

CRESTO.IO

Whitepaper Draft 1.0

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1. Executive Summary

CRESTO.IO is a platform for issuing and trading security tokens for private companies in real estate industry. Our aim is to provide an alternative fundraising and investment vehicle for private market. Adoption of blockchain technology allows to create investment instruments:

- more transparent in comparison to traditional alternative investments;
- less costly to issue and govern due to automated process and elimination of some intermediaries;
- with high potential for liquidity, including cross-border trading.

Security tokens issued on CRESTO represent a digital alternative to traditional investment instruments. In other words, security token is an “upgraded security” rather than an “upgraded utility token”.

Security tokens are governed by CRESTO during the whole investment lifecycle and fully comply with financial regulations.

Both types of capital – equity and debt – can be raised through security token offering. Such attributes as maturity, seniority, dividend payment structure, voting rights etc are programmed in smart contract individually for each issuer and automatically executed.

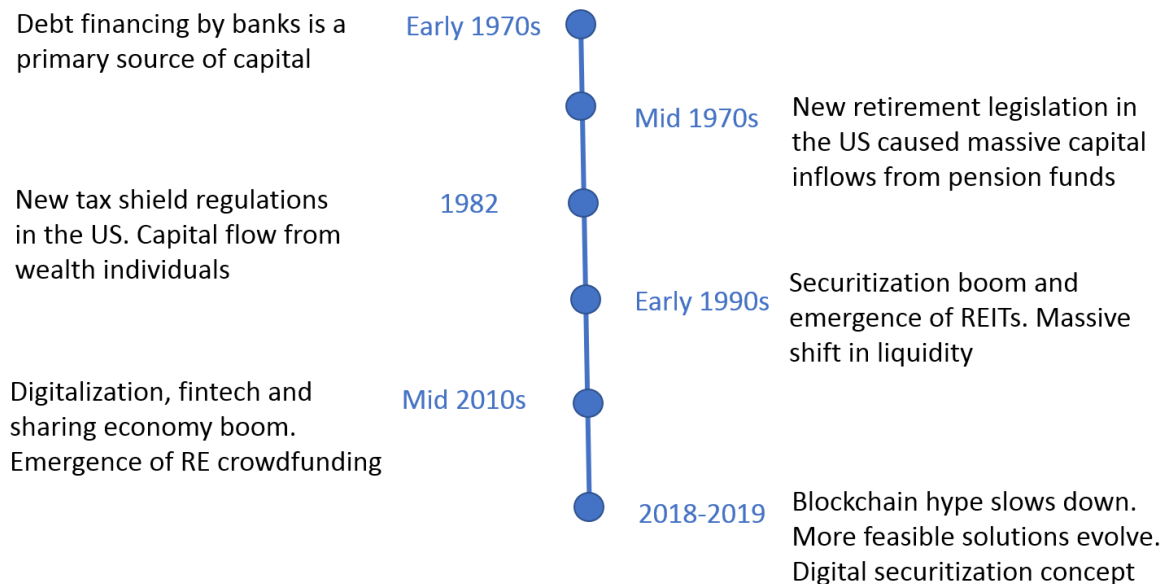
Companies running STO on CRESTO are professional asset managers, who gained multi year experience and investors’ trust on traditional investment market. Relations between parties are fully transparent and supported by private placement memorandum, regular performance reports and other traditional practices.

A few features differentiating CRESTO from other players in emerging STO industry:

- CRESTO aims to integrate into existing financial framework, rather than to disrupt it. We borrow proven and generally accepted fundraising instruments and convert them into digital form.
- Industry specialization is a key driver for success. Fundraising and investing in commercial real estate has a lot of its peculiarities. Therefore, we CRESTO solution is crafted specifically for commercial real estate and is not designed to go into multiple directions.

2. Market Context

In order to understand current trends and predict future trends in commercial real estate financing, it is important to understand how the capital raising instruments have evolved over times. Below are a few milestones relevant today.



Today the real estate capital market is split into major segments – public and private. They stand way far apart from each other, creating a fundraising gap for companies willing to scale but not through going public. This gap gave ground for diverse hybrid investment instruments generally called alternative. A quick overview of the market segments:

Public real estate market gained its power 1990's. commercial real estate market liquidity was boosted by "securitization revolution". Until now major players here are public real estate investment trusts (REITs), which raise equity capital from both retail and institutional investors.

Going public allows to reach out to a whole new universe of investors and boost growth. REITs stocks have always been a desirable investment tool, normally traded at IPO with less discount in comparison to other industries shares.

