ARTICLES

GAMING MONEY

Raúl Carrillo *

The over $250 billion video game industry, the largest entertainment industry in the world, has rapidly developed unregulated monetary systems. Gaming companies issue what this Article terms "gaming money"—points earned in play, gift cards, and platform-stored balances—and increasingly enable conversion of these instruments into bank deposits at scale. Although they adopt many of the features of "money," they evade existing regulatory categorizations while producing familiar problems: rate manipulation, money laundering, and structural opacity and instability for firms in the gaming industry and their counterparties.

This Article shows how companies like Microsoft, Sony, and Roblox are not only harming gamers but issuing "shadow money," evading a host of laws governing money, banking, and finance. Like nineteenth-century canal, railroad, and mining companies, as well as twenty-first-century fintech and cryptocurrency companies, gaming giants engage in private monetary governance. Gaming companies claim to operate "virtual" worlds of entertainment, media, and the arts, beyond the reach of regulators. Yet the law does not ask whether money is "real," but whether its creation infringes on the state's monetary sovereignty. Convertibility—the degree to which gaming money is convertible into currency and bank deposits at scale—should determine regulatory jurisdiction and intensity.

Sony has now applied for a new national charter to issue stablecoins, signaling that gaming companies are moving toward more

---

* Assistant Professor of Law, Boston College Law School. The Author thanks the editors of the *Columbia Law Review* for their thoughtful engagement and care throughout the process. The Author is grateful to Urwa Hameed and Bangjie Xu for research assistance. The Author is thankful for the counsel of many scholars in developing this Article, including Hilary Allen, Nicholas Almendares, Dan Awrey, Jack Balkin, Yochai Benkler, Guy-Uriel Charles, Felipe Ford Cole, Nakita Cuttino, Kevin Davis, Christine Desan, Nizan Geslevich Packin, Talia Gillis, Rohan Grey, Luke Herrine, Kathryn Judge, Amy Kapczynski, Christine Kim, Lev Menand, Joshua Mitts, Kerrel Murray, Saule Omarova, Lenore Palladino, Frank Pasquale, Katharina Pistor, Bertrall Ross, Norman Silber, Eric Talley, Sherod Thaxton, and Salomé Viljoen. The Author also thanks the 2024–2025 Columbia Law School Academic Fellows cohort; participants at the 2025 Consumer Law Scholars Conference at Boston University School of Law; and participants at a 2025 Information Society Project Ideas Luncheon at Yale Law School. All errors are my own.

sophisticated infrastructure. The stakes are high: Gaming introduces most U.S. children to the very idea of money. Regulation must confront a future that is already here.

INTRODUCTION

Video games have never been more serious. The gaming industry generated approximately $224 billion in global revenue in 2024.[1] Some experts project that figure will reach $300 billion by 2029.[2] That is more annual revenue than the global movie and music industries combined.[3] Roughly four billion people play video games worldwide, including roughly three out of four children in the United States.[4]

Within the last fifteen years, gaming companies have adopted a "monetize[d]" business model.[5] Many companies earn revenues through *microtransactions*—minor but regular payments for points and items.[6]

---

1. Perspectives from the Global Entertainment & Media Outlook 2025–2029, PwC (July 24, 2025), https://www.pwc.com/gx/en/issues/business-model-reinvention/outlook/insights-and-perspectives.html [https://perma.cc/A7CN-5J63] ("The segment had total revenues of US$223.8 billion in 2024 . . . .").

2. See, e.g., id. (stating the industry "is expected to grow to nearly US$300 billion in 2029, fuelled in part by new releases such as *Grand Theft Auto VI* (scheduled for May 2026)").

3. Julian Alcazar & Sam Baird, Game Changer: The Evolution of Video Games' Payments Infrastructure, Fed. Rsrv. Bank Kan. City (Apr. 9, 2025), https://www.kansascityfed.org/research/payments-system-research-briefings/game-changer-the-evolution-of-video-games-payments-infrastructure/ [https://perma.cc/6RUZ-E5JZ] (noting video games generated nearly $190 billion globally in 2024, "much greater than the combined revenues of the global recorded music industry ($36 billion) and global box office industry ($32 billion)").

