"CATCH ME IF YOU CAN": THE CHALLENGES OF REGULATING VIRTUAL ASSETS IN ACCORDANCE WITH INTERNATIONAL ANTI-MONEY LAUNDERING STANDARDS

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ABSTRACT

Renowned for its pseudonymity and decentralized nature, virtual asset technology has emerged as a felicitous avenue for money launderers. In response to the anti-money laundering (AML) risks associated with this nascent technology, the international money laundering 'watchdog' known as the Financial Action Task Force (FATF) has recently provided specific guidance for regulators in each country to implement. While this guidance provides a strong base framework, there are three core challenges that regulators will face in their implementation of this guidance: (a) bureaucratic delay, (b) regulatory arbitrage, and (c) industry pushback. This article suggests that any research pertaining to virtual asset regulation, especially within the context of international AML efforts, should directly address these challenges head-on. It is important to keep these topics top-of-mind, such that regulatory efforts are most effectively designed, and the "big picture" is not missed. By directly addressing the challenges discussed in this article – along with the broad suggestions to mitigate each of these challenges – regulators will be able to effectively mitigate the AML risks associated with virtual asset technology in compliance with the newest FATF guidance.

I. INTRODUCTION

"If you define the problem correctly, you almost have the solution."
– Steve Jobs

When one thinks of money laundering, the concept of placement, layering, and integration[1] of illicit funds via offshore havens may come to mind. For years, 'havens' have been controversial topics within international anti-money laundering (AML) efforts. Due to their secrecy and lax regulations, they have attracted politicians, celebrities, and criminal organizations alike.[2] While they have many entirely legitimate uses,[3] they rightfully remain an international focal point of AML enforcement. This article, however, will not discuss havens as we know them. Today, there is a new 'haven' to launder money: the blockchain.[4]

The idea of a "blockchain" was promulgated from Satoshi Nakamoto's manifesto, wherein a novel, disintermediated, payment system was proposed.[5] This system would allow parties to transact with one another without requiring a third party (such as a financial institution) to verify the transaction.[6] Notably, it would also be pseudonymous. This meant that "[t]he public [could] see that someone is sending an amount to someone else, but without information linking the transaction to anyone."[7] This system has formed the basis for what we know today as the cryptoasset and blockchain industry.

Cryptoassets and blockchain technology (hereinafter collectively referred to as "virtual asset technology" for ease of reference) are renowned for both their volatile

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[1] See e.g. James Chen, Somer Anderson & Vikki Velasquez, "Money Laundering: What It Is and How to Prevent It", online: *Investopedia* <https://www.investopedia.com/terms/m/moneylaundering.asp>.

[2] See e.g. International Consortium of Investigative Journalists, "Offshore havens and hidden riches of world leaders and billionaires exposed in unprecedented leak", (3 October 2021), online: *International Consortium of Investigative Journalists* <https://www.icij.org/investigations/pandora-papers/global-investigation-tax-havens-offshore/>.

[3] For instance, "[a] legitimate - or legal - use of a tax haven could involve a Canadian setting up a trust for foreign assets in an offshore country." However, "[w]hile having an offshore entity is often legal, the built-in secrecy attracts money launderers, drug traffickers, kleptocrats and others who want to operate in the shadows."; Maham Abedi, "Paradise Papers: Tax havens aren't illegal, so what's the problem?", (6 November 2017), online: *Glob News* <https://globalnews.ca/news/3845754/paradise-papers-tax-havens-problems/>.

[4] See Omri Marian, "Blockchain Havens and the Need for Their Internationally-Coordinated Regulation" (2018) 20:4 NCJ Law Technol 529.

[5] Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System" (2008) at 1.

[6] *Ibid*.

[7] *Ibid* at 6.

speculative investment opportunities,[8] as well as their real-world applications to areas like healthcare,[9] artificial intelligence,[10] or even bills of lading within international trade law.[11] With its pseudonymity and decentralization, virtual asset technology is a shining light for innovation. However, the pseudonymous and decentralized nature of the technology also provides a felicitous avenue for money launderers.

Authorities worldwide have acknowledged the risks posed by virtual asset technology to international AML efforts. Jerome Powell, Chair of the Federal Reserve of the United States, recently remarked that "[w]ithin the decentralized finance ecosystem there are … very significant structural issues around the lack of transparency."[12] Ravi Menon, former Managing Director of the Monetary Authority of Singapore, has acknowledged that "[b]ecause users of cryptocurrencies operate through e-wallet addresses or pseudonyms, cryptocurrencies have made it easier to conduct illicit transactions, including money laundering."[13] As authorities continue to acknowledge the money laundering potential of virtual asset technology, one thing is clear: something must be done.

The objective of this article is to outline the core issues that regulators will need to address while attempting to curtail international money laundering, and provide broad suggestions as to how these issues may be mitigated. In particular, it will discuss guidance from the international money laundering 'watchdog' (the Financial Action Task Force, or "FATF") and how they recommend each country should address AML risks posed by virtual assets. While the FATF's guidance provides a base framework for each country to implement, there remain challenges that regulators will face in their implementation of this guidance. Ideally, countries will work together to effectively regulate virtual asset technology in a manner that directly addresses the challenges and issues outlined in this article. Otherwise, the effectiveness of AML regulation within the virtual asset industry will be attenuated.

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[8] See e.g. Nathan Reiff, Somer Anderson & Timothy Li, "Why Is Bitcoin Volatile?", (13 January 2024), online: *Investopedia* <https://www.investopedia.com/articles/investing/052014/why-bitcoins-value-so-volatile.asp>.

[9] See e.g. Deloitte, "Blockchain: Opportunities for health care | Deloitte US", online: *Deloitte US* <https://www2.deloitte.com/us/en/pages/public-sector/articles/blockchain-opportunities-for-health-care.html>.

[10] See e.g. KPMG, "AI and blockchain: The new power couple", (2023), online: *KPMG* <https://kpmg.com/us/en/articles/2023/ai-blockchain-new-power-couple.html>.

