

DIGITAL SECURITIES MONITOR

1 May 2019

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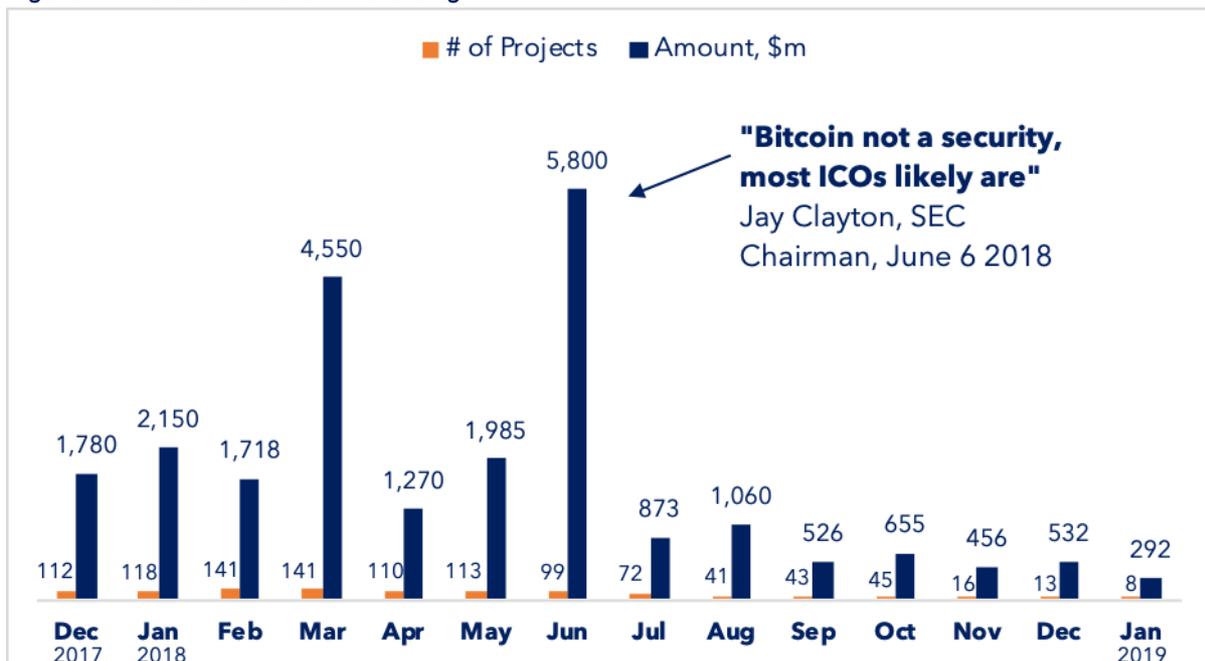
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1) Summary

1.1 2018 Recap

If the first half of 2018 was about the emergence of Initial Coin Offerings, the second half of 2018 could very well be deemed the time of regulatory uncertainty as the ICO market ecosystem changed significantly. The late 2017/early 2018, ICO boom caused an inflow of more than \$17bn, which undoubtedly caught the attention of regulators as they started to clamp down on the unregulated worldwide market to protect investors. Initial warnings from the chairman of the SEC Jay Clayton¹ in mid 2018 (which was very much at the peak of ICO funding), contributed to a significant decrease in funding to just over \$4bn in the second half of 2018 combined.

Figure 1. Evolution of ICO Fundraising²



1.2 The Rise of Security Token Offerings

As regulatory controls have begun to tighten around the novel fundraising model through utility tokens that were in many cases³ not even fundamental to the functionality of the project, legitimate issuers and various entrepreneurs have started to look for alternative paths to raise funds. This is to minimise the regulatory risk, increase

¹ <https://cointelegraph.com/news/sec-chairman-jay-clayton-says-bitcoin-not-a-security-most-icos-likely-are>

² <https://www.coinschedule.com/stats>

³ <https://www.ccn.com/81-of-icos-are-scams-u-s-losing-token-sale-market-share-report>

the protection of investors, and ultimately offer a real value of underlying assets while still being able to leverage the potential of blockchain technology (DLT).

Combining the traditional structure of financial securities⁴ with the core efficiencies of DLT may appear as a promising intersection for the establishment of new financial instruments, representing a natural evolution to a digitized world. Some would even argue that DLT is laying the foundation for the ultimate tokenization of all securities, a tectonic shift in how all securities are held and transferred.

1.3 Benefits of DLT in the Traditional Securities World

In the sections below, we will examine who the main market participants are, how DLT can benefit them, and the unique proposition of DLT, as well as its other benefits⁵.

Regulators: with the transparency DLT offers, regulators will obtain greater visibility into markets and participants, thus increasing their effectiveness and making compliance processes easier (details are discussed throughout this paper).

