

THE VIDEO GAME INDUSTRY'S MONEY LAUNDERING PROBLEM: WHEN DO GAME PUBLISHERS BECOME MONEY TRANSMITTERS?

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As enthusiasm for immersive multiplayer video games continues to grow, players are placing a high degree of value on virtual items like in-game currency, weapons, vehicles, and “skins.” The value of these items, paired with features that allow players to buy and sell them, has opened the door to criminals who can exploit these features to launder money. The United States maintains a robust legal framework to prevent and punish money laundering. One key piece of that framework is imposing certain reporting and recordkeeping duties on “financial institutions,” including money transmitters. If a company is subject to these duties, it must abide by complex and expensive anti-money laundering compliance requirements. Thus, whether a game publisher is a money transmitter presents a high-stakes question. This Essay takes up that question—detailing the specific game features and publisher policies that, under current rules and guidance, lead to or rebuff the conclusion that a game publisher is a money transmitter.

INTRODUCTION

Video games have become a multibillion-dollar business, generating more revenue than movies and North American sports combined.¹ In recent years, add-on content and in-game purchases have unlocked tens of billions of dollars for publishers by increasing revenue per user and extending the lifespan of catalog games.² In some cases, the overwhelming popularity of certain games has given rise to established markets in which players can exchange in-game content for real-world money.³ At the same time,

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1. Wallace Witkowski, *Videogames Are a Bigger Industry than Movies and North American Sports Combined, Thanks to the Pandemic*, MARKETWATCH (Jan. 2, 2021, 10:27 AM), <https://www.marketwatch.com/story/videogames-are-a-bigger-industry-than-sports-and-movies-combined-thanks-to-the-pandemic-11608654990> [https://perma.cc/TNJ5-KAT5].

2. See, e.g., Sarah E. Needleman, *From ‘Fall Guys’ to ‘Among Us,’ How America Turned to Video Games Under Lockdown*, WALL ST. J. (Oct. 31, 2020, 6:14 PM), <https://www.wsj.com/articles/from-fall-guys-to-among-us-how-america-turned-to-videogames-under-lockdown-11604116815> [https://perma.cc/FUT4-32B8].

3. See *infra* note 35 and accompanying text.

developers seeking to capture the imagination of players have designed games with “open-loop” virtual currency systems, which allow players to trade in-game content with each other and redeem virtual currency for fiat currency.⁴ Although these innovations ought to be celebrated as a testament to how far video games have come, they have also created a new and often overlooked threat: criminals can use these features to launder illicitly obtained funds.

The United States maintains a robust legal framework at both the federal and state levels to detect and combat money laundering.⁵ The federal framework has three primary mechanisms: (1) the development and maintenance of anti-money laundering programs by financial institutions, (2) collecting pertinent information and keeping records about entities transferring funds, and (3) reporting to government authorities certain transactions that are suspicious or involve significant sums.⁶ Complying with anti-money laundering requirements is a complicated and expensive undertaking.⁷ For that reason, determining whether a game publisher is considered a financial institution under the law, and thus subject to an array of anti-money laundering regulations, presents a pivotal question.

This Essay takes on that question and seeks to answer if and under what circumstances a publisher may be considered a financial institution. Part I first examines how money laundering works in general, then discusses the nature of in-game assets, and lastly reveals how these game features can be used to launder money. Part II details the regulatory regime for preventing and detecting money laundering and explores the scope of “money services businesses,” which is a subset of financial institutions. Finally, Part III addresses the facts and circumstances that tend to support or negate the conclusion that a particular publisher is a money services business.

I. THE THREAT OF MONEY LAUNDERING IN VIDEO GAMES

A. What Is Money Laundering?

Money laundering is the process of making illegally gained proceeds (“dirty money”) appear legal (“clean”).⁸ Cleaning dirty money can involve

4. See *infra* Part III.A.2.c.

5. See Danton Bryans, Note, *Bitcoin and Money Laundering: Mining for an Effective Solution*, 89 IND. L.J. 441, 456–69 (2014).

6. See *infra* Part II.A.1.

7. See J. Gregory Cloward & Brett L. Abarbanel, *In-Game Currencies, Skin Gambling, and the Persistent Threat of Money Laundering in Video Games*, 10 UNLV GAMING L.J. 105, 114 (2020); Leslie Bailey, *Managing the Impact of AML Compliance: Technology vs. Human Capital*, CORP. COMPLIANCE INSIGHTS (Nov. 8, 2019), <https://www.corporatecomplianceinsights.com/aml-compliance-costs/> [https://perma.cc/EDS7-HV9J]; Stephen R. Heifetz & Julie E. Krosnicki, *How Gaming Companies Can Become Inadvertent Money Services Businesses*, WILSON SONSINI (May 27, 2020), <https://www.wsgr.com/en/insights/how-gaming-companies-can-become-inadvertent-money-services-businesses.html> [https://perma.cc/NBM8-LWG4].

8. See *History of Anti-Money Laundering Laws*, FIN. CRIMES ENF’T NETWORK, <https://www.fincen.gov/history-anti-money-laundering-laws> [https://perma.cc/S5B6-5NN2].

the concealment of the true source, ownership, or use of funds.⁹ When done successfully, money laundering enables the beneficiaries of illicit proceeds to hold funds in the financial system and use them in the marketplace without detection from law enforcement.¹⁰ The most frequent predicate crimes that generate illicit proceeds for laundering are fraud, drug trafficking, cybercrimes, terrorist financing, corruption, and human trafficking.¹¹

Money laundering involves three independent steps that may occur separately or concurrently: placement, layering, and integration.¹² Placement is the introduction of funds into the financial system without disclosing its source.¹³ There are numerous ways launderers attempt to place their funds in the financial system without detection. Some of the most common methods include using illicit funds to repay a loan, to gamble, to purchase foreign currency from a currency exchange, and to supplement legitimate proceeds from a cash-intensive business (known as “blending” or “co-mingling”).¹⁴

Layering is the use of a series of financial transactions designed to separate the proceeds from their illicit origin.¹⁵ Once funds are placed in the financial system, the beneficiaries engage in countless transactions, creating a web of money transfers to and from entities registered around the world.¹⁶ In doing so, the launderer obscures the audit trail.¹⁷

Integration is the final step in which the launderer uses clean money to purchase unencumbered assets—such as real estate, cars, boats, artwork, or jewelry—in legitimate transactions.¹⁸ At this point, if the laundering was executed successfully, it is nearly impossible to identify the initial source of the value.¹⁹

(last visited May 1, 2023); Paul Kim, *Money Laundering: How Dirty Money Enters the Financial System*, BUS. INSIDER (Jan. 21, 2022, 3:57 PM), <https://www.businessinsider.com/personal-finance/what-is-money-laundering> [https://perma.cc/SF4K-X5HA].

