Blockchain Havens and the Need for Their Internationally-Coordinated Regulation

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This paper describes the rise of a new form of regulatory havens. Jurisdictions that have traditionally been characterized as "tax havens" are gradually becoming hubs for blockchain-based ventures. These jurisdictions attract blockchain entrepreneurs by offering refuge from regulatory and tax burdens imposed by developed economies. These new "Blockchain Havens" create a regulatory "race to the bottom" that is traditionally associated with the world of international tax evasion and avoidance.

Over the past several years, developed economies have put to use—mostly through coordinated efforts—several regulatory frameworks aimed to address some of the negative effects of tax havens. These regulatory instruments are aimed against the haven jurisdictions themselves, or the private institutions operating in such jurisdictions. However, this paper argues that the unique nature of blockchain-based technology – most importantly, decentralization and temper resistance – makes such traditional anti tax haven policies ineffective in the blockchain context.

This paper argues that coordinated international regulatory policies must be quickly developed to address certain important aspects of blockchain technology. Such coordination is necessary to prevent an uncontrolled regulatory race to the bottom, while at the same time preserving the benefits of blockchain-based applications.

I. INTRODUCTION

Over the past few years, several countries have been engaged in a race to become leading hubs for blockchain technology.[1] For example, Switzerland recently launched a government-backed consortium intended to support "the development of Blockchain and cryptographic related technologies and businesses."[2] The Cayman Islands has created a dedicated economic zone—the Cayman Enterprise City—that caters, among others, to blockchain entrepreneurs.[3] The Maltese government adopted policies aiming to make Malta "one of the world's friendliest jurisdictions"[4] for cryptocurrencies, and in February of 2018, the Marshall Islands became the first nation to launch a sovereign cryptocurrency.[5]

If you find something in common among the jurisdictions mentioned, you are not mistaken. Many of the countries making significant strides in this quickly-developing sector of the economy[6] are well-known centers of offshore financing, where bank secrecy and tax relief are essential commodities.[7] They are popularly known as "tax havens." Tax haven jurisdictions are not the only ones engaged in an attempt to recruit blockchain companies, but they seem to be significantly outweighing their size in the world economy in this context.[8]

It is a familiar experience. These offshore financial centers try to appeal to blockchain entrepreneurs mostly by offering secrecy, light-touch

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[1] *See*, *e.g.*, Nathaniel Popper, *Have a Cryptocurrency Company? Bermuda, Malta or Gibraltar Wants You*, N.Y. TIMES (July 29, 2018), https://www.nytimes.com/2018/07/29/technology/cryptocurrency-bermuda-malta-gibraltar.html; Don Tapscott, *Who will Win the Worldcup of Blockchain?*, QUARTZ (June 27, 2018), https://qz.com/1315302/who-would-win-the-world-cup-of-blockchain/.

[2] William Suberg, *Switzerland Launches Crypto Valley Association Backed by Government*, COINTELEGRAPH (Mar. 1, 2017), https://cointelegraph.com/news/switzerland-launches-crypto-valley-association-backed-by-government.

[3] Ken Silva, *Cayman Courting Blockchain Companies*, CAYMAN COMPASS (Jan. 30, 2018), https://www.caymancompass.com/2018/01/30/cayman-courting-blockchain-companies/.

[4] Viren Vghela & Andrea Tan, *How Malta Became a Hub of the Cryptocurrency World*, BLOOMBERG (Apr. 23, 2018), https://www.bloomberg.com/news/articles/2018-04-23/how-malta-became-a-hub-of-the-cryptocurrency-world-quicktake.

[5] Declaration and Issuance of the Sovereign Currency Act Bill 2018, Nitijela Bill 125ND2 pt. 3 (RMI).

[6] *See* PRIMAVERA DE FILIPPI & AARON WRIGHT, BLOCKCHAIN AND THE LAW: THE RULE OF CODE 3 (2018) ("In just a few years the reach of blockchain has rapidly extended beyond payment and financial products, helping to support new autonomous systems that structure social and economic interactions with less of a need for intermediaries.").

[7] Eric Czuleger, *The Tiny Nations Plotting to Become Tax Havens for Cryptocurrencies*, OZY (Sept. 19, 2018), https://www.ozy.com/fast-forward/the-tiny-nations-plotting-to-become-tax-havens-for-cryptocurrencies/88846.

[8] See discussion *infra* Part IV.B.

regulation, and minimal taxation.[9] The haven jurisdictions thus reap the benefits of incorporation[10]. Some commentators therefore refer to these jurisdictions as "Cryptocurrency Havens,"[11] or "Blockchain Havens."[12] In this paper I opt for the term "Blockchain Havens", as such terminology encompasses all potential applications of blockchain technology. The term "Cryptocurrency Havens", on the other hand, suggests a narrow focus of the use of crypto-tokens as currencies.

This paper describes the rise of tax haven jurisdictions as leaders in blockchain technology development, and their manifestation as so-called Blockchain Havens. The paper also explores the normative and practical ramifications of this phenomenon.

The paper posits that one of the main reasons for this phenomenon is the increasingly successful battle of developed economies against tax havens' traditional role as facilitators of tax avoidance and evasion.[13] In recent years, developed economies have instituted multitude of laws, and engaged in multiple international initiatives to undo the perceived damages caused by tax havens.[14] For example, in 2010, the United States adopted the Foreign Accounts Tax Compliance Act ("FATCA"),[15] forcing certain financial institutions to deliver information about their account holders to the IRS, or face debilitating financial consequences in the United Sates.[16] The FACTA framework was adopted by the Organisation of Economic Cooperation and Development (OECD) to develop the "Common Reporting Standards" (CRS),[17] which include an international standard for automatic exchange of taxpayer information between governments. As of the drafting of this article, over 100 jurisdictions have adopted instruments committing to exchange

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[9] *See* Ronen Palan, *Tax Havens and the Commercialization of State Sovereignty*, 56 INT'L ORG. 151 (2002) (describing tax havens' business model of sovereignty commercialization).

[10] Such as incorporation fees and passive investment associated with it.

[11] Darryn Pollock, *Which Countries are Best to Start Blockchain Projects*, COINTELEGRAPH (Aug. 9, 2018), https://cointelegraph.com/news/which-countries-are-best-to-start-blockchain-projects.

[12] Yoav Vilner, *Bill Clinton Speaks at 'Swell by Ripple' as Regulatory Concerns Grow*, FORBES (Oct. 3, 2018), https://www.forbes.com/sites/yoavvilner/2018/10/03/bill-clinton-speaks-at-swell-by-ripple-as-regulatory-concerns-grow/#6e06584e22fc.

[13] For a summary of recent coordinated efforts to battle offshore tax havens, see Itai Grinberg, *The New International Tax Diplomacy,* 104 GEO. L.J. 1137 (2016); Itai Grinberg, *The Battle Over Taxing Offshore Accounts,* 60 UCLA L. REV. 304 (2012).

[14] See discussion *infra* Part III.B.

[15] Foreign Accounts Tax Compliance Act, 26 U.S.C. §§ 1471–74 (2012).

[16] Generally, under FATCA, a foreign financial institution (FFI) must agree to deliver certain information to the IRS on the FFI's U.S. account holders, or face a 30% gross tax on the FFI's U.S. earnings.

[17] OECD, STANDARD FOR AUTOMATIC EXCHANGE OF FINANCIAL ACCOUNT INFORMATION IN TAX MATTERS (2nd ed. 2017).

information based on the CRS system.[18] The European Union has also adopted several measures over the past several years to facilitate automatic exchange of taxpayer information between member states.[19] These international and national actions undermine the main value the tax havens offer to tax evaders: no taxes and financial secrecy.

It is meaningful that these anti tax haven actions are not targeting--at list not directly--tax evaders or avoiders themselves. Rather, these measures target intermediaries that are in a position to collect information about tax evaders: tax havens' governments, and tax havens' financial institutions. In this environment, the rise of the blockchain technology is like a godsend for tax cheats and for tax havens. Blockchain, in its very essence, is a decentralized ledger that documents ownership and transfers, but does not require transacting parties to identify themselves to one another.[20] Secrecy is back in play, but this time with no need for intermediaries.

The blockchain financial ecosystem may thus offer similar advantages to the ones traditionally offered by tax havens.[21] First, it allows for the parties to financial transfers to remain rather anonymous, though not completely.[22] Second, since Blockchain technology operates in a decentralized manner, there is no centralized government or other institution that may impose tax.

However, blockchain cannot simply replace tax havens. Any application, even if it is decentralized, needs to start somehow, somewhere, by someone. There needs to be an initial entrepreneur, some sort of initial infrastructure (computers, servers, programmers), and most importantly, there is a need to raise initial capital. Even if blockchain itself is "immune" from regulation, the creation of a blockchain venture and the process of fundraising may themselves be regulated. This is where blockchain havens come into this new financial ecosystem.

Instead of offering regulatory refuge themselves (because they no longer can), traditional havens offer regulatory refuge to blockchain companies. Stated differently, the new havens offer regulatory refuge to the technology

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[18] CRS MULTILATERAL COMPETENT AUTHORITY AGREEMENT (2018) [hereinafter MCAA].

[19] EUROPEAN COMM'N, TAXATION AND CUSTOMS UNION, THE ANTI TAX AVOIDANCE DIRECTIVE (2016), https://ec.europa.eu/taxation_customs/business/company-tax/anti-tax-avoidance-package/anti-tax-avoidance-directive_en.