REITs common stock have multiple advantages against private tools by being thoroughly liquid, offering low entrance barrier, continuously priced and thus closely tracking changes in net asset value, and scrutinized by trustable analytics.

However, IPO is a very cumbersome and expensive procedure, which heavily affects all sides of the business. It can expose a company to unpredictable market forces and public scrutiny. Inflated valuation can lead to catastrophic results. In other words, the risks related to IPO are not always affordable for companies. Another factor against IPO for private companies exposing strategic roadmap to competitors.

Private equity real estate market is predominantly financed by large institutional investors, rather than by retail investors and small companies. Three major reasons for it.

- 1) Private placements have normally long investment horizon and are held to maturity. Early exit is complicated and happens with a huge discount to net asset value. Pension funds, insurance companies, endowments have adopted this strategy very efficiently. Exactly the opposite for retail investors and smaller institutions; they often require more flexible cash flows and prefer more liquid investment instruments to locking capital in private placements.
- 2) Private real estate players prefer developing long term relations with a limited number of institutions. Dealing with hundreds and thousands of retail investors raises operational costs, leads to more information disclosure and prolongates a fundraising campaign.
- 3) Entrance barrier into private real estate market is high for individuals and small corporates.

Alternative types of securities are hybrid investment instruments: non-traded Real Estate Investment Trusts (REITs), private REITs, Tenants-in-Common (TICs). Most of them are not suitable to retail investors, but they do find demand from some categories. Most of alternative securities couldn't win any significant market share due to a number of drawbacks:

- 1) being a long term investment tool, they lack transparency and create an illusion of low price volatility. Share valuations are not being updated and do not reflect changes in net asset values of their portfolios. This creates a loophole for information distortion by sponsors, issuers and brokers. Some issuers and allowed dealers take advantage of unsophisticated brokers.
- 2) high intermediary fees create a significant conflict of interests, incentivizing brokers to sell as many shares as possible, regardless of individual's financial objectives.
- 3) there is no control over debt/equity ratio. Inability to pay dividends from FFO (funds from operations) could be hidden though paying dividends from debt.

As a result, public market for trading alternative securities was never given a way by authorities in order to protect unsophisticated investors and financial sanity in general. Some private markets list those shares with immense redemption restrictions, making them completely illiquid.

CRESTO solution is driven by analysis of current real estate capital markets. Needs of fundraisers and investors is the prime concern.

Blockchain technology offers a number of attributes which can be employed and integrated into current financial markets, including real estate, successfully addressing the market players concerns.

3. Security Token Offering

CRESTO proposes a solution based on the emerging concept of Security Token Offering. We see an opportunity for digital securitization to emerge, change market frameworks and eventually outperform traditional securities by taking advantage of technological advancement and emerging legal framework.

Security Token Offering concept by now gained lot of attention not only in crypto community but also among a wide range of traditional industries existing for centuries. STO is a universal instrument applicable for financing frameworks in diverse businesses. Real Estate is one of the industries which can benefit the most from STO.

Security token is customizable and can replicate in detail all types of traditional public and private investment instruments. Through application of blockchain technology a digital security gets additional features and becomes a more advanced instrument.

Security token offering a number of profound values to both sell and buy side of real estate market. Below is a list of envisioned advantages, which are closely related and effect the whole framework. Some of them are more relevant for fundraisers, others – for investors. Most of them are beneficial for both sides.

3.1. Security token offering value for parties involved

Values for Fundraisers

- Access to new sources of capital – small and medium institutional investors, qualified individual investors and potentially in future – whole range or retail investors. This creates opportunities to reduce funding costs by getting Unlike IPO, STO does not require any structural changes of the fundraiser and disruption of business processes
- Diversification of funding sources, which helps to reduce dependence on large and powerful investors and gain more bargaining power
- Alternative exit strategy for shareholders
- Alternative debt financing with less restrictive covenants in comparison to a bank loan

Values for Investors

- New investment instruments with more attractive risk and return profile
- Access to private market opportunities with higher yield for minor corporates and individual investors

Some fundamental effects which STO can create:

- Liquidity. Year 2018 demonstrated rapid emergence of STO ecosystem. Even though security token trading on qualified security exchanges is not taking place yet, there has

been positive dynamic in this direction in a number of countries, including the US, Switzerland, Germany, Singapore, Philippines, Japan, Malta, Estonia etc.