[11] Chad Bown, "How trade can break up with paper (it involves blockchain)", online (podcast): *Trade Talks* <https://tradetalkspodcast.com/podcast/155-how-trade-can-break-up-with-paper-it-involves-blockchain>.

[12] Lindsay Dunsmuir & Chizu Nomiyama, "Fed's Powell reiterates call for appropriate regulation of digital finance" (27 September 2022), online: *Reuters* <www.reuters.com/business/feds-powell-reiterates-call-appropriate-regulation-digital-finance-2022-09-27/>.

[13] Ravi Menon, "Making Sense of Crypto" (September 2022), online: *IMF* <www.imf.org/en/Publications/fandd/issues/2022/09/Making-sense-of-crypto-Ravi-Menon>.

It is easy to become "lost in the details" when designing new regulatory frameworks for nascent technologies. Thus, this article strives to provide a high-level overview of the type of issues that regulators should keep top-of-mind while designing AML regulations for virtual assets. To that end, this article suggests that future research pertaining to the regulation of virtual assets – particularly within the context of international AML efforts – should directly respond to the following three issues.

First, future research in this area should consider bureaucratic delay. Virtual asset technology is innovative and expeditious, whereas regulatory processes are typically slow and drawn out. Once appropriate regulations are implemented, the technology may have moved on. Conversely, if regulatory efforts are too quick and rushed, they may leave gaps in the law that are detrimental to both virtual asset users and the government.

Second, future research should consider regulatory arbitrage. If stringent domestic virtual asset regulations come to fruition, money launderers would likely respond by relocating to a more lenient jurisdiction or by finding gaps within the law that do not apply to specific tools or uses within the technology. As the balloon effect suggests, when pressure gets put on one part of a 'balloon' (*i.e.*, virtual asset technology), the 'air' moves elsewhere (*i.e.*, a more lenient jurisdiction or less-regulated use within the technology).[14]

Third, and final, future research should consider the industry pushback associated with stringent virtual asset regulation. Virtual asset technology is inherently decentralized and anonymous, for (some) good reasons. There are several legitimate use-cases for the technology, and there would likely be significant pushback from innovators, developers, and entrepreneurs if regulation steps too far. Thus, domestic governments should strive to balance the AML risks associated with virtual asset technology with its innovative potential.

This article will outline these issues in further detail and provide methods to mitigate them. While it is beyond the scope of this article to determine the optimal regulatory response to virtual assets within AML, the objective is to elucidate the core issues that countries will need to respond to in their implementation of the FATF standards for virtual assets. Keeping these topics top-of-mind while designing potential regulatory frameworks will increase their effectiveness.

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[14] CarrieLyn Donigan Guymon, "International Legal Mechanisms for Combating Transnational Organized Crime: The Need for a Multilateral Convention" (2000) 18 Berkeley J Intl L 53 at 88 [Guymon].

II. THE FINANCIAL ACTION TASK FORCE'S RESPONSE TO VIRTUAL ASSET MONEY LAUNDERING

"Money laundering, the process by which criminals hide, disguise, and legitimize their ill-gotten gains, is a daunting international problem."[15] By its very nature, money laundering aims to allow proceeds of crime "to move freely through society without being confiscated or leading to the arrest of those handling the funds."[16] It is a method by which financial scam artists, drug cartels, and terrorists are enabled to operate and harm society. Ultimately, it "allows organized criminals to invest the proceeds of their illicit activities into legitimate business, spreading their taint."[17] In that sense, "money laundering is not a victimless crime."[18]

Given the international implications of such illicit activity with severe ramifications if left rampant, a global money laundering "watchdog" was formed: the FATF.[19] As an inter-governmental body, the FATF was established by the G-7 Summit in Paris in 1989.[20] Their mission is to "set standards and to promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and the financing of proliferation, and other related threats to the integrity of the international financial system."[21]

To fulfill its mission, the FATF publishes a list of 'FATF Recommendations' that provide global standards for domestic governments to follow and implement.[22] For instance, the FATF recommends that each state create a money laundering offence,[23] implement customer due diligence requirements for financial institutions,[24]

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[15] Alison S Bachus, "From Drugs to Terrorism: The Focus Shifts in the International Fight against Money Laundering after September 11, 2001" (2004) 21:3 Ariz J Int Comp Law 835 at 835.

[16] Scott Sultzer, "Money Laundering: The Scope of the Problem and Attempts of Combat It" (1995) 63:1 Tenn L Rev 143 at 148.

[17] Guymon, *supra* note 14 at 65.

[18] The Financial Action Task Force, "Money laundering is not a victimless crime (6 March 2020), online (video): *YouTube* <www.youtube.com/watch?v=T1_1hnLbCI0/>.

[19] Financial Action Task Force, "About - Financial Action Task Force (FATF)", online: *FATF* <https://www.fatf-gafi.org/about/>.

[20] Financial Action Task Force, "History of the FATF", online: <www.fatf-gafi.org/about/historyofthefatf/>.

[21] FATF, "International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation" (2012-2022), online (pdf): *FATF* <https://www.fatf-gafi.org/content/dam/fatf-gafi/recommendations/FATF%20Recommendations%202012.pdf.coredownload.inline.pdf> at 7 [FATF].

[22] *Ibid*.

[23] *Ibid* at 12.