[20] For a discussion on the anonymity provided by blockchain ledgers, see FILIPPI & WRIGHT, BLOCKCHAIN AND THE LAW, *supra* note 6, at 43–45.

[21] Omri Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38, 39 (2013) ("Cryptocurrencies possess the traditional characteristics of tax havens: earnings are not subject to taxation and taxpayers' anonymity is maintained.").

[22] Omri Marian, *A Conceptual Framework for the Regulation of Cryptocurrencies*, 82 U. CHI. L. REV. DIALOGUE 53, 57 (2015) ("It should be noted, however, that most cryptocurrencies are not completely anonymous, but rather are pseudonymous.").

that offers regulatory refuge. In a sense, Cryptocurrency Havens are "meta tax-havens" or "meta offshore financial centers." As developed economies act against haven governments, it seems that haven jurisdictions are responding by becoming hosts to technologies that offer traditional haven-like benefits.

One might ask, is this necessarily a bad thing? The answer is absolutely not. Blockchain technology offer many potential benefits.[23] However, it also possesses unique risks. Most importantly for this paper, is the fact that blockchain transactions cannot be reversed, and can serve as a platform for automated execution.[24] Thus, when haven governments offer very light regulatory touch, they may attract bad actors who may utilize the regulatory leniency to misuse blockchain technology. In such a case, even if the illicit act is identified, there is little that can be done. The bad actor can get the illicit gain and disappear thanks to anonymity feature embedded in the technology, and the victim has no recourse given the permanent nature of blockchain transactions.

Consider for example a fraudulent transfer of funds facilitated by a haven-based blockchain technology. If the victim is a U.S. citizen, for example, she has no recourse. There is no way to undo the transaction. And, because of the decentralized nature of blockchain there is no intermediary involved, which may otherwise provide relief, for example, through insurance proceeds. There is nothing the haven government can do, even if it wanted to, because it cannot "undo" the transaction. Punishing or regulating haven government or financial institutions is thus futile.

If such problems became prevalent, developed economies may have no choice but to respond with a heavy hand. If the blockchain-based transaction cannot be undone, the only way to address bad actors is to prevent the transaction for taking place in the first place. Since the system is decentralized, there is no one actor a developed government can regulate. It can only go after the blockchain infrastructure, for example, by shutting down internet traffic into the country from servers associated with certain with problematic activity. Such action may prove over-inclusive, and result in the loss of the many positive attributes of blockchain technology. In order to prevent such bleak future, this paper offers a cooperative international framework for a cross-border blockchain regulation that would discourage illicit use of blockchain and allow some form of recourse to victims of bad actors, regardless of the victim's location and identity.

This paper continues as follows: Part I outlines the nature of blockchain as an autonomous regulatory haven. Part II explain the demise of the traditional tax haven business model. Part III explains the rise of Blockchain

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[23] *See infra* note 28 and accompanying text.
[24] *See* discussion *infra* Part V.

Havens. Part IV considers the ramifications of Blockchain Havens in the absence of a regulatory framework. That part identifies the unique properties of blockchain technology that make Blockchain Havens problematic. Part V offers some ideas for a cooperative international framework to regulate blockchain based applications.

I.   II. BLOCKCHAIN AS AN AUTONOMOUS REGULATORY ENVIRONMENT

A. Blockchain and Private Regulation

In its essence, blockchain is a decentralized ledger that records ownership and value transfers.[25] As such, Blockchain provides a platform for autonomously-executed applications. For example, users can program a contractual arrangement onto the blockchain, coding-in triggering event to upon which contractual provisions are executed.[26] Since the contractual execution is decentralized, neither of the parties to the contract can prevent execution if a triggering event occurs.

For example, blockchain-based applications can assure that inheritance funds are transferred to an heir only upon her reaching the age of 21. Unless otherwise coded, upon her reaching to 21 year of age she will receive the funds and no one person will be able to prevent the transfer. Partnership profits can be automatically distributed to partners once certain profitability targets are met. The ignition of a car can be programed to work once a complete transfer of funds from the car buyer's bank account to the seller's account. Blockchain technology thus creates "order without law and implement what can be thought of as private regulatory framework."[27] Rules can be privately-created, and automatically executed. In theory, these is no need for state (or private intermediary) intervention.

Countries have been struggling with how to regulate this new platform, as it holds both promises and significant risks[28]. Autonomous decentralization can eliminate costly intermediaries from contractual process, reducing transaction costs. The system is almost tamper-proof, because no one person controls the process. For the same reason, blockchain technologies significantly limit the ability of bad actors to restrict the flow of information.

On the other hand, governments lose much of their ability to regulate processes, or prevent undesired outcomes. This may enable illicit activity—

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[25] For an explanation of the operation of blockchain technology, see FILIPPI & WRIGHT, *supra* note 6, at 13–57.

[26] *Id*. at 43–45.

[27] *Id*. at 5.

[28] For a discussion of the dual nature of blockchain, as a force of both good and evil, see *id*. at 45–46.

such as money laundering, transfers that violate IP rights, or illicit contracts—to operate undetected. Even if detected, it is not clear what governments can do about it, because a decentralized process cannot just be "stopped." Indeed, there is evidence that cryptocurrencies, such as Bitcoin—the most well-known application of blockchain—are favorite among illicit actors.[29]

Different jurisdictions have responded with widely varied regulatory approaches to blockchain. A recent global survey by the international law firm Pinsent Masons documents five different categories of regulatory response, from complete regulatory obliviousness on the one end, to an outright ban on blockchain-based ventures on the other.[30] In the next subpart, I use the global Initial Coin Offerings ("ICO") market to demonstrate the confused regulatory response.

B. The ICO Market as a Case Study

ICOs are blockchain-based crowdfunding platforms. In an ICO, a promoter issues a blockchain-based digital token in exchange for value. The token "imbue[s] holders with certain rights, privileges, or rewards within the context of particular online application or service."[31] In theory, since the privileges are blockchain-based, the rights of token-holder are automatically preserved. This can be a powerful governance instrument.

There are multiple types of ICOs and tokens.[32] For example, "utility tokens" may allow holders access to a future product or service funded by the ICO. [33] "Equity tokens" are similar to traditional equity, and may allow token holders the right to vote on matters funded by the ICO, or share in the profits of the ICO-funded venture.[34] Moreover, depending on the terms of the ICO, token holders may (or may not) transfer their tokens exchange for valuable considerations in a secondary market. "Currency tokens" are probably the most well-known application of blockchain technology, and are simply used as a medium of exchange.[35]

Over the past several years the ICO market has gradually increased in significance. One study estimated that in 2017 alone, 413 ICOs raised more

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[29] For a discussion of illicit demand for blockchain, see Shanaan Cohsey, *Coin-Operated Capitalism*, COLUM. L. REV. 65–67 (forthcoming, 2019).

[30] BITCOIN, BLOCKCHAIN AND INITIAL COIN OFFERINGS: A GLOBAL REVIEW (Pinset Masons, 2017).

[31] FILIPPI & WRIGHT, *supra* note 6, at 100.

[32] For a description of different types of tokens, see Dirk Zetzsche et. al., *The ICO Gold Rush: It's a Scam, it's a Bubble, it's a Super Challenge for Regulators*, 18 EUROPEAN BANK INST. WORKING PAPER 7 (2018).

[33] *Id.*

[34] *Id.*

[35] *Id.*

than $10 billion USD.[36] In 2018, 1012 ICO were successful in raising funds to the tune of $11.6 billion USD in the aggregate. While still dwarfed by traditional capital markets, it is increasingly clear that ICOs are becoming a popular way for entrepreneurs to raise funds.[37]

ICOs do not exactly fit in to the highly-regulated framework of traditional capital markets. There, fund raising efforts start with a business entity, with the fiduciary duties that come with the law under which the entity is organized. Burdensome disclosure requirements must be met to inform potential investors of the nature of the business and the risks associated with the investment. The exchange market themselves are heavily regulated to prevent fraud and other abuses.

But in the ICO context there is no need for an entity to exist. There only needs to be software. An ICO promoter can issue as many tokens as she wants, and is only limited by the terms of the software she herself wrote (and, of course, by the demand for her tokens).[38] The "pitch" to investors is not done via traditional prospectus—the standards of which are heavily regulated by securities laws—but on a "white paper." The white paper is a document "that describe promoters' plans for development and solicit community involvement."[39] The legal status of such white papers is unclear, and there are no market standards from what should be included in them.[40]

At least initially, ICOs thus seem to have been operating in a regulatory vacuum. While such an environment may seem alarming to some, others view the lack of regulatory rigidity more sanguinely. "ICOs provide digital entrepreneurs with the opportunity to raise funding avoiding costs of compliance and intermediaries",[41] thus providing "unprecedented liquidity and efficiency for capital formation while minimizing transaction cost."[42]

With the rise of their popularity, various jurisdictions have started to consider regulatory frameworks to address them. But regulatory actions have been mostly reactive, rather than proactive. For example, in 2016, German promoters created a Decentralized Autonomous Organization ("DAO") by selling virtual tokens in exchange for the cryptocurrency Ethereum ("ETH").

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[36] ICO BENCH, ICO MARKET ANALYSIS 2018 (2018).

[37] Nathaniel Popper, *Easiest Path to Riches on the Web? An Initial Coin Offering*, N.Y. TIMES (June 23, 2017), https://www.nytimes.com/2017/06/23/business/dealbook/coin-digital-currency.html (describing the rising popularity of ICOs).

[38] Cohsey et. al, *supra* note 29, at 21–23.

[39] *Id.* at 18.