Issuers: access to new investors, flexible share-like structures, securitization where it wasn't previously possible, precise cap table management, and cost reduction

Investors: ability to access broader opportunities and trade in a more liquid environment

a. Benefits Unique to Blockchain-Based Securities:

Interoperability

- The problem with traditional securities today, is that they cannot communicate with each other
- Interoperability enables DLT-based assets to reference each other and interact in unique ways, creating new financial instruments.
- Traditional brokerage accounts can hold various types of assets such as equities, bonds, commodities etc., however the innovation here is that Ethereum's ERC-20 standard allows investors to hold security tokens that represent many *different* types of assets, interacting with each other and creating new financial instruments⁶

Encoded Compliance

- Another key feature of security tokens is that they are programmable.
- Tokenization of securities also enables compliance to become automated

⁴ [https://en.wikipedia.org/wiki/Security_\(finance\)](https://en.wikipedia.org/wiki/Security_(finance))

⁵ <https://medium.com/loopring-protocol/the-2019-truth-on-security-tokens-7800c14129e4>

⁶ <https://hackernoon.com/the-security-token-thesis-4c5904761063>

- Encoded rights, KYC checks, voting, tax withholding, address exclusion, vesting, cap table, buy-backs, forced transfer rights, governance integration, dividends, dividend frequency and many more features will allow security tokens to trade in different jurisdictions, including decentralized exchanges.
- DLT makes it easier for the regulators too, who will no longer have to scour archives, reconcile multiple systems and find paper documents relating to securities trading; instead they can witness blockchain transactions and review smart contracts to directly understand trading practices and rules for an asset.
- The U.S. State of Delaware has already begun legislative efforts⁷ to enable companies to use blockchains for their books and records regarding shareholders. These efforts are part of a move away from the complicated indirect securities ownership scheme in the United States that requires intermediaries.

b. Affiliated Benefits of Blockchain Technology

Fractional Ownership & Increased Liquidity

- Tokenization of securities allows issuers to divide underlying assets into smaller units, enabling fractional ownership, which makes it more affordable for some investors to invest into any STO and can also make the token easier to transfer on the secondary market.
- This benefit is particularly appealing for private market participants like real estate developers, owners of fine art or vintage cars or other “high unit cost” assets.
- Although the fractional ownership of real estate is already here with the publicly traded REIT fund, the benefit of real estate-backed tokens is that they allow a single investment property to be chosen and enable investors to create a tailored market portfolio across the globe.
- Many of the world’s assets, such as real estate, fine art, and private equity funds, are characterized by low levels of liquidity. Ownership claims on these assets trade infrequently and are subject to high transactions costs when they change hands. Investors that bear these costs rationally discount the value of illiquid assets as compensation (illiquidity discount).
- With Security Tokens enabling fractional ownership and thereby lowering minimum investments, more liquidity will come into the market. As more people will be able to purchase smaller stakes, many assets that are considered to be illiquid, or not easy to (re)sell, can increase their liquidity on the blockchain⁸.

⁷ <https://www.unlock-bc.com/news/2018-01-05/delaware-and-the-delaware-blockchain-initiative>

⁸ <https://hackernoon.com/the-security-token-thesis-4c5904761063>

Time Zone Free Market Place

- If traders want to trade, today there is a daily period of 7 ½ hours, in the Monday to Friday model (excluding holidays). What DLT enables here is the benefit of a global reach and a time zone free market place, open 24/7/365.
- Although, it isn't strictly speaking the technology that prevents trading around the clock, but rather tradition

Rapid Settlement

- Trade itself can be executed very quickly these days, even in traditional financial markets, however it is the transfer of ownership from seller to buyer which hasn't really evolved over time.
- Even though the majority of exchanges have currently shortened the time of settlements from T+5 to T+3, and then currently to T+2, this still means the transfer of ownership won't happen for at least 2 business days after trade execution. With private securities this can take much longer.
- Another core benefit of DLT puts T+ settlements in the history books: Blockchain-based securities have already proved to be way more efficient in terms of time and cost associated with settlements. With DLT, trades can be executed almost instantly.
- Real-time settlement between buyer and seller on the secondary market decrease settlement risk
- While there certainly are other factors (other than the tech itself), DLT could move the traditional world of finance onto real time settlement

Cost Reduction

- Today the process of a securities transaction is associated with many fees owed to intermediaries. DLT removes the need for most third parties and moreover, as integration of smart contracts reduces the complexity, as well as reduced costs and paperwork associated with the management of securities and a reduced overall involvement of lawyers and back office staff.
- Let's not forget the simplification of the accounting and auditing processes, easier cap table management and post-issuance administration, which are huge supplementary benefits of tokenization.

