Initial Coin Offerings (ICOs): Risks, Regulation, and Accountability

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Abstract The emergence of the cryptocurrency as an investment vehicle has brought the phenomenon of Initial Coin Offerings (ICOs) into the spotlight, since they provide rapid access to capital for new ventures, but suffer from drawbacks relating to regulation and accountability. In that regard, this chapter provides a review of the recent literature on ICOs before proceeding with a discussion of the regulatory and other risks that ICOs pose for market participants, thereby encouraging a broader discussion about where such a novel capital-raising mechanism may lie in the investment universe, and how the weaknesses of ICOs may be addressed so as to better leverage its strengths towards value creation and innovation.

1 Introduction

The ascent of cryptocurrencies as both investment vehicle and cultural phenomenon (Conley 2017; Chohan 2017a) has led to the flurry of research and investor interest in the field (Lee et al. 2018; Chohan 2017c, 2017e); and while the number of cryptocurrencies has grown tremendously in the past few years, most of them have not, even for so short an interval, stood the test of time. Worse still, numerous cryptocurrencies have been launched as opportunistic pretexts for theft, Ponzi schemes, fraudulent practices, and commercial deceit (see Benedetti and Kostovetsky 2018; Venegas 2017; Chohan 2018a–c, 2019a, b). The losses incurred have been significant, as shall be discussed later in this chapter—but nevertheless, as a result of considerable monetary damage to a non-specialist general public, there is now a widespread call for greater regulatory accountability and oversight of the cryptocurrency space (GAO 2014; Clayton 2017; Chohan 2018c).

At the heart of the commercial process for dealing with cryptocurrencies is the Initial Coin Offering ("ICO" see Howell et al. 2018; Li and Mann 2018), which is somewhat (but not entirely) analogous to the Initial Public Offering (IPO) that is the bedrock for large-scale commercial ownership and participation in capitalism. An

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ICO, also termed token sale or crowdsale, is the mechanism by which capital is raised from investors through the emission of cryptocurrency monetary units of "coins" (or "tokens," see Adhami et al. 2018; Chohan 2017d), usually (but not necessarily) in exchange for traditional units of currency such as the United States dollar, the Yen, or the Euro (Fisch 2019; Chohan 2019a, b), often expressed as a percentage of total newly issued currency (Catalini and Gans 2018). ICOs may sell either cryptocurrency, or may sell a right of ownership or royalties to a project, and this is what contrasts them with IPOs, which sell a share in the ownership of a company itself (Li and Mann 2018; Chohan 2018a–c).

Adhami et al., describe ICOs as "open calls for funding promoted by organizations, companies, and entrepreneurs to raise money through cryptocurrencies, in exchange for a "token" that can be sold on the Internet or used in the future to obtain products or services and, at times, profits," (2018, p. 64). In essence, ICOs are a new motor for raising investment capital (Howell et al. 2018; Lee et al. 2018; Adhami et al. 2018; Catalini and Gans 2018), and they offer "significant promise for new startups in the cryptocurrency space as means of quicker and easier capital raise," (Chohan 2017d, p. 3). There are at least three conceivable advantages of using ICOs: (1) reducing the cost of raising capital, (2) positive network effects with a built-in customer base (see also Benedetti and Kostovetsky 2018), and (3) a secondary trading market in issued tokens (see Adhami et al. 2018, p. 64).

However, ICOs have mostly occurred in the online realm that lies beyond regularized and traditional finance, devoid of the structures of financial regulation which allow for capitalism to function in a more stable and lawful manner (Fisch 2019; Howell et al. 2018; Chohan 2017b, 2019a, b). ICOs are "bypassing any regulation that normally applies to businesses placing securities to retail investors, [and so] dozens of developer teams and entrepreneurs collect money in absence of official prospectuses, with no particular protection for contributors and disclosing only a very limited set of information," (Adhami et al. 2018, p. 65). Furthermore, "these ventures often resemble the startups that conventionally finance themselves with angel or venture capital (VC) investment, though there are many scams, jokes, and tokens that have nothing to do with a new product or business," (Howell et al. 2018, p. 1).

