

MONEY LAUNDERING THROUGH VIRTUAL WORLDS OF VIDEO GAMES: RECOMMENDATIONS FOR A NEW APPROACH TO AML REGULATION

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ABSTRACT

Criminals and terrorists are constantly searching for new ways to conduct their illicit operations—recently by exploiting the shared, simulated environments of online video games, known as “virtual worlds.” Virtual worlds are 3-D simulated environments shared by players of online video games. The cyber-realm of virtual worlds allows

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players to spend their real money to buy the video games' in-world currencies to make purchases within the virtual worlds. Players can accumulate possessions and wealth, which can then be offered to other players for value. This creates an unregulated environment that is ripe for crimes such as money laundering.

The Financial Action Task Force (FATF) is an intergovernmental organization that designs and promotes policies and standards to combat financial crime. Recommendations created by FATF target money laundering, terrorist financing, and other threats to global financial systems. In its October 2018 Recommendations, the FATF included virtual currency exchanges to be subject to anti-money laundering (AML) regulation.

The FATF separates virtual currencies into two types: convertible and non-convertible. The in-world currencies of virtual worlds are non-convertible virtual currencies. However, the FATF and regulatory agencies in the United States provide guidance and regulation only in combatting money laundering through convertible virtual currencies. These agencies do not consider virtual worlds and the currency used therein are a high enough risk to warrant AML regulation. This Note argues that agencies should recognize the risk of money laundering through virtual worlds, and expand their current AML definitions, regulations, and guidelines to include non-convertible virtual currencies.

INTRODUCTION

Virtual worlds are utopias—free of laws, regulations, and real-world consequences. Role-playing games have evolved from boardgames to virtual massive multiplayer online games played by millions around the world. Players shed their physical bodies and take on digital avatars to embark on adventures to strange and exciting places, socialize with other players, and make substantial amounts of money. However, these worlds can also act as currency exchanges, vehicles for fraud and money laundering, and gambling platforms. Regulators have not recognized the risks of virtual worlds, and so they continue to be the Wild West. Billions of dollars are funneled into these games, and their output is mostly unchecked.

In virtual worlds, players can exchange their real money for that game's own in-world currency to buy goods within the game. These goods, such as weapons and equipment, can appreciate in value, and then be sold to other players for in-world currency, which can then be exchanged back into real money. This creates unregulated markets that could and are easily exploited for fraud and to launder money. Juniper Research estimated that the global video game market, worth

approximately \$117 billion in 2017, is set to grow to \$160 billion by 2022.¹ The game *Second Life* reported in 2013 that there had been \$3.2 billion in total transactions among its users within the game's economy.² A player of the game *Entropia Universe* purchased virtual property for \$100,000 in 2005, and it appreciated to \$1 million only two years later.³ Video game developers sometimes use the razor-and-blade business model, waiving the price of purchase for the game and profiting from players' microtransactions within the game.⁴ The microtransaction market is expected to reach \$41.92 billion by 2023.⁵ Regulation of virtual worlds is lacking due to unawareness of their existence, constantly changing video game platforms and technologies, and the struggle to define these transactions and assign administrative control.

The Financial Action Task Force (FATF) is a policy-making body which publishes guidance reports for countries to enforce anti-money laundering (AML) practices.⁶ The thirty-nine member states of the FATF recognize the FATF's reports as the international standards for AML.⁷ The FATF monitors member states' implementation of AML measures, reviews current measures, and promotes adoption of measures globally.⁸

The FATF and other agencies classify the in-world currency of virtual worlds as a "non-convertible virtual currency."⁹ However, current AML practices only cover "convertible virtual currency," i.e., virtual

1. PARLIAMENT OF AUSTRALIA, GAMING MICRO-TRANSACTIONS FOR CHANCE-BASED ITEMS 5 (2018).

2. *Infographic: 10 Years of Second Life*, LINDEN LAB (June 20, 2013), <https://www.lindenlab.com/releases/infographic-10-years-of-second-life>.

3. Sharon K. Lowry, Note, *Property Rights in Virtual Reality: All's Fair in Life and Warcraft?*, 15 TEX. WESLEYAN L. REV. 109, 111 (2008).

4. King C. Gillette, who invented the disposable safety razor, used a business model where "[b]y selling cheaply to partners who would give away the razors, which were useless by themselves, he was creating demand for disposable blades . . . Gillette made its real profit from the high margin on the blades." See Randal C. Picker, *The Licensing of Intellectual Property: The Razors and Blades Myth(s)*, 78 U. CHI. L. REV. 225, 225 (2011).

5. See Laura Wood, *Global Online Microtransaction Market Assessment and Forecast to 2030 – COVID-10 Updated – ResearchAndMarkets.com*, YAHOO: FINANCE (June 16, 2020), <https://finance.yahoo.com/news/global-online-microtransaction-market-assessment-090700753.html>; see also Kishan Mistry, Note, *P(l)aying to Win: Loot Boxes, Microtransaction Monetization, and a Proposal for Self-Regulation in the Video Game Industry*, 71 RUTGERS U. L. REV. 537, 539 (2018) ("To generate recurring revenue streams, some game developers and publishers have begun to use microtransactions, a system that allows players to purchase virtual currencies, digital assets, and additional gaming content after purchasing the base game").

6. See *Who We Are*, FIN. ACTION TASK FORCE, <http://www.fatf-gafi.org/about/> (last visited May 23, 2021).

7. See *id.*

8. See *id.*

9. FIN. ACTION TASK FORCE, VIRTUAL CURRENCIES KEY DEFINITIONS AND POTENTIAL AML/CFT RISKS 4 (2014).

currency that is designed to be converted into real currency.¹⁰ These agencies do not consider virtual worlds and the currency used therein as having a high enough risk for money laundering to warrant AML regulation and guidance. This Note argues that the FATF and regulatory agencies should recognize the risk of money laundering through virtual worlds, and expand their current AML definitions, regulations, and guidelines to include non-convertible virtual currencies.

This Note covers (I) the rise of virtual worlds and an explanation of in-world currency, (II) definitions of various types of virtual currencies and assets, (III) money laundering and AML regulation applied generally and to virtual currencies, and (IV) suggestions for improving AML regulations and expanding them to include the in-world currencies of virtual worlds.

I. VIRTUAL WORLDS

Virtual worlds are the culmination of decades of coinciding advancements in technology and role-playing games (“RPGs”). While once these fantasy worlds existed only in the imaginations of the players, computer-generated environments bring players’ worlds into “reality.” This section explains the development of virtual worlds from their roots.

A. *Origins: Role-playing Games*

RPGs allow groups of players to create their own fantasy adventure in a world of their making. Originally, RPGs were boardgames where players created their own fantasy worlds, usually drawing a fictional map and inventing accompanying histories.¹¹ Players would design their characters and backstories and decide how they would interact with the game.¹² Perhaps the most well-known example of a tabletop RPG is *Dungeons & Dragons* published in 1974.¹³ In *Dungeons & Dragons*, gameplay is run by a “Dungeon Master” who conceives of the imaginary world and creates scenarios within which the players react.¹⁴ Players go on adventures, engage in battles, and accumulate weapons, experience points, and powers that can be carried over to subsequent games.¹⁵

10. *Id.* at 5.

11. See Casey Fiesler, *Pretending Without a License: Intellectual Property and Gender Implications in Online Games*, 9 BUFF. INTELL. PROP. L.J. 1, 8 (2013).

12. See Brian Partridge, *The Play’s Thing’: World of Warcraft and Legal Philosophy*, 3 PHX. L. REV. 769, 775 (2010).

13. See Laura Lea Williams, *Lawful Neutral: The Justice System and Dungeons and Dragons*, 26 CARDOZO J. EQUAL RTS. & SOC. JUST. 125, 125 (2019).