[40] *Id.*

[41] WINIFRED HUANG, MICHELE MEOLI & SILVIO VISMARA, THE GEOGRAPHY OF INITIAL COIN OFFERINGS 3 (July 1, 2018), https://ssrn.com/abstract=3206234.

[42] Wulf Kaal, *Initial Coin Offerings: The Top 25 Jurisdictions and their Comparative Regulatory Responses (as of May 2018)*, 1 STAN. J. OF BLOCKCHAIN L. AND POL'Y (2018), https://stanford-jblp.pubpub.org/pub/ico-comparative-reg.

The tokens promised holders the ability to vote on profit-seeking projects proposed to the DAO, and share in the profits generated, all through blockchain-based automated process.[43] The DAO spectacularly failed after a hacker was able to divert about one-third of all DAO ETH investment to itself.[44] The DAO saga attracted the attention of the United States Securities and Exchange Commission (SEC), which—in a lengthy document—ruled that DAO tokens are securities for U.S. securities regulation purposes.[45]

Another reactive example is *Shavers*.[46] There, the SEC prevailed in claiming that bitcoin is "money" for securities fraud purposes.[47] In addition, the Financial Crimes Enforcement Network ("FinCEN") is now regulating cryptocurrencies exchanges ad money transmitters, subjecting them to various "know your costumer rules".[48]The IRS classified cryptocurrencies as "property" for tax purposes, which means that any disposition of a token is a taxable event.[49] These regulatory responses were not a result of a well-conceived policy of how to regulate blockchain, but are better described as putting out fires.

Other countries had different experiences and have taken different regulatory approaches.[50] Moreover, to date, there have only been sparse coordinated efforts at establishing international regulatory standards (discussed below).[51]

At this point it is reasonable to conclude that the regulatory development of ICO regulation is nascent, and often confusing. Most countries simply seem to relay on existing laws and regulation, which are often not well adapted to the blockchain technology.[52] In this regulatory environment "almost all ICOs rely on legislative loopholes or, more accurately, what the issuing entity hopes (or prays) is a loophole or grey area."[53] As explained in the Part III below, this created a perfect niche opportunity for tax haven jurisdictions.

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[43] Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81207 at 2–8 (July 25, 2017), https://www.sec.gov/litigation/investreport/34-81207.pdf.

[44] *Id*. at 9–10.

[45] *Id*. at 11–14.

[46] Sec. and Exch. Comm'n v. Shavers, No. 4:13-CV-416, 2013 WL 4028182 (E.D. Tex. Aug. 6, 2013).

[47] *Id*. at 2.

[48] U.S. Dep't of Treas., Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies *3 (FinCEN Mar. 18, 2013), http://fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf.

[49] IRS Notice 2014-21, 2014-16 I.R.B. 938, 2014 WL 1224474 (Mar. 25, 2014).

[50] Kaal, *supra* note 42.

[51] *See supra* notes **Error! Bookmark not defined.**-151, and accompanying discussion.

[52] Zetzsche et. al., *supra* note 32, at 24.

[53] *Id*. at 11.

III. THE DEMISE OF THE TRADITIONAL TAX HAVEN MODEL

Tax Havens did well for years by offering refuge from tax and regulatory requirements of developed jurisdictions. As explained in this part, this traditional model is no longer sustainable. The rise of blockchain technology, however, offers tax havens a unique alternative business model.

A. The Traditional Tax Haven "Business Model"

There is no clear definition of what constitutes a "tax haven."[54] Generally speaking, however, jurisdictions that are traditionally referred to as "tax havens" possess two key characteristics: very low (or no) taxes on foreign residents, and robust financial secrecy laws.[55] Tax havens' business model is essentially to sell access to these commodities in exchange for fees, such as incorporation fees.

The key draw of tax havens is that they enable taxpayers to avoid taxes and regulation in *other* jurisdictions. Consider, for example, the crudest—yet very effective—form of tax evasion: unreported income. U.S. residents must pay tax on their worldwide income.[56] If a U.S. taxpayer holds corporate bonds in a U.S. brokerage account, any interest received is reported to the IRS. The owner of the account will have a very hard time hiding her income from the IRS.

What if instead, the taxpayer creates a shell entity in a tax haven, have the shell entity open a bank account in the tax haven in the entity's name, and holds corporate bonds in that account. Under the tax haven laws, income accrued to the bank account is not taxed, and under the financial secrecy laws of that jurisdiction, the beneficial owner of the entity is not known. Even though the U.S. taxpayer must report the interest income and pay tax on it, she can simply choose not to report the income. This type of evasion is a crime,[57] but one that the IRS can do little about. The IRS will never know about the unreported income. Whatever incorporation fees are paid by the entity to the tax haven are functionally the cost of tax evasion to the taxpayer.[58] But this cost is dwarfed compared to the taxes that a taxpayer would have otherwise have to pay. This is a worthwhile exercise.

There are less nefarious forms in which tax havens operate. These require more detailed explanation. Rather than support "evasion" as explained above, tax havens may be instrumental in tax "avoidance." Such tax reduction strategies are often legal, but would not be possible without the assistance of a friendly tax haven jurisdiction.

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[54] For purposes of this essay, I use the tax havens jurisdiction list in James. R. Hines Jr., *Do Tax Havens Flourish?*, 19 TAX POL'Y & ECON. 65 (2005).

[55] Marian, *Are Cryptocurrencies Super Tax Havens?*, *supra* note 21.

[56] 26 U.S.C § 1 (2018).

[57] *Id.* §§ 7201–07.

[58] Palan, *supra* note 9.

Consider, for example, debt/equity arbitrage.[59] Say "Parent" is a corporation that is a tax-resident in country A, and that Parent wholly owns "Sub," a tax resident and operating in country B. Most jurisdictions in country A's position would not impose tax on dividends received by Parent from Sub, but will impose tax on interest received by Parent from Sub. On the other hand, most countries in B's position would also allow the Sub to deduct interest payments to Parent, but would not allow a deduction for dividends from Sub to Parent. The result would be that—no matter how Parent choses to finance Sub—tax will be paid by the Parent-Sub group in either A or B.[60]

If Parent chooses to finance Sub with equity, income tax will be paid in B. Sub will pay corporate tax on its income in B, and will receive no deduction for dividend payment to Parent. A, on the other hand, will not impose tax on the dividend received by Parent. If Parent elects to finance Sub with debt, income tax is paid in A. Sub's interest payment to Parent are deductible in B, which eliminate much (if not all) of Sub's income tax base in B. The interest receipts by Parent, however, are taxable in A.

It would have been beneficial if Parent could have financed Sub with an instrument that is classified as "equity" under the laws of A, but as "debt" under the laws of B. Payment from Sub to A would be classified as interest by B, and therefore deductible to Sub. Receipts by Parent would be classified as dividends by A, thus nontaxable to Parent. In other words, income would be taxed neither in A, nor in B. Unfortunately for Parent and Sub, most countries classify financing instruments similarly, so this scheme is pretty much impossible.

This is where tax haven jurisdictions can offer their services. Instead of financing Sub directly, Parent can create "Mid," an intermediary entity between Parent and Sub. Mid in incorporated in H, a tax haven. Parent now finances Sub back-to-back through Mid. H is a friendly jurisdiction, and agrees to treat the financing instrument from Parent to Mid as debt, even though it is substantively structured as equity. The financing instrument from Mid to Sub is structured as debt and treated as such.

Thus, payment from Sub to Mid are deductible in B. Receipts by Mid in H are theoretically interest income to Mid, but Mid need not worry. The payments from Mid to Parent are treated as interest payment in H, thus deductible to Mid. But because this instrument is, in substance, equity –

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[59] Omri Marian, *The State Administration of International Tax Avoidance*, 7 HARV. BUS. L. REV. 1, 26–29 (2017) (explaining debt-equity arbitrage).

[60] This principle in international taxation is known as and the expected outcome of the "Single Tax Principle," under which "income from cross-border transactions should be subject to tax once (that is, neither more nor less than once)." REUVEN S. AVI-YONAH, INTERNATIONAL TAX AS INTERNATIONAL LAW: AN ANALYSIS OF THE INTERNATIONAL TAX REGIME 8 (2007).

receipts by Parent are considered dividends in A, and as such not taxable in A. Thus, with the help of a friendly tax haven administrator, Parent and Sub were able to manufacture an arbitrage opportunity that did not exist otherwise. H performs no economic role in the business of the group, except for allowing the incorporation of Mid – a shell entity that facilitates tax avoidance.

In exchange for the friendly treatment, H would probably ask that small taxable "spread" (say, 0.25%) on the back-to-back payment will remain with Mid to be taxed by H. This was in fact the exact business model employed by Luxembourg, and exposed in a leak by an employee of the accounting firm of PwC.[61] This leak prompted global outrage and became known as the LuxLeaks scandal.

B.   The Battle Against Tax Havens

For years, tax havens were able to successfully milk the business model described above to the extreme at the expense of other jurisdictions. However, these days are now coming to an end. An increased academic attention to inequality,[62] popular outrage—driven largely by multiple leaks of tax haven documents[63]—on the role played by tax havens in inequality, and multiple intergovernmental initiatives, have initiated real changes.

For example, since 2008, the OECD has been engaged in a project known as the Anti-BEPS (or simply BEPS) project. BEPS stands for "Base Erosion and Profits Shifting".[64] BEPS is probably the most expansive internationally coordinated effort aimed at preventing tax avoidance.[65] It culminated in multiple recommendations aimed at preventing perceived tax abuses, some specifically aimed at preventing arbitrage schemes such as the one described above used by Luxembourg.[66]

Even though the BEPS project recommendations are not binding, the BEPS project definitely changed the discourse about tax avoidance, with the result of several binding international instruments signed by multiple

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[61] Marian, *The State Administration of International Tax Avoidance*, *supra* note 59, at 3.