Instead, ICOs (and cryptocurrencies more fundamentally) lie philosophically within cryptoanarchist thought, which seeks to cultivate decentralized, autonomous, and voluntary exchange among individuals in a manner that protects their identities and therefore their risk of persecution by structures of authority (Chohan 2017f). Laudable as those ideals may be for some, cryptoanarchist principles assume a very high degree of trust, or to put it more correctly, the lack of a need for trust ("trustlessness", see Chohan 2019c) among participants. The massive frauds of the ICO space over the last few years, however, have put the praxis of utopian cryptoanarchist ideals into serious question. More specifically, ICO non-accountability and non-oversight have raised a public furore which is now being met, however haphazardly (see comparisons in Chohan 2017b), by traditional regulatory authorities.

The purpose of this chapter, then, is to discuss the need for ICO regulation and accountability (see initial work in Chohan 2017d). It does so by first providing a review of the recent literature on ICOs before considering the regulatory and other risks that ICOs pose (and have already posed) for market participants. The chapter then notes the uncoordinated and divergent international regulatory responses to ICOs, before highlighting areas of further research into ICO accountability and regulation. In that regard, this chapter should be seen as a call towards a broader discussion about where such a novel capital raising mechanism may lie in the investment universe, and how the weaknesses of ICOs may be addressed so as to better leverage its strengths towards value creation and innovation.

2 Academic Interest in ICOs

Unlike the volatile prices of cryptocurrencies, the academic literature on cryptocurrencies has risen in a more steady and graduated manner (see review in Chohan 2019c). However, although the scientific and mathematically-oriented literature on cryptocurrencies has risen more broadly, particularly in the form of white papers delineating variants of coins that address theoretical or practitioner problems (see discussion in Fisch 2019, pp. 9–12), the social (including the accountability) dimension of crypto-instruments more broadly and ICOs specifically has remained somewhat unexplored despite calls for greater policy and research engagement (see Venegas 2017; Kaal and Dell'Erba 2017; Chohan 2017d, 2018a–c). This brief section therefore reviews the salient observations on the literature specific to ICOs.

Chohan's working papers on cryptocurrency accountability (2017a–f, 2018a–c, 2019a–c) draw upon the financial accountability literature to raise the most explicit call-to-arms for improving the oversight and accountability of the cryptocurrency space, both through national and international initiatives. This list includes the first paper (Chohan 2017d) to highlight the "risks, regulation, and accountability" of ICOs specifically. The common thread among these papers has been that cryptocurrencies and their ICOs offer the promise of innovation but also pose a threat in the absence of accountability mechanisms. As such, the existing international financial structure has been caught off-guard and has only recently begun to tackle issues of cryptocurrency oversight, regulation, and enforcement (Chohan 2017a–f), and that too in a reactive manner.

In a similar vein, Fisch has noted that "ICOs are characterized by a considerable amount of information asymmetry, for example, because ventures are typically in early stages [and] the amount of objective information surrounding ICOs is very low, and there is thus considerable potential for fraud," (2019, p. 5). Kaal and Dell'Erba stress that ICOs are inherently early-stage investments and contain the concomitant risks of early lifecycle investments in any case (2017), and Fisch emphasizes that "formal disclosure requirements in ICOs are largely absent," (2019, p. 10). However, Catalini and Gans note that "even in the absence of fraud and incompetence,

how precisely tokens have value in the absence of additional rights on the venture is not obvious," (2018, p. 3).

What is the purpose of ICOs in absolute terms and relative to traditional financial structures? Catalini and Gans identify the subjacent logic of strong ICO demand to be that they "allow entrepreneurs to generate buyer competition for the token, which, in turn, reveals consumer value without the entrepreneurs having to know, ex ante, consumer willingness to pay," (2018, p. 1), and this in turn "may increase entrepreneurial returns beyond what can be achieved through traditional equity financing." It is also important to note that there is a "utility" aspect to certain ICOs, in that the capital raised allows users exclusive access to services through purchase and trading of a specific coin (Conley 2017). Those rights of access serve as a utility, and this utilitarian approach has been (somewhat incorrectly) justified as a basis for having ICOs avoid the regulation-regime of securities (Clayton 2017).

Adhami et al. suggest three conceivable advantages of ICOs as a capital-raising vehicle (2018): (1) in cost-reductions in capital raising, by avoiding intermediaries and payment agents (see also Howell et al. 2018); (2) in a built-in customer base and positive network effects through platform development; and (3) in the creation of a secondary market through trading of the tokens themselves (Adhami et al. 2018). For the former point, Catalini and Gans note that ICOs rely upon "blockchain technology lowering both the cost of verification of transaction attributes—which allows for self-custody of digital assets—and the cost of coordinating economic activity over the internet," (2018, p. 2).

