

Blockchain as a Disruptor of Securities Regulation

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There is now widespread, normative acceptance of applying securities laws to certain types of cryptoassets – the “*standard narrative*”. While blockchain is often described as a disruptor and disintermediator of commercial activity, it is less common to ponder to what extent securities regulation, and how it is understood and expected to operate, might be disrupted by blockchain and the cryptoasset tokens (hereafter, “tokens”) built on it. Analysis of the fact patterns

of tokens indicates characteristics that may be inconsistent with the premises, and assumptions underpinning, securities laws.

Regulatory Incrementalism

The policy approach to regulating tokens by applying existing financial regulations is an example of regulatory incrementalism. When faced with a new policy issue, the approach of policymakers is often informed, and constrained, by both tacit and explicit knowledge about

the nature and scope of the problem. This can facilitate initial responses by finding an analogy based on existing practices. Regulatory incrementalism is not, per se, a bad thing. It builds on experience, allows for a gradualistic evolution of standards that minimizes disruption, and tends to preserve the status quo. The application of financial regulation to tokens helped tame the Wild West environment that emerged circa 2017.

Piggybacking on existing legal and

regulatory concepts is convenient but could hamper the prospects for creating more appropriate regulatory responses. The narrative that emerges from a ready-made solution tends to steer the shape of industry development toward familiar legal structures that carry lower regulatory risks than novel arrangements. This services the shorter-term needs of financial capital but results in a retooling of blockchain's possibilities that constricts the ability of a polymorphic, functioning token ecosystem to emerge.

Too little thought has gone into interrogating the continuing appropriateness of an incrementalist policy approach, which is more preoccupied with risk reduction via a fit-to-existing-regulation taxonomy than with the facilitation of ecosystem development. However, if the assumptions on which the standard narrative is based are no longer apt, then any argument for its continued application is materially weakened.

Changed Fact Patterns

In my March 2018 article in this journal, "ICO utility tokens and the relevance of securities law", I wrote that calling a security a utility token does not change its nature. The reverse is also true: calling a token a security does not change the nature of the token. This section reviews four areas where the fact patterns associated with tokens are at variance with the premises and assumptions of securities laws. Possibly the most profound difficulties exist when considering the application of securities regulations themselves.

Accountability

Two assumptions of securities regulation are that actors are by nature centralised and can be geo-located for enforcement purposes. This simply is not the case with tokens. Decentralized networks make identifying an actor difficult and less meaningful. Regulation premised on accountability-based enforcement mechanisms performs poorly in the context of pseudonymity. Zero-knowledge proof systems present considerably higher hurdles.

Institutional arrangements

Wholly unlike securities issued by corporations, the institutional arrangement in a blockchain is expressed in code, which can assign a range of roles across network participants and token holders. Traditional corporate divisions between owner, manager and customer may be collapsed. It is still possible to apply concepts such as "common enterprise" (under functional definitions of security such as the collective investment scheme or the *Howey* test). However, where a reconfiguration of roles is intended to create a new or different institutional arrangement, it is far from clear that it continues to align with the overarching purposes of securities laws. General commercial laws, such as those which cover unfair or deceptive practices, may provide adequate consumer protection.