14. See *id.* at 142.

15. See *id.* at 138–39.

It did not take long for computer gaming to catch on to the choose-your-own-adventure format of gaming. Inspired and modeled after Dungeons & Dragons,¹⁶ the text-based game Colossal Cave Adventure launched a few years later.¹⁷ In this game, the computer displayed a scenario as a line of text to which the player would respond by typing in a course of action he wanted his character to take.¹⁸ The player then explored the world in an adventure created through his own decisions, though he played alone.

As technology improved in the 1990s and video games became more sophisticated, so did the potential for RPGs through the digital medium.¹⁹ Instead of a Dungeon Master creating a fictional world that existed mostly in the players' imaginations, video games provided the world, rules, and characters for the players.²⁰ RPGs evolved into action role-playing games where players could travel through the world, build castles or entire towns, and fight with non-player characters, i.e., computer-generated characters, rather than characters controlled by an actual person.²¹ This interactivity reached new levels with the incorporation of the Internet.²² Players could now interact not only with the world provided by the game, but with other players who shared the same world connected via the Internet. These games are known as massive multiplayer online role-playing games (MMORPGs).²³ Examples of MMORPGs include World of Warcraft, Final Fantasy XIV, and Runescape.²⁴ Online gaming provided social and competitive components that made the games resemble real life.²⁵ The freedom to control the gameplay and fate of one's character laid the groundwork for what would become virtual worlds.²⁶

16. See Ty Arthur, *Video Game History – 40 Years of the RPG Genre*, GAMESKINNY (Sept. 20, 2016), <https://www.gameskinny.com/b2ezo/video-game-history-40-years-of-the-rpg-genre>.

17. See Dennis G. Jerz, *Somewhere Nearby is Colossal Cave: Examining Will Crowther's Original "Adventure" in Code and in Kentucky*, 1 DIGIT. HUMANITIES Q. (2007), <http://www.digitalhumanities.org/dhq/vol/001/2/000009/000009.html>.

18. See *id.*; see also Arthur, *supra* note 16.

19. See Lowry, *supra* note 3, at 112–13.

20. See Shannon L. Thompson, *Securities Regulation in a Virtual World*, 16 UCLA ENT. L. REV. 89, 90–91 (2009).

21. See Simone Darakjian, *Online Gaming and the Pay-to-win Problem: Legal Deterrence or Industry Self-Regulation?* 36 LOY. L.A. ENT. L. REV. 213, 221 (2016).

22. See *id.* at 217–18.

23. See *id.* at 218.

24. See Jamie Payne, *Top 12 Most Popular MMORPGs, Ranked by Total Active Users*, TWINFINITE (May 17, 2018), <https://twinfinite.net/2018/05/most-popular-mmorpgs/>.

25. See Thompson, *supra* note 20, at 92.

26. See Darkjian, *supra* note 21, at 217.

B. Virtual Worlds Explained

Virtual worlds are the newest venue where RPGs and MMORPGs take place. A virtual world is a computer-generated 3-D environment that provides a setting for online players to interact.²⁷ Some characteristics of virtual worlds include a shared space for multiple players, a graphical user interface that depicts the world visually, a lack of pre-programmed goals, and interactivity between players and the environment.²⁸ Players exist in virtual worlds as an avatar—a graphical representation of the player that may either resemble the player’s physical appearance, or take the form of some non-human creature, like an alien or elf.²⁹

The defining characteristic of virtual worlds, though, is persistence—a feature where the world continues to exist and develop even when a player is no longer participating in the game that provides that virtual world.³⁰ A simulated environment in a video game that is unconnected to the Internet disappears when a player cuts power to his video game console. In an MMORPG, however, when one player logs off and is no longer playing the game, thousands, perhaps millions, of other players continue to occupy and change the virtual world used for that game.³¹ The next time the player logs in to play that MMORPG, the virtual world could be radically different because it perpetually exists as its own distinct “location.”³²

Virtual worlds are used for various types of games. Some games, like Second Life, mimic the real world where players live a fictional life with no abnormal or extraordinary features or occurrences.³³ Players can choose a profession, buy a house, start a family, and go about existing in the virtual world the same way they would in the real world.³⁴ Other games provide a fantasy or science-fiction world or universe where the environments, characters, and laws of physics are supernatural.³⁵ Regardless of the theme, a virtual world is a space where “players can talk to each other, where things can be created and shared, and where complex social structures have been created. Entire economies and

27. See Thompson, *supra* note 20, at 91.

28. See *id.*

29. See *id.*

30. See *id.*

31. See F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1, 6 (2004); see also *Number of World of Warcraft (WOW) Subscribers from 2015 to 2023*, STATISTA (Dec. 2, 2016), <https://www.statista.com/statistics/276601/number-of-world-of-warcraft-subscribers-by-quarter/>.

32. Lastowka, *supra* note 31, at 6.

33. See Thompson, *supra* note 20, at 92.

34. See *id.*

35. See Darkjian, *supra* note 21, at 219–20.

governments have developed, all within a virtual space.”³⁶ One commonality between virtual worlds simulating real life and those simulating a fantasy world is that players are able to accumulate value.³⁷

C. Banks & Economies Within Virtual Worlds

“Value” in video games varies depending on the type of virtual world. Value may simply be the possessions the player gathers during gameplay that have worth only within the game, or its worth is such that other players are willing to pay real money for those possessions. Value may mirror real money, like the U.S. dollar, or take the form of something like gold coins.³⁸ The latest trend is for each game to have its own proprietary in-game money system, or “in-world currency.”³⁹ In-world currency can be earned by completing certain tasks, taken by defeating another player, obtained by discovery during gameplay, or purchased with real money.⁴⁰ The existence of in-world currency has led to the creation of sophisticated economies with their own governances.⁴¹ In Second Life, players can start businesses, sell shares on the in-game stock exchange, and provide investors with documentation, like a prospectus, outlining the risks of the stock.⁴² This stock market is not regulated by the U.S. Securities and Exchange Commission, but is regulated by an in-game agency, like the Second Life Exchange Commission.⁴³ EVE Online is a massive multiplayer online game that takes place in a virtual world set in outer space.⁴⁴ Though the game is focused around spaceship battles,

36. See Danielle Rosette, *The Application of Real World Rules to Banks in Online Games and Virtual Worlds*, 16 U. MIA. BUS. L. REV. 279, 285–86 (2008).

37. See Darkjian, *supra* note 21, at 225 (fantasy world value earned by raiding gold farmers); see also Thompson, *supra* note 20, at 94 (Second Life’s real-life simulation allows players to engage in business practices within the virtual world and rewards players with money).

38. See Thompson, *supra* note 20, at 94 (The Linden is the Second Life’s equivalent of currency that has the same properties as the U.S. dollar within the game); see also Darkjian, *supra* note 20, at 227 (In World of Warcraft, players “use the gold they purchase from these gold farmers to purchase in-game items that would advance their gameplay by increasing the strength and durability of their characters”).

39. Thompson, *supra* note 20, at 94 (In Second Life, players “can buy and sell their virtual products and services in Second Life with Second Life’s virtual currency, the Linden.”); see Anton Moiseienko & Kayla Izenman, *Gaming the System: Money Laundering Through Online Games*, 39 RUSI NEWSBRIEF 1, 1, 4 (2019).

40. See Darkjian, *supra* note 21, at 225 (fantasy world value earned by raiding gold farmers); see also Thompson, *supra* note 20, at 94 (Second Life’s real-life simulation allows players to engage in business practices within the virtual world and rewards players with money).

41. See Rosette, *supra* note 36, at 280.

42. See Thompson, *supra* note 20, at 94–95.

43. See *id.* at 98.

44. See Rosette, *supra* note 36, at 282.

in one instance, the players established a bank within the game called the EVE Intergalactic Bank.⁴⁵ Players deposited their in-world currency into the bank, accumulated interest, and could take out loans.⁴⁶ These video game currency exchanges and virtual economies are relatively new institutions, but their sophistication requires classification of exactly what type of assets are trading hands in these transactions.