What raises risks from an oversight perspective (Chohan 2019a–c), but creates an opportunity from a pricing perspective, is that "conditional on successfully raising enough funds to cover development costs, the value of an ICO is independent of the anticipated growth of the platform," (Catalini and Gans 2018), or in Fisch's words, they "do not seem to relate to the venture's underlying capabilities and are highly specific to the ICO context," (2019, p. 2). Adhami et al. (2018) also found that the success rate of the ICOs was initially quite high (the tenor has changed since their publication; as has the regulatory environment).

But does this mean that most conceivably viable ventures would do well to ride the wave of ICOs? Catalini and Gans dismiss this and note that "a viable venture, which could have successfully raised capital through traditional sources, may fail to raise enough funds to cover its costs through an ICO," and particularly so when "the venture is long-lived, and is consistent with the rise of hybrid arrangements where ventures raise a traditional venture capital round before issuing tokens to the public or to accredited investors," (2018, p. 4). Similarly, Fisch observes that "due to their highly technological nature, ICOs are not applicable to every venture. Rather, they only appeal to ventures utilizing [the distributed ledger technology that underlies blockchains], which is a narrow segment of high-tech firms," (2019, p. 7).

Adhami et al. examine 253 ICO campaigns to identify the factors that would lead to a successful ICO campaign (2018). They find that the probability of an ICO's success is higher if the code source is available, if a token "presale" is arranged, and if tokens allow contributors to access a specific service (or have a share in profits). Separate work by Fisch examining 423 ICOs using a Signalling Theory approach

corroborates these findings (2019); specifically that technically-robust white papers and code source availability are important determinants in successful ICOs. Work by Howell et al. studies 453 tokens and gauges success in terms of the liquidity of tokens 6 months post-release, with generally similar findings regarding the success of ICO ventures (2018).

In contrasting the successful launches of ICOs, Adhami et al. also delineate just what "failure" for an ICO can mean, which can include factors such as: (1) not meeting a minimum funding goal, in which case the ICO should refund the proceeds to investors; (2) a hack and security flaw (see also Chohan 2018a–c); and that (3) "an ICO may reveal itself to be a scam or at least perceived as a scam by the online community, resulting in a very low or zero amount of funding," (2018, p. 67).

As Conley's discussion on the valuation of cryptocurrencies indicates, a regulatory gap in ICOs "makes it uncertain what guarantees and enforceable promises [cryptocurrency] founders make to token holders. A white paper is not a contract!" (2017, p. 22, emphasis in the original). For internal governance, Conley also remarks that investors ("token holders") are "sometimes given collective control over a variety of aspects of a project, but almost never full control or proportional sharing of profits," and this is troublesome because "when any aspect of control is separated from profit sharing, serious incentive problems are created," (2017, p. 23).

To this point, Benedetti and Kostoyevsky examine the lifespan of startups that undertake ICOs and find that their survivorship is low, determining that only 44.2% of startups survive after 120 days from the end of their ICOs (2018). Their research suggests that the rush for ICOs was a digital incarnation of the Tulip Mania that overran Europe in the early seventeenth century.

Both quantitative empirical (see Adhami et al. 2018; Fisch 2019; Catalini and Gans 2018; Howell et al. 2018) and qualitative approaches (Chohan 2017a–f, 2018a–c) have been deployed to situate the nature and purpose of ICOs within a traditional financial "language," be it through signalling theory (Fisch 2019), quantity theory of money (Conley 2017), or various other lenses. Yet traditional finance theorizations do not quite fully capture the lived-experience or chaotic spur of the ICO as investment vehicle and subculture. The space may be in fact described as a "wild west," where independent groups have posted alluring suggestions of projects, even without significant detail, and tempted small-scale investors to dip into the supposed prize, only to be left high-and-dry when the ICO's profits fail to materialize. It is in that gap of praxis that concerns over ICO risks have caused alarm in the regulatory and oversight space.

3 The Wild West of ICOs

When the popularity of cryptocurrencies among a wider public began to soar (circa 2016), so too did the amount of ICOs promising ever greater returns to investors. Benedetti and Kostovetsky (2018) describe this phenomenon as a digital reiteration of the Tulip Mania which engulfed Europe in the early decades of the seventeenth

century, and Chohan remarks that at the peak of cryptocurrency hype in November, 2017 there were already more than 50 ICOs taking place every month (Chohan 2017d).