2) Industry Overview

2.1 Issuance Platforms

Figure 2. List of Security Token Issuance Platforms

Platform	Year	Domicile	Funding	Token Standard	Portfolio
US-BASED					
Securitize	2017	San Francisco/ Tel Aviv	\$12.75m	DS protocol	Science, SpiceVC, Lottery.com, BCAP, CityBlock Capital, Augmate, 22x, CoinMint, Resolute Fund, Aspen Coin Corl, Planet Digital Partners,
Polymath	2017	Toronto	\$58.7m ICO	ST-20	MintHealth, Block Estate, 7Pass
Securrency	2015	D.C./ Abu Dhabi	Undisclosed	CAT-20, CAT-721	QuantumRE
TokenSoft	2017	New York	Undisclosed	ERC-1404	
Harbor	2017	San Francisco	\$38m	R-token	HUB Columbia REIT TheArtToken, Fractional Dash Masternodes, San Juan Comunidad, SparkLabs Coin, Robinhood Equity Token, Farm Coin
Swarm	2017	Palo Alto	\$5.5m ICO	SRC-20	
Abacus	2018	San Francisco	\$2.1m	S-token	Space Fund
Atomic Capital	2018	New York	\$3.4m STO	Atomic- DSS	
Open Finance	2014	Chicago	Undisclosed	S3	
Templum	2017	New York	\$12.7m	Private	BanQu, IPwe
EU-BASED					
TokenEstate	2018	Geneva	Undisclosed	RETO	
Tokeny	2017	Luxembourg	Undisclosed	T-REX	Leaseum Partners, Mash
Neufund	2016	Berlin	\$3.4 ETO	Ethereum	Fifth Force
Smartlands	2017	Vilnius	\$1.75m ICO	Stellar	
Jibrel	2017	Zug/ New York/ St.Petersburg/	\$30m ICO	Ethereum	Jcash

Dubai

*St.Regis Aspen Coin has been transferred onto Securitize platform

2.2 Secondary Markets

Figure 3. List of Security Token Trading Venues⁹

Platform	Year	Domicile	Funding	Operates	Tokens
US-BASED					
tZERO	2017	New York	\$134m STO	ATS, BD	tZERO, Elio Motors
Open Finance	2014	Chicago		ATS	BCAP, SpiceVC
AirSwap	2017	New York	\$36m ICO	DEX	Ethereum-based
SharesPost	2009	San Francisco/ Menlo Park/ New York	\$15m	ATS, BD	CityBlock, BCAP
Templum	2017	New York	\$12.7m	ATS, BD	BanQu
EU-BASED					
GBX	2018	Gibraltar	\$27m ICO	Regulated Stock Exchange	
MSX	2018	Malta		Regulated Stock Exchange	
SIX	2018	Zurich		Regulated Stock Exchange	
Bancor	2017	Zug	\$152m ICO	DEX	Ethereum-based
Blocktrade	2018	Lichtenstein		In process of acquiring trading facility license by MIFID II	Neufund
DX.Exchange	2018	Estonia		Regulated Virtual Asset Exchange	AAPL, AMZN, GOOG, FB, TSLA, NVDA, SPY, QQQ, DSGX, BIDU, INTC
Liechtenstein Cryptoassets Exchange	2018	Lichtenstein		In process of acquiring trading facility license by MIFID II	
GLOBAL					

⁹ <https://www.bloomberg.com/news/articles/2019-01-03/tesla-stock-on-a-blockchain-offers-hint-of-where-crypto-s-headed>

Blackmoon	2016	Moscow	\$30m ICO	Exchange Traded Indexes (ETX), Xiaomi, iShares MSCI ETF, SPDR S&P 500 ETF
CEZEX	2018	Phillipines		Regulated Offshore Virtual Currency Exchange
1exchange	2019	Singapore		Regulated tokenized security exchange
STO Global-X	2018	Singapore		

2.3 Compliance

Although we believe that some elements of the legal processes, where lawyers add little value, will be automated in the future, lawyers remain a key part of the successful STO process from the determination of the nature of a token to post-issuance services.

Figure 4. List of “Digital” Legal Advisory Firms¹⁰

Firm	Year	Domicile	Services
US-BASED			
Sheppard, Mullin, Richter & Hampton	1927	Los Angeles	Legal
Pillsbury Winthrop Shaw Pittman	1986	New York	Legal
Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan	1912	Fayetteville	Legal
Goodwin Procter	1912	Boston	Legal
FisherBroyles	2002	Atlanta	Legal
Polsinelli	1927	Kansas City	Legal
Perkins Coie	1912	Seattle	Legal
Cooley	1920	Palo Alto	Legal
White & Case	1901	New York	Legal
Lowenstein Sandler	1961	New Jersey	Legal
EU-BASED			
DLA Piper	2005	London	Legal
Chetcuti Cauchi Advocates	2014	Malta	Legal
Osborne Clarke		London	Legal
Nägele Rechtsanwälte		Lichtenstein	Legal

¹⁰ <https://icoholder.com/blog/security-token-offering-lawyers/>

Simon Zenios & Co		Cyprus	Legal
Gate To Baltics	2001	Latvia	Legal

ON-CHAIN ENFORCERS

Solidified	2016	Global	SC Audit
Zeppelin	2016	Global	SC Audit
Chain Security	2015	Switzerland	SC Audit
Ravencoin	2018	Global	Asset Transfer
IdentityMind	2013	Palo Alto	KYC/AML
Vertalo	2017		Registry & Compliance