[24] *Ibid* at 14.

establish a financial intelligence unit (FIU),[25] and implement special measures for "politically exposed persons."[26] Although the FATF Recommendations are technically *non-binding* in a legal sense, they are generally adhered to by domestic governments worldwide, perhaps due to fear of becoming a non-compliant country and thus "[portrayed] as a 'risky and dishonourable place to do business'."[27]

Of particular interest is Recommendation 15, subtitled "New technologies."[28] Recommendation 15 states:

> Countries and financial institutions should identify and assess the money laundering or terrorist financing risks that may arise in relation to *(a) the development of new products and new business practices, including new delivery mechanisms, and (b) the use of new or developing technologies for both new and pre-existing products*. In the case of financial institutions, such a risk assessment should take place prior to the launch of the new products, business practices or the use of new or developing technologies. They should take appropriate measures to manage and mitigate those risks. [Emphasis added.][29]

In response to the rapid growth of virtual asset technology and concerns about its potential use as a vehicle to launder money, the FATF revised Recommendation 15 in October 2018 to directly address "virtual assets."[30] In addition to the foregoing, it is now also recommended that:

> To manage and mitigate the risks emerging from *virtual assets*, countries should ensure that *virtual asset service providers* [VASPs] are regulated for AML/CFT purposes, and licensed or registered and subject to effective systems for monitoring and ensuring compliance with the relevant measures called for in the FATF Recommendations. [Emphasis added.][31]

After Recommendation 15 was updated to include virtual assets, an interpretive note was added to explain how to apply the new guidance.[32] According to

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[25] *Ibid* at 24.

[26] *Ibid* at 16.

[27] Mari Takeuchi, "Non-State Actors as Invisible Law Makers? — Domestic Implementation of Financial Action Task Force (FATF) Standards" in Karen N Scott et al, eds, *Changing Actors in International Law* (Leiden, The Netherlands: Brill | Nijhoff, 2020) 211 at 220–221.

[28] FATF, *supra* note 21 at 17.

[29] *Ibid*.

[30] *Ibid* at 138.

[31] *Ibid* at 17.

[32] *Ibid* at 76–77.

the interpretive note, VASPs should be licensed or registered, and "supervised or monitored by a competent authority" with "adequate powers to supervise or monitor and ensure compliance by VASPs with requirements to combat money laundering and terrorist financing including the authority to conduct inspections, compel the production of information, and impose sanctions."[33] Furthermore, "countries should ensure that there is a range of effective, proportionate and dissuasive sanctions, whether criminal, civil or administrative, available to deal with VASPs that fail to comply with AML/CFT requirements."[34]

The FATF also specifies that "[c]ountries should rapidly, constructively, and effectively provide the widest possible range of international cooperation in relation to money laundering, predicate offences, and terrorist financing relating to virtual assets."[35] To do so, "supervisors of VASPs should exchange information promptly and constructively with their foreign counterparts, regardless of the supervisors' nature or status and differences in the nomenclature or status of VASPs."[36]

In accordance with their mission to "set standards and to promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and the financing of proliferation, and other related threats to the integrity of the international financial system,"[37] the FATF implemented the aforementioned international recommendations to combat risks associated with virtual assets.

Broadly speaking, the FATF's stance is that "[c]ountries should apply the relevant measures under the FATF Recommendations to virtual assets and virtual asset service providers (VASPs)."[38] Accordingly, "[c]ountries should take appropriate steps to manage and mitigate the proliferation financing risk that they identify."[39] That said, it has proven difficult to effectively do so. While the FATF virtual asset recommendations provide a strong base framework for domestic governments to implement, there are several obstacles in the way of effective regulation of virtual assets.

In June 2023, the FATF published a report evaluating the implementation of the FATF standards on virtual assets and virtual asset service providers. The report

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[33] *Ibid*.

[34] *Ibid* at 77.

[35] *Ibid*.

[36] *Ibid*.

[37] *Ibid* at 7.

[38] *Ibid* at 76.

[39] *Ibid*.

found that after "[f]our years … some jurisdictions have introduced regulations, but global implementation is relatively poor and compliance remains behind most other financial sectors."[40] This lack of effective implementation is due to "struggle[s] with fundamental requirements," such as inadequate risk assessments of virtual asset technology.[41] Accordingly, the worldwide struggle to regulate virtual asset technology effectively remains prevalent today: Nearly "one third of survey respondents [in the FATF report] have not yet decided if and how to regulate the VASP sector."[42]

The lackluster regulatory response to virtual asset technology is especially concerning in the context of money laundering contributing to geopolitical conflict. The FATF report noted:

> Recent reports raise serious concerns about the threat posed by the Democratic People Republic of Korea's (DPRK) illicit VA-related activities, including ransomware attacks and sanctions evasion, for financing the proliferation of weapons of mass destruction. This activity has enabled an unprecedented number of recent launches of ballistic missiles (including inter-continental ballistic missiles). This threat is significant given both the scale of the funding (USD 1.2 billion worth of stolen VAs since 2017, including VAs stolen from DeFi arrangements) and the serious consequences of proliferation financing. Virtual assets are also posing increasing terrorist financing risks, including for fundraising by ISIL, Al Qaeda and right-wing extremist groups, although the vast majority of terrorist financing still takes place using fiat currency.[43]

These findings demonstrate the high-stake risks of money laundering using virtual asset technology. If ineffectively regulated, virtual asset technology may be used by criminal organizations, financial scam artists, or may exacerbate geopolitical conflict. For this reason, the FATF has recently emphasized the vitality "that countries act rapidly to implement the FATF's requirements on VAs and VASPs."[44] The remainder of this article aims to assist the efforts to effectively implement these requirements, by outlining three core issues that regulators in each country should consider while designing the ideal regulatory scheme for virtual asset technology.

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[40] Financial Action Task Force, "Virtual Assets: Targeted Update on Implementation of the FATF Standards on VAs and VASPs", (27 June 2023), online: *Financial Action Task Force* <https://www.fatf-gafi.org/en/publications/Fatfrecommendations/targeted-update-virtual-assets-vasps-2023.html> at 2.

[41] For instance, "[o]ut of 151 respondents to a March 2023 survey on R.15 implementation (compared to 98 responses in 2022), over one third (52 of 151) have not conducted a risk assessment." Moreover, "[t]he results of mutual evaluation and follow-up reports show that 73% (71 of 98 jurisdictions) are not conducting adequate risk assessments." *Ibid*.

[42] *Ibid*.

[43] *Ibid* at 3.

[44] *Ibid* at 4.