II. VIRTUAL CURRENCY

Regulators and law enforcement agencies use different terminology to describe money that is held in non-traditional forms.⁴⁷ Some of these terms are broad categories that include other terms, while some terms are erroneously used as synonyms.⁴⁸ Clarity in the distinction of these similar financial vehicles is paramount to writing effective legislation and regulations for preventing exploitation of definitional gaps.

The in-world currency exchanged in virtual worlds is a type of virtual currency.⁴⁹ Virtual currencies are “digital representations of value that, like ordinary currency, function as media of exchange, units of account, and stores of value.”⁵⁰ Virtual currency is distinguished from fiat, or “real,” currency in that virtual currency is not accepted as legal tender.⁵¹ Real currency is money of a country that is designated as its legal tender, circulates, and is used and accepted as a medium of exchange in the issuing country.⁵² Conversely, virtual currency is acceptable only within the community of users of that virtual currency.⁵³ In-world currency is a representation of value that functions as a medium of exchange and is only acceptable in the issuing video game. For example, the in-world currency of the game Fortnite, V-Bucks, can be used to make purchases within Fortnite, but cannot be used to pay taxes to the IRS.⁵⁴ Therefore, in-world currency is a virtual currency.

Virtual currencies are types of “virtual assets.” The FATF defines a virtual asset as a “digital representation of value that can be digitally

45. *See id.* at 284.

46. *See id.*

47. *See* FIN. ACTION TASK FORCE, *supra* note 9, at 4.

48. *See id.* (“Digital currency can mean a digital representation of either virtual currency (non-fiat) or e-money (fiat) and thus is often used interchangeably with the term “virtual currency”).

49. *See id.*

50. JAY B. SYKES & NICOLE VANATKO, CONG. RSCH. SERV., R45664, VIRTUAL CURRENCIES AND MONEY LAUNDERING: LEGAL BACKGROUND, ENFORCEMENT ACTIONS, AND LEGISLATIVE PROPOSALS 1 (2019).

51. *See id.*

52. *See* FIN. ACTION TASK FORCE, *supra* note 9, at 4

53. *See id.*

54. *See id.*

traded, or transferred, and can be used for payment . . . Virtual assets do not include digital representations of fiat currencies, securities, or other financial assets . . .”⁵⁵ This definition is broad. For example, a house purchased by a player in a virtual world that could then be sold to another player would qualify as a virtual asset.⁵⁶ Complicating matters further, virtual currencies are also types of digital currencies. A digital currency is “a digital representation of either virtual currency (non-fiat) or e-money (fiat) and thus is often used interchangeably with the term ‘virtual currency.’”⁵⁷ Therefore, virtual currencies are both digital currencies and virtual assets.⁵⁸

Virtual currencies are divided into two types: convertible and non-convertible.⁵⁹ Convertible virtual currency can be exchanged back-and-forth with real currency at a particular rate of exchange.⁶⁰ An example of a convertible virtual currency is a cryptocurrency.⁶¹ Cryptocurrencies, such as Bitcoin and Ether, are virtual currencies protected by cryptography and are recorded automatically and anonymously on a secure, decentralized ledger called the blockchain.⁶² A user of cryptocurrency can exchange real money at a virtual currency exchange and store the cryptocurrency in his “wallet”—an application designed for storing cryptocurrency.⁶³ A user relies on his personal “key” to transfer value to another user.⁶⁴ The key’s cryptographic signature is then recorded on the blockchain.⁶⁵ The blockchain is a secure, decentralized ledger because the network on which it is stored is comprised of “nodes” spread out through the entire world that all update at the same time.⁶⁶ Any

55. FIN. ACTION TASK FORCE, THE FATF RECOMMENDATIONS: INTERNATIONAL STANDARDS ON COMBATING MONEY LAUNDERING AND THE FINANCING OF TERRORISM & PROLIFERATION 131 (2020) [hereinafter FATF RECOMMENDATIONS].

56. See *Bragg, v. Linden*, 487 F. Supp. 2d 593, 595–96 (E.D. Pa. 2007) (recognizing both a “real” dispute over possession of a player of *Second Life*’s virtual land confiscated by the game’s developer and also recognizing the virtual land as virtual property).

57. FIN. ACTION TASK FORCE, *supra* note 9, at 4.

58. *Id.* Though digital currencies are not virtual assets, and no virtual assets can be digital currencies.

59. *Id.*

60. *Id.*

61. *Id.*

62. See FIN. ACTION TASK FORCE, *supra* note 9, at 5.

63. See *id.* at 7.

64. See *id.* at 5.

65. See *id.*

66. Benjamin Molloy, *Taxing the Blockchain: How Cryptocurrencies Thwart International Tax Policy*, 20 OR. REV. INT’L L. 623, 625 (2019); see FIN. ACTION TASK FORCE, GUIDANCE FOR A RISK-BASED APPROACH TO VIRTUAL CURRENCIES 45 n.9 (2015) [hereinafter FATF GUIDANCE] (“The other nodes verify that the solution complies with all the rules of the Bitcoin protocol and then accept it as the next official entry in the blockchain, starting the process anew”).

recorded transaction that is out of sync with the other nodes must therefore be fraudulent.⁶⁷

The other type of virtual currency, non-convertible, differs because it is only used in a closed system.⁶⁸ This means that the system in which the virtual currency is used does not allow for exchanges with real currency.⁶⁹ In-world currency of a virtual world is an example of non-convertible virtual currency.⁷⁰ The V-Bucks used in Fortnite are not designed to be converted into real currency. A player can purchase V-Bucks with real currency at Fortnite's online marketplace but cannot exchange the V-Bucks back into real currency at the online marketplace.⁷¹

The distinction between convertible virtual currencies and non-convertible virtual currencies is critical to understanding the argument of this Note. Convertible virtual currencies, such as cryptocurrencies, are designed to and easily are exchanged with real money.⁷² Non-convertible virtual currencies, such as in-world currencies used in virtual worlds, are not designed to and are not easily exchanged with real money.⁷³ Exchanges between real money and convertible virtual currencies are fluid and bidirectional, whereas real money is exchanged into in-world currency unidirectionally.⁷⁴

Current practices of regulators and law enforcement agencies focus their efforts solely on convertible virtual currencies, and not on the in-world currencies of virtual worlds.⁷⁵ This is because of the perceived inability of in-world currency to flow back into the real-world economy.⁷⁶ By differentiating these two types of virtual currencies as "bidirectional" and "unidirectional," the latter is often dismissed as insignificant.⁷⁷

67. See Molloy, *supra* note 66, at 626–27.

68. See FIN. ACTION TASK FORCE, *supra* note 9, at 4.

69. See *id.*

70. See *id.*

71. See MICROSOFT, <https://www.microsoft.com/en-us/p/fortnite-10-000-3-500-bonus-v-bucks/bwd299hxcxqk?activetab=pivot:overviewtab> (last visited May 23, 2021) (79.99 U.S. dollar buys 13,500 V-Bucks at the Microsoft Store).

72. See FIN. ACTION TASK FORCE, *supra* note 9, at 4.

73. See *id.*

74. See EUROPEAN CENTRAL BANK, VIRTUAL CURRENCY SCHEMES—A FURTHER ANALYSIS 6 (2015).

75. See, e.g., FATF GUIDANCE, *supra* note 66, at 6; see also FIN. CRIMES ENF'T NETWORK, APPLICATION OF FINCEN'S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES 1 (2013), <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf>.

76. See FATF GUIDANCE, *supra* note 66, at 6.

77. See FIN. ACTION TASK FORCE, *supra* note 9, at 13 n.8.

However, criminals are crafty, and are proving that in-world currencies should not be overlooked by anti-money laundering agencies.

III. MONEY LAUNDERING & AML MEASURES

Money laundering facilitates economic crime, such as terrorism, tax evasion, and drug and human trafficking.⁷⁸ An estimated \$1 to \$2 trillion dollars are laundered annually, representing between 2% to 5% of global domestic product.⁷⁹ Money laundering is generally understood to be the act of transferring illicitly obtained funds through a legitimate intermediary so that the original source cannot be traced.