2.4 Broker Dealers

Figure 5. List of Broker-Dealer Firms¹¹

Firm	Year	Domicile	Operates	License	Clients
Coinbase	2012	San Francisco	B-D (Keystone Capital, Venovate Marketplace), ATS, Custody, OTC	SEC/FINRA 51 States	
Propellr Securities	2013	New York	B-D, Crowdfunding	SEC/FINRA 28 States	AirSwap, Fluidity, Aristone Capital
Uphold	2013	San Francisco	B-D (JNK Securities), ATS	SEC/FINRA 20 States	
Entoro Securities	2008	Houston	B-D, ATS	SEC/FINRA 51 States	Lottery.com, Soluna, VRBex
TokenSoft	2017	New York	B-D (TokenSoft Global Markets), Issuance, Custody B-D +	SEC/FINRA 2 states	
Circle	2013	Boston	Crowdfunding (SeedInvest), ATS, OTC, Exchange (Poloniex)	SEC/FINRA BitLicense FCA	
North Capital	2010	Salt Lake City	B-D, Custody, Escrow	SEC/FINRA 51 States	Blockchain Capital, Science,

¹¹ <https://distributed.com/news/op-ed-broker-dealers-leading-sto-market>

					Protos
Dinosaur FG	2000	New York	B-D	SEC/FINRA 47 States	tZERO
Sageworks Capital	2017	New York	B-D	SEC/FINRA 51 States	Open Finance
Genesis Block	2017	New Jersey	B-D	SEC/FINRA 6 States	AirSwap, BlockEX, Native
Liquid M	2017	New York	B-D		Templum

2.5 Custody

Another piece of the puzzle in tokenizing securities is how do individuals, broker-dealers, investment advisers, private funds and registered investment companies legally and effectively safeguard digital assets today? It’s important to note that individual investors are able to store their digital assets in digital wallets, while this may be different in every jurisdiction, registered investors are obliged to store their digital assets only with qualified custodians.

Figure 6. List of Custody Providers¹²

Firm	Year	Domicile	License
US-BASED			
Coinbase	2012	San Francisco	NYDFS
Gemini	2015	New York	NYDFS
BitGo	2013	Palo Alto	South Dakota Division of Banking (acquisition of Kingdom Trust)
Bankex	2017	New York	Self-regulated
PrimeTrust	2016	Las Vegas	FID
Know Wallet	2019	Hardware	
EU-BASED			
Crypto Finance	2017	Zug	FINMA
SIX	2018	Zurich	FINMA
Bank Frick	1998	Lichtenstein	EU/EEA
Koine Finance	2017	London	FCA
SILO	2017	Lausanne	FINMA
Vontobel	1924	Zurich	SFA
Swiss Crypto Vault	2017	Zurich	Self-regulated
Swisscom Blockchain	2017	Zurich	Self-regulated
Trustology	2017	Zurich	Self-regulated
Vo1t	2015	London	Self-regulated
GLOBAL			
Komainu	2018	Tokyo	JV of Nomura and Ledger

¹² <https://medium.com/@jeanphilippejabre/the-ultimate-list-of-cryptocurrency-custody-solutions-for-consumers-and-institutions-bbe6056e8431>

DESICO	Lithuania	ST Issuance & Trading Platform	DESI	5.75	1**	4Q18
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*funded via ICO/ ** on-going funding

3.2 Security Token Taxonomy

- a. **Equity Tokens** represent an equity ownership of a company, or can be converted into shares of a company
- b. **Revenue Tokens** entitle the token holder to a dividend or percentage of revenue
- c. **Debt Tokens** act like a debt obligation, where the token holder is paid back the value of a loan
- d. **Asset-backed Tokens** constitute an economic right to a real-world asset, such as art, real estate, power plants etc.
- e. **Hybrid Tokens** can have a utility function in addition to being a security token, such as entitling the token holder to a discount on services
- f. **Fund Tokens** typically represent a share in a limited partner interest in a fund

a. Equity Tokens

Voting structure examples:

Mt. Pelerin

- Each token represents one share of Mt Pelerin Group SA
- 100% of the shares for Mt Pelerin Group SA are issued on chain
- Number of tokens for sale corresponding to 5% of equity
- Path to liquidity: not announced

Neufund

- The token represents equity in Fifth Force GmbH, the underlying company of Neufund
- The equity is tokenized on the blockchain
- Neufund provides an end-to-end solution for asset tokenization and issuance
- Path to liquidity: Blocktrade, Malta Stock Exchange (MSX), Binance, BitBay

Non – Voting structure examples:

Securosys

- SET tokens can be converted into shares
- 100 tokens convert into one Securosys share of CHF 1.00 nominal value