III. ENFORCEMENT CHALLENGES AND HOW TO MITIGATE THEM

To effectively regulate the money laundering risks of virtual asset technology on an international scale, we must understand the unique challenges that accompany this nascent technology. There are several challenges that each country will face when attempting to design the ideal regulatory framework to enforce the new FATF guidance. Acknowledging these challenges – and keeping them top-of-mind while designing regulatory frameworks – will allow the international community to effectively mitigate the AML risks associated with virtual assets.

Specifically, there are three core challenges involved in the regulation of virtual asset technology, as they relate to money laundering: (a) bureaucratic delay, (b) regulatory arbitrage, and (c) industry pushback. Each of these challenges is explored in further detail below, and should be directly addressed in future research relating to potential regulatory frameworks to mitigate AML risks within virtual asset technology.

A. BUREAUCRATIC DELAY

The first challenge is bureaucratic delay. "With new and innovative technologies such as blockchain, it is frequently the case that they evolve faster than appropriate regulations can be introduced."[45] While the new FATF guidance on virtual assets provides standards that regulators worldwide can implement, it is another question whether they can do so *effectively* and in a *timely* manner.

The worldwide difficulties involved with regulating virtual assets have been well documented. "Some countries (such as Japan and Switzerland) have amended or introduced new legislation covering crypto assets and their service providers, while others (including the European Union, United Arab Emirates, United Kingdom, and United States) are at the drafting stage. But national authorities have, on the whole, taken very different approaches to regulatory policy for [virtual] assets."[46] For instance, some countries have implemented comprehensive regulations for virtual assets,[47] while others have struggled to ascertain the legal status of virtual assets within existing regulations.[48]

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[45] Fabian Maximilian Johannes Teichmann & Marie-Christin Falker, "Money laundering via cryptocurrencies – potential solutions from Liechtenstein" (2021) 24:1 J Money Laundering Control 91 at 97 [Teichmann & Marie-Christin Falker].

[46] Aditya Narain & Marina Moretti, "Regulating Crypto", (September 2022), online: *Int Monet Fund* <https://www.imf.org/en/Publications/fandd/issues/2022/09/Regulating-crypto-Narain-Moretti> [Narain & Moretti].

[47] See e.g. Embassy of the Principality of Liechtenstein in Washington, DC, "Liechtenstein's Parliament Approves Blockchain Act Unanimously", online: <https://www.liechtensteinusa.org/article/liechtensteins-parliament-approves-blockchain-act-unanimously>.

[48] For instance, "[w]hether and when [Non-Fungible Tokens] function as securities has puzzled the [Securities Exchange Commission in the United States] - a question that usually results in the answer, 'they

It is not surprising that regulators have been having difficulties attempting to effectively regulate virtual assets. It is difficult to regulate this nascent technology, "since the rules weren't designed for it, and it is hard to keep pace with new business models and innovation."[49] Thus, there is a need for regulatory action on a new form of technology, and these modifications must be in place before further technological developments render the modifications inconsequential.

As Kofi Annan – the seventh Secretary-General of the United Nations – once remarked, "governments tend to be slow moving by nature, because they have to build political support for every step."[50] For instance, in Canada, there are nine stages within the legislative process, beginning with "[n]otice and placement on the order paper" and ending with the bill coming into force as law.[51] This procedure requires a bureaucratic process involving multiple readings of the bill, consensus by both the House of Commons and the Senate, and royal assent.[52] Conversely, virtual asset technology is renowned for its quickly developing and agile nature. While legislative action generally needs political consensus and must follow bureaucratic processes, new applications using virtual asset technology can be created extremely quickly.

The sluggishness of legislative action may, of course, be attenuated by regulation by administrative bodies with delegated authority from the legislature (*e.g.*, securities regulators). However, this has proven difficult as well due to conflicting views between different regulatory bodies. For instance, the "stablecoin"[53] industry in America involves a myriad of regulators who have authority in different ways, resulting in a "regulatory paralysis" with "little incentive for any single regulatory body to get out front in developing and rolling out an innovative regulatory framework in response to new payments innovations without some assurance as to how other

might be.'"; Jonah N Echols, "Ceci N'est pas une Security: When and Why Attorneys Should Advise F-NFT Clients to File with the SEC" (2022) 24:2 Trans Tenn J Bus Law 177 at 204.

[49] Ryan Clements, "Assessing the Evolution of Cryptocurrency: Demand Factors, Latent Value and Regulatory Developments" (2018) 8:1 Mich Bus & Entrepreneurial L Rev 73.

[50] Kofi Annan, "A new coalition for universal values" (26 July 2000), online: *United Nations* <www.un.org/sg/en/content/sg/articles/2000-07-26/new-coalition-universal-values>.

[51] House of Commons Canada, "Legislative Process - Our Procedure - Procedural Info", online: *House of Commons Canada* <www.ourcommons.ca/procedure/our-procedure/LegislativeProcess/c_g_legislative-process-e.html>.

[52] *Ibid*.

[53] A "stablecoin" is "a type of cryptocurrency that seeks to maintain a stable value by pegging their market value to an external reference. This reference could be a fiat currency like the US dollar, a commodity such as gold, or another financial instrument."; Coinbase, "What is a stablecoin?", online: *Coinbase Crypto Basics* <https://www.coinbase.com/learn/crypto-basics/what-is-a-stablecoin>.

agencies are going to proceed."[54] Even with administrative bodies, it is difficult to regulate virtual assets quickly.

Thus, there is a dichotomy between regulation and innovation. As innovations continue at a rapid rate, it is incredibly difficult for regulators to 'keep pace.'[55] To address this issue, it may seem sensible for regulators to rapidly accelerate their regulatory process, or even adopt an overarching 'all-or-nothing' response, such as the criminalization of virtual asset technology altogether. While these may seem like 'quick' or 'easy' answers, neither would be effective. The purpose of virtual asset regulation should be to "design laws that stimulate innovation while protecting consumer welfare and satisfaction"[56] and address its money laundering risks. Neither criminalizing virtual assets nor rapidly accelerating the regulatory process will achieve this purpose. Criminalizing virtual asset technology would stagnate innovation and likely only result in regulatory arbitrage (as discussed in the next part of this article). Similarly, rapidly accelerating the regulatory process would likely not be effective. If regulatory efforts move *too* quickly, they may leave gaps in the law that are detrimental to both industry participants and the government. Likewise, they may design regulations that are unclear or leave questions unanswered, causing uncertainty in the market.