A. Money Laundering

There are many forms of money laundering defined in Title 18 of the United States Code, but for the purposes of this Note, a person commits the crime of money laundering by conducting a financial transaction using the proceeds of a specified unlawful activity in order to conceal the source or ownership of the proceeds.⁸⁰

The money laundering process generally takes place in three steps: placement, layering, and integration.⁸¹ Placement involves depositing the illegally obtained money in a legitimate business or financial institution. Some examples of placement are buying gambling chips at a casino with cash, blending cash into the revenue of a business, or purchasing foreign currency at an exchange. The purpose of the layering stage is to prevent authorities from tracing the proceeds back to the launderer.⁸² This can be done by moving the money between countries, through different bank accounts, and changing between cash and electronic funds. Lastly, the money needs to return to the launderer in a manner that appears legitimate.⁸³ This final stage—integration—is accomplished usually through the purchase of assets that are in a different form than the original funds.⁸⁴ Cryptocurrencies provide criminals with a means to clean money through all three steps.

78. See PWC, GLOBAL ECONOMIC CRIME SURVEY 41 (2016).

79. See *id.* at 41.

80. See 18 U.S.C. § 1956(a)(1)(B)(i) (2021).

81. See Christopher D. Hoffman, *Encrypted Digital Cash Transfers: Why Traditional Money Laundering Controls May Fail Without Uniform Cryptography Regulation*, 21 *FORDHAM INT'L L.J.* 799, 834–35 (1998).

82. See *id.* at 835.

83. See *id.* at 836.

84. See Scott Sultzer, *Money Laundering: The Scope of the Problem and Attempts to Combat*, 63 *TENN. L. REV.* 143, 148–49 (1995).

B. AML

AML regulation refers to efforts to prevent the exploitation of financial systems for cleaning illicit proceeds.⁸⁵ The Bank Secrecy Act (BSA) of 1970 created the legal framework for AML regulation in the United States.⁸⁶ Following the terrorist attacks of September 11, 2001, Congress expanded the AML framework, passing the USA PATRIOT Act of 2001, which provided greater authority to the Executive Branch to counter threats.⁸⁷ The BSA requires financial entities to file reports with the Department of Treasury's Financial Crimes Enforcement Network (FinCEN) when their clients engage in suspicious financial transactions.⁸⁸ The Internal Revenue Service and Securities and Exchange Commission also regulate and enforce AML practices, and the Department of State and the White House issue reports throughout the year incorporating AML objectives into their National Security Strategy.⁸⁹ On the international level, the FATF sets the standard for AML measures with the recommendations it publishes three times annually.⁹⁰ Key elements of the AML framework include reporting requirements, customer identification and due diligence, record keeping, and implementation of compliance programs.⁹¹ Despite the diligence of multiple agencies and international cooperation, criminals expose gaps in the system to launder money.

C. Money Laundering: Convertible Virtual Currencies

In 2019, it is estimated that criminals laundered \$2.8 billion through cryptocurrency exchanges.⁹² Cryptocurrencies are attractive money laundering vehicles because they allow for anonymity, easy transfers across international borders, and are decentralized, i.e., not issued or

85. See RENA S. MILLER & LIANA W. ROSEN, CONG. RSCH. SERV., IF11064, INTRODUCTION TO FINANCIAL SERVICES: ANTI-MONEY LAUNDERING 1 (2019).

86. See *id.*; see also 31 U.S.C. § 5311 (2021); see also 12 U.S.C. §§ 1786(q), 1818(s), 1829b, 1951–1959 (2021); see generally *Cal. Bankers Ass'n v. Schultz*, 416 U.S. 21 (1974) (upholding the constitutionality of the record-keeping and recording requirements of the BSA).

87. See RENA S. MILLER & LIANA W. ROSEN, CONG. RSCH. SERV., R44776, ANTI-MONEY LAUNDERING: AN OVERVIEW FOR CONGRESS 6 (2017).

88. See *id.* at 1–2.

89. See *id.* at 1; see also CIPHERTRACE, CRYPTOCURRENCY ANTI-MONEY LAUNDERING REPORT 2019 Q4 21 fig. 8 (2020).

90. See FATF GUIDANCE, *supra* note 66, at 6.

91. See MILLER & ROSEN, *supra* note 87, at 5.

92. See Mike Orcutt, *Criminals Laundered \$2.8 Billion in 2019 Using Crypto Exchanges, Finds a New Analysis*, MIT TECH. REV. (Jan. 16, 2020), <https://www.technologyreview.com/2020/01/16/130843/cryptocurrency-money-laundering-exchanges/>.

maintained by a central organization.⁹³ Criminals use technological savvy to launder through cryptocurrency, but also attempt to exploit incomplete laws and regulations which have only recently started to deal with the problem.⁹⁴ For example, neither Congress nor FinCEN has formally amended the BSA to directly address virtual currencies.⁹⁵ This causes difficulties for prosecutors who must argue that the definitions of money laundering elements laid out in the 1970s apply to cryptocurrencies—a technology not conceived of at the time of the BSA’s passing. Of course, defendants will argue the opposite, as was the case when federal authorities shut down Silk Road.⁹⁶

1. *Silk Road*

Silk Road was a black market existing on the dark web where bad actors could purchase drugs, weapons, and other illicit goods and services with Bitcoin.⁹⁷ The Government charged the defendant, who created and operated Silk Road, with, among other things, participation in a money laundering scheme in violation of 18 U.S.C. § 1956.⁹⁸ The statute defines a “financial transaction” as the “movement of funds by wire or other means, or [] involving one or more monetary instruments.”⁹⁹ The defendant argued that Bitcoins are not monetary instruments, and therefore transactions involving Bitcoins cannot be a basis for money laundering.¹⁰⁰ The statute defines “monetary instruments” as the “coin or currency of the United States or of any other country, travelers’ checks, personal checks, bank checks, and money orders . . .”¹⁰¹ Because the definition of “financial transactions” was too broad, the court looked to a FinCEN report which also failed to clarify whether financial transactions

93. See SYKES & VANATKO, *supra* note 50, at 1.

94. There are four bills concerning virtual currencies that have passed the House and have been referred to Senate Committees. See Financial Technology Protection Act, H.R. 56, 116th Cong. § 3(b)(1) (2019); see also Homeland Security Assessment of Terrorists’ Use of Virtual Currencies Act, H.R. 428, 116th Cong. § 2(a) (2019); FIND Trafficking Act, H.R. 502, 116th Cong. § 2 (2019); FinCEN Improvement Act of 2019, H.R. 1414, 116th Cong. § 2 (2019). They are discussed in more detail later in this Note.

95. See SYKES & VANATKO, *supra* note 50, at 4.

96. See *id.* at 6.

97. See *United States v. Ulbricht*, 31 F. Supp. 3d 540, 546–47 (S.D.N.Y. 2014); see also William Magnuson, *Financial Regulation in the Bitcoin Era*, 23 STAN. J.L. BUS. & FIN. 159, 183 (2018).

98. See *Ulbricht*, 31 F. Supp. 3d at 568–69.

99. 18 U.S.C. § 1956(c)(4) (2021).

100. See *Ulbricht*, 31 F. Supp. 3d at 569.

101. 18 U.S.C. § 1956(c)(5).

can occur with Bitcoins.¹⁰² In what should be an unnecessary reach for the court, it looked to the Cambridge dictionary for the definition of “funds” in order to conclude that the term “funds” includes “money,” and that Bitcoins are money.¹⁰³ The court finally acknowledged that, “the money laundering statute is broad enough to encompass use of Bitcoins in financial transactions.”¹⁰⁴ Amendment to the BSA is clearly needed.