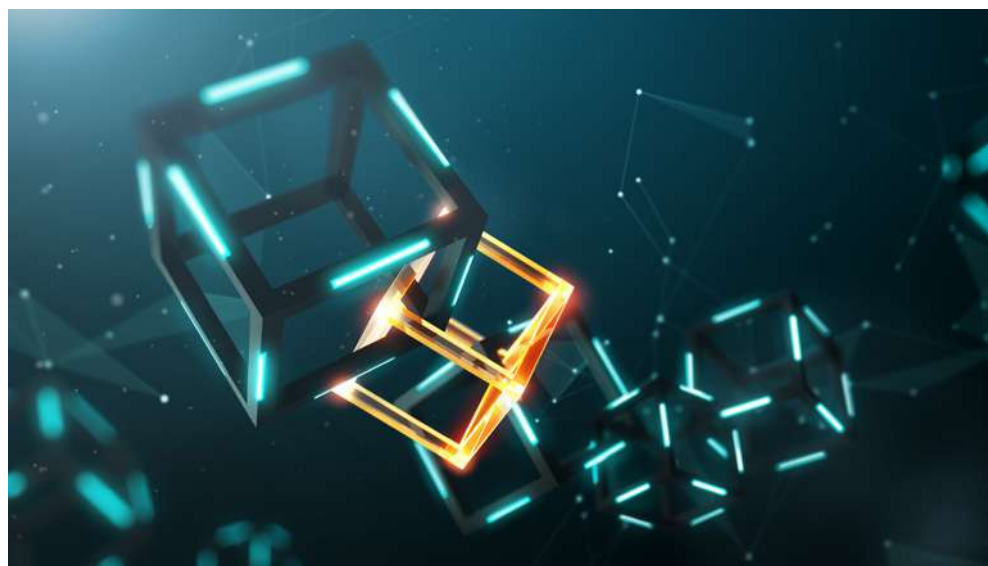
The different institutional basis has consequences. With traditional securities, rights attached to securities and transactions in securities are inviolable except under operation of law, such as via informed consent or court order. The rights and functions of tokens are beholden to the underlying computer code. Any rewriting or unexpected properties of the code that affects what a token does is *de facto*, whether as a result of software updates, coding errors or bugs, a governance mechanism, double spending, a hard fork, or a malicious

attack. Moreover, tokens are subject to history being rewritten by rolling back the code and restarting the validation of new transaction data from an earlier block, as happened in the 2016 hard fork that created what is now Ethereum (Ethereum Classic is the original unforked version of Ethereum).

Product siloing

Once an instrument has been classified as a security it remains as such, though they may change according to its terms, such as upon the exercise of a warrant or the extinction of a bond upon it being paid out. The United States SEC (per the Director of Corporation Finance, William Hinman and its Strategic Hub for Innovation and Financial Technology) is of the view that a token could at one time be a security and at another time not, though the legal basis for that position is unclear.

Moreover, bond and equity markets interact via hybrid instruments such as convertibles or derivative instruments, which has no effect on how the underlying instrument is treated. However, as interoperability across different blockchains emerge, the regulation of a blockchain in one jurisdiction may ripple through to another blockchain regulated in another jurisdiction, which could give rise to the same token being treated as a security in one jurisdiction and differently in another jurisdiction.



Market regulation

Securities laws assume that public markets must occur on a centralized platform observable by all. Centralised cryptoexchanges are unproblematic insofar as they present a similar architecture to traditional exchanges. In contrast, decentralised exchanges (“DEX”) operate across a network involving separate transaction channels between trading counterparties. Though undertaking all the functions of a public market, DEX are not considered to be exchanges for the purposes of the standard narrative.

Unlike a corporate-issued security, tokens may be traded on a cryptoexchange without the involvement or consent of network developers, participants or token holders. Moreover, tokens of the same class may be traded on many markets simultaneously. In this context, the de-risking effect of imposing regulation on participants in one market is more complex to assess. Regulation in one market may simply press liquidity, and the platforms that provide it, into another market – platforms can move to a differently regulated market that aligns with their business model. Perceived risk issues are thus pushed to be someone else’s problem, while local consumers may remain exposed given the ease of cross-border activity within a secure and pseudonymous environment. This is a result of uneven regulation, so it remains a problem for so long as a global model of blockchain regulation is not in place.

The application of securities laws to cryptoexchanges and the activities undertaken on them in any case stumble where there is no law that covers market abuse practices. For example, market manipulation and insider dealing as conceived under Hong Kong’s Securities and Futures Ordinance simply don’t apply to tokens irrespective of whether they are treated as a security. Consequently, actual risk may be increased to the extent touted regulatory protection - thought to be offered as a result of classifying a token a security - is absent.

Securities Regulation

Fit-for purpose?

A key premise of applying securities regulation to tokens and the offering of tokens is, presumably, that once a token has been classified as a security, the laws and regulations that apply to it are fit for purpose. The simplest extension of this would be that intermediaries in the traditional securities market would be able to interact with a token-cum-security in the same manner as any other security. However, this is not the case because the details of applicable conduct regulations, designed around securities as traditionally understood, do not provide a route to compliance. Alternatively, consider a DAO (decentralised autonomous organisation) falling into legislation dealing with collective investment schemes or, in the United States, the Investment Company Act of 1940. The DAO will likely be unable to comply with regulatory requirements applying to public offerings that were conceived with a different species of product in mind. These examples illustrate that once a token is classified as a security it is pushed into an arena that is not equipped to accommodate it.