- The token entitles the holder to an annual dividend-linked participation per token when the company issues a dividend
- The dividend-linked participation is a cash payment by Securosys in CHF, tokens or Ether
- The amount of participation per token equals 1% of the dividend value paid per Securosys share
- Path to liquidity: Open Finance

Open Finance

- The token represents Series A preferred stock alongside a revenue share/ profit share of the network
- Token holders are entitled to 10% of gross adjusted revenue (quarterly)
- Dividends will be paid in ETH, OFN or other ?
- Path to liquidity: Open Finance

Dividends structure example:

Vaultbank

- The token represents beneficial ownership interests in non-voting equity shares in Vaultbank's future revenue generating business ventures
- Subject to approval by board and holders of voting shares, Vaultbank intends to pay quarterly dividends to token holders
- Path to liquidity: building its own trading venue

HealthBank

- HBE is an equity token which represents a share of Healthbank
- The token is used to hold financial equity rights of Healthbank cooperative, which includes dividend rights
- These have no voting rights per se, unless the investor wishes and qualifies to become a member according to the Articles of Association of Healthbank
- Path to liquidity: not announced

b. Revenue Tokens

Siafunds

- Dual token: Siacoin & Siafunds
- Siacoin is used as a medium of exchange between hosts and renters
- Siafunds receive a proportional amount of the network fees, 3.9% of total spending

- Of the 10,000 Sifunds, Nebulous (the operating platform) offered 750 as a Reg D security token
- Path to liquidity: not announced

Lottery.com

- The token represents a fixed percentage (7%) of net raffle revenue paid quarterly
- The token has no voting/liquidation/utility rights
- Path to liquidity: via secondary trading venue in partnership with Securitize

c. Debt Tokens

Gainfy

- The token is an ERC223 digital security token that will be used to satisfy obligations under Debt Agreements as part of capital financing
- The subscriber or lender will loan funds to Gainfy for two years and charge Gainfy an annual interest rate
- The total amount of debt plus accrued interest according to the specified agreement terms will be repaid to subscribers in the form of asset security tokens (GAIN)
- The GAIN tokens will be issued to the subscriber within the two weeks of the first post-funding anniversary
- Path to liquidity: not announced

d. Asset-backed Tokens

St. Regis Aspen

- The token represents indirect fragmented equity ownership stake in the St Regis Aspen Resort
- The token is asset-backed by the real estate of the resort
- Path to liquidity: via secondary trading venue in partnership with Securitize

SwissRealCoin

- SRC value is linked to a portfolio of Swiss commercial real estate
- The value of the coin is influenced by two factors:
 - **Income Reinvestment:** 80% of the net rental income will be reinvested
 - **Price Mechanism:** High demand can trigger a gate opening for more tokens to be sold
- Path to liquidity: not announced

TheArtToken

- Each TAT is backed 1:1 by Post-War and Contemporary Art and matures 10 years from the date of issue, though it can be extended by the user
- Issuing sizes are limited to a maximum of €50m and the Net Asset Value is calculated monthly
- Each piece of artwork is stored in a Swiss bonded warehouse secured by the Swiss government
- Path to liquidity: multiple entities to be announced

e. Hybrid Tokens

NEXO

- Token holders receive 30% dividends from Nexo's profits
- Tokens are backed by the assets of Nexo's loan portfolio
- Base dividends are paid out to all eligible token holders in proportion to their holdings
- Loyalty dividends are paid out individually for each Nexo token based on how long it has been in the Nexo wallet
- The share of loyalty dividend is no less than 1/3 of the total dividend
- Token holders receive a discount whenever they repay interest on their loans using the NEXO token
- Path to liquidity: OpenFinance

tZERO

- The token represents 10% of the company's gross profits (quarterly)
- Dividends are paid in USD, BTC, ETH
- No voting rights or preference
- It is a hybrid token (discount on fees for token holders)
- Must stake the token for 90 days to receive a dividend
- Path to liquidity: tZero

f. Fund Tokens

SpiceVC

- Token represents an LP relationship in a traditional fund

-
- Token holders are entitled to dividends on the performance of the investment portfolio
 - Path to liquidity: Open Finance

22x Fund

- The tokens represent an economic interest in 22X Fund
- Realizations from the fund are used to repurchase tokens
- Path to liquidity: via secondary trading venue in partnership with Securitize

Blockchain Capital

- Token represents an indirect fractional non-voting economic interest in Blockchain Capital III Digital Liquid Venture Fund
- Path to liquidity: Open Finance

4) Regulatory Overview

4.1 USA

The Securities Act of 1933¹⁴ and the Securities Exchange Act of 1934¹⁵ established a bed-rock of securities. Both are responses to the 1929 Great Depression and aim to protect the world economy as well as US investors. Both laws have been designed to ensure that investors have the sufficient information required to make an investment decision.

Securities today are mostly judged by a so called Howie test, the SEC’s set of conditions which determine what is and what isn’t a security.