2. *WannaCry*

As with most serious issues, the risks associated with convertible virtual currencies gained the attention of regulators and legislators only after a public, international incident—the WannaCry ransomware attack. In 2017, hackers unleashed a computer virus, called WannaCry, that infected more than 200,000 computers in over 150 countries.¹⁰⁵ The virus was a form of ransomware—malware that encrypts data in a host computer, making the data inaccessible unless a ransom is paid for the decryption key.¹⁰⁶ The hackers, who are suspected to be North Korean state actors, demanded the ransom in the form of Bitcoin.¹⁰⁷ The victims paid total ransoms of \$143,000 worth of Bitcoins, which the hackers attempted to launder through a Swiss cryptocurrency exchange called ShapeShift.¹⁰⁸ The authorities caught the hackers in this second stage of money laundering—layering—where the illicit funds are moved through multiple accounts to make the funds untraceable back to the source.¹⁰⁹ Authorities traced the Bitcoins to the wallets of three individuals who

102. *Ulbricht*, 31 F. Supp. 3d at 569 (“In fact, neither the IRS nor FinCEN purport to amend the money laundering statute (nor could they). In any event, neither the IRS nor FinCEN has addressed the question of whether a ‘financial transaction’ can occur with Bitcoins.”).

103. *Id.* at 570.

104. *Id.*

105. See Lawrence J. Trautman & Peter C. Ormerod, *WannaCry, Ransomware, and the Emerging Threat to Corporations*, 86 TENN. L. REV. 503, 505 (2019).

106. See Edward A. Morse & Ian Ramsey, *Navigating the Perils of Ransomware*, 72 BUS. LAWS. 287, 287 (2017).

107. See Thomas P. Bossert, *It’s Official: North Korea is Behind WannaCry*, WALL ST. J. (Dec. 18, 2017), <https://www.wsj.com/articles/its-official-north-korea-is-behind-wannacry-1513642537>; see also Nicola Harley, *North Korea Behind WannaCry Attack Which Crippled US Cyber Weapons, Microsoft Chief Claims*, TELEGRAPH (Oct. 14, 2017), <https://www.telegraph.co.uk/news/2017/10/14/north-korea-behind-wannacry-attack-crippled-nhs-stealing-us/>.

108. See Thomas Brewster, *WannaCry Hackers are Using this Swiss Company to Launder \$142,000 Bitcoin Ransoms*, FORBES (Aug. 3, 2017), <https://www.forbes.com/sites/thomasbrewster/2017/08/03/wannacry-hackers-use-shapeshift-to-launder-bitcoin/#28c73333d0d2>.

109. See FIN. ACTION TASK FORCE, *VIRTUAL ASSETS: WHAT, WHEN, HOW?* 3, https://www.fatfgafi.org/media/fatf/documents/bulletin/FATF-Booklet_VA.pdf (last visited May 23, 2021); Hoffman, *supra* note 81, at 835.

then attempted to exchange the Bitcoins into another cryptocurrency, Monero, at the ShapeShift exchange.¹¹⁰ Users of ShapeShift are prohibited from using the exchange for illegal activities.¹¹¹ Because the attackers breached ShapeShift's terms of service, ShapeShift blocked the transactions and cooperated with the authorities.¹¹² Due to the scale of the attack and the implications of cyberwarfare with North Korea, the risks and potential of cryptocurrency began appearing on political and legislative agendas in the United States.

D. AML: Convertible Virtual Currencies

Various agencies are tasked with AML regulation. FATF is a policymaking body and has no regulatory or enforcing authority in any jurisdiction. In the United States, FinCEN, the Internal Revenue Service, and Office of Foreign Assets Control all have AML authority as bureaus of the Treasury Department, while the Justice Department has prosecutorial authority over violations of federal law.¹¹³

1. FATF

The FATF has been aware of and advising on the risks of virtual currencies since 2014.¹¹⁴ In 2015, the FATF released its Guidance for a Risk-based Approach to Virtual Currencies (the "Guidance"), with advice for governments and agencies on AML practices with regard to virtual currencies.¹¹⁵ However, the Guidance's focus is on convertible virtual currencies, not on the non-convertible virtual currencies of virtual worlds.¹¹⁶ The Guidance enumerates the seven of the FATF's forty-eight Recommendations for AML that pertain to virtual currencies.¹¹⁷ The

110. See Brewster, *supra* note 108; see also Complaint at 234, United States v. Park Jin Hyok (C.D. Cal. June 8, 2018) (No. MJ18-1479), <https://assets.documentcloud.org/documents/4834304/2018-09-06-Park-Complaint-Unsealed-0.pdf>.

111. See Brewster, *supra* note 108.

112. See *id.*

113. See Miller, *supra* note 85, at 1.

114. See generally FIN. ACTION TASK FORCE, *supra* note 9 (The FATF issued the report Virtual Currencies: Key Definitions and Potential AML/CFT risks in June 2014).

115. See FATF GUIDANCE, *supra* note 66, at 4.

116. See *id.* ("[The Guidance] primarily addresses convertible [virtual currency], because of its higher risks").

117. See *id.* at 8–10 (Recommendations 1, 2, 14, 15, 16, 26, and 35); see generally FIN. ACTION TASK FORCE, *supra* note 9.

Guidance recommends measures such as national cooperation, applying risk-based analyses, imposing sanctions, and staying abreast with technological changes.¹¹⁸ Most importantly, the Guidance's risk assessment shows that countries should focus on regulating virtual currency exchanges—the points of intersection that provide gateways from virtual currency to the real, regulated economy.¹¹⁹ It also states that these exchanges fall under the FATF's definition of "financial institution," thus subjecting them to AML regulation.¹²⁰

2. *FinCEN*

FinCEN has its own standards for what constitutes a "financial institution" in the United States.¹²¹ As previously discussed, the BSA has not been amended to stay updated with the advancement of technology. FinCEN attempted to supplement the BSA with a 2013 report outlining guidance on applying the BSA to virtual currencies.¹²² The BSA requires financial institutions to implement AML protocols that include (1) the development of internal policies, procedures, and controls, (2) the designation of a compliance officer, (3) an ongoing employee training program, and (4) an independent audit transactions function, and (5) reporting requirements of large transactions and suspicious activities to FinCEN.¹²³

FinCEN resolved the gap between virtual currency and BSA purview by designating virtual currency exchanges as money services businesses (MSBs). Individuals or entities who act as an exchanger or administrator (issuer) of convertible virtual currency are considered "money transmitters" under FinCEN definitions.¹²⁴ As money transmitters, convertible virtual currency exchangers are therefore MSBs, and as MSBs they are therefore financial institutions, and as financial institutions they are therefore subject to the BSA, AML regulation, and reporting requirements.¹²⁵

FinCEN has already tested its new definitions and guidance on convertible virtual currencies. In 2015, the cryptocurrency Ripple was the second-largest virtual currency behind Bitcoin.¹²⁶ FinCEN brought an

118. See FATF GUIDANCE, *supra* note 66, at 9–11 (Recommendations 1, 2, 14, 15, 16, 35 and 40).

119. See *id.* at 9.

120. See *id.* at 7.

121. See SYKES & VANATKO, *supra* note 50, at 2–3.

122. See FIN. CRIMES ENF'T NETWORK, *supra* note 75, at 1.

123. See SYKES & VANATKO, *supra* note 50, at 3.

124. See FIN. CRIMES ENF'T NETWORK, *supra* note 75, at 2.

125. See SYKES & VANATKO, *supra* note 50, at 5.

126. See *id.* at 10.

enforcement action against Ripple Labs, Inc., the exchanger and administrator of Ripple, for failing to register as an MSB, and failure to fulfill AML obligations under the BSA.¹²⁷ Because of these failures, a felon was able to conduct a \$250,000 transaction, without Ripple filing a suspicious activity report or verifying the know-your-customer requirements.¹²⁸ In response to the FinCEN action, Ripple entered into a settlement agreement, committing to remedial measures and a \$700,000 civil penalty.¹²⁹

E. Money Laundering: Non-convertible Virtual Currencies

Virtual worlds provide a ripe opportunity for criminals to launder money. The billions of dollars that are funneled through video games each year, the lack of regulation, and the ease of conducting transactions across borders make virtual worlds an ideal medium for cleaning illicit funds for evading taxes or funding crime. Regulatory agencies and policy-making bodies are beginning to crack down on criminals who seek to launder money through convertible virtual currencies, like cryptocurrencies, with definitional changes and enforcement actions. In the process, however, these agencies have disregarded the risks of money laundering through non-convertible virtual currencies, like the in-world currencies of virtual worlds. The FinCEN guidance on virtual currencies specifies that it addresses only convertible virtual currencies, without mentioning non-convertible virtual currencies. The FATF Guidance explains that

[t]he risk assessment . . . indicates that at least in the near-term, only *convertible* [virtual currency], which can be used to move value into and out of fiat currencies and the regulated financial system, is likely to present [money laundering/terrorism funding] risks. Accordingly . . . countries should focus their AML/CFT efforts on higher-risk convertible [virtual currencies].¹³⁰

The key phrase should be “near-term,” because this short-sighted approach, and the non-existent distinction between “bidirectional” and “unidirectional” allows for bad actors to operate in a black market.