4. Ent. Software Ass'n, 2023 Essential Facts About the U.S. Video Game Industry 2 (2023), https://www.theesa.com/wp-content/uploads/2023/07/ESA_2023_Essential_Facts_FINAL_07092023.pdf [https://perma.cc/F5EV-SDZA] [hereinafter 2023 Essential Facts] (reporting that "[n]early two-thirds of U.S. adults play video games regularly, and that number jumps to 76% for children under the age of 18"); Video Game Industry Will Flourish 2025 and Beyond, But One of the Big Three Console Makers Will Struggle, DFC Intel. (Dec. 17, 2024), https://www.dfcint.com/video-game-industry-will-flourish-2025-and-beyond-but-one-of-the-big-three-console-makers-will-struggle/ [https://perma.cc/NN5R-B7YZ] (reporting that "[m]ore than 3.8 billion people worldwide played video games in 2024" and forecasting that "that figure is expected to exceed 4 billion players by 2027—nearly half the global population").

5. See Tomas Hubka, Exploring Game Monetization: Traditional Strategies, GameAnalytics (May 16, 2025), https://www.gameanalytics.com/blog/traditional-monetization-strategies [https://perma.cc/ZZ7T-2VQJ] ("The extent of [monetization] strategies vary[,] . . . but they all aim to maximize revenue while providing value to players.").

6. See Daniel L. King, Paul H. Delfabbro, Sally M. Gainsbury, Michael Dreier, Nancy Greer & Joël Billieux, Unfair Play? Video Games as Exploitative Monetized Services: An Examination of Game Patents From a Consumer Protection Perspective, 101 Comput. Hum. Behav. 131, 131 (2019) ("Games as a service are designed to encourage users to make 'in-game purchases' or 'microtransactions', which involves spending money, usually in small amounts (e.g., between $1 and $5), to access (or have the possibility of accessing) virtual items or currency within the game.").

Some games now collect revenue entirely through these purchases rather than sticker prices.[7] According to proponents, microtransactions enable quicker gameplay.[8] Platform distributors—Microsoft, Sony, Apple, Google, and Valve—control monetary infrastructure.[9] Players (or their parents) can add funds to accounts via company gift cards and branded credit cards.[10] Companies also issue store balances.[11]

Most troublingly, gaming companies issue financial instruments within games, and players can convert the value into other forms of money, including dollar-denominated bank deposits.[12] Compared to the early days of analog gaming, it is as if Parker Brothers and the toy industry had collaborated to create, lend, and transfer Monopoly money worldwide, even helping players cash out "funny money" into "real money."

This Article analyzes a suite of financial instruments issued and deployed by the video game industry, terming them "gaming money," as they now display critical features that legal scholars assign to "money," most notably convertibility into government-backed money (bank deposits and cash) at an expanding scale.[13] By issuing this money, gaming companies are not merely creating virtual financial systems, but encroaching on the domain of banking law, which contains several statutes restricting money creation to the federal government-chartered banks, as well as several other laws governing money and finance.[14]

---

7. Alcazar & Baird, supra note 3 ("[T]he 'live service' model . . . does not charge for initial access to the game and instead collects revenue solely from microtransactions, such as on virtual items, upgrades, and additional content.").

8. Insert More Coins: The Psychology Behind Microtransactions, Touro Univ. Worldwide (Feb. 25, 2016), https://www.tuw.edu/psychology/psychology-behind-microtransactions/ [https://perma.cc/E4JF-RMMX] ("[M]icrotransactions offer [players] a faster and easier way to advance [in games].").