A common conflation

Where an offering of tokens is brought under securities laws on the basis of being an investment arrangement because of the way it is packaged and presented, the distinction between the tokens and the surrounding circumstances must not subsequently be conflated – Howey’s citrus groves were not securities, only the package of contractual arrangements related to them were. Tokens are transferable and can generally be sold in the secondary market free of such contractual representations. Consider a token that has been classified as a security on the basis it is part of an investment arrangement - if it is resold without any continuing surrounding investment arrangement, it becomes unclear how securities laws would continue to apply. There is no broad “once a security, always a security” principle here.

Characteristics of securities

A troubling issue that goes to the origins of and the continued application of the standard narrative concerns the notion that the characteristics of a security are well established. This is not the place to review over half a century of securities

law in the United States, Hong Kong and elsewhere, but it can be noted that there is considerable unresolved academic debate around what constitutes the essential characteristics of a security, that the characteristics of securities over time are not static, and that novel commercial arrangements have presented treatment difficulties in the past.

Rights of pre-emption were not recognized until the early 19th century; stock was often subject to a one-shareholder-one-vote principle until the late 19th century; in the 1970s, the characteristic said to be associated with stock was that it confers voting rights in proportion to the number of shares owned; weighted voting rights came later, as did no-vote shares. Notably, such changes were driven by broader social considerations, not the statutory language. While functional tests of securities are largely agnostic of such social issues, if the characteristics of securities can change over time, taking on different values as social and commercial considerations change, how should a functional test respond to wholly novel institutional innovations such as those presented by blockchain?

It is sometimes forgotten that the overarching purpose of securities laws is not to identify securities or investment contracts – that would be the tail wagging the dog. There is a risk that bisecting tokens into “securities” or “not securities” based on established norms may be a somewhat blunt tool that fails to properly accommodate the exploration of new institutional arrangements.

Directionality

Finally, we reach a concept that is on the one hand problematic for the standard narrative but also provides a pointer for possible development. Namely, the assumption that regulations are applied to securities, not the other way around. Whereas securities, once issued, are essentially passive and depend on subsequent human acts, blockchain allows regulatory requirements to be built into a blockchain that would allow tokens to be self-governing.

Consequences

Considerations such as those reviewed above test the limits of the idea that the standard narrative is the most appropriate means of regulating blockchain and

that an incrementalist approach is a sustainable policy response. Securities laws, while designed to be flexible, are not equipped to regulate properties of tokens that are unique to blockchain technology. This includes the particular property of blockchain to encode anything of value as a tradeable information object – information and value thus becoming interchangeable – and the governance aspects of such remarkable consensus-based metamorphoses.

Shortcomings of the standard narrative do not mean that the application of disclosure and enforcement-based securities laws to tokens have been wholly without purpose. However, it does require us to seek a better approach. A more fundamental discussion for reform needs to be placed on policymakers’ discussion agenda to begin to anticipate what a more fit-for-purpose regulatory framework might look like. ■

This article is based on *Rethinking the Regulation of Cryptoassets* by Syren Johnstone (Edward Elgar Publishing), which makes five key proposals for regulatory reform.



區塊鏈對證券監管的挑戰

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將證券法套用於某些類型的加密資產已成為現時一種常見的標準監管方法（以下簡稱「標準監管方法」）。區塊鏈經常被視為對商業活動的一種干擾和去中介化，然而甚少有人思考區塊鏈和建立在其之上的加密資產代幣（以下簡稱「代幣」）對證券監管的挑戰。按照對代幣的事實模式分析，代幣的特徵可能與證券法的前設和預想並不相符。

監管漸進主義

通過現有的金融法規來監管代幣是監管漸進主義的例子之一。當面對一個新的政策問題時，政策制訂者的

處理方式往往會受其對問題性質和範圍的隱性和顯性知識所影響和限制。監管漸進主義基於現有的做法作出類比，有助於作出初步的監管，其本身並不是壞事。其建立在已有的經驗基礎之上，讓標準循序漸進地發展，以最大限度地減少干擾並傾向保持現狀。將現有的金融監管套用於代幣這一做法確實幫助抑制了2017年左右出現的 Wild West 局面。