The FATF, in its definition of non-convertible virtual currency, explains that this “closed” type of virtual currency is “intended” to remain in the virtual world, and “under the rules governing its use” cannot be

127. *See id.*

128. *See id.*

129. *See id.*; *see also* Settlement Agreement, DEP’T OF JUST. (May 5, 2015), https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/05/05/settlement_agreement.pdf.

130. FATF GUIDANCE, *supra* note 66, at 6.

exchanged for fiat currency.”¹³¹ This is an erroneous distinction from open, convertible virtual currencies. Simply by intending the currency to remain closed and hoping the users of the currency will follow the rules governing its use does not provide safeguards against its abuse.

The abuse of the rules set by video game developers for governing in-world currencies is already occurring and is developing rapidly. Individuals use online auctions, online banks, and virtual worlds to exchange virtual property for real currency in a practice called “real money trade” (RMT).¹³² Online auctions, such as PlayerAuctions, offer a marketplace where in-world currency can be exchanged with other in-world currency, or sold for real currency.¹³³ The website boasts that in 2019 more than 18,000 sellers “made cash from selling on PlayerAuctions.”¹³⁴ The website even includes an “Account Value Calculator” for players to calculate the worth of their virtual assets in U.S. dollars.¹³⁵ PlayerAuctions is one of many such websites that should qualify as a virtual asset service provide or MSB.¹³⁶ The online auctions act as an “exchanger,” engaging in the exchange of virtual currency with real currency, and, should therefore be held to some regulatory standards under the BSA.¹³⁷

RMT is evidence that “non-convertible” virtual currency, and “closed” system, are inaccurate descriptors and that all virtual currencies are therefore convertible/bidirectional. Whether this fact has been overlooked or is simply dismissed as “low risk” is unclear. Regardless, all three steps of money laundering are possible with in-world currency.

131. FIN. ACTION TASK FORCE, *supra* note 9, at 4.

132. Rosette, *supra* note 36, at 290.

133. See *About Us*, PLAYERAUCTIONS, <https://www.playerauctions.com> (last visited May 23, 2021).

134. *How to Sell Your Game Assests Fast for Cash*, PLAYERAUCTIONS, <https://www.playerauctions.com/about/how-to-sell/> (last visited May 23, 2021); see e.g., Darakjian, *supra* note 20, at 227 (providing a hypothetical illustration of the concept: “Jane does a simple Google search for ‘(WoW) [World of Warcraft] gold’ and her computer browser is suddenly inundated with hundreds of websites selling WoW in-game currency for real U.S. dollars. Jane selects a link, *epictoon.com*, and goes to the website where she may then purchase gold. Jane selects her game (WoW), the server on which she plays, and the amount of gold she wishes to purchase. Jane then purchases 1,000,000 gold for around \$400”).

135. See *How Much Is My Fortnite Account Worth?*, PLAYERAUCTIONS, <https://www.playerauctions.com/value-calculator/fortnite-account-worth/> (last visited May 23, 2021); see Rosette, *supra* note 36, at 290 (“Second Life, one of the most popular virtual worlds, handles over \$400,000 in virtual currency every day, supports more than 7,000 businesses, and allows successful entrepreneurs to earn as much as \$200,000 per year”).

136. See e.g., *Epium: Premium Domains for Sale at reasonable prices*, EPIUM, <https://epium.net/domains/epictoon-com/?ref=epictoon.com> (last visited May 23, 2021); see also Moiseienko & Izenman, *supra* note 39, at 4 (Table 1: Examples of In-Game Currencies and Their Value).

137. See SYKES & VANATKO, *supra* note 50, at 5.

Placement: a bad actor need only steal a credit card number to purchase in-world currency and/or assets within the virtual world. Layering: a bad actor could then create multiple accounts for himself across multiple video games and exchange the in-world currency with that of another virtual world, repeating several times under different accounts. Layering could also be achieved by trading with a co-conspirator, or by selling the login credentials to his account to an unwitting purchaser.¹³⁸ Integration: once the bad actor has hidden the source of the money, he can easily sell his in-world currency and assets at an online auction, or directly to a player.¹³⁹ Because in-world currency is not defined by AML regulators as “convertible” currency, a scheme such as this one is not receiving the attention it deserves. The transactions between players, whether directly or through an online auction are anonymous, unregulated, easily conducted across international borders, and involve amounts of money that warrant the FATF to reconsider in-world currency as high risk.

Epic Games, the developer of the online video game Fortnite, allows players to download the game for free.¹⁴⁰ Fortnite has an in-world currency, called V-Bucks, and a marketplace where players can purchase weapons, cosmetic upgrades for their avatars (called skins), and other accessories with their V-Bucks.¹⁴¹ In March 2018, Epic Games generated \$223 million dollars in revenue from Fortnite.¹⁴² For the year of 2018, it made \$2.4 billion in revenue, and as of March 2020 has over 350 million users, up from 250 million a year earlier due to increased demand caused by the COVID-19 pandemic.¹⁴³

Games like Fortnite that allow for small, in-world purchases, called microtransactions, also capitalize on the use of “loot boxes.” A loot box

138. See Moiseienko & Izenman, *supra* note 39, at 2.

139. There is a customer base of millions, many of whom are willing to pay significant amounts. See, e.g., Ethan Gach, *Meet the 19-Year-Old Who Spent Over \$10,000 on Microtransactions*, KOTAKU (November 29, 2017), <https://kotaku.com/meet-the-19-year-old-who-spent-over-10-000-on-microtra-1820854953> (playing the soccer video game FIFA, a nineteen-year-old spent \$13,000 on in-game purchases over several years); see also Julian Dibbell, *The Life of a Chinese Gold Farmer*, N.Y. TIMES (June 17, 2007), <https://www.nytimes.com/2007/06/17/magazine/17lootfarmers-t.html> (“gold farming” is a practice where players play video games for the sole purpose of accumulating virtual assets and selling them to other players for real currency. An economist at Indiana University published a paper after studying gold farming and estimated gross domestic product for virtual economies in 2007 to be between \$7 and \$12 billion).

140. See Akhilesh Ganti, *How Does Fortnite Make Money?*, INVESTOPEDIA (Sept. 10, 2020), <https://www.investopedia.com/tech/how-does-fortnite-make-money/>.

141. See *id.*

142. See Jacob Bukacek, *Fortnite Generated Over \$223 Million in Revenue for March*, GAMERANT (Apr. 27, 2018), <https://gamerant.com/fortnite-revenue-march-2018/>.

143. See Ganti, *supra* note 140; see also Joe Tidy, *Fortnite Announces Party Royale as Players Reach 350 Million*, BBC NEWS (May 6, 2020), <https://www.bbc.com/news/technology-52568173>.

is essentially a virtual treasure chest containing an unknown, random prize.¹⁴⁴ Players can pay for the loot box directly with either in-world or real currency, or by purchasing a key at the marketplace after finding a loot box during gameplay.¹⁴⁵ A Juniper Research study showed that in 2017 more than \$30 billion were spent on loot boxes, and that number is projected to grow to \$50 billion by 2022.¹⁴⁶ Video game developer Electronic Arts made \$650 million in 2016 from loot boxes alone.¹⁴⁷ With the amount of money paid into virtual worlds, the millions of players, and the capacity for bidirectional flow, it is difficult to see why the FATF considers this institution to be a low enough risk to deliberately exclude from its AML Guidance.