- Cross border capital flow. Geographic diversification can help real estate investors to hedge markets cycle, economy and currency risks. However, due to high transaction and information costs and regulatory restrictions it is not always viable to invest abroad. The growing security tokens ecosystem can mitigate these problems, giving investors access to multiple markets with diverse return/risks equilibriums. On the other hand, fundraisers can get access to cheaper capital from countries with less opportunities and lower yield appetites.
- Cost efficiency. The underwriting and governance process are automated, meaning that a smaller management team is required. Besides, intermediaries such as security brokers, can be eliminated.

3.2 Security tokens vs publicly traded shares

- lower issuance costs (in comparison to IPO)
- digital securities will be traded 24/7 on crypto exchanges and delinked from traditional S&P500 exchanges. This creates a new alternative for diversification more dynamic and driven by other forces.
- security tokens have potential to boost cross border capital flow through trading on crypto exchanges

3.3 Security tokens vs current alternative instruments for Real Estate

CRESTO team envisions that security tokens in real estate have a great potential to substitute alternative investment instruments by solving the major existing hurdles.

A quick recap from Section 2 about the drawbacks of alternative investments:

Low transparency + conflict of interest -> loopholes for deceiving investors.

High fees based on sales volume -> highly incentivized brokers target their campaigns at non-sophisticated investors -> risk of loss, unaffordable for regular individual -> secondary market is banned by authorities -> no liquidity – main hurdle.

The above drawbacks can be efficiently mitigated through implementation of blockchain technology:

- lower middlemen fees drive out wrong incentives for brokers. Those who have valuable skills and knowledge will still be required by the market, but more in form of consultants and advisors. They would shift towards portfolio management practices
- opaque players will be driven out of market as they would not be able to conceal unfeasibility of their capital structure
- disclosure requirements and dynamic trading will boost more accurate and frequent updates on underlying assets value

Long term, some fundamental rations for real estate investment market can be affected by STO: Shift of cost/liquidity & price/risk balance. As a result, weighted average cost of capital (WACC) will be affected.

All forms of derivatives and their trading mechanisms can be programmed into digital securities as well.

4. Market and Legal response to STO

Market response is there Not only crypto exchanges, but also traditional stock exchanges and financial institutions demonstrated meaningful progress in developing the product and obtaining necessary licenses to permit trading of security tokens:

- Coinbase secured a set of licenses through acquisitions of three financial institutions (Venovate Marketplace Inc, Keystone Capital Corp, and Digital Wealth LLC) – alternative trading system license, broker-dealer license and registered investment advisor license. This package makes them all set for trading security tokens;

- Templum received ATS license through acquiring Liquid M Capital

- tZero has been heavily invested by a private equity company, clearly playing a major role in future their future fundraising plans

- Six Swiss exchanged is building an end-to-end infrastructure for digital asset trading

- Australian stock exchange is developing their own blockchain, i.e. “permissioned blockchain”, to tokenize securities for the equity market in Australia

- Malta stock exchange, is partnering with Neufund.org in order to provide compliant marketplace compliant with EU regulations for secondary trading of security tokens

- London Stock exchange is going to use its platforms - Turquoise and Nivaura – to issue tokenized equities of a UK based company “20|30” in full compliance with the regulations of UK’s Financial Conduct Authority.

5. Security Token Offering vs Initial Coin Offering

Security token is profoundly different from utility token and should be regarded NOT as an upgraded utility token but rather as an upgraded version of off-chain securities.

However, there is currently quite a lot of confusion between the two concepts – ICO and STO. It would be practical to point out some differentiations between the two types of tokens.

5.1 Drawbacks of ICO

Blockchain technology at early stages was spotted by many as a potential tool for solving a few impediments in private real estate market. The most often mentioned ones were liquidity, cross-border capital flow and lower entrance barriers for investors. A number of startups came up with the concept of raising funds through ICO with further investing into real estate assets.

Unfortunately, the industry failed to deliver impressive results. Many startups have raised substantial funds, but never moved to next stages of property investment cycle. Major reasons for it are:

1. The tokens generated during ICOs were sold to investors before the purchase of assets, in many cases – before the investment strategy was even defined. Instead of being directly correlated to NAV and stabilized by it, ICO tokens followed the fluctuation of Bitcoin, Ether and other crypto assets.
2. “Utility” tokens, as they were defined in order to avoid securities regulations, did not comply with any legal standing and existing financing framework and soon were challenged by the authorities in many countries.
3. Speculative nature of ICOs drove institutional investors away, which never allowed ICOs to become a credible fundraising tool on traditional financial market.
4. Most of early stage ICOs for real estate were run predominantly by tech teams, lacking on business and financial focus. Real estate asset class, as any other type of investment, requires deep industry knowledge and experience, professional network and understanding of macro trends. Technology is only a tool for the business.