9. OFF. OF THE COMPTROLLER OF THE CURRENCY, MONEY LAUNDERING: A BANKER'S GUIDE TO AVOIDING PROBLEMS 3 (2002), <https://www.occ.gov/publications-and-resources/publications/banker-education/files/pub-money-laundering-bankers-guide-avoiding-probs.pdf> [https://perma.cc/XEV2-Q43A].

10. *Id.* at 2.

11. See DEP'T OF THE TREASURY, NATIONAL MONEY LAUNDERING RISK ASSESSMENT 6–20, 24–29 (2022), <https://home.treasury.gov/system/files/136/2022-National-Money-Laundering-Risk-Assessment.pdf> [https://perma.cc/4SPS-TFYK].

12. OFF. OF THE COMPTROLLER OF THE CURRENCY, *supra* note 9, at 3; Kim, *supra* note 8.

13. Kim, *supra* note 8.

14. See DEP'T OF THE TREASURY, *supra* note 11, at 34–35, 56–57; *The Three Stages of Money Laundering: The Characteristics of the Money Laundering Stages*, FIN. CRIME ACAD., <https://financialcrimeacademy.org/the-three-stages-of-money-laundering/> [https://perma.cc/T25T-P7RE] (last visited May 1, 2023).

15. Kim, *supra* note 8.

16. See *What Does Layering Mean in Money Laundering?*, DOW JONES, <https://www.dowjones.com/professional/risk/glossary/anti-money-laundering/layering/> [https://perma.cc/8QUP-WUVV] (last visited May 1, 2023).

17. Kim, *supra* note 8.

18. *Id.*

19. *Id.*; see also *Illicit Money: How Much Is Out There?*, UNITED NATIONS OFF. ON DRUGS & CRIME (Oct. 25, 2011), https://www.unodc.org/unodc/en/frontpage/2011/October/illicit-money_-how-much-is-out-there.html [https://perma.cc/99GD-K3K7].

B. In-Game Currencies and Assets

Many video games, especially online multiplayer and mobile games, feature virtual currencies—like “gold” or “tokens” that can be collected and redeemed for in-game benefits—and assets that can be earned, found, or attained in “loot boxes.”²⁰ These assets are often in-game weapons and “skins”—decorative coverings that change the appearance of the player’s avatar—but could also be power-ups, vehicles, or other things.²¹ In-game currencies and assets (collectively, “in-game goods”) perform several functions that can make a game more enjoyable for the player and more profitable for the publisher.

The collection of in-game goods can be a prerequisite to completing the game, a supplemental objective, or both. When designing a game, developers endeavor to make the game challenging enough that it will hold players’ interest, but not so challenging that it will cause players to stop playing.²² In this context, when collecting in-game goods is a prerequisite, the feature presents an additional challenge that the player must overcome; and when collecting in-game goods is a separate objective—supplemental to “beating the game”—the feature incentivizes players to continue playing even after they have completed it.²³ A simple example of this, albeit one that predates massive multiplayer online games, appears in *Super Mario 64*. The main goal of the game is to collect “power stars,” which the player does by successfully completing missions and courses.²⁴ Although a player only needs to collect seventy power stars to complete the game, there are a total of 120 power stars.²⁵ Some high-skill players enjoy racing to collect all 120 power stars as quickly as possible, even though they have completed the game many times before.²⁶

In-game currencies and assets also offer the developer another revenue stream when players can purchase these things with real money. These purchases are known as “microtransactions.”²⁷ Players are often incentivized to purchase in-game perks either because the perks help them level up or defeat other players in multiplayer mode, or because the assets are endowed with social value, demonstrating a player’s skillfulness in the game or their

20. See S. GREGORY BOYD, BRIAN PYNE & SEAN F. KANE, VIDEO GAME LAW: EVERYTHING YOU NEED TO KNOW ABOUT LEGAL AND BUSINESS ISSUES IN THE GAME INDUSTRY 165 (2019); Cloward & Abarbanel, *supra* note 7, at 107.

21. See BOYD ET AL., *supra* note 20, at 165; Cloward & Abarbanel, *supra* note 7, at 107.

22. See JESSE SCHELL, THE ART OF GAME DESIGN: A BOOK OF LENSES 207–09 (2d ed. 2015).

23. See *id.*

24. *Super Mario 64*, SUPER MARIO WIKI, https://www.mariowiki.com/Super_Mario_64 [https://perma.cc/GH9F-ACTS] (last visited May 1, 2023).

25. *Id.*

26. See generally *Super Mario 64*, SPEEDRUN.COM, <https://www.speedrun.com/sm64> [https://perma.cc/FK67-YKXJ] (last visited May 1, 2023).

27. See, e.g., Steven Messner, *How Microtransactions and In-Game Currencies Can Be Used to Launder Money*, PC GAMER (Apr. 13, 2018), <https://www.pcgamer.com/how-microtransactions-and-in-game-currencies-can-be-used-to-launder-money/> [https://perma.cc/Z478-2ZEG].

good taste for an attractive asset.²⁸ The largest game publishers today generate an overwhelming amount of revenue from add-on content and in-game purchases, compared to revenue from selling copies of the game itself.²⁹

In addition to the ability to purchase and collect in-game goods, some games, particularly massive multiplayer online games like *World of Warcraft* and *RuneScape*, offer players the ability to trade their currency and assets with other players.³⁰ The ability to trade can deepen players' enthusiasm for the game. It allows players to build relationships with and mutually benefit one another, to bargain, and to acquire game assets directly that cannot be easily attained through regular gameplay.³¹ Trading also strengthens the impression that there is a community of players within the "world" created by the game.³²

Although some games allow players to cash out their virtual currency for real-world value,³³ most games, even those that permit trading, do not.³⁴ In spite of this prohibition, the popularity of certain games has, in some cases, led to the development of secondary markets where players exchange in-game goods, and sometimes entire accounts, for legal tender or cryptocurrency.³⁵ Such exchanges are generally forbidden by the games' Terms of Service, and publishers have tried to police this behavior by terminating the accounts of players who exchange in-game content for money and by suing the operators of these marketplaces.³⁶

28. See Kevin van Berlo & Karl-Chris Liblik, *The Business of Micro Transactions* 38–41 (May 23, 2016) (M.B.A. thesis, Jönköping University) (on file with author); BOYD ET AL., *supra* note 20, at 165.