The Howey Test includes 4 questions:

1. Investment of money?
2. A common enterprise?
3. Expectations of profits?
4. Predominantly from the efforts of others?

In 2012, US President Barack Obama signed the JOBS Act 2012, Jumpstart Our Business Startups Act, which offers start-ups and other emerging companies (with less than \$1bn in annual revenues) to raise capital more freely.

Figure 9. US Securities Regulation Frameworks¹⁶

Act	Reg A+	Reg D			Reg CF	Reg S
		Rule 504	Rule 506(b)	Rule 506(c)		
Raise Cap	Tier 1: Up to \$20m	Up to \$5m	Unlimited		Up to \$1.07m	Unlimited
	Tier 2: Up to \$50m					
Investor Limitations	Tier 1: Unlimited	AI only	Unlimited number of AI	Unlimited number of AI	Unlimited AI and NAI	Unlimited foreign investors

¹⁴ https://en.wikipedia.org/wiki/Securities_Act_of_1933

¹⁵ https://en.wikipedia.org/wiki/Securities_Exchange_Act_of_1934

¹⁶ <https://hackernoon.com/security-tokens-in-the-us-regulations-and-exemptions-under-the-sec-laws-4640b5570948>

	Tier 2: For NAI max of 10% annual income / net worth	Up to 35 NAI	Limits on invested amount	
Lock-up	No lock-ups	(unless the issuer registers the resale transaction with the SEC)	12 months	*No lock-up *40 day lock-up *1 year lock-up
Documents	Tier 1: SEC Disclosure	Form D Notice	Form C Notice	
	Tier 2: SEC Disclosure Financial audit			
Advertising	Allowed	Not allowed	Allowed	Allowed Not allowed in US

***Category 1: No lock-up** - applies for a foreign private issuer with no US market interest and the sale takes place outside of the US (although securities can be offered and sold to US person outside of the US)

***Category 2: 40 day lock-up** - applies for issuers that are not eligible for Category 1, securities can't be offered and sold to US person outside of the US

***Category 3: 1 year lock-up** - applies to sale of securities by US issuer

4.2 United Kingdom

UK's Financial Conduct Authority (FCA) has recently published a paper¹⁷ outlining the regulator's stance on cryptoassets. Unlike the US Howey Test, the FCA is looking to identify each specific token on an individual basis. While utility and exchange tokens are not a subject to regulation, any business activities relating to security tokens (Specified Investments or Transferable Securities) or tokens that constitute E-Money, or if firms are involved in the payments services, will be subject to regulation.

The regulatory requirements are the same for cryptoassets as they are for traditional investments. In FCA parlance: "The FCA is technology neutral".

Token Issuance

- An issuer of security tokens is not itself regulated, however the act of issuance is

Security tokens

- Security token issuance is subject to securities issuance regulations. This mainly concerns financial promotion rules - study them, get an advisor, and please do not promise specific returns.

Transferable Securities

- The same rules for security tokens apply, but there is an additional need for a prospectus. The prospectus must be reviewed and approved by the FCA. A

¹⁷ <https://www.fca.org.uk/publication/consultation/cp19-03.pdf>

first-time issuer will also need to complete an eligibility review with the FCA. This can happen concurrently with the prospectus review, but get started early, this may take a while, especially in a new market like crypto (§3.75 - §3.81).

4.3 European Union¹⁸

Although no clear guidance on security tokens has been published yet, securities in Europe are regulated under the MIFID 2 regulation, under supervisory of the European Securities and Markets Authority (ESMA), who perceive any asset as a security if the asset is transferable, negotiable, and standardized. The EU regulators may in some cases request issuers of securities to publish a prospectus, which effectively works as a disclosure document that describes the security to potential investors.

According to the Prospectus Directive (2003/71/ES), any funding of transferable securities, exceeding €100k are obligated to issue a prospectus approved by the national financial regulator of the respective country.

From July 21 2018, the new EU Prospectus Regulation (EU) 2017/1129¹⁹:

- Does not require the issuing of a prospectus for security offerings not exceeding €1m (calculated over 12-month period)
- Member states offerings of securities are exempt in publishing a prospectus, where the sum of funding is less than €8m (calculated over 12-month period)
- If the hard cap exceeds €8m threshold, the issuer of securities is obligated to publish a prospectus in accordance with the Prospectus Regulation 809/2004 and EU Prospectus Directive 2003/71
- A Prospectus must be submitted to a regulating authority of the particular Member State
- A public security offering conducted in one jurisdiction can be easily extended to all other EU member states, thus refuting worries of the fragmented nature of Europe
- List of member states' threshold limits and applicable rules is [here](#)

4.4 Asia & Oceania²⁰

Singapore

According to the Monetary Authority of Singapore (MAS), digital assets are categorized as securities unless they comply with the following exemptions:

- Small and private solicitation under 5 million Singaporean Dollars in 12 months
- Cannot solicit more than 50 investors in 12 months
- Private solicitation from investment institutions

¹⁸ <https://www.gatetobaltics.com/new/security-token-offering-in-european-union-201.html>

¹⁹ <http://www.wfw.com/wp-content/uploads/2017/08/WFW-Briefing-CapitalMarkets1-August2017.pdf>

²⁰ <https://medium.com/panony/security-token-regulations-in-asia-7ce2ac33be3d>

- Private solicitation from accredited investors

Malaysia

The Securities Commission of Malaysia (SC) has recently issued the Capital Markets and Services (Prescription of Securities) (Digital Currency and Digital Token) Order 2019, which effectively classifies all digital tokens as securities.

