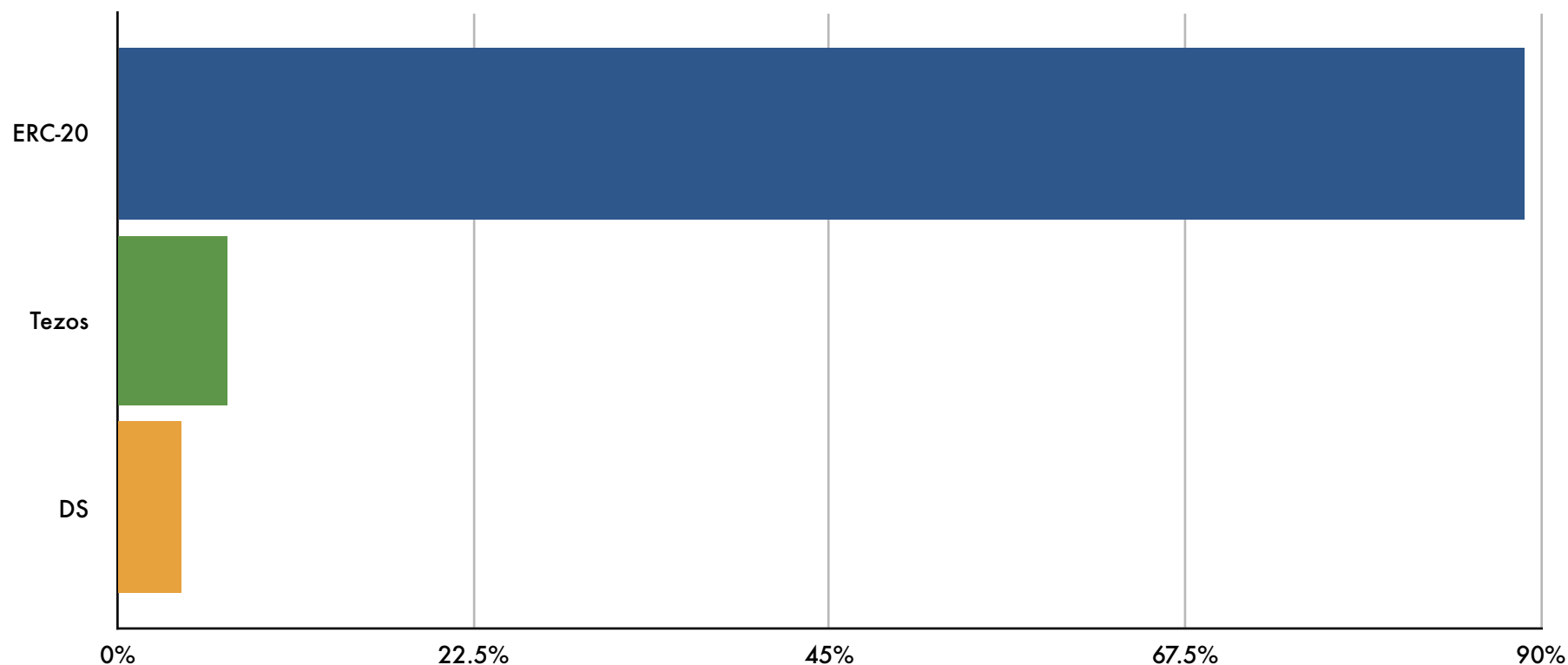
tZERO's Dinosaur exchange is a leader in the digital securities market, with an average monthly volume close to \$534,000 in the first quarter of 2021, a slight decrease compared to \$549,000 last year. The major exchanges in the digital securities market are tZERO, Uniswap and OpenFinance (which was recently acquired by INX).

In terms of blockchains, the two most commonly used are Ethereum and Tezos, although the Cardano network is set to undergo a hard fork in the next few months to allow developers to deploy their decentralized applications. Most digital securities are currently still on Ethereum, but in real estate Tezos is also a significant player.

All Digital Securities by Protocol



Real Estate Digital Securities by Protocol



MARKET OUTLOOK & TOP PERFORMERS

Digital securities are still in their nascent stage. The use case of tokenization has already been proven, both through the rise of tokenized collectibles (NFTs) and cryptocurrencies. The investment world is likely to use the technology to create new products and increase liquidity for assets that are traditionally non-tradable, such as real estate.

We have seen some growth in the first quarter of 2021, with the entire market capitalization growing by **25%** YTD. Although trading volumes haven't grown a great deal compared to last year, this is likely to change once more securities are listed on secondary venues.

Several key organizations in the space are forming partnerships in order to facilitate the issuance and distribution of digital securities. FinP2P is an attempt to bring an inter-ledger connectivity solution to organizations, aiming to create a regulated dealing and trading ecosystem. There is a clear need for regulated liquidity providers and digital asset custodians to connect organizations and facilitate settlement. Nonetheless, the digital securities market is experimenting with its own solutions to regulatory constraints.

Some digital securities have performed quite well, notably tZERO (**+115%** YTD) and Blockchain Capital (**+312%** YTD). In the case of tZERO, the performance boost is likely due to a bullish sentiment towards the firm's ability to capitalize on the future growth of the digital securities ecosystem. Blockchain Capital, however, holds large positions in some of the cryptocurrency market's key leaders. Hence, its rise in price is likely tied to the recent bull run in the cryptocurrency market.

The digital securities market is likely to continue its upward growth trajectory, and is on track to at least double its market capitalization by the end of the year. Securities backed by some of the market's key players, such as tZERO, are likely to benefit from market growth.

Real estate-backed securities are the most imminent use case for blockchain technology, and we are likely to see more exchanges listing them over the coming year. Once larger, regulated secondary venues are operating in the space and offering liquidity for digital securities, the market will have a strong foundation to begin growing exponentially.

Visit our Research Terminal at research.atlasone.ca to get access to digital securities market insights, reports, news and more.

Disclaimer: The information provided on Atlas One's research, social media channels, website, webinars, blog, emails and accompanying material (collectively, the "Information") is for informational purposes only. It does not constitute or form any part of any offer or invitation or other solicitation or recommendation to purchase any securities. The Information should not be considered financial or professional advice. You should consult with a professional to determine what may be best for your individual needs. The Information is drawn from sources believed to be reliable, but the accuracy and completeness of the information is not guaranteed, nor in providing it does Atlas One assume any liability. Atlas One assumes no obligation to update the information or advise on further developments relating to these areas.