29. See Needleman, *supra* note 2; BOYD ET AL., *supra* note 20, at 165; see also Mike Colagrossi, *How Microtransactions Impact the Economics of Gaming*, INVESTOPEDIA (Aug. 27, 2021), <https://www.investopedia.com/articles/investing/022216/how-microtransactions-are-evolving-economics-gaming.asp> [<https://perma.cc/SSF6-VNUF>].

30. BOYD ET AL., *supra* note 20, at 167–68. See generally *Trade*, FANDOM: WOPEDIA, <https://wopedia.fandom.com/wiki/Trade> [<https://perma.cc/JMY2-J2BG>] (last visited May 1, 2023); *Trading*, FANDOM: RUNESCAPE WIKI, <https://runescape.fandom.com/wiki/Trading> [<https://perma.cc/U65V-MK2U>] (last visited May 1, 2023).

31. See Nicholas Yee, *The Psychology of Massively Multi-User Online Role-Playing Games: Motivations, Emotional Investment, Relationships and Problematic Usage*, in *AVATARS AT WORK AND PLAY: COLLABORATION AND INTERACTION IN SHARED VIRTUAL ENVIRONMENTS* 187, 191–92, 196–98 (Ralph Schroeder & Ann-Sofie Axelsson eds., 2006).

32. See *id.*; BOYD ET AL., *supra* note 20, at 165.

33. See Michael Crider, *How to Make Real Money Playing Video Games*, HOW-TO GEEK (May 16, 2017, 10:24 AM), <https://www.howtogeek.com/306389/how-to-make-real-money-playing-video-games/> [<https://perma.cc/U7SB-UKSG>] (discussing *Second Life* and *Entropia Universe*).

34. See BOYD ET AL., *supra* note 20, at 107, 167.

35. *Id.* at 167; Cloward & Abarbanel, *supra* note 7, at 107; Heifetz & Krosnicki, *supra* note 7; see also, e.g., *PLAYERAUCTIONS*, <https://www.playerauctions.com/> [<https://perma.cc/8UPP-YXZG>] (last visited May 1, 2023); Thomas Bowen, *10 Video Game Currencies and Their Real World Values*, GAMERANT (Oct. 1, 2020), <https://gamerant.com/video-game-currency-real-world-value/> [<https://perma.cc/6RTG-3UG4>].

36. BOYD ET AL., *supra* note 20, at 107, 167; see, e.g., First Amended Complaint, Zynga Game Network Inc. v. Player Auctions, LLC, No. CV 10-2576 (C.D. Cal. Sept. 8, 2010), 2010 WL 4783488.

C. How Laundering Through Video Games Works

There is a potential threat of money laundering whenever (1) players of a video game can trade in-game goods with one another, and (2) an established market for exchanging virtual assets for legal tender or cryptocurrency exists³⁷—even though those transactions are usually forbidden by the publisher.³⁸ In a 2018 interview, cybercrime expert Professor Jean-Loup Richet³⁹ explains how a hypothetical criminal could use *World of Warcraft* gold to launder stolen funds:

“Let’s say, for instance, that I have stolen a Paypal account and let’s say that this Paypal account has about 1,000 euros,” “The first step is to make things look fuzzy. A hacker will not send the stolen Paypal money directly into his personal bank account. So first, I will forward the amount of this Paypal account to two other fake Paypal accounts that I will create with remote administration tools”

“Then I will use an exchanger and will change the money to any online currency. Depending on my level of paranoia, I might exchange it into bitcoin, and then I might use another exchanger to turn it into World of Warcraft gold coins.”

Making use of popular gold selling websites or “exchangers,” . . . the hacker could then buy World of Warcraft gold using their stolen money and either meet the seller in-game or receive an in-game mail with the gold included. The hacker would then turn around and sell their newly bought sum of gold—either for cryptocurrency like bitcoin or, if they choose, using another method. At this point, the origins of their money would be nearly untraceable.⁴⁰

Exactly how much criminals are profiting from such schemes is unclear.⁴¹ Professor Richet has posited that laundering significant sums of money in this manner would be nearly impossible for two main reasons. First, transactions between players usually involve relatively small amounts of money.⁴² Second, the player with whom the launderer transacts could defraud the launderer by failing to deliver his part of the bargain.⁴³ Additionally, every transaction increases the risk that the publisher will catch wind of the scheme, confiscate the gold, and terminate the account.⁴⁴ As a result, although the threat of using video games to launder has been discussed in reports and articles for nearly a decade,⁴⁵ regulators and enforcement

37. See Messner, *supra* note 27.

38. See BOYD ET AL., *supra* note 20, at 107, 167.

39. JEAN-LOUP RICHEL, <https://richet.it> [<https://perma.cc/V868-NGNG>] (last visited May 1, 2023).

40. Messner, *supra* note 27 (quoting Professor Jean-Loup Richet).

41. *Id.*; Tamara Evdokimova, *Criminals Are Using Fortnite to Launder Money*, SLATE (Jan. 24, 2019, 3:14 PM), <https://slate.com/technology/2019/01/fortnite-video-games-money-laundering-scams.html> [<https://perma.cc/JVZ4-NQ2S>].

42. See Messner, *supra* note 27.

43. *Id.*

44. See *id.*; *supra* text accompanying note 36.

45. See JEAN-LOUP RICHEL, LAUNDERING MONEY ONLINE: A REVIEW OF CYBERCRIMINALS’ METHODS 11–13 (2013), <https://arxiv.org/pdf/1310.2368.pdf>

officers have not dedicated significant resources to policing video game assets.⁴⁶

II. ANTI-MONEY LAUNDERING LEGAL FRAMEWORK

The United States has implemented a sprawling regulatory regime for preventing and punishing those who perpetrate and facilitate money laundering. Part II first details the anti-money laundering duties of financial institutions and the statutory penalties for breaching those duties, and then explains the scope of one pertinent type of financial institution: money services businesses.