[62] *See, e.g.*, THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (2017); GABRIEL ZUCMAN, THE HIDDEN WEALTH OF NATIONS: THE SCOURGE OF TAX HAVENS (2015). Both of the cited books explore the rise of inequality, including the role tax avoidance and evasion through tax havens play in context.

[63] For a discussion on how recent leaks affected legislative changes in multiple jurisdictions, see Shu-Yi Oei & Diane Ring, *Leak Driven Law*, 65 UCLA L. REV. 532 (2018).

[64] *Base Erosion and Profits Shifting*, OECD, http://www.oecd.org/tax/beps/ (last visited INSERT DATE).

[65] Marian, *The State Administration of International Tax Avoidance*, *supra* note 59, at 21.

[66] OECD, NEUTRALISING THE EFFECTS OF HYBRID MISMATCH ARRANGEMENTS, ACTION 2 - 2015 FINAL REPORT (2015).

countries. For example, one of BEPS most far-reaching results is the "Multilateral Instrument" (MLI), a binding instrument aimed at amending, all at once, thousands of bilateral tax agreements.[67] Another example is a 2010 amendment to the Convention on Mutual Administrative Assistance in Tax Matters, which requires an expansive exchange of tax information between tax authorities regarding the activities of multinational corporations.[68] The European Union has adopted an EU-wide directive that implements many of BEPS anti-avoidance recommendations,[69] as well as a list of "uncooperative tax havens."[70] Multiple countries have also acted unilaterally to adopt the BEPS project outcomes. Even the 2017 tax reform in the United States,[71] implemented—for the first time—measures aimed specifically at preventing arbitrage of the type describe above.[72] As a result of such actions, tax havens are not as instrumental as they used to be in facilitating tax avoidance. Developed economies simply acted to change their own laws in order to deny the benefits associated with tax avoidance through tax havens.

Similar anti tax haven trends have been prevalent on the context of tax evasion. In 2010, the United States Congress enacted the Foreign Tax Account Compliance Act ("FATCA").[73] Under FATCA, foreign financial institutions that operate in the United States must verify whether the beneficiaries of financial accounts are U.S. taxpayers. If U.S. taxpayers are identified, the institutions must report the accounts information to the IRS, or otherwise face a hefty tax on their U.S. income.[74] Even though FATCA caused international outrage at first—accusing the United States of overstepping its jurisdiction—multiple other countries have copied the model,[75] and the OECD specifically acted on the model. The OECD developed a framework (the CRS noted above)[76] under which financial institutions share information with tax authorities, and tax authorities share

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[67] MULTILATERAL CONVENTION TO IMPLEMENT TAX TREATY RELATED MEASURES TO PREVENT BEPS (2016).

[68] MCAA, *supra* note 18.

[69] EUROPEAN COMM'N, TAXATION AND CUSTOMS UNION, *supra* note 19.

[70] Common EU List of Third Country Jurisdictions for Tax Purposes, EUROPEAN COMM'N (2018), https://ec.europa.eu/taxation_customs/tax-common-eu-list_en#heading_1.

[71] Tax Cuts and Jobs Act, Pub. L. No. 115-97, 131 Stat. 2054 (2017).

[72] *See, e.g.*, §§ 26 U.S.C. 245A, 267A (new provisions denying certain benefits resulting from debt-equity arbitrage).

[73] Foreign Accounts Tax Compliance Act, 26 U.S.C. §§ 1471–74 (2012).

[74] *Id.*

[75] Multiple countries have entered into agreements with the United States to share information under FTACA. *See* U.S. DEP'T OF TREAS., FOREIGN ACCOUNT TAX COMPLIANCE ACT (FATCA), https://www.treasury.gov/resource-center/tax-policy/treaties/pages/fatca.aspx.

[76] OECD, *supra* note 17.

information with one another. Thus, taxpayers can no longer shield under banking secrecy laws to avoid detection.

In the face of international pressure and public outrage, tax havens have even been forced to change their own laws and practices. For example, in 2015 Ireland changed its law defining tax residence of corporations. This was a result of international pressure due to the fact that the former Irish definition was used by multinational corporations ("MNCs") to avoid taxes in other places.[77] In response to the exchange of information trend, Switzerland changed its bank secrecy laws to allow its tax authority to share information with other tax authorities.[78] Luxembourg completely revamped its administrative tax rulings practices as a result of the LuxLeaks scandal described above.[79] Multiple tiny tax jurisdictions, which for years owed their economic existence to the benefits of bank secrecy, now have agreements in place with the United States, under which they are required to share bank account information with the IRS.[80]

The internationally coordinated effort of developed economies against tax havens and financial institutions in tax havens is bearing fruit. The age of the traditional tax haven business model is coming to an end.

IV. THE RISE OF THE BLOCKCHAIN HAVEN

A. *Blockchain and Tax Haven Synergies*

In a 2013 essay, I laid out a case for the rise of cryptocurrencies as an alternative for tax havens.[81] The argument was rather straight forward: cryptocurrencies offer similar advantages to tax evaders offered by tax havens: no taxation (since cryptocurrencies are decentralized, there is not central authority to impose tax), and high levels of anonymity (since user need not identify themselves). Moreover, cryptocurrencies are not as vulnerable as tax havens to the measures used by developed countries to battle tax havens. As explained above, anti tax haven measure target tax havens themselves, and financial institutions operating in tax havens. In other words, the measures are applied against intermediaries facilitating secrecy and arbitrage. Cryptocurrencies, in theory, do not need to rely on

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[77] Stephen Castle & Mark Scott, *Ireland to Phase Out 'Double Irish' Tax Break Used by Tech Giants*, N.Y. TIMES (Oct. 14, 2014), https://www.nytimes.com/2014/10/15/business/international/ireland-to-phase-out-tax-advantage-used-by-technology-firms.html.

[78] Michael Shields, *Era of Bank Secrecy Ends as Swiss Start Sharing Account Data*, REUTERS (Oct. 5, 2018), https://www.reuters.com/article/us-swiss-secrecy/era-of-bank-secrecy-ends-as-swiss-start-sharing-account-data-idUSKCN1MF13O.

[79] Patrick Mischo & Franz Kerger, *After 'Lux Leaks': Welcome Changes to Luxembourg's Tax Ruling Practice*, 77 TAX NOTES INT'L 1197 (2015).

[80] U.S. DEP'T OF TREAS., *supra* note 75.

[81] Marian, *Are Cryptocurrencies Super Tax Havens*, *supra* note 21.

intermediaries for their successful operation. They are, in their very core, P2P systems.

This does not mean, however, that tax havens have no role to play in the blockchain economy. There are several reasons for which traditional tax haven qualities may have a strong synergistic relationship with blockchain-based applications. First, even though blockchain applications do not 'require' intermediaries to operate, intermediaries serve useful purposes in markets, and as such naturally emerge.[82] For example, not all cryptocurrency users are tech savvy enough to enable them to efficiently store and exchange cryptocurrencies.[83] It is easier for most users to use online exchanges or mobile apps to buy or sell cryptocurrencies. These exchanges may be a target for regulation and enforcement actions just like traditional financial intermediaries, and indeed they have been. A recent striking example is the Coinbase John Doe summons.[84] Coinbase is an online exchange that facilitates and clears transaction in cryptocurrencies. Suspecting that cryptocurrency users use Coinbase accounts to evade taxes, the IRS sought to force Coinbase, and eventually succeeded, to turn over information about account holder to the IRS.

Traditional tax havens can offer refuge to such intermediaries. They can promise such blockchain intermediaries the ability to operate away from regulators in developed countries. Havens can offer an alternative in the form of unregulated or lightly regulated environment.

Second, most new blockchain ventures must start with entrepreneurs. Someone has to come up with the idea and draft a business plan. Someone has to write the code. Even if the eventual application is truly decentralized, the original entrepreneurial process is not. Again, entrepreneurs may prefer a low-regulation, low-tax environment to start their venture in, and tax havens are very good at not regulating, and not imposing tax on such entrepreneurs.

Finally, tax havens are particularly well-suited to serve specific type of entrepreneurial activities: those that require little or no physical infrastructure. Tax havens are usually tiny jurisdictions that offer no economy of scale opportunities. They have minor markets, and relatively small populations. This means that they cannot support heavy infrastructure industries. On the other hand, they require a lesser amount of tax revenue to support relatively small populations and infrastructures. Under the traditional model, tax havens would effectively support tax avoidance and evasion of taxpayers in developed jurisdictions, in exchange for a minimal cut of the

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[82] Marian, *A Conceptual Framework for the Regulation of Cryptocurrencies*, *supra* note 22, at 67.

[83] *Id*.

[84] United States v. Coinbase, Inc., No. 17-CV-01431-JSC, 2017 WL 5890052 (N.D. Cal. Nov. 28, 2017).

avoided taxes. Thus, for example, tax havens supported tax avoidance simply by allowing taxpayer to "park" cash in tax haven based accounts. This requires very little infrastructure.

Blockchain technology offers similar opportunities. Blockchain applications themselves are virtual, even if they facilitate real world transfers. They operate via "nodes" scattered worldwide. Except for maybe a few founding employees, a server or two, and a small space, there is no need for serious infrastructure. Tax havens can offer that, just as they offered that to financial institutions.