Ideally, "the goals of the legislation should be clearly formulated and transparent for market participants."[57] While regulators may inherently move slower than the technology and the government must keep pace with developments in the industry, it is also important that laws are reasonably clear and effective in practice. Carefully tailored regulation that considers the needs of both industry participants and government could be fruitful. It would reduce uncertainty in the industry, and, if done correctly, could foster mass adoption and innovation. Thus, regulators must determine a method to regulate virtual asset technology in an *effective* way that meets the needs of consumers and innovators, while addressing its money laundering risks in a way that 'keeps pace' with technological developments.

Future research that attempts to design a regulatory framework for virtual assets should directly deal with the challenges associated with bureaucratic delay. Not only should regulations be designed and implemented as soon as possible; they should also be dynamic enough to encompass changes in the virtual asset technology that may come to fruition in the future. For instance, there are two examples of regulatory

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[54] Howell E Jackson, Timothy G Massad & Dan Awrey, "How We Can Regulate Stablecoins Now – Without Congressional Action" (2022) Hutchins Ctr Working Paper No 76 at 8.

[55] Lawrence J Trautman, "Bitcoin, Virtual Currencies, and the Struggle of Law and Regulation to Keep Pace" (2018) 102:2 Marq L Rev 447 [Trautman].

[56] Scott D Hughes, "Cryptocurrency Regulations and Enforcement in the US" (2017) 45:1 W St U L Rev 1 at 28 [Hughes].

[57] *Ibid* at 3.

models that attempt to deal with future uses in the blockchain *before* they come to fruition.

First, the Liechtenstein model attempts to comprehensively regulate virtual asset activity. In January 2020, "Liechtenstein implemented the world's first comprehensive blockchain legislation."[58] Rather than regulating specific cryptocurrencies or blockchain applications, the Liechtenstein model effectively regulates *all* potential uses of virtual asset technology.[59] Teichmann and Falker assert that this model "provides a comprehensive set of rules which could lead the way for international blockchain regulations."[60] Because the model governs all blockchain activity rather than specific cryptocurrencies, criminals would no longer be able to launder their illicit proceeds through uses of the technology not covered by specific regulations. Put another way, *any* and *all* (present or future) illicit activity within virtual asset technology would already be regulated. If the technology progresses and criminals find new ways to launder illicit proceeds within the technology that the government had not thought of, that activity would, in theory, already be covered by regulation.

Second, the endogenous theory, proposed by Reyes in 2016,[61] may provide an interesting solution. The theory proposes "that regulators undertake the dual task of enacting a law or regulation via statute, and then implementing that statute through code, so that it is endogenously incorporated into the decentralized ledger technology or applications running on top of the technology."[62] Thus, the law would be within the 'code' of the technology. By having the law within the 'code' of virtual asset technology, the problem of bureaucratic delay would be mitigated. Technological advancements would need to build off the restraints of the 'code', meaning the regulation will remain relevant as the technology develops and innovates.

The main challenge with these models is that the initial implementation of such models would be difficult. In order to comprehensively regulate virtual asset technology, or implement law directly into "code", it would take extensive consultations with industry participants and an exhaustive evaluation of both present and future use-cases of virtual asset technology. This would be an arduous task. Nevertheless, while it remains to be seen whether these models can provide the ideal international standard for virtual asset regulation, they provide examples of the type of thought process that future researchers and regulators should grapple with.

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[58] Teichmann & Marie-Christin Falker, *supra* note 45 at 91.

[59] *Ibid*.

[60] *Ibid* at 98.

[61] Carla L Reyes, "Moving beyond Bitcoin to an Endogenous Theory of Decentralized Ledger Technology Regulation: An Initial Proposal" (2016) 61:1 Vill Rev 191.

[62] *Ibid* at 228.

Namely, they attempt to regulate both present *and* future use-cases of virtual asset technology, such that regulations remain effective long after they are implemented. While it would be difficult to comprehensively regulate the entire virtual asset industry at the same time, it would be logical to regulate similar illicit uses within the virtual asset ecosystem simultaneously. For instance, regulators may choose to prohibit programs that intentionally conflate user identities, such as tumblers or privacy coins.[63] In doing so, regulators should broadly define these programs, such that similar programs designed in the future are already dealt with. Regulators should also maintain open communication with industry participants within the virtual asset ecosystem, so they can remain aware of any new developments within the technology that pose risks and act accordingly. If such an *ex-ante* approach can be implemented quickly and effectively, the bureaucratic delay challenge will be attenuated.

B. REGULATORY ARBITRAGE

As a *New Yorker* cartoon classically quipped, "[t]hese new regulations will fundamentally change the way we get around them."[64] Likewise, another challenge facing domestic virtual asset regulators is regulatory arbitrage. Where one jurisdiction strictly regulates a particular illicit activity, and another jurisdiction does not, it is almost axiomatic that criminals will relocate to the more lenient jurisdiction. In that sense, criminal money launderers act as regulatory arbitrageurs. Regulatory arbitrageurs "[exploit] the gap between the economic substance of a transaction and its legal or regulatory treatment, taking advantage of the legal system's intrinsically limited ability to attach formal labels that track the economics of transactions with sufficient precision."[65] To effectively regulate virtual assets within the context of international AML efforts, the regulatory arbitrage issue should be top-of-mind.