A. Duties of Financial Institutions and Penalties for Noncompliance

There are two predominant federal statutes that deal with anti-money laundering: the Bank Secrecy Act⁴⁷ (BSA) and 18 U.S.C. § 1960. The BSA was the federal government's first major anti-money laundering legislation and remains in effect today.⁴⁸ Since its initial enactment in 1970, Congress has amended its provisions on numerous occasions with acts by other names; however, the regulatory scheme as a whole is still generally known as the Bank Secrecy Act.⁴⁹ Section 1960 of Title 18 is a criminal statute that punishes facilitators of money laundering.⁵⁰

1. The Bank Secrecy Act and Its Regulations

Congress enacted the BSA to “prevent the laundering of money and the financing of terrorism through the establishment . . . of reasonably designed risk-based programs.”⁵¹ The act imposes legal duties of recordkeeping and reporting on “financial institutions.”⁵² “Financial institution” is defined broadly, encompassing banks, investment companies, currency exchanges, finance companies, casinos, and brokers and dealers of securities,

[<https://perma.cc/GE7Y-PH78>]; John T. Holden, *Trifling and Gambling with Virtual Money*, 25 UCLA ENT. L. REV. 41, 71–74 (2018); Messner, *supra* note 27; BOYD ET AL., *supra* note 20, at 165–70; Evdokimova, *supra* note 41; Christopher Witbracht, *Level Up: Video Games and AML*, ASS'N CERTIFIED ANTI-MONEY LAUNDERING SPECIALISTS (Dec. 19, 2019), <https://www.acamstoday.org/level-up-video-games-and-aml/> [<https://perma.cc/X4HH-3UGH>]; Cloward & Abarbanel, *supra* note 7; Alexandra Norton, *Gaming the System: Money Laundering Through Microtransactions and In-Game Currencies*, PA. ST. UNIV. J.L. & INT'L AFFS. BLOG (Feb. 28, 2020), <https://sites.psu.edu/jlia/gaming-the-system-money-laundering-through-microtransactions-and-in-game-currencies/> [<https://perma.cc/Q589-QGEU>]; Heifetz & Krosnicki, *supra* note 7; Shane Kelly, Note, *Money Laundering Through Virtual Worlds of Video Games: Recommendations for a New Approach to AML Regulation*, 71 SYRACUSE L. REV. 1485 (2021).

46. See Messner, *supra* note 27.

47. Act of Oct. 26, 1970, Pub. L. No. 91-508, §§ 201–242, 84 Stat. 1114, 1118–24 (codified as amended in scattered sections of 12 and 31 U.S.C.).

48. *History of Anti-Money Laundering Laws*, *supra* note 8.

49. See generally *id.*; OFF. OF THE COMPTROLLER OF THE CURRENCY, *supra* note 9, at 4–6.

50. See 18 U.S.C. § 1960.

51. 31 U.S.C. § 5311(2).

52. See generally *id.* §§ 5311–5336.

commodities, precious metals, stones, jewelry, and vehicles.⁵³ A financial institution is also “any [other] business . . . which engages in any activity which the Secretary of the Treasury determines, by regulation, to be an activity which is similar to, related to, or a substitute for any activity” that the enumerated institutions engage in.⁵⁴ Under this authority, the Financial Crimes Enforcement Network (FinCEN)⁵⁵ has issued a rule that refers to such other businesses as “money services business[es]” (MSBs).⁵⁶

The BSA and its regulations impose several duties on MSBs. First, a MSB must register with FinCEN.⁵⁷ Registration involves providing an estimate of the volume of business in the coming year and the name and address of the business, each person who owns or controls the business, each director or officer, and the business’s depository institutions.⁵⁸ The MSB’s initial registration is good for two years, at which point registration must be renewed.⁵⁹

MSBs are required to “develop, implement, and maintain an effective anti-money laundering program.”⁶⁰ An effective program is one that is reasonably designed, in light of the risks posed by the nature and volume of the financial services provided, to prevent laundering and terrorist financing.⁶¹ At a minimum, the program must: (1) establish policies, procedures, and internal controls that assure compliance with anti-money laundering regulations; (2) designate a person to assure day-to-day compliance with the program; (3) provide training and education to appropriate personnel concerning their responsibilities under the program; and (4) from time to time, be reviewed by an independent person or organization to assure its adequacy.⁶²

MSBs must also file a report for every transaction in currency over \$10,000 that is carried out using its service.⁶³ Such reports must include the names and addresses of both parties, as well as the receiving party’s social security or taxpayer identification number.⁶⁴ The MSB is responsible for

53. *Id.* § 5312(a)(2).

54. *Id.* § 5312(a)(2)(Y).

55. FinCEN is a bureau of the Department of the Treasury whose mission is to safeguard the financial system from illicit use and combat money laundering. *See What We Do*, FIN. CRIMES ENF’T NETWORK, <https://www.fincen.gov/what-we-do> [<https://perma.cc/UJK6-ZCVB>] (last visited May 1, 2023).

56. Bank Secrecy Act Regulations, 31 C.F.R. § 1010.100(ff) (2011).

57. 31 U.S.C. § 5330; 31 C.F.R. § 1022.380.

58. 31 U.S.C. § 5330(b).

59. 31 C.F.R. § 1022.380(b)(2). There are several events that trigger the requirement for a MSB to re-register with FinCEN prior to expiration of the initial registration: (1) if there is a transfer of more than 10 percent of the voting power or equity interests of the MSB; (2) if a change in ownership or control triggers an applicable state law requirement to re-register with that state; and (3) if there is an increase in the number of the business’s agents by more than 50 percent. *Id.* § 1022.380(b)(4).

60. *Id.* § 1022.210(a).

61. *Id.* § 1022.210(a)–(b).

62. *Id.* § 1022.210(d).

63. *Id.* § 1010.311.