An important exception to the minimal infrastructure requirements are "mining" facilities, which stand in the heart of the blockchain verification process.[85] Miners are users who verify the transaction based on blockchain in a competitive process that requires computing power. The incentive to participate in the mining process is the in the form of fees, or newly issued cryptocurrencies to the miner. Without miners, there is not blockchain. These may require real infrastructure, and as such are located frequently in high tax jurisdictions.[86] Such facilities may become the target of tax and other forms of regulation. However, this course of regulation is not very promising. New blockchain ventures are already designing decentralized processes without the need for a heavy physical mining infrastructure.[87]

To summarize the points made in this subpart, blockchain technology may—in theory—replace tax havens in offering a favorable regulatory environment. Traditionally, tax havens provided a lenient regulatory environment, which relied on central authority sanctioning such environment. Blockchain can establish its own regulatory rules, which seem to dispense of the need for a centrally-sanctioned lenient regulation. However, even blockchain entrepreneur benefit from operating in a tax haven

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[85] For an explanation of the mining process, see FILIPPI & WRIGHT, *supra* note 6, at 39–42.

[86] Most large mining facilities are located in developed countries with cold climate, as the significant processing power requires constant cooling. *See, e.g.*, Rick Noack, *Cryptocurrency Mining In Iceland Is Using So Much Energy, The Electricity May Run Out*, WASH. POST (Feb. 13, 2018), https://www.washingtonpost.com/news/worldviews/wp/2018/02/13/cryptocurrency-mining-in-iceland-is-using-so-much-energy-the-electricity-may-run-out/?utm_term=.1999c2a02292; Jacques Marcoux, *Cheap Electricity, Cold Weather Provide 'Huge Marketing Opportunity' For Manitoba To Attract Bitcoin 'Miners'*, CBC NEWS (Dec. 20, 2017), https://www.cbc.ca/news/canada/manitoba/manitoba-bitcoin-1.4457486.

[87] See, e.g., Tezos, which claims its mining processes is resources-efficient, low cost process. L.M. GOLDMAN, TEZOS: A SELF-AMENDING CRYPTO-LEDGER 8 (2014). ("Because the thing you must prove to mine is not destruction of existing resources but provision of existing resources, a proof-of-stake currency does not rely on destroying massive resources as it gains in popularity"). https://tezos.com/static/position_paper-841a0a56b573afb28da16f6650152fb4.pdf

environment. As such, there is a room for tax havens to become "meta" tax havens. Jurisdictions can allow blockchain entrepreneurs to operate in a way that allows the blockchain applications to offer the traditional tax haven benefits.

B. Tax Havens are becoming Cryptocurrency Havens

Many traditional tax havens are indeed taking keen interest in blockchain technologies, and try to position themselves as leaders in the field. They do so by offering blockchain entrepreneurs the commodities previously offered to tax evaders and tax avoiders.

For example, as early as 2014 Switzerland started exploring the regulatory environment surrounding cryptocurrencies.[88] Identifying the economic potential of cryptocurrencies, the Swiss government in 2015 acted to reduce "regulatory barriers for Fintech firms, including providers of mobile payment systems, virtual currencies, and online peer-to-peer lending, . . . by amending the Banking Regulation."[89] Most specifically, Switzerland exempted certain fin-tech entities that raise funds from the public in an amount smaller than CHF 1 million, from the need to obtain banking license, and from regulation by the Swiss Financial Market Supervisory Authority.[90] This enables ICO issuers to sell digital tokens without being subject to financial regulation generally applicable to capital raising from the public. Many ICO also use Swiss foundations as the ICO entity. Under Swiss law, foundations that receive "donations", as opposed to "investments" are tax exempt. It seems that Swiss authorities have been very accepting to the argument that funds raised in ICOs are donations, rather than investments, an issue that stirred much controversy.[91]

The Swiss model is a perfect example of "a meta tax haven". It allows blockchain entrepreneurs to operate almost regulation free, and in many cases with little or no tax liability. It is not surprising that Switzerland became a leader in ICOs, and "one of the most popular sites for cryptocurrency and blockchain startups."[92] The Swiss canton of Zug is known as "Crypto Valley."[93]

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[88] JENNY GESLEY, REGULATION OF CRYPTOCURRENCY: SWITZERLAND, LIBRARY OF CONGRESS (2018), https://www.loc.gov/law/help/cryptocurrency/switzerland.php.

[89] *Id.*

[90] *Id.*

[91] Rhodri Davies, *I see… Oh! ICOs Crypto Tokens, Swiss Foundations and Philanthropy*, CHARITIES AID FOUNDATION (Nov. 2, 2017), https://www.cafonline.org/about-us/blog-home/giving-thought/the-future-of-doing-good/i-see-oh-crypto-token-sales-swiss-foundations-and-philanthropy; Sami Ahmed, *Cryptocurrency & Robots: How to Tax and Pay Tax on Them*, 69 S. C. L. REV. 697, 714–15 (2018).

[92] Ahmed, *supra* note 89, at 714.

[93] *See* CRYPTO VALLEY, https://cryptovalley.swiss/ (last visited INSERT DATE).

In Malta, the "government has actively encouraged the development of cryptocurrency…[aiming t]o provide the necessary legal certainty to allow [the cryptocurrency] industry to flourish."[94] In 2018, Malta adopted a complete regulatory framework for blockchain, "designed to make Malta one of the most desirable locations to set up shop in the blockchain space."[95] Malta is so well regarded as a location of ICOs, that it has become known as "Blockchain Island."[96]

Gibraltar, another traditional tax haven, "has actively legislated to regulate the operation of cryptocurrencies within its jurisdiction."[97] It also has its own nickname in the blockchain world: "Crypto Harbor."[98] Gibraltar made explicit its light touch stance on blockchain regulations. In 2018, for example, a senior advisor to the Gibraltar Financial Services Commission stated" We don't see a place for us as a regulator, or indeed Gibraltar as a jurisdiction that makes its own laws, for saying what 'good' looks like in token sales… rather let the marketplace of authorized sponsors come up with possibly a number of different options of what good looks like."[99]

Crypto Valley, Blockchain Island, and Crypto Harbor are hardly the only movers. Multiple other tiny jurisdictions—traditionally regarded to as tax havens—have taken regulatory approaches aimed to encourage the operation of blockchain startups. These include, for example, the Cayman Islands,[100] the Marshal Islands,[101] Luxembourg,[102] and Anguilla.[103]

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[94] GLOBAL L. RES. DIRECTORATE STAFF, REGULATION OF CRYPTOCURRENCY: MALTA, LIBRARY OF CONGRESS (2018), https://www.loc.gov/law/help/cryptocurrency/world-survey.php#malta.

[95] Rachel Wolfson, *Maltese Parliament Passes Laws That Set Regulatory Framework for Blockchain, Cryptocurrency and DLT*, FORBES (July 5, 2018), https://www.forbes.com/sites/rachelwolfson/2018/07/05/maltese-parliament-passes-laws-that-set-regulatory-framework-for-blockchain-cryptocurrency-and-dlt/#678d5c0349ed.

[96] Talib Visram, *Malta Wants to Become 'Blockchain Island'*, CNN (July 18, 2018), https://money.cnn.com/2018/07/18/technology/startups/malta-blockchain/index.html.

[97] CLARE FEIKERT-AHALT, REGULATION OF CRYPTOCURRENCY: GIBRALTAR, LIBRARY OF CONGRESS (2018), https://www.loc.gov/law/help/cryptocurrency/gibraltar.php.

[98] Oscar Williams-Grut, *The Crypto-Friendly Gibraltar Stock Exchange Is Doing Its Own ICO*, BUS. INSIDER (Jan. 10, 2018), https://www.businessinsider.com/gibraltar-stock-exchange-blockchain-ico-rock-token-2018-1.

[99] Annaliese Milano, *Gibraltar Will Take Market-Driven Approach to ICO Rules*, COINDESK (Feb. 21, 2018), https://www.coindesk.com/gibraltar-take-market-driven-approach-ico-rules-officials-say.

[100] Silva, *supra* note 3.

[101] Declaration and Issuance of the Sovereign Currency Act Bill 2018, Nitijela Bill 125ND2 pt. 3 (RMI).

[102] GLOBAL LEGAL RESEARCH DIRECTORATE STAFF, REGULATION OF CRYPTOCURRENCY: LUXEMBOURG, LIBRARY OF CONGRESS (2018), https://www.loc.gov/law/help/cryptocurrency/world-survey.php#luxembourg.

[103] GLOBAL L. RES. DIRECTORATE STAFF, REGULATION OF CRYPTOCURRENCY:

Indeed, recent statistics on ICO clearly demonstrate the disproportionally large role played by tax havens in the ICO market. For example, a recent survey of geographical distribution of ICOs[104] finds that that the top 25 jurisdictions in the ICO world (both in terms of funds raised an in terms of number of ICOs), include known tax havens such as Switzerland, Singapore, Gibraltar, Lichtenstein, Luxembourg, and Myanmar,[105] far outpacing many developed high-tax economies. Another Survey[106] finds that, by number of ICOs, the 10 leading jurisdictions for ICOs include Singapore (#2), Switzerland (#4), Hong Kong (#5), and Gibraltar (#8), with a share of global ICOs that completely outweighs the proportional size of these jurisdictions in world economy. A third survey[107] reports that Singapore, Switzerland, Hong Kong, Netherlands, and the British Territories, account—in the aggregate—for 36.7% of all global ICOs in 2017-2018 in nominal terms, again, far outweighing the size of these jurisdictions in the world economy.