5.2 Security vs Utility Tokens

These fundamental differences between security and utility tokens are not exclusive for real estate, but are generally the same for other industries exposed to financial markets:

Security Token	Utility Token
Represents shares of an existing asset portfolio or an operating company, which (in most cases) already raised capital in traditional ways. Can as well represent equity of startups	Represents future access to not yet existing product / service / portfolio. High risk profile fundraisers see it as an alternative to more expensive and restrictive VC capital
Pays regular dividends (unless decided otherwise by shareholders), as an operating company or portfolio is generating cashflow	dividend payments are not common
Token value appreciates due to increase in net asset value over time (given the investment strategy is successful)	Subject to extreme volatility; appreciation is driven by crypto community expectations
Compliant with existing financial regulations	Unregulated
Can be programmed as a digital form of traditional securities (combining features of public and private ones), derivatives (stocks, bonds, futures, equities, swaps, forwards etc) applied to a new category of issuers. All attributes of traditional shares can be programmed into smart contract, execution automated (dividend payment, waterfall structure, voting rights, hurdle rate, carry structure etc). Organic development of financial instruments through technology implementation	A new form of value representation, non-compliant with existing financial framework and attempting to “disrupt” it

Investors are subject to KYC/AML procedures	High risk of being misused for illegal capital flows
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6. Target Real Estate Assets

CRESTO's approach to due diligence of a real estate asset is as serious as in traditional market. To qualify for digital securitization, an asset pool has to satisfy certain legal and economic criteria.

- Asset pool managed by industry professionals with proven track record;
 - Assets backed up by solid business plan and financial projections presented in private placement memorandum,
 - Generating stable cashflow or with feasible short-term plan of generating cashflow;
 - Core/core+ assets in strategic locations with potential of mid/long term value appreciation;
 - Event-driven properties with potential of high value growth in short term;
 - Assets with history of data allowing to quantify credit risk (default rate of the assets? Delayed payments rate? Credit standing of the debtor? Etc)
 - Minimum transaction size (except for trial rounds of STO) is USD 100 million.
- Alternatively, originators can be pooled into multi-seller model.

We see that one of the major drawbacks among current solutions in the industry is willingness to securitize assets not suitable for investment. CRESTO does NOT securitize properties in own use of companies and individuals, because:

- they are not designed to generate value for external investors;
- cannot be used as collateral: in current legal framework it is close to impossible to sell off a residential property (where individuals live) to cover loss.

7. Fundraisers perspective

There are multiple types of fundraisers on private real estate market with different objectives. Through STO can raise both equity and debt capital through STO, maintaining the same capital structure as with traditional financing. We spot out some peculiarities for two business cases – for real estate private equity company and for a non-traded real estate investment trust.

7.1 Real Estate Private Equity

One of the key success drivers for real estate private equity firms is ability to source a lucrative deal and have the funds disposable immediately in order to close it. Therefore PE, when raising a new fund, forms the pool of committed equity capital even before a target real estate asset is defined. Once an opportunity is spotted, equity capital committed by limited partners needs to promptly get available for transaction. It means that hundreds of millions of USD need to be transferred within a few weeks or even days. The capital raised for another fund cannot be employed.

Therefore, when running equity STO for private equity firms, CRESTO will adopt a similar framework: a feasible amount of committed equity capital will be secured. Here we see institutional investors being the major source.

PE Funds normally do not pay out dividends, Instead a big paycheck comes when the fund is liquidated. This is due to the fact that PE funds have long investment horizons and harvesting returns takes time.

Therefore security tokens should be structured accordingly: appreciation vs dividend payment. In most cases, a lockup period will be naturally driven, as in the first few years cashflow can be negative.

Besides, private equity firm normally adopts flexible strategy towards their assets and can deviate from initial plan if the market conditions urge to do so. This kind of change however needs to be approved by limited partners. Therefore voting rights should be also embedded into security tokens.

On the other hand, the value of the tokens should reflect the stage of the fund. It will greatly change from investment period to harvesting period. Security tokens on different stages of a fund will in fact be very different investment instruments addressed to different investor categories.