64. *Id.* § 1010.312.

verifying this information by reviewing the parties' official documents.⁶⁵ The law expressly prohibits structuring such a transaction in a way that would appear to relieve the financial institution of its duty to report it.⁶⁶

Additionally, MSBs must report "suspicious transactions."⁶⁷ A suspicious transaction is one for at least \$2,000 and that the MSB "knows, suspects, or has reason to suspect that the transaction" (1) involves funds derived from illegal activity or is intended to hide or disguise funds derived from illegal activity, (2) is designed to evade reporting and recordkeeping requirements, (3) serves no apparent lawful purpose, or (4) involves use of the MSB to facilitate criminal activity.⁶⁸ The MSB must maintain copies of all "Suspicious Activity Reports" and reports of cash payments over \$10,000 for five years from the filing date.⁶⁹

The penalties for failing to comply with the BSA are stiff. First, the U.S. Treasury may seek injunctive relief from a federal court to enjoin the company's noncompliant conduct or enforce compliance with the BSA.⁷⁰ Second, a "willful" violator of the statute or regulations thereunder is liable for a penalty of at least \$25,000 and no more than \$100,000 *per day that the violation continues*.⁷¹ If, on the other hand, the violation is merely negligent, then the violator is liable for a penalty of not more than \$500; however, if the financial institution engages in a pattern of negligent behavior, then the Treasury may impose an additional penalty of up to \$50,000.⁷² Lastly, a willful violator could be subject to criminal penalties, including hundreds of thousands of dollars of fines and up to five years imprisonment.⁷³

2. 18 U.S.C. § 1960

Section 1960 of Title 18 was first enacted in 1992 in response to the increasing threat of money laundering via nonbank financial institutions, such as storefront wire remitting services that offered customers the ability to move money quickly and anonymously.⁷⁴ To support state efforts to prevent the use of money transmitters⁷⁵ for laundering, Congress passed § 1960, which made a money transmitter's failure to register with the proper state authorities a federal criminal offense.⁷⁶ After Congress added the federal registration requirement for money transmitters to the BSA provisions,⁷⁷ Congress amended § 1960 so that the failure to federally

65. *Id.*

66. *Id.* § 1010.314(c).

67. *Id.* § 1022.320.

68. *Id.* § 1022.320(a)(2).

69. *Id.* §§ 1022.320(c), 1010.330(e)(3).

70. 31 U.S.C. § 5320.

71. *Id.* § 5321(a)(1).

72. *Id.* § 5321(a)(6).

73. *Id.* § 5322.

74. Courtney J. Linn, *One-Hour Money Laundering: Prosecuting Unlicensed Money Transmitting Businesses Under 18 U.S.C. § 1960*, 8 U.C. DAVIS BUS. L.J. 137, 138–39 (2007).

75. See *infra* notes 86–93 and accompanying text.

76. 18 U.S.C. § 1960(b)(1)(A); Linn, *supra* note 74, at 144.

77. See *supra* notes 57–59 and accompanying text.

register was also a crime.⁷⁸ Finally, Congress returned to § 1960 once more, adding a third prong under which criminal liability attaches: the transmission of funds with knowledge that the funds derive from illegal conduct or are intended to be used for unlawful activity.⁷⁹ Any one of these violations subjects the defendant to criminal liability.⁸⁰

Section 1960 is a broad provision. First, the statute reaches every person who “knowingly conducts, controls, manages, supervises, directs, or owns all or part of” any money transmitter that is unlicensed or knowingly transmits illicit funds.⁸¹ Moreover, contrary to violations of the BSA, which generally require proof that the defendant knowingly evaded a regulation or knew that his conduct was illegal, § 1960 imposes strict liability for the failure to register under state or federal law.⁸² Additionally, under the third prong, the statute does not require proof that the funds transmitted actually derived from illegal activity, only that the defendant knew the funds were intended for an unlawful purpose.⁸³ The punishment for being found guilty is a fine, up to five years imprisonment, or both.⁸⁴

B. Who Is a Money Services Business?

Because MSBs are subject to extensive duties and penalties for noncompliance, the stakes are high in determining who is a MSB and who is not. FinCEN defines a MSB as a person or entity doing business, whether or not on a regular basis, within the United States, as a “[d]ealer in foreign exchange,” a “[c]heck casher,” an “[i]ssuer or seller of traveler’s checks or money orders,” a “[p]rovider of prepaid access,” a “[s]eller of prepaid access,” or a “[m]oney transmitter.”⁸⁵ The scope of the term “money transmitter” is the most far-reaching.

A money transmitter is a person or entity “that provides money transmission services” or is otherwise “engaged in the transfer of funds.”⁸⁶ Money transmission services are “the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value . . . to another location or person by any means.”⁸⁷ Whether a company is a money transmitter depends on the particular facts and circumstances in each case.⁸⁸ In other words, whether a company qualifies as a MSB, and is thus subject to BSA regulation, depends

78. 18 U.S.C. § 1960(b)(1)(B); Linn, *supra* note 74, at 151.

79. 18 U.S.C. § 1960(b)(1)(C); Linn, *supra* note 74, at 158–59.

80. 18 U.S.C. § 1960(b)(1).

81. *Id.* § 1960(a).

82. *See* Linn, *supra* note 74, at 140.

83. 18 U.S.C. § 1960(b)(1)(C).

84. *Id.* § 1960(a).

85. 31 C.F.R. § 1010.100(ff)(1)–(7) (2011). The U.S. Postal Service is a money services business. *Id.* § 1010.100(ff)(6).

86. *Id.* § 1010.100(ff)(5)(i).

87. *Id.* § 1010.100(ff)(5)(i)(A).

88. *Id.* § 1010.100(ff)(5)(ii).

on the company's activities, not how it describes its business.⁸⁹ Thus, it is possible that one company could be a MSB—if it is providing money transmission services—while its competitor is not, and therefore not subject to BSA regulation.⁹⁰ Similarly, a company may be a money transmitter whether it operates on a transactional basis or an account basis.⁹¹ A transactional basis describes one-off transactions where there is no ongoing relationship with customers and the money transmitter retains the currency or other value only for the time required to effect the transmission.⁹² In contrast, an account basis describes circumstances where the money transmitter maintains an account for the transactor to store funds or value from which he can instruct the money transmitter to transfer them at later times and in various quantities.⁹³

III. ARE PUBLISHERS OF GAMES THAT FEATURE IN-GAME GOODS MONEY TRANSMITTERS?

This part attempts to answer the expensive question of whether publishers of games with in-game goods constitute money transmitters, and therefore must comply with anti-money laundering regulations. For a publisher to be considered a money transmitter, (1) the in-game goods within the publisher's game must constitute "funds or other value that substitutes for currency" and, if they are, (2) the publisher must be "engaged in the transfer of" those in-game goods.⁹⁴ This is a case-by-case analysis that is unique to each game and publisher.⁹⁵

A. Are In-Game Goods "Funds or Other Value that Substitutes for Currency"?

FinCEN maintains that convertible virtual currencies (CVCs), like bitcoin, are "funds" under federal law because CVCs either have an equivalent value as currency or act as a substitute for currency.⁹⁶ This position is in accord with a slew of district courts that have found that bitcoin and similar virtual currencies are funds under 18 U.S.C. §§ 1960 and 1956.⁹⁷ In these decisions,

89. See FIN. CRIME ENF'T NETWORK, FIN-2019-G001, APPLICATION OF FINCEN'S REGULATIONS TO CERTAIN BUSINESS MODELS INVOLVING CONVERTIBLE VIRTUAL CURRENCIES 7–8 (2019), <https://www.fincen.gov/sites/default/files/2019-05/FinCEN%20Guidance%20CVC%20FINAL%20508.pdf> [<https://perma.cc/SR8W-DTZJ>].