Tax havens, so it seems, are gradually transforming into Blockchain Havens.

V. THE DANGERS OF BLOCKCHAIN HAVENS

As noted above, blockchain technology hold much promise, but also presents unique risks.[108] This part explores the how the rise of cryptocurrency havens exacerbates the risks associated with blockchain-based applications. Subpart A explores the unique characteristics of blockchain technology and their synergies with tax havens' regulatory environment. It explains how such synergies creates an enticing environment for illicit use. Part B provides some initial data suggesting that Blockchain Havens are already being illicitly used by some blockchain entrepreneurs.

A. How Blockchain Havens Invite Illicit Blockchain Activity

For purposes of this assessment I define Blockchain Havens as jurisdictions that offer blockchain entrepreneurs an opportunity to establish blockchain-ventures with little or no regularity oversight, and with minimal requirements of identification of owners, participants and beneficiaries of the venture.

To understand the unique risks that the blockchain-haven jurisdiction synergy presents, it is helpful to note several important characteristics of blockchain technology.

ANGUILLA, LIBRARY OF CONGRESS (2018), https://www.loc.gov/law/help/cryptocurrency/world-survey.php#anguilla.

[104] Kaal, *supra* note 42.

[105] *Id*.

[106] Zetzsche et. al., *supra* note 32.

[107] HUANG, MEOLI & VISMARA, *supra* note 41, at 26.

[108] FILIPPI & WRIGHT, *supra* note 6, at 45–46 (discussing the dual nature of blockchain, as a force of both good and evil).

The first, is *disintermediation* (or decentralization).[109] No single party controls the technology, and the technology does not rely on a single party for operation and maintenance. This means that once a blockchain application is "released" on the internet, national borders and the regulations that come in with them become largely irrelevant. A governmental body cannot, for example, amend or improve a rouge software. The only way to change the operation of blockchain based software is with the agreement of majority of the users,[110] of which there may be millions who are scattered across the globe. This suggests that the best opportunity for regulators to act as gatekeepers is *before* a blockchain-based venture starts its operation. Cryptocurrency havens, however, present themselves as a "lightly regulated" entry point to the global system, thus enabling blockchain entrepreneur to completely avoid regulation at the time at which regulation can be the most potent. Once the blockchain applications is operation, no single government—including the government of the jurisdiction where the application was developed—can undo it.

The second important characteristic of the technology is *resiliency and temper-resistance.*[111] "Once information has been recorded to a blockchain, it becomes exceptionally hard to change or delete."[112] Transactions cannot simply be canceled. This means that transaction errors, or worse – intentional misdeed such as fraud—are most likely irreversible once executed. This makes blockchain-based application particularly attractive as an instrument for illicit use. Once a fraudster is able to receive illicit gains using a blockchain-based application, the victim as no recourse. The is no insurance company, a financial intermediary, or another central body that can compensate the victim. The only recourse is to try and make the fraudster pay back the illicit gain. This again demonstrates the importance of regulating the technology *before* it becomes operational, and to make sure the code is written in a way that allows for potential remedies for victims of fraud. But Cryptocurrency Havens, again, present themselves specifically as the opposite. They will let the "market decide." They intentionally avoid regulating the content of the software.

The problems of irreversibility of blockchain transactions is significantly exacerbated because blockchain provides *pseudonymity* to it users.[113] As explained, one need not identify self in order to become a blockchain user. "Pseudonimity … creates incentives for parties to engage in unlawful social

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[109] *See id.* at 34–35

[110] Generally speaking, blockchain code can only be changed if majority of the miners agree to the change (also known as "Hard Fork"). *See id.* at 187–89.

[111] *See id.* at 35–37

[112] *Id*. at 35.

[113] *Id*. at 38–39.

and economic activity.[114]

Thus, if—as explained above— the only recourse of a victim against a blockchain-based fraudster is to recover directly from the fraudster, the fact that the fraudster can remain anonymous makes the recovery nearly impossible. Recent coordinated activities against tax havens significantly hampered tax havens ability to trade in secrecy.[115] But now blockchain provides the secrecy so coveted by illicit actors. By allowing blockchain ventures to operate unregulated, Cryptocurrency Haven created a back door to allow—once again—the trade in secrecy. This problem is expected to become worse as new blockchain applications are specifically designed to increase users' anonymity.[116] This can be prevented only if the jurisdiction where venture start imposes some limits on anonymity before allowing blockchain applications to launch. This is not to be expected from jurisdictions whose entire business model is to benefit from anonymity.

A final characteristic of blockchain technology that makes it particularly dangerous in the lenient regulatory environment offer by havens, is "the ability to facilitate the deployment of *autonomous software* that is not under the control of one party."[117] Blockchain enables the autonomous operation of smart contracts based on objective standards. Once a code is released using blockchain, there is no stopping it. Consider, for example, a blockchain-based contract under which million dollars are transferred to a specific account once a high-level political target is assassinated. Even if the person ordering the contract changes her mind, she cannot undo the agreement. The hitman still has the incentive, because the money will be transferred if the contract is executed. "Autonomous systems need not abide by existing rules and jurisdictional constraints; they can be designed to bypass or simply ignore the law of a particular jurisdiction. Once deployed on a blockchain, these systems will continue to operate . . .."[118]

This again introduces the problem of timing of regulation. Regulation aimed to prevent the damage done by malicious autonomous code can only be successful if applied to prevent the release of the code in the first place, or allow for its correction in a centralized manner. This requires a will to regulate from the jurisdiction where the blockchain venture operates. And the regulation itself will require high technical skills – the ability to read and thoroughly understand the code, in order to make sure it does not contain malicious autonomous functions. This is not only difficult; it is probably

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[114] *Id.* at 39.

[115] See discussion *supra* Part III.B.

[116] For a description of several projects aiming to increase the anonymity of blockchain users, see FILIPPI & WRIGHT, *supra* note 6, at 44–45.

[117] *Id*. at 43.

[118] *Id.* at 44.

beyond the regulatory capability of the tiny jurisdictions that function as Blockchain Havens.

B. The Illicit Use of Blockchain Havens

1. Illicit Use in General

The dangers described in Subpart above are not theoretical. There is plenty of anecdotal evidence that blockchain technology is used to facilitate illegal activity, and that the ICO industry is—to a significant extent—driven by illicit motives.[119]

One of the most well-known examples in recent years is the Silk Road affair. Silk Road was an online black-market that facilitated illicit transactions such as sales of drugs, weapons, and fake identification. The currency used on the website was bitcoin—the first blockchain-based cryptocurrency—mostly for its anonymous properties. The website was eventually shut down after an FBI investigation was able to identify Ross Ulbricht, a U.S. citizen and resident, as the operator of the website. Ulbricht was convicted of various criminal charges, and sentenced to life without parole.[120]

There is also evidence suggesting that cryptocurrencies are used in tax evasion. In 2016 the I.R.S. sought a court order to force Coinbase—a U.S. based cryptocurrency exchange—to divulge information about Coinbase's account holder to the IRS.[121] The IRS justified it position by noting that in each of the years 2013, 2014 and 2015, only about 800 individuals reported gains from cryptocurrencies transactions to the IRS.[122] Given the vast popularity of bitcoin in these years, the only logical conclusion was that most taxpayers who transact in cryptocurrencies simply do not report gains to the IRS. After a lengthy court battle, Coinbase agreed to reveal to the IRS information about 13,000 of its account holders, who have traded on Coinbase in values in excess of $20,000 between 2013 and 2015.[123]

The downside of transaction irreversibility has been acutely demonstrated recently, when the founder of a Canadian cryptocurrency exchange QuadrigaCX passed away.[124] As it turns out, he was the only person who knew the passwords to access offline cryptocurrency wallets, and now

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[119] For discussion of illicit use of blockchain, see Cohsey, *supra* note 29.

[120] Andy Greenberg, *Silk Road Creator Ulbricht Losses Life Sentence Appeal*, WIRED (May 31, 2017), https://www.wired.com/2017/05/silk-road-creator-ross-ulbricht-loses-life-sentence-appeal/.

[121] United States v. Coinbase, Inc., No. 17-CV-01431-JSC, 2017 WL 5890052 (N.D. Cal. Nov. 28, 2017).

[122] *Id*.

[123] *Id*.

[124] Chris Morris, *Cryptocurrency Owners Can't Access Funds After Exchange CEO Dies—Because No One Knows the Password*, FORTUNE (Feb. 4, 2019), http://fortune.com/2019/02/04/cryptocurrency-quadrigacx-gerald-cotten-frozen-funds/.

costumers are unable to access $190 million worth of cryptocurrencies. Think of it as if the only key to your bank vault was held by a person who disappeared, except that you cannot physically pry open a cryptocurrency wallet. Some have suggested that the owner has faked his death as part of a sophisticated fraud scheme.[125]

The fraudulent potential of unregulated ICO has also been acutely demonstrated in a recent paper, which explored whether ICO code actually delivers on promises made in the ICOs' white papers.[126] Cohesy et. al. find that "ICO code and ICO disclosures do not match."[127] For example, they find that almost all ICO white papers promise restrictions on token supply, but only about 2/3 of the ICOs that made such promise actually coded the promise into the ICO code.[128] Another promise frequently made by ICO issuers, is that the issuers' own holding will vest over time, to prevent a pump and dump schemes. The researchers have found that the majority of ICOs that promised vesting had no vesting coded into the program.[129] In addition, Cohesy et. al. find that some ICO issuers had the ability to change the code, even though such fact was not disclosed in the white paper. As Cohesy *et. al* aptly summarize their findings: "no one reads smart contracts."[130] Indeed, another recent study finds that as much as 80% of all ICOs in 2017 where fraudulent schemes.[131]

Unlike regular securities offerings, investors ability to monitor issuers is heavily dependent on technical knowledge in coding, knowledge that most people simply do not have. This significantly enhances the case for a sophisticated state regulator to monitor ICOs. But cryptocurrency havens seem to be taking the exact opposite approach.