Prominent early ICO token sales included Mastercoin in July, 2013, and both Ethereum and Karmacoin in 2014, along with what were termed more "mainstream" ICOs (i.e. more in line with a traditional and institutional investor base) occurring with Kik in September 2017. Even at these early stages, fraudulent practices were being observed, as when Kik faced a phishing scam through a false online link (URL). Yet investor interest remained heavy, as when the web browser Brave's ICO generated $35 million in less than 30 s (Chohan 2017d).

Nevertheless, although a cumulative analysis of ICO volumes showed that capital-raising through ICOs was significant (Satis Group 2017; Adhami et al. 2018; Chohan 2017d), large numbers of ICOs resulted in "substantial scam-artistry, phishing, Ponzi schemes, and other shenanigans" (Chohan 2017d, p. 5). But the scale of such practices is truly frightening. According to one study which examined the lifecycle of ICOs from the initial proposal to the final phase of trading on a crypto-exchange, more than 80% of ICOs emitted in 2017 were scams (Satis Group 2017), amounting in value terms to more than US$1 billion (value estimates of the total capital raised in that year was $11 billion). For 2018, another ICO advisory firm estimated that, for more $20 billion in capital raised from 789 ICOs, the 10 largest ICO scams swindled a combined amount of more than $700 million (Fortune Jack 2018). Various open-access online databases such as Deadcoin began to tabulate a large litany of fake and fraudulent cryptocurrencies, with labels such as "scam," "pyramid scheme," "hack," "disaster," and the pejoratively titled "shitcoin," (Deadcoin 2019). As of this writing, the Deadcoin graveyard enlists hundreds of false, fraudulent, or defunct coins. Benedetti and Kostoyevsky have determined that only 44.2% of startups survive after 120 days from the end of their ICOs (2018). The larger ICO scams by value, as of this writing, include Pincoin and iFan's colossal $660 million dollar swindle, along with Plexicoin, Centra Tech, Bitconnect, Bitlicense, and Bitcard (Fortune Jack 2018; see Bitconnect analysis in Chohan 2018a; Bitlicense analysis in Chohan 2018c).

The ambit of nefarious practices within the under-regulated space of ICOs has been large, with damaging consequences for the public, for the reputation of cryptocurrencies, and even for regulators towards whom fingers were unjustly pointed once real losses were being incurred. For so recent a domain, cryptocurrencies have indeed found substantial presence in the public discourse, in news media, and in the online forums where vibrant discussion has taken place (Chohan 2017a). A wide gamut of attitudes towards cryptocurrencies persists even today, and this is reflected in the regulatory attitudes of various jurisdictions as well (Chohan 2017b).

On one hand, cryptocurrencies are seen as a burst of innovation in a world where even digital technologies have come to stand as monopolistic structures (e.g. Google for search engines, Facebook for social media interactions). Cryptocurrencies were being lauded as a surge of citizen-driven innovation (Chohan 2019d) in the seemingly ossifying digital world of giant corporations.

Yet on the other hand, the lackadaisical levels of due diligence, the wildly inflated promises of transformation, and the quintessential human traits of greed and "fear of missing out" (colloquially termed "FOMO"), all conspired towards severe monetary exploitation of the first order. After all, there are reasons that financial regulation exists. There are indeed reasons why entities that wish to emit securities must comply with a long list of requirements, imposed upon by bodies that are created with a mandate to function in the public interest (Clayton and Giancarlo 2018; Giancarlo 2018). Without such regulatory bodies, the downswings of the free market are much more ruthless, and market failures are much more drastic.

By that line of argument, those investors who dealt with suspicious ICOs of their own accord must be answerable for their own choices. Under no compulsion did these individuals invest their own money into the seemingly endless rhetorical promises of the cryptocurrency realm. This is why Benedetti's and Kostovetsky's (2018) comparison to the Tulip Mania of the European Renaissance is perhaps apt, for as with the short-lived boom in the price of a whimsical commodity (flowers), coupled with the insatiable appetites of investors, great fortunes were lost in but an instant.