90. *Id.*

91. *Id.* at 8.

92. *Id.*

93. *Id.*

94. See 31 C.F.R. § 1010.100(ff)(5)(i) (2011).

95. See *id.* § 1010.100(ff)(5)(ii).

96. FIN. CRIME ENF'T NETWORK, *supra* note 89, at 7.

97. See *United States v. Murgio*, 209 F. Supp. 3d 698, 707 (S.D.N.Y. 2016); *United States v. Ulbricht*, 31 F. Supp. 3d 540, 570 (S.D.N.Y. 2014); *United States v. Faiella*, 39 F. Supp. 3d 544, 545–46 (S.D.N.Y. 2014); *United States v. Stetkiw*, No. 18-20579, 2019 WL 417404, at *1–3 (E.D. Mich. Feb. 1, 2019); *United States v. Budovsky*, No. 13-cr-368, 2015 WL 5602853, at *14 (S.D.N.Y. Sept. 23, 2015); *United States v. E-Gold, Ltd.*, 550 F. Supp. 2d 82, 88–93 (D.D.C. 2008).

courts looked to the ordinary meaning of “funds,” which are “available pecuniary resources.”⁹⁸ “Pecuniary” means “taking the form of or consisting of money,” and “money” is “something generally accepted as a medium of exchange . . . or a means of payment.”⁹⁹ Because cryptocurrencies “can be easily purchased in exchange for ordinary currency, act[] as a denominator of value, and [are] used to conduct financial transactions,” they are within the plain meaning of the word “funds.”¹⁰⁰

Therefore, the question is whether in-game goods are substantially similar to cryptocurrencies—in FinCEN’s words, “*convertible* virtual currency”—and are thus “funds,” or whether in-game goods are distinct from cryptocurrencies, rendering them outside the scope of “funds” and “other value that substitutes for currency.” The answer to this question will turn on: (1) the tradability or redeemability of in-game content, (2) the existence or nonexistence of a market in which players can exchange in-game goods for real money or cryptocurrency, and (3) the publisher’s policy regarding the legal status of in-game currency and how it treats player-to-player transactions.¹⁰¹ None of these factors alone are determinative; rather, the facts and circumstances in each case will tend to support or rebut the notion that the in-game goods of a particular game constitute “funds.”¹⁰²

1. “No Ownership of In-Game Goods” Policy

Beginning with the publisher’s policies, a video game’s Terms of Service will usually clarify that in-game currency and assets “have no monetary value and cannot be redeemed for real-world money.”¹⁰³ The terms also provide that players “have no ownership or other property interest in such Virtual Items”; rather, the publisher owns “all rights and title in and to all content that appears in” the game.¹⁰⁴ Furthermore, players “may not purchase, sell, transfer or trade any Virtual Items outside of the Game, or offer to do so, for real-world money,” and the publisher “does not recognize any purported purchase, sale, transfer, or trade . . . completed outside of the Game.”¹⁰⁵ The inclusion of this language is not dispositive of whether in-game goods constitute “funds.” But by providing that these items have no monetary value, rendering player-to-player transactions outside of the game “null and void,”¹⁰⁶ and policing the prohibited conduct to mitigate the use of the goods as a “medium of exchange,” the publisher can present a strong argument that

98. See, e.g., *Murgio*, 209 F. Supp. 3d at 707.

99. *Id.*

100. *Id.* (citing *United States v. Faiella*, 39 F. Supp. 3d 544, 545 (S.D.N.Y. 2014)).

101. See *BOYD ET AL.*, *supra* note 20, at 167.

102. See *FIN. CRIME ENF’T NETWORK*, *supra* note 89, at 2–3.

103. *BOYD ET AL.*, *supra* note 20, at 107; see also Motion for a Judgment of Acquittal or, Alternatively, Motion for a New Trial at 10, *United States v. Clark*, No. 16-cr-00205 (N.D. Tex. Dec. 11, 2016) (relying on Electronic Arts’ Terms of Service in arguing that “FIFA coins” are not money or property).

104. *BOYD ET AL.*, *supra* note 20, at 107.

105. *Id.*

106. *Id.*

the in-game goods are not funds and that it should not be subject to BSA compliance.¹⁰⁷

2. Tradability, Redeemability, and Markets for In-Game Goods

There is a spectrum of game features that may bolster or negate the contention that a particular in-game currency constitutes “funds or other value that substitutes for currency.” On one end of the spectrum, some games do not have in-game currency or assets at all. Of course, there is no risk of laundering in such games and the publisher is not a money transmitter.

a. Closed-Loop Games

The next category of games on this continuum encourages players to collect in-game currency and assets, but does not allow players to trade with one another or redeem virtual items for real-world value. This is known as a “closed-loop” system.¹⁰⁸ For example, in *Grand Theft Auto V*, players can collect in-game money, weapons, cars, and even clothes, but cannot trade with other players online.¹⁰⁹ In closed-loop games, the contention that the in-game currency and assets are “funds” is weak. Because there is no ability to trade in-game content between two accounts, the only way players can transfer their in-game money and assets is to transfer their entire account to another player. Although some people do sell accounts on the secondary market,¹¹⁰ in such cases, the account—unlike cryptocurrency—is a product being sold rather than a “denominator of value” being exchanged.¹¹¹ Moreover, the thing being exchanged is an account, not the in-game content itself. Thus, even if the account was perceived as a “medium of exchange,” the account is the actual medium, not the in-game goods that come with it. Therefore, it is unlikely that the virtual currency in a closed-loop game would be deemed “funds or other value that substitutes for currency.”

b. Semi-Open-Loop Games

After closed-loop systems, “semi-open-loop” systems allow players to trade in-game currency or assets with each other, but players cannot redeem items for real-world value.¹¹² In semi-open-loop games like *World of*

107. See *id.* at 167.

108. *Id.* at 167–68.