2. Illicit Utilization of Blockchain Havens

As explained above,[132] Blockchain Havens seem to claim a disproportional level of blockchain activity, both in terms of absolute number of ICOs and in terms of fund raised by ICOs. Does that mean, however, that illicit use of ICOs can be associated with operating *through* Blockchain Havens? While a

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[125] Yogita Khatri & Stan Higgins, *Government Death Certificate Says QuadrigaCX CEO Died in India*, CoinDesk (Feb. 5, 2019) ("Some customers and observers have expressed skepticism about reports of Cotten's death, given that QuadrigaCX took more than a month to disclose it…"). https://www.coindesk.com/indian-death-certificate-crypto-exchange-quadrigacx-death.

[126] Cohsey, *supra* note 29.

[127] *Id*. at 6.

[128] *Id*. at 48.

[129] *Id*. at 50.

[130] *Id*. at 7.

[131] Ana Alexandre, *New Study Says 80 Percent of ICOs Conducted in 2017 Were Scams*, COINTELEGRAPH (July 13, 2018), https://cointelegraph.com/news/new-study-says-80-percent-of-icos-conducted-in-2017-were-scams.

[132] cite

full empirical analysis of this question is beyond the scope of this article, I argue that there is at least suggestive evidence that this is indeed the case. Since 2018, the Wall Street Journal had maintained a database of ICOs that present elements of fraudulent activity.[133] I use this data set to try and assess how much of the suspected ICO activity can be associated with Blockchain Havens.

Data. The WSJ database classifies an ICO as suspected if it presents at least one determinant of fraudulent activity. According to the WSJ methodology, such determinants include: (1) Duplicated language from an earlier white paper; (2) the ICO has been scrutinize by regulators; (3) The ICO team seems to be misrepresented or fake; (4) the ICO team is not disclosed at all in the white paper; (5) the ICO is described in terms of "can't miss" opportunity; or (6) the ICO website is unavailable.[134]

Since 2018, the WSJ has reviewed over 3,300 ICOs, and has identified 513 ICOs that "showed signs of plagiarism, identity theft and promises of improbable returns."[135] I examine these suspected ICOs in this Subpart, to determine whether they can be associated with blockchain havens.

Methodology. To associate a particular ICO with a specific country of origin, I research ICO Bench—an ICO rating and listing website—for information about the ICO.[136] If an ICO is not listed on ICO Bench, or no country information provided, then the following steps are taken: First, I check the ICO website link from Wall Street Journal to try and locate address information. If no information is found, other ICO reporting websites are consulted.[137] If no country information is found, I use other online tools[138] to assess whether the ICO is listed under the proper name. I also search Twitter, LinkedIn and Facebook pages purported to belong to the ICO issuers, to try and identify a geographical location information.

In some cases, the process described above results in different geographical information reported by different sources. In such cases the ICO Bench location was selected, unless multiple other sources of information suggested a different geographical location. I was unable to determine the geographical origin of 62 ICOs. These ICOs are therefore excluded, resulting in a dataset of 451 ICOs.

I then code each ICO as a "haven" ICO or "non-haven" ICO based on the

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[133] Shane Shifflett & Coulter Jones, *Buyer Beware: Hundreds of Bitcoin Wannabes Show Hallmarks of Fraud*, WALL STREET J. (Jan. 9, 2019), https://www.wsj.com/graphics/whitepapers/ .

[134] Cite to methodology.

[135] *Supra* note 133.

[136] https://icobench.com/

[137] Such as: https://foundico.com/, https://ico.coincheckup.com/, https://www.trackico.io/, https://icorating.com/

[138] such as http://www.icoreviews.net/#icos

geographical location. I use two alternative tests to determine whether the ICO jurisdiction is a "haven".

Under one alternative, I use the list of tax havens jurisdictions identified by Hines and Rice.[139] This list has consistently been used by academics in tax havens research, and is considered authoritative. The problem with the Hines-Rice list is that it relies on tax havens classification by others, and that it is old. I therefore use a more modern alternative – the Tax Justice Network Financial Secrecy Index ("FSI").[140] The FSI "ranks jurisdictions according to their secrecy and the scale of their offshore financial activities." I denote a haven any jurisdiction with a financial secrecy score of 70% or above. Jurisdictions that are found just around the threshold include, for example, Hong-Kong (71.05), Gibraltar (70.83), Mauritius (72.35) and the Cayman Islands (72.28) – all traditionally viewed as tax havens.

Descriptive statistics. Descriptive statistics suggests that a significant portion of the suspected ICOs are associated with a haven jurisdiction. Using the Hines-Rice list as are haven jurisdiction indicator, 108 suspected ICOs— 23.85% of the total—are haven based. Using the FSI to determine the status of the jurisdiction, 145 suspected ICOs—32.18% of the total—are haven-based.

This results suggest that a significant number of suspected ICOs— between 23.85% and 32.18%—are executed through Blockchain Havens. Moreover, a recent ICO Bench report suggest that in absolute numbers, only about 13% of all ICOs are executed through tax havens. [141] It thus seems that haven based ICOs are more likely to be suspect than non-haven ICOs.
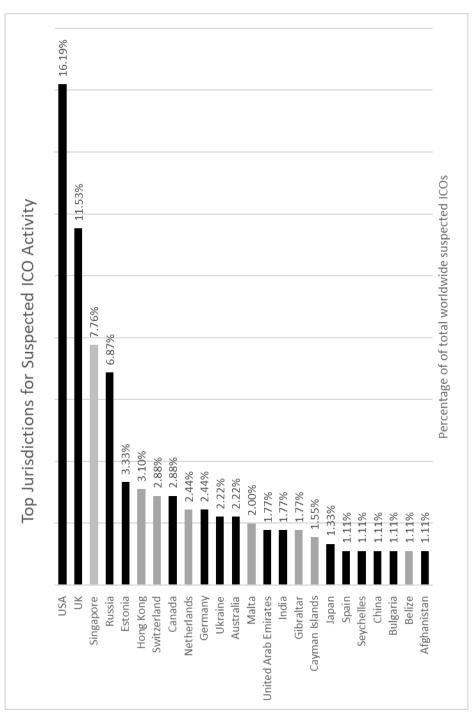
The chart below summarizes the countries that lead the issuances of suspected ICOs. The gray data points represent jurisdictions listed as tax havens by Hines & Rice.

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[139] James R. Hines, Jr. & Eric M. Rice, *Foreign Tax Havens and American Business*, 109 Quar. J. of Econ's 149, 178 (1994).

[140] https://www.financialsecrecyindex.com/

[141] Cite to report and explain calculation

Chart: Top Jurisdictions for Suspected ICO Activity (Percentage of total worldwide suspected ICOs)

- USA — 16.19%
- UK — 11.53%
- Singapore — 7.76%
- Russia — 6.87%
- Estonia — 3.33%
- Hong Kong — 3.10%
- Switzerland — 2.88%
- Canada — 2.88%
- Netherlands — 2.44%
- Germany — 2.44%
- Ukraine — 2.22%
- Australia — 2.22%
- Malta — 2.00%
- United Arab Emirates — 1.77%
- India — 1.77%
- Gibraltar — 1.77%
- Cayman Islands — 1.55%
- Japan — 1.33%
- Spain — 1.11%
- Seychelles — 1.11%
- China — 1.11%
- Bulgaria — 1.11%
- Belize — 1.11%
- Afghanistan — 1.11%

Caveats. This exploratory data is obviously just that – exploratory. It should not be construed as a full blown statistical analysis suggesting that suspected ICOs are more likely to be operated through haven jurisdiction. Such an analysis would be beyond the scope of the article. It should also be

noted that in some instances, I found discrepancies with the WSJ dataset. For example, some ICOs who were classified has having no website by the WSJ, seem to have had a perfectly functioning website.

However, that data presented is—at the minimum—suggestive that Blockchain Haven jurisdictions attract suspected blockchain activity to a significant extent.

VI. WHAT SHOULD THE INTERNATIONAL COMMUNITY DO ABOUT CRYPTO-HAVENS?

C. Current Responses by the International Community

When confronted with unacceptable tax haven practices, developed jurisdiction acted in a coordinated manner against the tax havens themselves, or against the financial institutions operating in tax havens. Coordination is necessary in such context, because a few bad jurisdictions can topple the entire effort. After all, criminals do not need *many* places to hide their illicit gain. One or few safe havens can do the trick. There is a need for all jurisdictions to cooperate to prevent a race to the bottom.

Such a coordinated approach is much more challenging in the cryptocurrency haven context, given the unique decentralized, semi-anonymous nature of the technology. This is demonstrated by the apparent difficulty of the international community to engage this issue meaningfully.

Even though some in the intergovernmental community have already identified the need for a coordinated effort, there has been little progress in this area. In December 2018 the OECD submitted a report to the G20 meeting in Buenos Aires, Argentina.[142] The report states that the OECD is still in the preliminary stages of "analysing the risks and possible responses" to "crypto-assets," with an updated report scheduled for 2019 and a finalized report by 2020.[143] The OECD's research is part of a larger project looking into the tax challenges arising from digitalization.[144] It is clear from the report that "no consensus was reached on the broader tax challenges associated with digitalization."[145]

The G20, in turn, stated in its joint declaration that countries need to "regulate crypto-assets for anti-money laundering and countering the financing of terrorism in line with FATF [Financial Action Task Force] standards."[146] FATF has yet to issue any specific standards governing

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[142] OECD SECRETARY-GENERAL REPORT TO THE G20 LEADERS, BUENOS AIRES, ARGENTINA (Dec. 2018)

[143] *Id.*, at 10.