雖然套用現有的法律和監管概念是很方便，但有可能會阻礙將來制訂更適當的監管方案。套用現有的解決方案往往會引導行業發展走向熟悉的法律架構，這種法律架構的監管風

險與創新的法律架構相比較低，滿足了資本市場的短期需求，但可能會限制了區塊鏈的發展可能性，阻礙了多形態和有效的代幣生態系統的出現。

人們對漸進主義是否仍然適合的問題思考得太少。其更側重於通過現階段適用的監管分類法來降低風險，而非促進生態系統發展。如果標準監管方法所基於的前設條件不再適合，那麼支持繼續採用該方法的效用亦會被大大削弱。

已改變的事實模式

我於2018年3月在本刊上發表的文

章《ICO 功能型代幣以及與證券法的關聯性》中指出，把證券稱之為功能型代幣並不會改變其特質。反之亦然，將代幣稱為證券亦不會改變其代幣的特質。本文將檢視代幣的事實模式與證券法的前設和預想不一致的四個方面，這些不一致會導致將證券法套用在代幣上時出現困難。

問責

證券監管的兩個前設是，參與者本質上是中心化的，他們的地理位置可以追溯，從而進行執法。代幣的情況則不同。去中心化的網絡使參與者難以識別，而且識別他們的意義不大。以責任追究制度為執法前提的監管機制，對匿名參與者的效果不佳。因此零知識證明系統帶來相當高的阻礙。

制度安排

與公司發行的證券不同，區塊鏈中的制度安排是用代碼表達的，它可以在網絡參與者和代幣持有者之間分配一系列的角色。持有者、管理者和客戶之間的傳統企業分工可能會被瓦解。雖然仍有可能應用「共同企業」之類的概念（在證券的功能性定義下，例如集體投資計劃或 Howey 測試），但如果角色的重新配置是為了創建一種嶄新或不同的制度安排，

那麼其是否能繼續與證券法的總體目的保持一致，這點尚不明確。而一般的商業法，例如那些涵蓋不公平或欺騙行為的法律，已可提供充分的消費者保障。

不同的制度基礎會產生相應的後果。對傳統證券而言，除非為了實施法律，例如通過知情同意或法院命令，證券和證券交易附帶的權利是不可侵犯的。代幣的權利和功能取決於隱含的電腦代碼。重寫代碼或代碼的意外屬性，無論是由於軟件更新、編碼錯誤、故障、管理機制、雙重支付、硬分叉還是惡意攻擊而來，均可實際上影響代幣的功能。此外，代幣也會因歷史的改寫而受影響，包括代碼回滾和重新驗證來自前期區塊的新交易數據，就像在 2016 年的硬分叉中所建立的以太坊（以太坊經典是指以太坊最初的未分叉版本）。

產品分類

一旦一種工具被歸類為證券，它就會被一直視作證券，儘管當中的條款可能會發生變化，例如在行使認股權證時或在債券清償後。美國證券交易委員會（公司財務總監 William Hinman 及其創新和金融技術戰略中心）認為，代幣可在某些時候被視為證券，某些時候則不是，儘管這種分類的法律依據並不明確。

此外，債券和股票市場通過混合投資工具（如可轉換或衍生投資工具等）互相影響，這不會影響這些混合投資工具背後的標的金融產品如何被監管。然而，隨著不同區塊鏈之間的相互操作性出現，一個司法管轄區對區塊鏈的監管，可能會影響到被另一個司法管轄區監管的區塊鏈，這可能導致相同的代幣在兩個司法管轄區下面對不同的監管。

市場監管

證券法假設了公開市場必須設在所有人都可以觀察到的集中式平台。中心化的加密交易所與傳統交易所的架構相似，因此目前是沒有問題的。相比較下，去中心化交易所（DEX）向交易方提供獨立交易管道。因此，雖然 DEX 承擔了公開市場的所有功能，但就標準監管方法而言，它不被視為交易所。

與公司發行的證券不同，代幣可以在沒有網絡開發者、參與者或代幣持有者參與或同意的情況下，在加密交易所進行交易。此外，同一類代幣可以同時在多個市場上進行交易。在這種情況下，僅對一個市場的參與者實施監管的去風險效果將更難以評估。對一個市場實施監管，可能只是將其流動性及提供流動性的平台推向另一個市場。平台可以轉移至