After all, there was far less complaint about ICOs when cryptocurrency prices were at their zenith (see Chohan 2018a–c). Rather, it was when the prices declined that the furore of losing investors spread across the online forums and into the public sphere. For all those proponents of cryptoanarchist attitudes towards the freedom to invest, many in fact would demand recourse from the existing structures of financial accountability. Seldom in the good times, but often in the bad times, would the weaknesses of the cryptocurrency space as unregulated domain be articulated thus.

Indeed, the scope of widespread financial abuse through ICOs came to jeopardize the reputation of the space as a whole (Chohan 2019a–c), with many small- and large-scale investors demanding recourse and recovery of funds. Given that the inherent design of cryptocurrencies is to situate them outside the traditional financial architecture (Fisch 2019; Howell et al. 2018), such demands pose a dilemma for regulatory authorities around the world (GAO 2014), initially due to sheer bewilderment at the meteoric rise of the sector (see Chohan 2017b, 2019c), but since then due to the need to strike a balance between fostering innovation and imposing accountability (see Chohan 2019d, e). Those issues are discussed in the following section.

4 Regulatory Responses to ICOs

ICOs have "low contributor protection, a limited set of available information, [almost] no supervision by public authorities, and [almost] no relevant track record for proponents," (Adhami et al. 2018, p. 73). It was remarked early on that the divergences in international regulatory responses to cryptocurrencies were quite stark (Chohan 2017b; Adhami et al. 2018, p. 65–66), ranging from outright banishment of cryptocurrencies from the financial architecture of some countries, to the

enthusiastic embrace of others. However, the picture grew more nuanced since 2018, when a general price decline in crypto-instruments led to a more vocal chorus of disenchantment with the promise of cryptocurrencies (Chohan 2019a–c). As noted in earlier sections, even in cases of legitimate ICOs, funded projects are typically in a high-risk early stage of development, with considerable downside potential for investors (Conley 2017; Howell et al. 2018; Li and Mann 2018).

With that in mind, Chohan has argued that OECD countries, with the Securities and Exchange Commission (SEC) and Commodities and Futures Trading Commission (CFTC) of the United States taking the lead, have attempted to strike a balance between the principles of "innovation" and "accountability" (Chohan 2019e). The US Securities and Exchange Commission (SEC) has issued explicit warnings to investors to be highly cautious against scammers using ICOs, particularly in the colloquially termed "pump and dump" schemes, where capital is fleetingly raised and then immediately dumped in exchange for other (more established) instruments at a profit, all within a very brief interval (Clayton 2017). The UK Financial Conduct Authority has also warned that ICOs are very high risk and speculative investments, are scams in some cases, and often offer no protections for investors (Chohan 2017d). Australia's regulator (ASIC) has issued guidance (September, 2017) stating that the legality of an ICO is dependent on the specific circumstances, on a case-by-case basis.

An even more reticent attitude has been expressed by financial regulators in China, where seven regulatory agencies officially banned all ICOs within the People's Republic, and they demanded that the proceeds from all past ICOs be refunded to investors or face being severely punished according to the law (Li and Mann 2018; Lee et al. 2018). This decision is being reconsidered, as of this writing. The Chinese context is important because ICOs had raised nearly $400 million from about 100,000 investors prior to the ban. However, more recent statements from Chinese regulators have stated that the ICO ban is intermittent, pending a more systematic regulatory framework.

A similar situation, and a more surprising one, has emerged as of this writing in Switzerland. Although Switzerland was previously viewed as a jurisdiction amenable and friendly to ICOs, in September, 2017 the Swiss Financial Market Supervisory Authority announced an investigation of an unspecified number of coin offerings to examine whether they complied with Swiss regulations (Chohan 2017d). A strong line has also been taken by regulators in South Korea, where the Financial Services Commission prohibited ICOs in September 2017 and promised "stern penalties" for violations (Li and Mann 2018; Lee et al. 2018).

Given the recency of the ICO phenomenon, many important jurisdictions have yet to issue regulatory guidelines, of this writing. However, more comprehensive guidance has been issued by Hong Kong, New Zealand, Australia, Gibraltar, and the UAE. In Hong Kong, the Securities and Futures Commission released a statement (September 2017) explaining that tokens may constitute securities for purposes of the legal framework (Securities and Futures Ordinance), in which case dealing in such tokens would be a regulated activity under Hong Kong law. In New Zealand, the Financial Markets Authority (FMA) released guidelines on the current regulatory

environment in regards to ICOs in October, 2017. In Gibraltar, the government published regulation establishing a framework for regulated DLT (Distributed Ledger Technology) companies, which would encompass ICOs and subject them to financial controls and standards; which entered into effect on January 1, 2018. In the UAE, the Abu Dhabi Global Market issued official guidance on ICOs in October, 2017.