[144] OECD, BRIEF ON THE TAX CHALLENGES ARISING FROM DIGITALISATION: INTERIM REPORT 2-4 (2018)

[145] http://www.oecd.org/tax/oecd-secretary-general-tax-report-g20-leaders-argentina-dec-2018.pdf (Same as Footnote 1, page 9)

[146] *G20 Leaders' Declaration: Building Consensus for Fair and Sustainable Development* §25

cryptocurrencies outside applying general anti money laundering requirements.[147] Even FATF's own report acknowledges that its recommendations are confusing to governments and the private sector.[148] As for the case of taxation, the joint declaration simply echoes the OECD, stating that countries "will continue to work together to seek a consensus-based solution to address the impacts of the digitalization of the economy on the international tax system with an update in 2019 and a final report by 2020."[149]

Similarly, other inter-governmental bodies have made little progress in formulating international policy to govern cryptocurrencies. The International Organization of Securities Commissions held a meeting in 2017 to "discuss the growing usage of ICOs to raise capital as an area of concern."[150] The result of this meeting was a bulletin board displaying each country's individual ICO regulations, and an "ICO Consultation Network through which members can discuss their experiences and bring their concerns, including cross-border issues, to the attention of fellow regulators."[151]

The U.S. recently joined the Joint Chiefs of Global Tax Enforcement (the "J5") – a five-member partnership between the Australian Criminal Intelligence Commission and Australian Taxation Office, the Canada Revenue Agency, the Fiscale Inlichtingen- en Opsporingsdienst in the Netherlands, the U.K.'s HM Revenue & Customs and the U.S. Internal Revenue Service criminal investigation division.[152] The J5's mission statement explicitly lists "cryptocurrencies and cybercrime" as targets for enforcement. Specifically, the J5 aims to coordinate efforts "to track down those people who make a living out of facilitating and enabling international tax crime."[153] However, there has been no mention of formulating any sort of coordinated regulatory policy governing cryptocurrency taxation.

In summary, current global efforts to address the challenges presented by blockchain technology are sporadic, confused, and seem to be at a primordial stage. In the next part, I explore three potential avenues for a coordinated international regulatory approach: The *laissez-faire* approaches, the reactive

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(2018)

[147] INTERNATIONAL STANDARDS ON COMBATING MONEY LAUNDERING AND THE FINANCING OF TERRORISM & PROLIFERATION: THE FTAF RECOMMENDATIONS 15 (2018).

[148] http://www.fatf-gafi.org/media/fatf/documents/reports/Report-G20-Leaders-Summit-Nov-2018.pdf (page 2)

[149] http://www.g20.utoronto.ca/2018/2018-leaders-declaration.html (Same as Footnote 4, paragraph 26)

[150] Press Release, *Iosco Board Communication on Concerns Related to Initial Coin Offerings (ICOs)*, Jan. 18, 2018.

[151] *Id*.

[152] Joint Chiefs of Global Tax Enforcement, https://www.irs.gov/compliance/joint-chiefs-of-global-tax-enforcement.

[153] J5, *J5 Countries host data 'Challenge,' Close in on Enablers of Tax Evasion* (Jan., 2018). https://www.irs.gov/pub/irs-utl/j5-media-release-11-08-18.pdf

approach, and the proactive approach.

D. Potential Approaches for the International Regulation of Blockchain Havens

1. Let the Market Work

The very birth of the blockchain technology is in libertarian principles. One might argue it is sensible to let the market run its course. Unsuccessful blockchain technologies will disappear, and good ones will prevail.

While sensible to a certain extent, such an approach fails to capture the danger in the irreversibility for blockchain transactions. Fraudulent gains are likely to never be returned. There is no single entity to recover from, nor there is an issuer can be identified. The market has no ability "to correct" for a one-off fraudulent events.

One market based solution that may contribute is to create of blockchain expert intermediaries who will evaluate the quality of the blockchain code, compare it with white paper promises, and grade the ICO quality. Rating agencies for blockchain ICOs, if you will.

While this is desirable, such solution may fall short for the same reasons that credit rating agencies sometime fail. In addition, unlike in the case of credit rating agencies, correction of rating in retrospect is likely to be meaningless due to the finality of transaction. In addition, rating agencies may only be useful for rating ICOs or other public crowd-based applications. Blockchain can be used privately for illicit purposes (such as drug trafficking, and tax evasion). In such a context, code-quality regulation is meaningless.

2. The Reactive Approach

For the same reasons for which a free market approach falls short, so does a reactive regulatory approach. As explained above, once blockchain-based software has entered the global web environment, it is very difficult to undo.

A reactive approach may result in an excessive regulatory response. If a malicious software is "released to the wild" and is automatically designed to operate in a way that a government may deem disruptive, no government can just "shut down", or amend the code. The only way to stop the malicious code from operating within the jurisdiction is to *physically* prevent its operation. For example, if it is known that a blockchain program is designed to shut down the power grid on a specific date, it is not possible to stop it by changing the program. One would have to prevent the program from using the internet to execute its operation. Either you take the grid off the internet, or you identify the physical source of the program (such as a specific server), and disallow internet traffic into the jurisdiction from the sever. This, however, may not be possible given that it is likely that the blockchain code operates through multiple online nodes.

Moreover, such heavy-handed regulatory approach may hinder the positive aspects of blockchain based applications. For example, in the

extremes, a jurisdiction may seek to completely blocking any internet traffic associated with decentralized ledgers in order to stop undesired operations. Several regimes in countries with authoritarian tendencies have already taken similar approaches.[154]

Finally, these shortcomings do not mean the ex-ante regulation should be abandoned altogether. There is still room to try and punish criminals, or recover from their illicit gains. But this must be supplanted by preventative medicine, as explained below.

3. The Proactive Approach

Given the unique nature of blockchain technology, it seems prudent to take an ex-ante approach, namely, to regulate blockchain application *before* they are released. Only at that point in time there are still intermediaries susceptible to regulation: The entrepreneurs, and the jurisdictions in which they operate.

But in order for such regulation to be successful, an intentionally coordinated approach must be taken. As in the case of tax havens, any one jurisdiction that breaks ranks can serve as an entry-point of unregulated blockchain software to the World Wide Web, in which case damage control efforts may prove futile.

But what might such a coordinated approach include? A compressive plan for international regulation of blockchain based applications is well beyond this article, but some key points are discussed below, while considering the problematic characteristics of blockchain.

For example, the problem of inability to regulate decentralized networks is addressed by the very meta-framework offered here: ex-ante regulation. This means regulating the issuers of ICOs, the programmers and the venture capitalist financing such ventures at the early stages of the project. In any case, before the application is turned on.

The problem of *pseudonymity* can be addressed by subjected jurisdictions or financial institutions that host blockchain ventures, to certain "know your costumer rules". Such rules must enable the jurisdictions in which blockchain ventures operate to identify the individuals involved with the venture, and to report their identities to interested authorities in other jurisdictions.

The problem of irreversibility of transactions is partly remedied by disclosure and identification rules, as it may enable victims of fraud to identify the wrongdoers. A better way to address such issues is to require blockchain ventures to underwrite the risk of their venture. This can be achieved by insurance requirements, or by writing some sort of an escrow into the code. Such escrow would be automatically activated to compensate victims under certain circumstances.

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[154] Some countries completely ban blockchain operations. *See* Pinsent Mason, *supra* note 30, at 14.

In the case of ICOs, it is prudent to come up with a standard disclosure requirement, and a requirement for a regulator to compare the disclosure with the actual code.

What the best forum is for such a coordination remains to be seen. In the global battle against tax havens, the best was, for the most part, the OECD. The OECD has recently launched the blockchain policy forum, and this may be a proper venue to initiate such a project.[155] But wherever it happens, it needs to happen sooner rather than later, before multiple malicious blockchain applications take hold. Any delay is likely to bring about the worst in blockchain, and prevent the best in it from ever materializing.

VII. CONCLUSION

This paper explored the rise of Blockchain Havens—jurisdiction that attract blockchain entrepreneurs by offering refuge from tax and regulation. Many of these jurisdictions are traditional tax havens, whose business model has been severely affected by recent international efforts to battle offshore financing.

It seems that these jurisdictions gravitate towards a new model, where the benefits of secrecy and lax regulation are offered to blockchain entrepreneurs, rather than to tax cheats. Since blockchain is a largely anonymous and self-regulated network, blockchain can offer illicit users the traditional benefits of tax havens. Blockchain Havens are thus best described as meta-tax-havens.

The unique characteristics of blockchain technology—in particular, decentralization, temper resistance—make it almost impossible to regulate after the fact. It is therefore an inviting environment for illicit users, as recourse is next to impossible. Regulation therefor must come first, before blockchain applications start to operate.

Since any one Blockchain Haven can independently offer unregulated entry-point for malicious blockchain applications, there is a need for a coordinated international effort to prevent a regulatory race to the bottom.

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[155] *See* Webcast: OECD Blockchain Policy Forum (Sept. 4–5, 2018), http://www.oecd.org/finance/oecd-blockchain-policy-forum-2018.htm.