一個監管制度與其自身商業模式相符的市場，風險因而被推到另一個地方，而由於在加密和匿名的環境下進行跨境活動十分方便，本地消費者可能仍然暴露於風險之中。這是監管不平衡的結果，所以只要全球區塊鏈監管模式尚未成形，這就一直會是個問題。

在沒有法律規管市場濫用行為的情況下，證券法無法適用於加密交易所及其進行的交易活動。例如，香港《證券及期貨條例》中指的操縱市場和內幕交易，根本不適用於代幣，無論代幣是否被視為證券。因此，將代幣歸類為證券以期獲取實際並不存在的監管保護，實際上進一步增加了風險。

證券監管

切合目的？

將證券監管套用於代幣和代幣發行的一個關鍵假設是，一旦代幣被歸類為證券，適用於證券的法律法規就能適用於代幣上。最簡單的延伸是，傳統證券市場的中介機構能夠按照與證券相同的方式對代幣和證券進行交易。然而情況並非如此。以傳統意義上的證券為設計基礎的行為法規並不能為代幣提供合規的途徑。試想一下 DAO（去中心化自治組織）適用集體投資計劃法例或美國 1940 年的《投資公司法》的情形，由於其產品特性與公開發行不同，DAO

很可能無法遵守適用於針對不同種類的產品的公開發行的監管要求。這些例子說明，一旦代幣被歸類為證券，它就會被推入一個無法容納它的領域內。

常見的混淆

當代幣的發行因其包裝和呈現方式而被納入證券法作為一種投資安排，代幣與其他證券法內的投資安排並不應隨之混為一談——Howey 的柑橘園不是證券，與柑橘園相關的合約安排才是。代幣是可轉讓的，通常可以在二級市場上出售而無需上述合約安排。而該等因其作為一種投資安排而被納入證券的代幣一旦轉售，證券法如何繼續適用該等代幣就變得不明確了。所謂「一旦是證券，永遠是證券」的原則並不適用於此。

證券的特徵

將證券法的應用與產品特質掛鉤，這種標準做法所帶來的擔憂存在已久。本文並非要檢討在美國、香港和其他地方實施了半個多世紀的證券法，然而關於什麼特質能夠構成證券的這個問題仍然充斥著未能解決的學術爭論。隨時時間的推移，證券的特質並非是靜態的，新的商業安排也曾

直至 19 世紀初，優先購買權才得到承認。直至 19 世紀末，股票通常依照一股一票的原則；在 1970 年代，

股票的特徵是賦予按股票數量成比例的投票權；加權投票權隨後出現，無投票權股份也出現了。值得注意的是，這些變化並非從立法層面而是由宏觀的社會因素所驅動。雖然證券的功能測試通常與社會議題無直接關聯，但如果證券的特徵可以隨著時間推移、社會和商業的變遷而改變，那麼功能測試將如何應對區塊鏈所帶來的嶄新制度？

人們有時忘記了證券法的首要目的並不是為了識別證券或投資合同，那是本末倒置。生硬地根據既定規範將代幣分為「證券」或「非證券」並不能引導人們對這個嶄新制度的探索。

方向性

最後我們得出了一個概念，一個對這標準監管方法提出質疑的同時提供發展指引的概念——假設監管適用於證券，而不是反過來。證券一旦發行後本質上是被動的，依賴人們隨後的行為。而區塊鏈則能將監管要求建立在區塊鏈之中，使代幣圈能夠自我監管。

結語

上文指出了標準監管方法和監管漸進主義的局限性。證券法雖然設計靈活，但無法監管區塊鏈技術中獨有的代幣特質，包括其將任何有價值的東西編碼為可交易的物品的特質——信息和價值因此可以互換——以及基於這種共識而演變的管理。

標準監管方法雖有其缺陷，但這並不意味著把以披露和執法為本的證券法應用於代幣便毫無監管作用。然而，我們確實需要找出更好的監管方法。政策制定者需要從根本上討論改革以制定一個更能切合監管目的的框架。■

本文基於 Syren Johnstone 所著《Rethinking the Regulation of Cryptoassets》（Edward Elgar Publishing）一書寫作，該書對於監管改革提出了五點建議。