Hong Kong

With proper registrations, investment in security tokens is allowed in Hong Kong for institutional investors as cryptocurrencies are part of the Fintech Regulatory Sandbox, regulated by the Securities and Futures Commission (SFC). SFC also announced the issuing of a license for digital asset investment fund management companies.

South Korea

The South Korean Financial Services Committee (FSC) effectively announced a prolonged full digital token sale ban in January 2017

Japan

The Financial Services Agency (FSA) is considering bringing cryptocurrency-related operations under the Financial Instruments and Exchange Act (FIEA) from the current Payment Services Act, which sees cryptocurrencies as a vehicle for exchange of value (same as FIAT) to a financial asset. This transition would also pave the way for security tokens to be listed on cryptocurrency exchanges.

China

All cryptocurrency-related activities are strictly prohibited

Philippines

The Philippines regulator Cagayan Economic Zone Authority (CEZA) has introduced a new set of rules governing Digital Asset Token Offering (DATO), which essentially requires all DATOs to have proper offering documents with detail on the issuer and project, as well as accompanying advice and certification of experts. All DATOs must also be listed on the licensed Offshore Virtual Currency Exchange (OVCE).

Australia

In 2017, the Australian Securities and Investment Commission (ASIC) issued guidelines, where the natural structure of a token (utility-security) determines its legal treatment under general consumer law and the Corporations Act.

5) Market Activity

5.1 Regulations

[Hong Kong Orders Exchanges to Delist Security Tokens](#)
[Swiss Finance Regulator to Treat Some ICOs as Securities](#)
[Lithuania Issues Guidelines for Security Tokens](#)
[UAE Allows Companies To Raise Capital via STO](#)
[EU Securities Watchdog Recommends Regulating Digital Assets under Existing Rules](#)
[SEC Statement on Digital Securities Issuance and Trading](#)
[First Security Token Framework in Africa](#)
[Malaysia to Regulate ICOs as Securities](#)
[Luxembourg Passes Bill to give Blockchain Securities Legal Status](#)
[Thailand Green Lights Issuance and Trading of Blockchain Securities](#)
[German Securities Regulator Approves Issuing of Digital Bonds](#)
[Hong Kong Securities Regulator Issues Detailed Guidance for Security Tokens](#)
[SEC Issues Token Investment Framework](#)

5.2 Institutional Development

[SBI and Ripple Forms Consortium to Bring Blockchain in Securities Products](#)
[Canadian Securities Exchange Taps Blockchain for New Clearinghouse](#)
[Credit Suisse and ING Send \\$30m in Securities Over Blockchain](#)
[Deutsche Börse Plans Blockchain Securities Lending Platform](#)
[ECB and Bank of Japan Say Blockchain Could Shake Up Securities Settlement](#)
[Bank of Canada Blockchain Trial Shows Instant Settlement of Securities](#)
[Swiss Stock Exchange to Tokenize Securities](#)
[Thailand Plans Bond Coin for Faster Settlements](#)
[Chinese Bank Issues Securities Worth \\$1.3bn via Blockchain](#)
[Goldman Sachs-Backed Circle Acquires Broker and Crowdfund Platform SeedInvest](#)
[JP Morgan to Tokenize Gold Bars](#)
[Singapore Develops Settlement System for Tokenized Assets](#)
[Medici Ventures Acquires Digital Equity Shares](#)
[A Group of 30 Central Securities Depositories Is Exploring Custody](#)
[Investment Bank BTG Pactual Aims to Raise \\$15m via STO](#)
[Swiss Stock Exchange Aims to Launch Blockchain Platform and STO](#)
[Daiwa Completes Blockchain Pilot to Increase Efficiency in Post-trade Processes](#)
[Inveniam Capital Partners to Tokenize \\$260m Real Estate](#)
[Insurance Company AXA XL Launches Security Token and Crowdfunding Insurance](#)
[eToro Acquires Smart Contract Start-up Firmo](#)