Debt STO for a private equity company can be structured differently. If a PE firm has a portfolio of cashflow generating assets with low or zero leverage ratio, they can be used as collateral for raising both senior and mezzanine debt in form of digital corporate bonds.

Refinancing of existing debt can be also done through STO.

7.2. Private Real Estate Investment Trust

Important to understand that Real estate investment trust is a tax instrument above all. Income generated by REITs is tax exempt.

REITs have to distribute 90% of their profits as dividends on a regular basis. Therefore those instruments are more suitable for investors seeking for stable cashflow.

Security tokens can be programmed accordingly, and based on the terms embedded smart contract dividends will be automatically paid.

Normally a REIT will define their investment objectives and should not deviate regardless of market conditions and circumstances.

Due to the dividend payment structure, REITs are looking for fully-leased, stabilized properties with no repositioning or renovation requirements, as opposed to private equity companies

Fee structure is more simple and fixed: management team gets paid salaries and bonuses/

8. CRESTO.IO

8.1 How CRESTO is different from other players

CRESTO team do not really see other startups working on similar solutions as competitors. At this nascent stage our concern is not competition, but proving feasibility of STO to fundraisers and earning trust of investors. The business opportunity is enormous, but it can be lost or delayed due to malaise practices of some players. This should be prevented by responsible community.

A few conceptual differences of CRESTO's approach.

- 1) We put accents differently. The challenge is not to raise funds but to spot investment opportunities. Therefore at early stage of CRESTO we put maximum effort on crafting our solution for fundraisers.
- 2) We aim to integrate into existing financial framework, not to disrupt it. We borrow proved and generally accepted fundraising instruments and convert them into digital form.
- 3) We see Industry specialization as a key driver for success. Therefore, we craft our solution specifically for commercial real estate and do not intend to go into multiple directions.
- 4) As a startup we choose to be financed by VC rather than through token offering. Funds received from professional investors give more credibility to an early stage venture.

8.2 CRESTO's place in STO Ecosystem

STO ecosystem is quickly growing and becoming very complex. It is in many ways correlated with currently existing off-chain system, contains similar roles.

CRESTO provides the following set of services to fundraisers:

- Upon approval of the application – proceeding with all necessary legal registrations
- Do the underwriting – create the security tokens
- Onboard & accept qualified investors adhering to the regulatory standards (KYC, AML, CFT and others)
- Govern the security tokens on behalf of the fundraiser's investors
- Distribute the income
- Redeem the security tokens from the Company's investors once the fund is closed.

The process has the following steps (tracked on originator's dashboard):

- 1) Originator is registered on platform. Due diligence performed. Originator accepted / rejected
- 2) Approved originator initiates securitization request and submits investment offer termsheet, documents on SPV and collateral asset.
- 3) Due diligence is performed by CRESTO team and employed services providers (legal, tax)

4) CRESTO makes proposal to originator, containing: deal structuring details, list of documents required for STO, timeframe, legal expenses on STO paid to authorities and employed services providers, CRESTO fee structure.

5) If accepted, originator prepares private placement memorandum (PPM) for investors. PPM will serve as a prospectus for public filing.

6) STO is launched, roadshow / marketing campaign is run.

Once the STO campaign is approved by financial authorities, the fundraising campaign targeting from accredited and institutional investors starts.

9. Technology Aspects

9.1. Security

In the event of lost private wallet keys or theft of security tokens there is a security feature programmatically added to smart contracts whereby an investor who has lost access to their shares, they would be able to contact CRESTO and have their shares Frozen (this prevents the stolen/lost shares to be traded or sold on any exchange) and then have the shares reissued, because we have KYC and AML steps added to the sign up process this provides an additional layer of security. However to reissue shares the asset owner of the Security Token Offering and 3 of the CRESTO's founders must sign the smart contract reissue function which has a multisignature feature. This security feature provides stability to the ecosystem and the platform in general and serves as a deterrence to attacks and bad players. Old shares which are frozen shall be deleted from the Smart Contract.

9.2. Governance technology

Due to the inherent safety of Multisignature function, this process will be added to every Security Token Offering, this serves an important purpose. Because 3 of the founders and the asset owner must sign on the process, this will significantly reduce hacks, and bad players affecting the system. In the unlikely event that a wallet private key of the members or asset owners is lost or stolen, other members will be able to replace the public wallet address and restore their full account privileges. This governance system provides a stability factor due to the fact that all the CRESTO founders receive shares from the asset owners and the founders would have no incentive to work against the platform.