The concept of illicit activities migrating to more lenient jurisdictions is eloquently expressed by the 'balloon effect.' The balloon effect was characterized by Guymon in the following way:

> Unless all regional approaches develop at the same quick speed, advancements by law enforcement in one region will simply lead to increased activity by the criminals in other regions. Zagaris has termed this

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[63] Tumblers, also known as "mixing services", "effectively disrupt the transactional link between wallets by literally blending legitimate Bitcoin transfers with illicit gains and sending the resulting virtual funds to a new address." Privacy coins "actively implement an obfuscated public ledger where any trader can transmit but the source, amount and destination are hidden."; Daniel Dupuis & Kimberly Gleason, "Money Laundering with cryptocurrency: open doors and the regulatory dialectic" (2021) 28:1 J Financial Crime 60 at 66, 68 [Dupuis & Gleason].

[64] Victor Fleischer, "Regulatory Arbitrage" (2010) 89:2 Tex L Rev 227 (quoting a *New Yorker* cartoon from March 9, 2009 at 228).

[65] *Ibid* at 229.

> the "balloon effect": "whenever you squeeze part of a balloon, it expands elsewhere. That is, wherever regions and/or countries close loopholes in money laundering, organized criminals will be quick to invest in other jurisdictions in which opportunities exist."[66]

Both the notions of regulatory arbitrage and the balloon effect convey the current risks facing regulators of virtual asset technology. When one domestic government tightens regulation, money launderers will likely move (or at least conduct their business) elsewhere.

These concerns are not only academic. In fact, virtual asset technology users do not even need to *physically* relocate to take advantage of regulatory arbitrage. A *Wall Street Journal* article depicted "an open secret in the industry: U.S. crypto enthusiasts can easily bypass measures that seek to block them from offshore exchanges."[67] By using virtual private networks (VPNs) or lying about their identity, criminals can use virtual assets to launder their illicit proceeds without ever leaving their home country.[68] It is also true that regulatory arbitrage may occur by physically relocating to a less-regulated jurisdiction, or perhaps by incorporating a business in the less-regulated jurisdiction. In short: where there is a more enticing avenue for criminals to launder their illicit proceeds via virtual asset technology with less regulation, it can be expected that they will 'relocate' there either virtually or physically. This is especially concerning considering the incentive for countries to "race to the bottom", since "crypto actors migrate to the friendliest jurisdictions with the least regulatory rigor – while remaining accessible to anyone with internet access."[69]

This problem is even further exacerbated by the decentralized nature of virtual asset technology. "While legislators can make consumers and businesses within a specific geographic location subject to regulation, a decentralized blockchain is difficult to regulate … [T]he distributed data structure of blockchain technology makes pinpointing a specific location of any specific piece of data impossible."[70] It is for this reason that an 'all-or-nothing' approach toward virtual assets would not be effective. When one jurisdiction issues a complete ban on virtual asset technology, it is tantamount to them saying, 'do it *somewhere else*.' Thus, while a ban may be effective domestically, it would likely only encourage movement (either virtually or physically) to more lenient jurisdictions and do very little toward international efforts to combat money laundering.

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[66] Guymon, *supra* note 14 at 88.

[67] Alexander Osipovich, "U.S. Crypto Traders Evade Offshore Exchange Bans" (30 July 2021), online: *WSJ* <www.wsj.com/articles/u-s-crypto-traders-evade-offshore-exchange-bans-11627637401>.

[68] *Ibid*.

[69] Narain & Moretti, *supra* note 46.

[70] Hughes, *supra* note 56 at 3–4.

It is also worth noting that the regulatory arbitrage problem relating to virtual asset money laundering is not limited to *jurisdictional* arbitrage. Even within an extensive regulatory framework of a given jurisdiction, the technological capabilities of virtual asset technology may provide alternative methods of money laundering that the government simply has not thought of. For instance, if the government issues sanctions for the use of certain cryptocurrency 'mixers,'[71] criminals may simply opt for another laundering method within the technology, without needing to relocate to another jurisdiction. There are several methods to launder money with virtual asset technology, such as tumblers, privacy coins, or mining coins/cryptocurrencies as a front.[72] Even with a panoply of regulations that aim to combat the illicit uses of virtual asset technology, there are very likely methods that the government (or even launderers themselves) have not yet thought of that already exist within the technology.

To effectively regulate virtual asset technology on both the domestic and international levels, regulators must consider the issue of regulatory arbitrage and the 'balloon effect.' Countries should cooperate with each other to ensure that one's regulatory efforts are not immediately countervailed by more lenient regulations in another jurisdiction. Otherwise, "even if some jurisdictions were to implement highly effective cryptocurrency regulations, criminals could simply relocate their organizations to less strict jurisdictions."[73] Without international collaboration, regulatory arbitrage will always remain an issue. Within their own borders, countries should ensure that their regulations encompass all known methods that exist for money laundering within virtual asset technology. To do so, each country should conduct ongoing surveillance and monitoring of virtual asset technology, as well as continuing communication with industry participants to stay up to date on new developments.

C. INDUSTRY PUSHBACK

Finally, future research should consider the industry pushback associated with stringent virtual asset regulation. In recent memory, there are have been innovations with such an adamant user base as virtual asset technology. The very purpose of the technology "aims to be completely distributed, free of central authorities or points of control, and at least somewhat anonymous."[74] Thus, perhaps almost *any* form of regulation will be seen with suspicion by many virtual asset users.

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[71] See e.g. "U.S. Treasury Sanctions Notorious Virtual Currency Mixer Tornado Cash" (8 August 2022), online: *US Department of the Treasury* <https://home.treasury.gov/news/press-releases/jy0916>.

[72] Dupuis & Gleason, *supra* note 63.

[73] Teichmann & Falker, *supra* note 45 at 98.

[74] Trautman, *supra* note 55 at 454.