109. See Anthony James Puleo Jr., *GTA Online: How to Give Money to Other Players*, GAME RANT (Jan. 25, 2021), <https://gamerant.com/gta-online-give-money-guide/> [<https://perma.cc/7V38-MWEF>].

110. See *supra* note 35 and accompanying text; *Buy Game Accounts*, PLAYERAUCTIONS, <https://www.playerauctions.com/about/buy-game-accounts/> [<https://perma.cc/HWU3-ASJR>] (last visited May 1, 2023).

111. Cf. *United States v. Murgio*, 209 F. Supp. 3d 698, 707 (S.D.N.Y. 2016) (unlike bitcoin, game accounts are not generally “accepted ‘as a payment for goods and services’ or bought ‘directly from an exchange with [a] bank account’” (citation omitted)).

112. Cf. BOYD ET AL., *supra* note 20, at 168 (describing the differences between open-loop and closed-loop systems).

Warcraft, whether the in-game items constitute “funds” will likely turn on the other two factors: whether there is an established market for exchanging in-game goods for money, and how the publisher treats secondary market transactions.

When there is a secondary market for in-game items, players can derive real-world value outside of the game, and a risk of money laundering exists.¹¹³ If the publisher encourages or willfully ignores players consistently trading in-game items for real-world money, that fact could be evidence of items being used as a “medium of exchange” or a “means of payment.” Therefore, the items could constitute “funds” even though they are not redeemable directly through the publisher. On the other hand, if there is no market for the in-game goods, then, like closed-loop games, the in-game items probably will not be considered “funds” because they are not being used as a “medium of exchange.” Finally, if there is an established market, but the publisher prohibits those transactions, then the items probably will not be considered “funds” so long as the publisher’s enforcement of its policy is ongoing and reasonably effective.

c. Open-Loop Games

Lastly, there are “open-loop” systems in which players can trade among each other, redeem items for real-world value, and possibly even use virtual currency or items across multiple games in the publisher’s universe of games.¹¹⁴ To be sure, such games are relatively rare.¹¹⁵ Open-loop games present the strongest case that their in-game goods are “funds.” Because in-game currencies and assets in an open-loop game can be traded for and exchanged with real-world money and things, the impression that these items have real monetary value is particularly strong. If transactions involving in-game items and real-world things of value are frequent, then the items—like cryptocurrency—are serving as a “medium of exchange” and a “denominator of value,” and thus the items would constitute “funds or other value that substitutes for currency.”¹¹⁶

113. See *supra* Part I.C.

114. BOYD ET AL., *supra* note 20, at 167–68.

115. See Crider, *supra* note 33 (“Other, smaller games have attempted to create Real Cash Economy systems, with varying degrees of success—many quickly folded or never got out of development.”).

116. Games that incorporate NFTs may be open-loop systems. See generally Robyn Conti, *What Is An NFT?: Non-Fungible Tokens Explained*, FORBES (Mar. 17, 2023, 12:57 AM), <https://www.forbes.com/advisor/investing/cryptocurrency/nft-non-fungible-token/> [<https://perma.cc/E67K-MJN3>]. Recently, video games like *Axie Infinity* and fantasy sports games like *Sorare* have incorporated NFTs as a game feature, which—their developers hope—make the games more enjoyable by enabling players to acquire and trade unique NFT cards, speculate on their future value, and watch them level up. See generally AXIE INFINITY, <https://axieinfinity.com> [<https://perma.cc/Q9P8-KZVV>] (last visited May 1, 2023); SORARE, <https://sorare.com> [<https://perma.cc/8KV8-VFE9>] (last visited May 1, 2023). However, these in-game NFTs probably would not be considered “funds” because each NFT is nonfungible. They are not “available pecuniary resources” nor are they used as a “denominator of value” or a “medium of exchange.” Indeed, a recent FinCEN report explained that “[d]igital assets

B. Are Publishers Providing Money Transmission Services?

Even if a particular in-game currency is considered “funds” or convertible virtual currency, the publisher must provide “money transmission services” or be “engaged in the transfer of funds” to be a money transmitter.¹¹⁷ Money transmission services are defined as the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of the same to another location or person.¹¹⁸

1. Selling and Exchanging In-Game Currency

Notably, if an in-game currency is deemed a convertible virtual currency, a game publisher who sells the in-game currency for real-world money is a money transmitter. FinCEN has explained that a seller of CVC that accepts real money from a user and transmits the value of that real money to fund the user's CVC account is a money transmitter, unless an exemption applies.¹¹⁹ Because the seller transmits “value that substitutes for currency” from the user's account at a bank to another location—the user's CVC account—the seller therefore provides money transmission services.¹²⁰ Under this broad interpretation,¹²¹ any game publisher who allows players to purchase in-game currency using real-world money (if the in-game currency is deemed a CVC) is providing money transmission services.

The reverse action—“redeeming” the in-game currency that a player has collected for real-world money or things of value—also constitutes money transmission services.¹²² In this situation, the publisher accepts in-game

that are unique, rather than interchangeable, and that are used in practice as collectibles rather than as payment or investment instruments, depending on their characteristics, are generally not considered to be” a substitute for currency. DEP'T OF THE TREASURY, STUDY OF THE FACILITATION OF MONEY LAUNDERING AND TERROR FINANCE THROUGH THE TRADE IN WORKS OF ART 26 (2022), https://home.treasury.gov/system/files/136/Treasury_Study_WoA.pdf [<https://perma.cc/9H2B-2WKL>]; see also Nicholas J. Losurdo, *FinCEN Issues Report Addressing NFTs*, GOODWIN PROCTER (Feb. 17, 2022), <https://www.digitalcurrencyperspectives.com/2022/02/17/fincen-issues-report-addressing-nfts/> [<https://perma.cc/4RP8-UPLW>]. But see Sophie Proctor, *What Do NFTs in Video Games Mean for AML?*, AML RIGHTSOURCE (Jan. 26, 2022), <https://www.amlrightsource.com/news/what-does-nfts-in-video-gaming-mean-for-aml> [<https://perma.cc/Q9HP-WLEP>] (suggesting that video game developers offering NFTs may need to register as MSBs, implement Know Your Customer policies, and file Suspicious Activity Reports).