Nevertheless, the richest experience with the regulation of cryptocurrencies and their ICOs has come from the SEC and CFTC in the United States (Chohan 2019d). As far back as 2017, the Chairman of the SEC had insisted upon investors the need to exercise caution given: the financial dangers of being misled by fraudulent cryptocurrency agents; the international nature of cryptocurrency fund flows; and the emphasis on the substance of transactions rather than their form (Clayton 2017).

In his remarks, Chairman Clayton noted that advocates were claiming that tokens issued on cryptocurrencies were more of a "utility" than a security, and responded that this emphasized the form of tokens, rather than their substance (2017). Instead, a nuance was put forth in that "these [ICOs] can take many different forms, and the rights and interests a coin is purported to provide the holder can vary widely," (Clayton 2017). "By and large," he observed, the structures of ICOs "involve the offer and sale of securities and directly implicate the securities registration requirements and other investor protection provisions," and that these laws "provide that investors deserve to know what they are investing in and the relevant risks involved," (Clayton 2017).

Even at the rudimentary level of classifying cryptocurrencies, these institutions have deliberated greatly and arrived at rulings that have shaped the international ICO space. This is not a trifling matter, and has been as much of a philosophical problem as a technical one. If cryptocurrencies were treated as property, they would be regulated in the US by the Internal Revenue Service (IRS). If they were securities, they would fall under the Securities and Exchange Commission (SEC). If they were commodities, they would come under the Commodities Futures Trading Commission (CFTC). The determination of their asset class status would therefore have important ramifications for ICOs.

The chairman remarked that the SEC's Division of Enforcement would "police this area vigorously and recommend enforcement actions against those that conduct initial coin offerings in violation of the federal securities laws," (Clayton 2017). A substantial series of enforcement actions have since been taken against ICO issuers who have not complied with securities regulation. However, the SEC has also presented a more nuanced treatment of cryptocurrencies and ICOs by separating the purview of the space into both securities and commodities (see Clayton and Giancarlo 2018).

In June, 2018, a joint statement was issued by the chairmen of the SEC and CFTC (see Clayton and Giancarlo 2018). They noted that "many have identified [cryptocurrencies and their ICOs] as the next great driver of economic efficiency. Some have even compared it to productivity-driving innovations such as the steam engine and personal computer," (2018). At the same time, the chairmen emphasized closer cooperation between their agencies (Clayton and Giancarlo 2018), and a

closeness of views in approaching the cryptocurrency space. Furthermore, they spoke to the need for regulations to strike a balance when they "set and enforce rules that foster innovation, while promoting market integrity and confidence," (Clayton and Giancarlo 2018). In a later interview, CFTC Chairman Giancarlo insisted that the purpose of regulation was not to stifle ICOs, but to protect investors, stating the following: "I think that cryptocurrencies are here to stay. I think that there is a future for them. [But] I am not sure if they will ever come to rival the dollar or other hard currencies, but there is a whole section of the world that is hungry for functioning currencies, [like Bitcoin]," (Giancarlo 2018).

The SEC and CFTC are thus leading the pack of international regulators in protecting investors and regularizing ICOs as an investment vehicle. Their approach is likely to influence regulators around the world, and so even a disjointed international regulatory landscape is likely, through isomorphic pressures, to come to the standards set by the US SEC and CFTC. Whether this isomorphism will be mimetic or normative cannot be said at this early juncture. Yet a growing public pressure in the wake of volatile (and declining) prices of cryptocurrencies, followed by a massive scale of fraudulent activity, is likely to pressurize regulators around the world to respond (see also GAO 2014). After all, it has been suggested that increased regulation of ICOs should encourage institutional investors to invest along more stable horizons, and in larger volumes, over more instruments (Chohan 2017a, d). With strong accountability, the ICO market can thrive, and the SEC notes that ICOs can provide fair and lawful investment opportunities (Clayton 2017).