There is a strong contingent of virtual asset users that would respond negatively to regulation that prohibits innovation. In fact, some jurisdictions have already seen the negative impact of (in the opinion of industry participants) overly stringent virtual asset regulation. After the EU implemented the fifth AML directive, "an abundance of European crypto businesses … either left the market entirely or relocated to less strict jurisdictions, arguing that the prescribed due diligence measures to be observed by crypto service providers are unsustainable."[75] Likewise, some virtual asset investors have opted to move offshore due to the unfavourable regulatory environment in the United States,[76] and several crypto exchanges – including the market-leading exchanges Binance and dYdX – ended operations in Canada after new stringent regulations, while designed to protect investors, rendered the Canadian market "no longer tenable."[77] From these reactions, it is evident that stringent or unclear regulations will be met with strong resistance by industry participants.

Scholars and the public alike have endorsed the innovative potential of virtual asset technology. In fact, one commentator opined that "[b]lockchain technology represents one of these pivotal moments in the history of the human saga that is likely to produce a highly disruptive quantum leap forward in the way highly complex tasks are performed."[78] Virtual asset technology has a wide range of capabilities, many of which have not yet been implemented or explored. Beyond its well-publicized speculative investment opportunities,[79] the technology has the capability to disrupt several industries and even government operations. For instance, it can be used "to record, transfer, and verify asset ownership (home, auto, stocks, bonds, mortgages, and insurance) as well as to preserve the integrity and authenticity of sensitive documents or records (such as passports, visas, driver licenses, birth and death certificates, voter registration, contracts, wills, patents, and medical records)."[80] Prominent international

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[75] Teichmann & Falker, *supra* note 45 at 98–99.

[76] See e.g. George Glover, "Galaxy Digital will move more of its operations offshore because of a 'regulatory headache' in the US, billionaire crypto bull Mike Novogratz says", online: *Mark Insid* <https://markets.businessinsider.com/news/currencies/billionaire-crypto-investor-mike-novogratz-galaxy-digital-offshore-bitcoin-regulation-2023-5>.

[77] Bloomberg News, "Binance to Exit Canada After Country Imposes New Crypto Rules - BNN Bloomberg", (12 May 2023), online: *BNN* <https://www.bnnbloomberg.ca/binance-to-exit-canada-after-country-imposes-new-crypto-rules-1.1919614>.

[78] Trautman, *supra* note 55 at 537.

[79] See e.g. Paul Vigna, "Bitcoin: What to Know Before Investing" (16 February 2021), online: *WSJ* <www.wsj.com/articles/bitcoin-what-to-know-before-investing-11613498045>.

[80] Trautman, *supra* note 55 at 456–457.

investment banks,[81] venture capital funds,[82] and celebrities[83] alike have identified virtual asset technology as an emerging opportunity.

Of course, the virtual asset industry has its risks as well. Among other things, critics have referred to virtual assets as "hyped-up fraud",[84] "a bubble [with] no inherent value and … terribly overpriced",[85] and even a "Wild West" that is "rife with fraud, scams and abuse."[86] To a large extent, these critiques are valid. Billions of dollars' worth of virtual assets have been stolen and laundered,[87] and the industry is notorious for its volatile flash crashes[88] and scams.[89] However, despite the risks associated with virtual assets and the often-unclear regulatory regimes for them, there remain considerable investments and resources allocated toward this industry. Current consumers and investors do not seem deterred by its risks, or a lack of regulation. For instance, "the growing adoption of bitcoin as a payment system is testament to the fact that cryptocurrency enthusiasts are not phased by lack of traditional customer protection policies."[90]

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[81] See e.g. JP Morgan, "Blockchain and the decentralization revolution: A CFO's guide to the potential implications of distributed ledger technology" (2018), online: *JP Morgan* <www.jpmorgan.com/solutions/cib/investment-banking/corporate-finance-advisory/blockchain>.

[82] See e.g. Michelle Bailhe, Shaun Maguire & Alfred Lin on Behalf of Team Sequoia, "A Block Step Forward" (17 February 2022), online: *Sequoia* <www.sequoiacap.com/article/a-block-step-forward/>.

[83] See e.g. Kim Bhasin, "Matt Damon is the Face of Crypto.com" (28 October 2021), online: *Bloomberg* <www.bloomberg.com/news/articles/2021-10-28/matt-damon-to-promote-crypto-com-in-race-to-attract-new-users>.

[84] MacKenzie Sigalos, "Jamie Dimon says he's done talking about bitcoin: 'I don't care'", (17 January 2024), online: *CNBC* <https://www.cnbc.com/2024/01/17/jamie-dimon-says-hes-done-talking-about-bitcoin-i-dont-care.html>.

[85] Zinya Salfiti, "Bitcoin is a bubble with 'no inherent value and is terribly overpriced,' top economist Steve Hanke says", (15 May 2023), online: *Mark Insid* <https://markets.businessinsider.com/news/currencies/steve-hanke-bitcoin-bubble-overpriced-worthless-value-rally-cryptocurrency-crypto-2023-5>.

[86] Katanga Johnson, "U.S. SEC Chair Gensler calls on Congress to help rein in crypto 'Wild West'", (3 August 2021), online: *Reuters* <https://www.reuters.com/technology/us-sec-chair-gensler-calls-congress-help-rein-crypto-wild-west-2021-08-03/>.

[87] Office of Public Affairs, "Two Arrested for Alleged Conspiracy to Launder $4.5 Billion in Stolen Cryptocurrency", (8 February 2022), online: *US Dep Justice* <https://www.justice.gov/opa/pr/two-arrested-alleged-conspiracy-launder-45-billion-stolen-cryptocurrency>.

[88] See e.g. Stephen Graves, "Bitcoin Plunges 7% to $42,000 in Flash Crash as Bull Run Falters", (3 January 2024), online: *Decrypt* <https://decrypt.co/211634/bitcoin-plunges-7-to-42000-in-flash-crash-as-bull-run-falters>.