In fact, there have already been notable instances of money laundering through virtual worlds. In 2019, a money laundering scam was discovered where criminals stole credit cards, purchased V-Bucks, and sold the V-Bucks at a discount rate.¹⁴⁸ A cyber intelligence company, Sixgill, discovered the operation, which was taking place around the world, by posing as a purchaser of the V-Bucks on the dark web.¹⁴⁹ According to cybersecurity company, Zerofox, Epic Games has not done enough to prevent these practices, allowing criminal activity of roughly 50,000 scams per month.¹⁵⁰

Another instance involved Counter-Strike: GO (CS:GO), a multiplayer first-person shooter that pits one team against the other. Similar to Fortnite, the game's developer, Valve, makes money from players' microtransactions at its internal marketplace, Steam.¹⁵¹ Criminals took advantage of the Steam marketplace by buying loot box

144. See Mistry, *supra* note 5, at 545.

145. See *id.*

146. See Press Release, Juniper Research, Loot Boxes & Skins Gambling to Generate a \$50 Billion Industry by 2022 (Apr. 17, 2018), <https://www.juniperresearch.com/press/press-releases/loot-boxes-and-skins-gambling>.

147. See Matthew Handrahan, *EA's Ultimate Team Earning Around \$650 million a Year*, GAMESINDUSTRY (Mar. 2, 2016), <https://www.gamesindustry.biz/articles/2016-03-02-eas-ultimate-team-earning-around-usd650-million-a-year>.

148. See Tyler Fischer, "Fortnite" V-Bucks Reportedly Being Used for Money Laundering, COMICBOOK (Jan. 18, 2019), <https://comicbook.com/gaming/2019/01/18/fortnite-v-bucks-money-laundering/>.

149. See *id.*

150. See *id.*

151. See Matthew Gault, "Nearly All" Counter-Strike Microtransactions are Being Used for Money Laundering, VICE (Oct. 29, 2019), https://www.vice.com/en_us/article/8xw7nx/nearly-all-counter-strike-microtransactions-are-being-used-for-money-laundering.

keys with stolen credit card numbers, trading the keys without using them on the loot boxes, selling the traded keys, and cashing out.¹⁵²

F. AML: Non-convertible Virtual Currencies

Although regulatory and enforcement agencies have not intervened in instances involving money laundering and virtual worlds, video game developers have stepped into an AML role. In the CS:GO example, Valve discovered the scam, and believed “nearly all” transactions involving key sales to be fraud-sourced.¹⁵³ Shortly thereafter, Valve ended players’ ability to trade keys.¹⁵⁴ Some end user license agreements forbid RMT of game accounts or in-world assets, and online auction site, eBay, removes offers of game accounts and in-world assets from its listings.¹⁵⁵

The developer of Second Life now complies with FinCEN AML obligations. In July 2019, Linden Labs announced it would be forming a new subsidiary, Tilia, to manage the financial services of the Second Life community in order to comply with BSA requirements as an MSB.¹⁵⁶ As of August 1, 2019, anyone who makes an in-game credit card transaction needs to provide their personal information to Tilia, including name, address, date of birth, and social security number.¹⁵⁷ It should be noted, however, that the FATF considers the currency of Second Life, Linden Dollars, to be a convertible virtual currency due to its centralized nature.¹⁵⁸ Linden Labs acts as a single administering authority over Linden Dollars and allows for the exchange between Linden Dollars and

152. See Philip Conneller, *CS:GO Money Laundering Shut Down by Game Publisher Valve Corp*, CASINO.ORG (Nov. 5, 2019), <https://www.casino.org/news/csgo-money-laundering-shut-down-by-game-publisher-valve-corp/>.

153. *Key Change*, COUNTER STRIKE (Oct. 28, 2019), <https://blog.counter-strike.net/index.php/2019/10/26113/>.

154. See *id.*

155. See *Blizzard End User License Agreement*, BLIZZARD (Oct. 9, 2020), <https://www.blizzard.com/en-us/legal/fba4d00f-c7e4-4883-b8b9-1b4500a402ea/blizzard-end-user-license-agreement> (“You may not purchase, sell, gift or trade any Account, or offer to purchase, sell, gift, or trade any Account . . .”); see also The Ebay Community, *Selling Game Accounts – Permitted or Not?*, EBAY, <https://community.ebay.com/t5/Archive-Selling/Selling-game-accounts-permitted-or-not/td-p/23879068> (last visited May 23, 2021) (“Due to copyright concerns, virtual items such as online game characters, accounts, currency, and codes that can be redeemed for in-game items, or related software aren’t allowed on eBay”).

156. See Linden Lab, *Important Changes to your Second Life Account – Introducing Tilia*, SECOND LIFE COMMUNITY (July 1, 2019), <https://community.secondlife.com/blogs/entry/2577-important-changes-to-your-second-life-account-introducing-tilia/> (Tilia is a “registered money services business and fully licensed money transmitter”).

157. See *id.*

158. See FIN. ACTION TASK FORCE, *supra* note 9, at 4.

real currency, differentiating Second Life from other virtual worlds.¹⁵⁹ Regardless, the foresight of Linden Labs to anticipate potential risks and the need for compliance is commendable.

IV. SUGGESTIONS FOR REFORM TO REGULATIONS

The purpose of this Note is to demonstrate that in-world currencies pose a money laundering risk and should be subjected to some form of AML regulation. This section covers recommendations for agencies to meet this goal.

A. Consolidate Reports

This Note argues that the FATF should follow FinCEN's example and consolidate their guidelines into one cohesive and comprehensible report. In 2019, FinCEN condensed various reports and guidelines into one document which clarifies the evolution of its position on money laundering and virtual currencies.¹⁶⁰ With the FATF, there is a disconnect between the Guidance and the FATF Recommendations (the "Recommendations"). The former refers to virtual currencies with no mention of virtual assets, while the second refers only to virtual assets with no mention of virtual currencies. The FATF published the Guidance in 2015,¹⁶¹ and the Recommendations in 2012,¹⁶² though the Recommendations were updated in 2020. The updated Recommendations, however, make no mention to whether the Guidance is still applicable, or if the Recommendations are the current ultimate standard. Consolidation is suggested because, taken together, these two reports cause confusion in an area where countries need unambiguous direction.

B. Uniform Definitions

This Note argues that the FATF should add to its Recommendations a section advising regulators and policymakers around the world to adopt identical terminology and definitions. This suggestion applies to the FATF, as well. The Guidance discusses seven different terms that seemingly represent the same or similar idea. The Guidance discusses "virtual currency exchangers," which are "points of intersection that provide gateways to the regulated financial system."¹⁶³ Later, the

159. *See id.* at 5.

160. *See* FIN. CRIMES ENF'T NETWORK, APPLICATION OF FINCEN'S REGULATIONS TO CERTAIN BUSINESS MODELS INVOLVING CONVERTIBLE VIRTUAL CURRENCIES (2019).

161. *See* FATF GUIDANCE, *supra* note 66, at 10.

162. *See* FATF RECOMMENDATIONS, *supra* note 55 at 7.

163. *See* FATF GUIDANCE, *supra* note 66, at 3.

Guidance explains “nodes,” which are also “points of intersection that provide gateways to the regulated financial system.”¹⁶⁴ The Guidance also discusses virtual currency payment products and services (VCPSSs), new payment products and services (NPPSSs), money value transfer services (MVTSSs), and money service businesses (MSBs).¹⁶⁵

Conversely, the Recommendations mention only virtual asset service providers (VASPs).¹⁶⁶ FinCEN mentions only MSBs.¹⁶⁷ All eight of these terms seem to describe the same thing: a place to exchange virtual currency and real currency. Clarification of critical terms is needed.