117. 31 C.F.R. § 1010.100(ff)(5)(i) (2011).

118. *Id.*

119. FIN. CRIME ENF'T NETWORK, FIN-2013-G001, APPLICATION OF FINCEN'S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES 4 (2013), <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf> [<https://perma.cc/UH8L-VETX>]; FIN. CRIME ENF'T NETWORK, *supra* note 89, at 13–14; see also *infra* Part III.C.

120. FIN. CRIME ENF'T NETWORK, *supra* note 119, at 4.

121. See FIN. CRIME ENF'T NETWORK, *supra* note 89, at 13 (“The 2013 [Virtual Currency] Guidance also clarified that FinCEN interprets the term ‘another location’ broadly.” (citation omitted)).

122. *Cf.* FIN. CRIME ENF'T NETWORK, FIN-2014-R011, REQUEST FOR ADMINISTRATIVE RULING ON THE APPLICATION OF FINCEN'S REGULATIONS TO A VIRTUAL CURRENCY TRADING PLATFORM 3–4 (2014), <https://www.fincen.gov/sites/default/files/shared/FIN-2014-R011.pdf>

currency—that is, “other value that substitutes for currency”—from one person and transmits real money to another location, usually that person’s bank account. Thus, the publisher of an open-loop game that offers players the ability to redeem in-game currency for real money is providing money transmission services, if the in-game currency is held to be a CVC.

2. In-Game Trading

Even a game that does not allow players to exchange in-game currency for real money, but enables them to trade in-game currency for in-game assets, may still be providing money transmission services. However, this outcome is unlikely in most cases. This is the situation for semi-open-loop games.¹²³ As is always the case, for the trading feature to constitute money transmission services, the in-game goods must be CVC.¹²⁴ As explained in Part III.A, the question of whether in-game goods in a semi-open-loop game constitute CVC turns on the existence of secondary markets in which players can exchange the in-game goods for real money and the extent to which the publisher prohibits that conduct.¹²⁵

If the in-game goods constitute CVC, then a game that allows players to trade in-game goods with one another—in other words, to trade CVC for CVC—may involve money transmission services. FinCEN has explained that a Peer-to-Peer Exchanger who facilitates transfers from one type of CVC to a different type of CVC is a money transmitter.¹²⁶ Similarly, a CVC trading platform in which the platform executes trades between two parties is also a money transmitter.¹²⁷

However, most semi-open-loop games probably do not involve money transmission services because even if the *in-game currency*, such as *World of Warcraft* Gold, is considered a CVC, it is unlikely that an *in-game asset*, such as a skin for an avatar,¹²⁸ would also be considered CVC. Just like in the real world, it would not make sense for two players to trade one currency for the same currency. Rather, players only trade *virtual currency* for *virtual assets* and vice versa. In other words, one player sells an in-game asset such as a skin—a product—and the other player purchases it with in-game currency. Thus, for the publisher to be considered a Peer-to-Peer Exchanger or CVC trading platform, both forms of value, the in-game currency and the

[<https://perma.cc/PP2R-EM86>] (rejecting a virtual currency trading platform’s contention that it is not a money transmitter, FinCEN found that in each such trade, “two money transmission transactions occur: one between the Company and the Customer wishing to buy virtual currency, and another between the Company and the Customer wishing to sell such virtual currency at the same exchange rate”).

123. See *supra* note 112 and accompanying text.

124. See *supra* note 94 and accompanying text.

125. See *supra* text accompanying notes 112–13.

126. FIN. CRIME ENF’T NETWORK, *supra* note 89, at 14–15.

127. *Id.* at 23–24; FIN. CRIME ENF’T NETWORK, *supra* note 122. A CVC trading platform contrasts with platforms that merely provide a forum for buyers and sellers to find one another and communicate terms before executing the trade off-platform. Such forums are not money transmitters. FIN. CRIME ENF’T NETWORK, *supra* note 89, at 23–24.

128. See *supra* note 21 and accompanying text.

in-game asset, would need to be a “medium of exchange” and “denominator of value.” Although theoretically possible, this seems unlikely to be the case in most situations.

C. The Integral Exemption

Even when a publisher accepts and transmits CVC, it may be entitled to an enumerated exemption from money transmitter status. One such exemption provides that a person who “[a]ccepts and transmits funds only *integral to the sale of goods or the provision of services*, other than money transmission services,” is not a money transmitter.¹²⁹ FinCEN has advised that there are “three fundamental conditions that must be met” for the integral exemption to apply: (1) the transmission of funds actually must be part of the provision of goods or services, (2) the exemption can only be claimed by the entity who is engaged in the provision of goods or services, and (3) the transmission of funds must be necessary for the provision of goods or services.¹³⁰

A publisher who would otherwise be considered a money transmitter could argue that it qualifies for the integral exemption.¹³¹ Game publishers provide a service that is not money transmission services: the operation of an online network in which players interact and compete.¹³² Arguably, the transmission of in-game goods is essential to the multiplayer experience and the publisher’s ability to finance the video game.¹³³ Thus, to the extent that in-game goods constitute CVC, the publisher’s transmission of CVC (whether from publisher-to-player or from player-to-player) is both part of and necessary to the provision of multiplayer online game services.

CONCLUSION

As technology and norms related to virtual currency continue to develop, the threat of money laundering through video games is bound to become a larger concern for both regulators and game publishers facing an extensive regulatory environment. Under what circumstances a publisher will be subject to BSA compliance is a complex issue on which there has been little guidance. The majority of games now available, which are closed-loop or semi-open-loop, likely does not trigger BSA duties, so long as the publisher implements a “No Ownership of In-Game Goods” policy and takes reasonable steps to prevent in-game goods from being used as a medium of exchange. However, as companies push further into the metaverse, open-loop systems are sure to become more desirable, and the threat of money laundering could loom larger. As such, this is an area that counselors of publishers and developers should watch closely.

129. 31 C.F.R. § 1010.100(ff)(5)(ii)(F) (2011) (emphasis added).

130. FIN. CRIME ENF’T NETWORK, *supra* note 122, at 4.

131. See Heifetz & Krosnicki, *supra* note 7.

132. *Id.*

133. *Id.* The transmission of in-game goods is particularly important if the game is a free or “freemium” mobile app game.