5 Conclusion

ICOs have mostly occurred in the online realm that lies beyond regularized and traditional finance, devoid of the structures of financial regulation which allow for capitalism to function in a more stable and lawful manner (Chohan 2017b, 2019a, b). Instead, ICOs lie philosophically within cryptoanarchist thought, which seeks to cultivate decentralized, autonomous, and voluntary exchange among individuals in a manner that protects their identities and therefore their risk of persecution by structures of government (Chohan 2017f). This creates a conundrum for those adherents of cryptocurrencies who wish for these instruments to remain "free" from traditional oversight. For cryptoanarchism, as with anarchism itself (see Wolff 1998; Marshall 2009), there are utopian expectations of human beings that remain wanting (at least thus far in the human experience), including a selflessness and trust between groups of people who will demonstrate respect and consideration in an effort to come to mutual aid. In an anonymous world of trading bits of code as monetized instrument, even as it may be nominally "trustless," issues of trust have indeed surfaced, and often bitterly so.

Indeed, the massive frauds of the ICO space over the last few years have compelled roiled investors run to traditional financial regulators for recourse, thereby challenging the praxis of utopian cryptoanarchist ideals. It has been observed that,

while the prices of cryptocurrencies were rising circa late 2017, there was a much more vocal celebration of the decentralized nature of cryptocurrencies, removed from the control and regulation of the traditional banking system (Chohan 2017a, b). However, as the prices plummeted and heavy losses were incurred among members of the public in early 2018, there was a great deal more hue-and-cry about the low levels of accountability in the cryptocurrency space (Chohan 2017d).

Whereas the hard proponents of ICOs argue that "innovation" is what is at stake here, a lack of sufficient ICO accountability and oversight have raised a public furore which is now being met, however haphazardly, by traditional regulatory authorities. Indeed, a very vocal argument is being made that ICOs do require accountability and regulation in the traditional sense. In any case, the recency of the ICO phenomenon necessitates both academic and practitioner considerations of the risks, regulation and accountability mechanisms that are self-reinforcing and dynamic, in the same way that the innovation of ICOs is.

The literature on ICOs therefore requires much more development so as to confront the rapid changes occurring in the practitioner sphere. This concluding section enumerates some of those areas of future inquiry. First, a comparison of the gains and risks of raising capital through cryptocurrency mechanisms rather than fiat money, in both regulated and unregulated jurisdictions, warrants greater (particularly empirical) attention (see example in Catalini and Gans 2018). Second, the scope of regulation, as securities or as commodities, still poses a challenge to regulators around the world, although significant progress has been made in the United States (Chohan 2019d). Related to this point, we might ask whether investor protections against fraud must be increased in both the primary and secondary markets. If so, would cryptocurrencies have any "crypto" element truly left?

The question of how the balance between "accountability" and "innovation" should be struck differs between countries' regulatory systems and commercial culture. So a third area of suggested research would be whether an international, unified system of financial oversight could or should include cryptocurrencies and their ICOs. A fourth area of enquiry would be on the demand side: why are so many online contributors still eager to transfer large sums of traditional many to fund ICOs? Behavioural economics may have much to contribute in that regard. A fifth area would speak to the "value" created for the public through ICOs, and how public managers (regulatory bodies) can participate in that value creation process when it is in fact being driven by civil society and individuals (see initial work in Chohan 2019e).

In sum, there are powerful emotive elements that have surfaced alongside the meteoric rise of cryptocurrencies as both asset class and cultural phenomenon. The wild west of ICOs has been a particularly troublesome issue in cryptocurrencies, ultimately de-legitimizing the entire space to at least some degree. The vociferous demands for accountability and recourse have force regulators to step in to the space, particularly as the losses grow, but also as risks of further fraud, money laundering, and theft increase. Their response was initially slow and reactive, but some bodies such as the SEC and CFTC are taking important and measured steps towards improving the scope of regulation in the field.

This chapter has sought to emphasize the need for regulation and oversight of the ICO domain. The downside risk of losses is immense given the propensities for nefarious activities that exist whenever money flows in the shadows. Although this does challenge the ideals of cryptoanarchism which adherents of cryptocurrencies invoke, there is a strong case for better and tighter regulation of these instruments. The purpose of that regulatory effort must be to strike a balance between "innovation" on one hand and "accountability" on the other. By such an approach, regulation can help to bolster the credibility of ICOs as a vehicle for raising capital quickly to fund technical digital projects, while also mitigating some of the weaknesses of ICOs, so as to better leverage its strengths towards value creation and innovation.

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