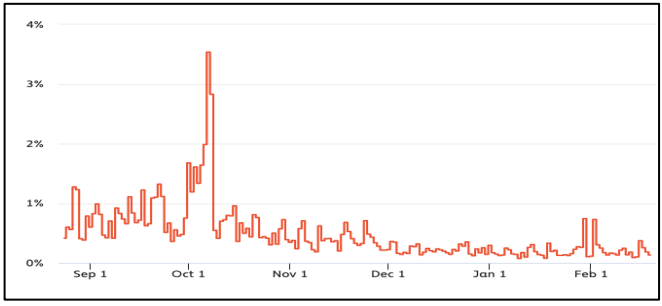
[89] Federal Trade Commission, "What To Know About Cryptocurrency and Scams", (May 2022), online: *Fed Trade Comm Consum Advice* <https://consumer.ftc.gov/articles/what-know-about-cryptocurrency-and-scams>.

[90] Hughes, *supra* note 56 at 5.

Given the growing adoption of virtual asset technology despite its lack of concrete regulatory guidance, it appears that current users of virtual asset technology would prefer a lenient regulatory framework. This, of course, is logical considering the nature of virtual asset technology. The blockchain is inherently designed to facilitate disintermediation, by "remov[ing] the need for [a] third-party because the technology itself verifies the transactions."[91] Given its functionality without the need of a third party, regulation of *any* sort will be viewed with suspicion.

Moreover, there are several legitimate uses for virtual asset technology, and it is *not* only used for illicit purposes. According to *Chainalysis*, a blockchain data company trusted by financial institutions and governments worldwide,[92] less than half a percent of daily Bitcoin flows involve flows to and from known illicit services.[93] Figure 1 below, taken directly from the *Chainalysis* webpage, demonstrates the estimated illicit flows via bitcoin from September 2023 to February 2024.[94] As is apparent, "[i]llicit flows are serious and can be worth significant amounts, but are typically a small minority of total flows.

Figure 1. "Known illicit BTC flows as % of total flows."[95]



Given the relatively low percentage of illicit flows on the blockchain, coupled with the decentralized nature of virtual asset technology, there would inevitably be some pushback against regulations that reach too far. If regulators take too strict an approach that overemphasizes the illicit uses of virtual asset technology at the expense

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[91] Thomas Lee Hazen, "Tulips, Oranges, Worms, and Coins - Virtual, Digital, or Crypto Currency and the Securities Laws" (2018) 20:4 N C J Law Technol 493.

[92] Chainalysis, "About Us", online: *Chainalysis* <www.chainalysis.com/company/>.

[93] Chainalysis, "Chainalysis Market Intel | Blockchain analysis for cryptocurrency markets" (last visited 22 February 2024), online: *Chainalysis* <https://markets.chainalysis.com/> [Chainalysis].

[94] *Ibid*.

[95] *Ibid*.

of its legitimate capabilities, it will likely follow that the industry will respond negatively.

Unduly stringent regulations would result in a despondent user base that may respond in two ways: (i) by performing regulatory arbitrage to get around the regulations (as previously discussed), or (ii) by decreasing the use of the technology altogether. Neither of these responses is ideal. Regulatory arbitrage has its obvious drawbacks, and decreased use of the technology would inhibit future innovation. While its illicit uses must be responded to in an effective and timely manner, domestic governments should be careful to "not regulate cryptocurrencies in such a manner that investments in potential future applications and resulting technologies will not be made."[96] Future research in this area should strive to strike a balance between mitigating the AML risks of virtual asset technology and the innovative potential of its nascent technological capabilities.

As an example, the Liechtenstein model allows freedom within the virtual asset industry, encourages innovation, and provides certainty for investors. Users of virtual asset technology rest assured that their investments and technological developments in the industry would not be impeded by unexpected regulations. Likewise, the endogenous theory also attempts to diminish the problem of industry pushback. Since "the writing of code is limited by certain properties of the protocol, regulators will be unable to craft the requisite rules without cooperating with members of the decentralized ledger technology ecosystem."[97] Therefore, regulation could not come into place without support from industry participants.[98] This would ensure that regulations are in the best interests of those in the industry, and that a balance may be achieved between AML efforts and innovation in the industry. Again, the Liechtenstein model and endogenous model may not necessarily provide the ideal regulatory framework for each jurisdiction, but they are excellent examples of how regulators should always consider the interests of those involved in the virtual asset industry.

IV. CONCLUSION

This article has outlined the core issues that future research relating to virtual asset technology must grapple with in order to effectively implement the FATF recommendations for virtual assets. It is imperative that future researchers and regulators design legal frameworks for virtual asset technology in accordance with the FATF Recommendations, while directly addressing the topics discussed in this article. This article has discussed three core challenges that domestic governments will face in their implementation of the recent FATF guidance: bureaucratic delay, regulatory

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[96] Sarah Jane Hughes & Stephen T Middlebrook, "Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries" (2015) 32:2 Yale J on Reg 495 at 547.

[97] *Ibid*.

[98] *Ibid*.

arbitrage, and industry pushback. The objective should be to promptly regulate virtual asset technology in a way that addresses its money laundering risks, while minimizing regulatory arbitrage and considering the wants and needs of consumers and investors. This objective should remain top-of-mind while formulating potential regulatory frameworks against money laundering.

These challenges can be mitigated by swiftly creating regulating frameworks that consider both *present* and *future* uses of virtual asset technology, and consulting key industry participants in the virtual asset community while doing so. Regulators in different jurisdictions should also cooperate with one another, because unless there is international cooperation on the issue of virtual asset regulation, money launderers will always have an incentive to migrate to more lenient jurisdictions.

Future researchers and the international community must work together to determine the best solution considering the challenges discussed in this article. The sooner a solution can be determined, the better. Criminals continue to launder their illicit proceeds using virtual asset technology and finding innovative ways to do so. Every day that regulators fail to effectively implement the FATF guidance toward virtual assets, criminals are enabled to launder illicit proceeds of crime with little recourse. Although illicit flows currently only account for a small portion of total flows on the blockchain,[99] there is potential for that number to increase dramatically in the future. Researchers, regulators, and the FATF must work collaboratively to create solutions that directly address bureaucratic delay, regulatory arbitrage, and industry pushback. That way, regulation will be most effective and not attenuated by any of these challenges.

[99] Chainalysis, *supra* note 93.