9. See infra Part II.

10. See infra section II.B.

11. See infra section II.B.

12. See infra section II.B.

13. See, e.g., Katharina Pistor, The Code of Capital: How the Law Creates Wealth and Inequality 3 (2019) [hereinafter Pistor, Code of Capital] (arguing that law creates four key elements of assets that "privilege its holder," including "*convertibility*, which . . . allows holders to convert their private credit claims into state money on demand and thereby protect their nominal value, for only legal tender can be a true store of value"); see also id. at 77–79 (expanding on the earlier point and noting states do not face a "binding survival constraint," as they have the power to create new money, but when private parties are in financial distress, they may have to turn to a government that issues money); Christine Desan, Money's Design Elements: Debt, Liquidity, and the Pledge of Value From Medieval Coin to Modern "Repo", 38 Banking & Fin. L. Rev. 331, 338 (2022) (arguing that shadow bank "near money" is generally supported with "a legally enforceable promise of convertibility to cash or implicit backing by the sovereign's taxing power").

14. See infra section II.B.

Although money is at the core of banking and finance (public and private), no provision of federal banking or financial regulation defines "money." Regulators adopt different, usually implicit definitions of "money" in different ways to govern different sets of disparate markets, activities, and instruments that do not seem to fit into particular categories.[15]

For instance, the Federal Reserve Act requires that Federal Reserve notes be redeemed in "lawful money," which neither the Act nor the courts have defined.[16] The Treasury and state governments license "money services businesses,"[17] including "money transmitters" such as Western Union, and impose requirements regarding data governance, solvency, and the prevention of illicit flows.[18] Federal and state agencies now apply these frameworks (lightly) to regulate digital wallet companies, including companies primarily offering wallets for cryptocurrencies.[19] The Treasury surveils the financial system for various activities clustered under a broad definition of "money laundering."[20]

---

15. See, e.g., Remarks by Under Secretary for Domestic Finance Nellie Liang "Modernizing the Regulatory Framework for Domestic Payments" at the Chicago Payments Symposium, Hosted by the Federal Reserve Bank of Chicago, U.S. Dep't of the Treasury (Oct. 9, 2024), https://home.treasury.gov/news/press-releases/jy2639 [https://perma.cc/U8L5-DB77] ("[N]ew kinds of private money or money-like instruments are growing. By 'money,' I mean instruments that are designed to have a stable value and can be used for exchange.").

16. See What Is Lawful Money? How Is It Different From Legal Tender?, Bd. of Governors of the Fed. Rsrv. Sys., https://www.federalreserve.gov/faqs/money_15197.htm [https://perma.cc/MSB7-CGDS] (last visited Apr. 3, 2026) (discussing the Act and state and federal court treatment). Other bodies of law define "money" for purposes beyond the scope of this paper. See U.C.C. § 1-201(b)(24) (defining money as "a medium of exchange currently authorized or adopted by a domestic or foreign government" as part of the model state framework for private commercial transactions); 18 U.S.C. § 2311 (2024) (defining money as legal tender for prosecutions concerning stolen property).

17. See Money Services Business (MSB) Information Center, IRS, https://www.irs.gov/businesses/small-businesses-self-employed/money-services-business-msb-information-center [https://perma.cc/QD3B-JCVS] (last visited May 16, 2026) (defining money services businesses as those "offering check cashing; foreign currency exchange services; or selling money orders, travelers' checks or pre-paid access . . . for an amount greater than $1,000 per person, per day, in one or more transactions").

18. See Nakita Q. Cuttino, The Rise of "FringeTech": Regulatory Risks in Earned-Wage Access, 115 Nw. U. L. Rev. 1505, 1528–30 (2021) ("The law of money transmitters is designed primarily to protect consumer funds that are temporarily in trust with the money transmitters, prevent money laundering, and safeguard consumer data." (footnotes omitted)).

19. Paul Tierno, Cong. Rsch. Serv., IF12405, Introduction to Cryptocurrency 2 (2025), https://crsreports.congress.gov/product/pdf/IF/IF12405 (on file with the *Columbia Law Review*) ("The regulatory framework for MSBs is largely a state-based licensing regime and applies to many nonbank institutions, including crypto exchanges and crypto automated teller machines. At the federal level, these crypto firms are considered MSBs . . . .").