5.3 Security Token Market

a) Infrastructure & Partnerships

[Coinbase Acquires Three Financial Firms to Become a Regulated Securities Firm](#)
[Crypto Startup Uphold Acquires Regulated Broker to Trade Security Tokens](#)
[Binance, Neufund and Malta Stock Exchange Partners to Launch Security Token Exchange](#)
[OpenFinance Launches Regulated ATS for Security Tokens](#)
[Security Token Issuance Platform Neufund Partners With Blocktrade.com](#)
[Comistar Launches STO Service Platform Tokenize in EU](#)
[CEZEX to Launch Security Token Trading in Hong Kong](#)
[Harbor Officially Launched Its Platform](#)
[Harbor and BitGo Partner for Custody of Security Tokens Issuance Acquires CrowdfundX](#)
[Security Token Firms Gather to Scale The Industry](#)
[TokenSoft Acquires Stake in Regulated Broker-Dealer](#)
[OpenFinance Trading Platform is Live](#)
[DX.exchange to Digitize US Stock Market](#)
[Security Tokens on EOS Blockchain](#)
[tZERO Officially Opened for Security Token Trading](#)
[TokenSoft Partners With Coinbase to Offer Security Token Custody](#)
[tZERO Launches Trading Services](#)
[TokenSoft Launches Custody Wallet for Security Tokens](#)
[Securitize, Coinstreet Partners and STO Global-X Collaborate to Bring STOs to Asia](#)
[Elevated Returns Will Transition Aspen Coins to Tezos](#)
[Deutsche Börse, Swisscom and Sygnum Partner to Create Compliant Digital Asset Ecosystem](#)
[Polymath Partners with SeriesOne to Launch Digital Securities Ecosystem](#)
[Tokeny and DLA Piper Form Digital Securities Alliance](#)
[Templum Partners with MIH to Launch Digital Securities Exchange](#)

b) Deals & Execution

[Security Token Startup Harbor Raises \\$28m](#)
[tZERO Raised \\$134m in STO – With More Millions Committed](#)
[Regulated Trader Templum Hosts Security Token Sale for Luxury Resort](#)
[First Tokenized Condo on Manhattan](#)
[First Tokenized Real Estate Fund](#)
[Elevated Returns raised \\$18m via STO](#)
[First Company to Tokenize Shares](#)
[Harbor Launches Tokenized Equity Purchase with Real Estate Offering](#)
[TokenEstate Executes First Security Token Transaction](#)
[Europe's First Tokenized Equity](#)
[Nexo Announces First Dividend Payouts](#)
[Sharespost Executed First Secondary Trade of Security Tokens](#)
[Overstock Begins Distributing tZERO Tokens to Investors](#)

[SharesPost Executes First Trade of BCAP Tokens](#)
[Aspen Coin Migrates to Securitize](#)
[First Healthcare Security Token Offering](#)

6) Conclusions

6.1 Market Outlook

Infrastructure

First things first, it's the infrastructure layer which has to be developed to a level which:

- a) regulators will be comfortable with,
- b) will be convenient enough for the potential issuers of security tokens who won't hesitate because of the liquidity dilemma and regulatory uncertainty and finally
- c) will mean investors have the confidence to deploy capital, once these issues are resolved.

2018 attracted a wide spectrum of either existing companies or start-ups, which entered the digital securities space and have already launched their products. Although in limited form, today, one can issue, offer, trade and store security tokens with the regulators' blessing (depending on jurisdiction). In 2019, we expect the majority of industry players, mainly existing traditional secondary markets like the Swiss Stock Exchange or ICE's Bakkt, to deliver institutional grade products to improve and legitimize the existing infrastructure.

Regulation

The bull run in 2017 not only caught the attention of the broader mainstream market, but also that of the regulators. Even though we cannot deny the tangible efforts of regulators in the form of various guidelines, recommendations and drafts, 2018 did not bring anything rigid. We anticipate that 2019 will finally clear the waters for digital securities; we are particularly interested in ESMA's framework, since the stance of the SEC and FCA is more or less clear.

Token Offerings

Tokenization itself does not make the underlying asset more valuable, it's still the fundamentals which are the crucial part of an investment decision. Effectively, for any STO, the fundamentals have to be attractive, desirable and valuable, in order to draw the attention of investors. We believe, that with a maturing infrastructure and regulatory clarity, attractive assets, which are currently not liquid, will become tokenized. Besides sectors like fine art, sports and real estate, a particularly interesting area of potentially digitized securities is targeted offerings, already well-known in the pharmaceutical industry, only applied to the broader market – for instance something like Apple

tokenizing its whole portfolio of products and suddenly, the investor is able to go long AirPods / short iPod.

Investors

The last but not least important part of the industry circle is the money, which again is directly connected with the rest of the ecosystem. Until now, more than \$500m has been invested into technology development (<\$320m – exchanges / <\$180m – issuance platforms) and another ~\$500m directly into STOs, which accounts for the \$1bn market size. Based on our estimates, we believe that with legitimate infrastructure, clear regulations and the participation of reputable players (either in the form of projects or other involvement) money inflow into the tokenized securities space might carve into the 1% of the \$750bn raised by private asset managers globally in 2017²¹ by 2020, resulting in a 650% increase.

6.2 References

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