C. Expand Guidance & Recommendations to Include Non-convertible Virtual Currency

This Note argues that FinCEN should reevaluate its implementation of FATF Recommendation 15: New Technologies. The Recommendation advises:

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.¹⁶⁸

In the Interpretive Note to Recommendation 15, the FATF advises that VASPs be licensed and registered, at a minimum, and supervised or monitored by a competent authority.¹⁶⁹ Countries should conduct a risk-based analysis to determine the level of risk a VASP poses for money laundering.¹⁷⁰ Where lower risks are identified, countries may allow financial institutions to take simplified measures to mitigate those risks.¹⁷¹

The problem with this approach is that a risk-based analysis may find virtual worlds and in-world currencies to be low risk at the present time. Their potential for high risk must be recognized. The marketplaces provided by video game developers satisfy both the FATF’s definition of a VASP, and FinCEN’s definition of an MSB, in that they are exchangers between virtual and real currency. FinCEN’s guidance on MSBs

164. *See id.* at 6.

165. *See id.* at 2.

166. *See* FATF RECOMMENDATIONS, *supra* note 55, at 7.

167. *See* FIN. CRIMES ENF’T NETWORK, *supra* note 160, at 1.

168. FATF RECOMMENDATIONS, *supra* note 55, at 18.

169. *See id.* at 77.

170. *See id.* at 76–77.

171. *See id.* at 71.

specifically apply to convertible virtual currencies presumably because the burden of applying BSA requirements to all video game developers outweighs the risks posed. However, FATF Recommendation 15 and the accompanying Interpretative Note suggest that degrees of regulation are possible, rather than an all-or-nothing approach.

Therefore, FinCEN should consider requiring video game developers who host virtual worlds and marketplaces for in-world currency to form a supervisory board. Each video game developer should be licensed and registered as a VASP, but only the supervisory board would be responsible for monitoring its members and complying with the BSA. This model of self-regulation would hold the industry accountable as a whole and free up the resources of regulatory and enforcement agencies to focus on higher risk threats.

D. Legislative Proposals

This Note argues that all new legislation concerning virtual assets should use identical definitions and terminology. At the beginning of 2019, four bills passed the House that address virtual assets. Among the four bills, three different terms are used to describe virtual assets. The Financial Technology Protection Act would establish a task force run by the Treasury Secretary that would “conduct independent research on terrorist and illicit use of new financial technologies, including digital currencies.”¹⁷² The Homeland Security Assessment of Terrorists’ Use of Virtual Currencies Act calls for a threat assessment of “individuals using virtual currency to carry out activities in furtherance of an act of terrorism”¹⁷³ The Fight Illicit Networks and Detect Trafficking Act (the FIND Trafficking Act) directs the Governmental Accountability Office to conduct a study on how virtual currencies are used to facilitate sex and drug trafficking.¹⁷⁴ Finally, the FinCEN Improvement Act of 2019 is meant to clarify FinCEN’s statutory power to coordinate with foreign AML/CFT agencies in matters, among other things, “involving emerging technologies or value that substitutes for currency”¹⁷⁵ As of October 2020, all four bills have been referred to various Senate Committees. This Note argues that references in the bills to “virtual currency,” “digital currency,” “value that substitutes for currency,” be uniformly referred to as “virtual assets” to avoid setting a bad precedent as virtual assets become more prominent in American lives. This will also prevent a

172. Financial Technology Protection Act, H.R. 56, 116th Cong. § 3(b)(1) (2019).

173. Homeland Security Assessment of Terrorists’ Use of Virtual Currencies Act, H.R. 428, 116th Cong. § 2(a) (2019).

174. See FIND Trafficking Act, H.R. 502, 116th Cong. (2019).

175. See FinCEN Improvement Act of 2019, H.R. 1414, 116th Cong. (2019).

displacement effect, where legislation covering only cryptocurrencies could cause bad actors to find a new vehicle to launder money, such as virtual worlds.

CONCLUSION

Awareness of the existence of virtual worlds, in-world currencies, and the threats they pose is vital to bringing the money laundering threats of non-convertible virtual currencies to the attention of regulators and policymakers. It is the unfortunate reality of a political, bureaucratic system that action is only taken after tragedy strikes. Agencies should act now *before* an incident like WannaCry occurs in the virtual world system.

Virtual worlds are starting to gain the attention of legislators and surveillance agencies, though not in a money laundering context. There have been various bills proposed to regulate or outlaw loot boxes in games for children, under fears that the play-to-win framework and randomized rewards are a form of gambling.¹⁷⁶ After the Wikileaks document-dump by Edward Snowden, a report revealed that the National Security Agency either had been or was recommending the monitoring of communications in virtual worlds, recognizing their potential for secretive, international communication and coordination among terrorists.¹⁷⁷

The recent COVID-19 pandemic has created a new wave of consumers and caused a drastic increase in the amount of money passing through video games.¹⁷⁸ As most businesses struggle to stay afloat, the video game industry is thriving. In the first quarter of 2020, Americans spent a record \$10.86 billion,¹⁷⁹ video game console sales were up

176. See Kyle Orland, *Senator Hawley Announces Bill Banning Loot Boxes, Pay-to-Win Mechanics*, ARS TECHNICA (May 8, 2019), <https://arstechnica.com/gaming/2019/05/senator-hawley-announces-bill-banning-loot-boxes-pay-to-win-mechanics/>; see also Gabe Gurwin, *Hawaiian State Bill Would Ban Sale of Loot Box-enabled Games to Minors*, DIGIT. TRENDS (Feb. 13, 2018), <https://www.digitaltrends.com/gaming/hawaii-bill-bans-loot-box-enabled-games-minors/>.

177. See Mark Mazzetti & Justin Elliot, *Spies Infiltrate a Fantasy Realm of Online Games*, N.Y. TIMES (Dec. 9, 2013), https://www.nytimes.com/2013/12/10/world/spies-drag-net-reaches-a-playing-field-of-elves-and-trolls.html?hp&_r=0&pagewanted=all.

178. See David Lazarus, *Video Games are Thriving Amid COVID-19—And Experts Say That's a Good Thing*, LA TIMES (June 16, 2020), <https://www.latimes.com/business/story/2020-06-16/column-coronavirus-video-games>.

179. See *id.*

37%,¹⁸⁰ and gaming ETFs were up over 50%,¹⁸¹ The pandemic has forced people indoors where one of the few outlets for entertainment and social interaction is video games. Millions of new users and billions of new monies flowing into virtual worlds and in-game marketplaces only serves to increase the likelihood that bad actors will operate their money laundering schemes undetected. The surge in video game popularity emphasizes the urgency for regulation as our world rapidly transitions to the virtual realm.

As familiarity with virtual worlds rises, hopefully the FATF, FinCEN, and other agencies throughout the world will start addressing the risks posed by in-world currencies of virtual worlds, clarify definitions and terminologies revolving around virtual assets, and impose a system of AML self-regulation among video game developers.¹⁸²

180. See Brandon Vigliarolo, *The COVID-19 Pandemic has Been a Major Money Maker for Video Game Console Manufacturers*, TECHREPUBLIC (Aug. 11, 2020), <https://www.techrepublic.com/article/the-covid-19-pandemic-has-been-a-major-money-maker-for-video-game-console-manufacturers/>.

181. See Kameron Leach, *Video-Game Stocks and ETFs Ride COVID Rally to Gains Topping 50%*, BLOOMBERG (Aug. 12, 2020), <https://www.bloomberg.com/news/articles/2020-08-12/video-game-stocks-and-etfs-have-crushed-it-during-covid-lockdown>.

182. See Press Release, FATF, Public Statement on Virtual Assets and Related Providers (June, 21, 2019), <http://www.fatf-gafi.org/publications/fatfrecommendations/documents/public-statement-virtual-assets.html>.