20. See Kathryn Judge & Anil K. Kashyap, Anti-Money Laundering: Opportunities for Improvement 3–8 (2024), https://wifpr.wharton.upenn.edu/wp-content/

Federal and state securities regulators treat markets that blur the lines between banking, securities, and derivatives as "money market funds."[21] Finally, a set of rarely invoked laws governing "legal tender" contain their own conceptions of "money."[22]

One might view the lack of a universal statutory definition of money as a feature of financial regulation that facilitates innovation. From the perspective of this Article, it is more like a "bug" in governance that confuses financial regulation and circumvention of the sovereign's constitutional authority over money creation.[23]

Within gaming money systems, gamers suffer many harms. *Roblox*, the most popular video game in the world, has 112 million daily active users, thirty million of whom are under the age of thirteen.[24] Players exist as avatars, which users customize with "clothing, gear, animations, simulated gestures, emotes, and other objects" and use to play games.[25] Within an immersive environment without a single storyline, players learn how to code and develop games for other players to play.[26] Gamers can earn "Robux" as they become entrepreneurs.[27] Although players can purchase Robux through platforms like the Apple and Google stores, the

---

uploads/2024/03/WIFPR-Anti-Money-Laundering-Judge-and-Kashyap.pdf [https://perma.cc/CPY5-RSQE] (describing the federal anti-money-laundering regime).

21. See, Craig M. Lewis, Money Market Funds and Regulation, 8 Ann. Rev. Fin. Econ. 25, 26 (2016) (describing the "hybrid," "bank-like" nature of money market funds and the difficulty of regulating these funds).

22. See 31 U.S.C. § 5103 (2024) ("United States coins and currency (including Federal reserve notes and circulating notes of Federal reserve banks and national banks) are legal tender for all debts, public charges, taxes, and dues. Foreign gold or silver coins are not legal tender for debts.").

23. See U.S. Const. art. I, § 8, cl. 5 (granting Congress the power to "coin Money" and "regulate the Value thereof"); id., § 10, cl. 1 ("No State shall . . . coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts . . .").

24. Statista Rsch. Dep't, Daily Active Users (DAU) of Roblox Games Worldwide From 4th Quarter 2018 to 2nd Quarter 2025, Statista (Nov. 27, 2025), https://www.statista.com/statistics/1192573/daily-active-users-global-roblox/ [https://perma.cc/S6UZ-G9UP] (explaining that *Roblox* had "over 111.8 million daily active users," a 41% increase from Q2 2024, and "as of the first quarter of 2025, about 61 million *Roblox* gamers are aged 13 years or above, compared to 29.7 million younger users").

25. Noel v. Roblox Corp., No. 3:24-cv-00963-JSC, 2024 WL 3747454, at *1 (N.D. Cal. Aug. 8, 2024) (internal quotation marks omitted) (quoting Complaint ¶ 54, *Noel*, 2024 WL 3747454 (N.D. Cal. filed Feb. 16, 2024)).

26. Id.

27. See Guiding Your Up-and-Coming Roblox Developer, Roblox Support, https://en.help.roblox.com/hc/en-us/articles/4438648708756-Guiding-Your-Up-and-Coming-Roblox-Developer (on file with the *Columbia Law Review*) (last visited Feb. 5, 2026) (promoting *Roblox* as an opportunity for entrepreneurship and describing how successful developers make money by converting Robux into fiat currency).

distributors take a 30% cut of all sales.[28] On February 16, 2024, Raymond and Laura Noel, the parents of three gamers, filed a class action lawsuit against Roblox, claiming it financially exploits children.[29] Such lawsuits proceed alongside multiple state attorney general lawsuits (and other federal lawsuits) alleging that *Roblox*'s design facilitates child abuse and grooming (a subject matter beyond the scope of this Article).[30]

For roughly a decade, Electronic Arts' *FIFA* Football franchise, one of the best-selling games of all time,[31] has been a site of fraud. In 2016, coconspirators created software bots that "logged thousands of FIFA football matches within a matter of seconds," improperly earning "*FIFA* coins," which they sold in illicit secondary markets for over $16 million.[32] In 2021, Ukrainian law enforcement inspected a warehouse thought to have been used for cryptocurrency mining, finding fraudsters running bots on 3,800 PlayStation 4 consoles to earn *FIFA* coins and sell them in illicit markets.[33]

During the global COVID-19 pandemic, many gamers in countries with unstable currencies made a living by earning gaming money they could convert into government-backed money.[34] For instance, in *Axie*

28. Tim Higgins, Apple Doesn't Make Videogames. But It's the Hottest Player in Gaming., Wall St. J., https://www.wsj.com/articles/apple-doesnt-make-videogames-but-its-the-hottest-player-in-gaming-11633147211 (on file with the *Columbia Law Review*) (last updated Oct. 2, 2021).

29. *Noel*, 2024 WL 3747454, at *1–3.

30. See Reuters, Florida Attorney General Issues Subpoenas to Roblox Over Child Safety, NBC News (Oct. 20, 2025), https://www.nbcnews.com/tech/tech-news/florida-attorney-general-issues-subpoenas-roblox-child-safety-rcna238711 [https://perma.cc/TBB3-W3FR] (noting "mounting scrutiny" including lawsuits "alleging [Roblox] fails to implement adequate safety measures and enables sexual predators to exploit children"); see also Complaint at 28, Tennessee v. Roblox Corp., No. 25CV-55330 (Tenn. Ch. Ct. filed Dec. 18, 2025) (arguing Roblox's "virtual currency system gives predators a ready-made bargaining chip—Robux—which becomes both the bait and the weapon"); Clare Duffy, Lawsuits Claim Roblox Endangers Kids. New AI Age Verification Aims to Block Them From Chatting With Adults, CNN Bus., https://www.cnn.com/2025/11/18/tech/roblox-ai-age-verification-youth-safety (on file with the *Columbia Law Review*) (last updated Nov. 18, 2025) (detailing the company response, which now requires children to provide government ID or let "an artificial intelligence age estimation tool photograph their face").

31. Tom Bowen, The Most Popular Video Game Franchises of All Time, Game Rant, https://gamerant.com/biggest-best-selling-video-game-franchises-most-popular/ (on file with the *Columbia Law Review*) (last updated Sep. 12, 2024) (listing *FIFA* at number six).

32. Press Release, DOJ, Fourth Defendant Convicted in Scheme that Defrauded Software Company of Over $16 Million Worth of Virtual Currency (Nov. 16, 2016), https://www.justice.gov/archives/opa/pr/fourth-defendant-convicted-scheme-defrauded-software-company-over-16-million-worth-virtual [https://perma.cc/JKE6-3S9D].

33. Adam Bankhurst, Thousands of PS4s Being Used as a FIFA Ultimate Team Bot Farm Seized by Ukrainian Police, IGN (July 18, 2021), https://www.ign.com/articles/thousands-of-ps4s-used-as-fifa-ultimate-team-bot-farm-ukrainian-police-seized [https://perma.cc/AHA4-MFJQ].

34. See, e.g., Lyllah Ledesma, Axie Infinity Finds Ready Players in Hyperinflation-Racked Venezuela, CoinDesk (Nov. 23, 2021), https://www.coindesk.com/

Infinity, a game reminiscent of Nintendo's Pokémon, players buy, trade, and battle each other with creatures called "Axies" (which are themselves digital representations of art known as non-fungible tokens, or NFTs).[35] In 2022, the game's payment token, "Smooth Love Potion," collapsed, plunging many users into debt and leaving others with worthless investments in Axies.[36]

As harm to players becomes apparent, online gaming is receiving more academic attention. While other scholars have explored money in video games from different angles, such as gambling law[37] and consumer protection for children,[38] as well as the possibility of taxation[39] and securities regulation[40] within virtual environments, the literature has yet

---

markets/2021/11/23/axie-infinity-finds-ready-players-in-hyperinflation-racked-venezuela/ [https://perma.cc/44UW-HWBM] (last updated May 11, 2023) ("Given the complicated economic situation in Venezuela, Axie Infinity's method of letting people earn money by playing offers an attractive alternative to citizens to signing on to low-wage jobs to overcome the nation's hyperinflation.").

35. Xuan-Thao Nguyen, Blockchain Games and a Disruptive Corporate Business Model, 6 Stan. J. Blockchain L. & Pol'y 43, 67–68 (2023).

36. See Andrew R. Chow & Chad de Guzman, A Crypto Game Promised to Lift Filipinos Out of Poverty. Here's What Happened Instead, Time (July 25, 2022), https://time.com/6199385/axie-infinity-crypto-game-philippines-debt/ [https://perma.cc/KC23-XYKC].

37. See, e.g, Sheldon A. Evans, Pandora's Loot Box, 90 Geo. Wash. L. Rev. 376, 378 (2022) (arguing state agencies should regulate loot boxes—virtual boxes with unknown contents that players can purchase—as gambling); John T. Holden, Trifling and Gambling With Virtual Money, 25 UCLA Ent. L. Rev. 41, 94–96 (2018) (arguing Congress should "propos[e] legislation that would treat activities that act like gambling as gambling activities and provid[e] common-sense regulation and consumer protections"); Alex Reyes, Open-World Regulation: The Urgent Need for Federal Legislation on Video Game Loot Boxes, 16 Wash. J.L. Tech. & Arts 87, 104 (2021) (proposing "a ban similar to the Netherlands and Belgium, but with a more constrained focus on restricting sales of loot boxes to children").

38. See, e.g., Nizan Geslevich Packin, Financial Inclusion Gone Wrong: Securities and Cryptoassets Trading for Children, 74 Hastings L.J. 349, 356 (2023) (situating the gamification of finance within a growing body of children's law and arguing fintech games could "have a developmentally and behaviorally disruptive influence on children").

39. See, e.g., Young Ran (Christine) Kim, Taxing the Metaverse, 112 Geo. L.J. 787, 795, 802, 806, 810 (2024) (proposing that the IRS subject Metaverse income and wealth to immediate taxation or risk "open[ing] up the Metaverse as a potential tax haven"). "[T]he term Metaverse is used to describe any network of virtual worlds wherein participants engage in economic activity, including the ability to consume, create, trade, and accumulate digital items with real economic value." Id. at 792.

40. Compare Eric C. Chaffee, Securities Regulation in Virtual Space, 74 Wash. & Lee L. Rev. 1387, 1392 (2017) ("[R]egulators and courts should determine that these securities existing entirely within virtual space, which are dependent on virtual activity, are not securities for purposes of federal securities regulation."), with Wendy Gerwick Couture, The Risk of Regulatory Arbitrage: A Response to *Securities Regulation in Virtual Space*, 74 Wash. & Lee L. Rev. Online 234, 235–36 (2018), https://scholarlycommons.law.wlu.edu/wlulr-online/vol74/iss2/1 (on file with the *Columbia Law Review*) (responding to Chaffee's argument, countering that the virtual transactions, because of their ability to facilitate arbitrage, should fall within the ambit of

to examine new online gaming practices as a unique puzzle for laws governing money.

This Article shows how dominant video game companies are not only harming gamers but, much like financial technology and cryptocurrency companies, developing "shadow money" systems[41] and thus evading regulations meant to prevent structural harms. Compounding problems further, gaming companies can invoke a distinctive defense, claiming they operate "virtual" worlds of entertainment, media, and the arts, beyond the reach of regulators. Yet the laws governing money do not ask if money is "real," for instance, but whether its issuance infringes on the legal privileges of the federal

---

securities regulation, and instead proposing a new "exemption from registration that would further the policy goals of the securities laws while not stifling innovation in virtual space").

41. The legal literature on money, banking, and finance contains many different definitions of shadow money. This Article uses the term shadow money to refer to a variety of financial instruments issued by nonbank corporations that serve most or all of the functions of money without government regulation. See, e.g., Morgan Ricks, The Money Problem: Rethinking Financial Regulation 4, 11 (2016) [hereinafter Ricks, The Money Problem] (defining shadow money as "close substitutes for deposit instruments"); John Crawford, The Dollar Dilemma: Hegemony, Control, and the Dollar's International Role, 18 Va. L. & Bus. Rev. 149, 159–61 (2024) (situating "shadow money" below Federal Reserve and commercial bank deposits within a "*hierarchy* of money claims"); Lev Menand & Morgan Ricks, Rebuilding Banking Law: Banks as Public Utilities, 41 Yale J. on Regul. 591, 646 (2024) ("[T]he decision to design deposit insurance primarily for households is part of the reason a range of highly unstable shadow money instruments . . . emerged in the second half of the twentieth century."); David Min, Housing Finance Reform and the Shadow Money Supply, 43 J. Corp. L. 899, 900 (2018) (arguing that government-backed housing finance produces liabilities that function as money and crowd out shadow money); Daniela Gabor & Jakob Vestergaard, Towards a Theory of Shadow Money 2 (Inst. for New Econ. Thinking, Working Paper, 2016), https://www.ineteconomics.org/uploads/papers/Towards_Theory_Shadow_Money_GV_INET.pdf [https://perma.cc/6FSR-99FY] (defining "shadow money" as "repo liabilities, promises backed by tradable collateral"). Readers may be more familiar with the term "shadow banking," as opposed to "shadow money." Although scholars initially used the term "shadow banking" to refer primarily to nonbank maturity transformation, it is now more comprehensive. See, e.g., Ricks, The Money Problem, supra note 41, at 95–96 (explaining that experts use the term "shadow banking" narrowly, whereas others use it as a general reference to bank-like activity, or unregulated or lightly regulated parts of the financial system); Adam J. Levitin, Rent-A-Bank: Bank Partnerships and the Evasion of Usury Laws, 71 Duke L.J. 329, 342 (2021) [hereinafter Levitin, Rent-A-Bank] (expanding the definition of shadow banking to include consumer-facing activities); Steven L. Schwarcz, Regulating Shadow Banking, 31 Rev. Banking & Fin. L. 619, 620–26 (2012) (describing shadow banking as intermediation that is less regulated than chartered banking, which can function as a "public good" and increase efficiencies, but can also "pose systemic risks to the financial system"). For the macro dynamics of shadow money and banking, see, e.g., Dan Awrey & Kathryn Judge, Why Financial Regulation Keeps Falling Short, 61 B.C. L. Rev. 2295, 2304 (2020) (arguing a shadow banking "network" "funded mortgages . . . using short-term debt, with commercial paper, repurchase . . . agreements, and money market funds serving as substitutes for deposits"); Robert C. Hockett & Saule T. Omarova, The Finance Franchise, 102 Corn. L. Rev. 1143, 1175 (2017) (describing how nonbank financial institutions "replicate" the role of chartered banks within the broader economy).

government and its chartered money.[42] Financial regulation, especially banking law and legal tender law, contemplates the development of shadow money regardless of technological format. Moreover, banking regulators govern "by hypothetical" and should not wait for small-scale problems to become large-scale crises.[43] The Treasury, including its Financial Crimes Enforcement Network (FinCEN), and state money transmitter and securities regulators all require corporations engaged in money transmission and related services to register before doing business.[44] Finally, the application of legal tender law, although unassigned to any particular regulator, would explicitly ban many of the practices adopted by video game companies.

The Article proposes that federal agencies supervise companies converting or materially supporting the conversion of gaming money to government-backed money (currency and bank deposits) at scale. Ultimately, however, Congress should empower regulators to supervise gaming companies that issue convertible gaming money at scale.

The Article concludes by reviewing the argument and expounding on how an analysis of gaming money generates insights that should inform how scholars and policymakers should approach the relationship between financial regulation, especially monetary regulation, and technology. Gaming money is part of a new kind of payments infrastructure, embedded within a functionally sovereign social platform where the financial instruments in question often remain the property of the issuer. For now, at least, this regime should be agnostic toward the specific quality of this technology in defining jurisdiction but sensitive in the intensity of supervision of companies that do not cause concern regarding their conversion practices.

Beyond gaming, the Article suggests that regulators should approach money itself as a category of regulatory concern, regardless of how the regime has previously governed the instruments in question. This Article does not undertake to prove this broader, structural claim, but does illustrate it within a particularly technologically sophisticated industry. The gaming case urges a more unified analysis.

Part I analyzes the history of corporations deploying new technology to create "shadow money" just beyond the reach of the law. Congress has charged banking regulators with preventing such developments. Policymakers have also previously terminated or proactively prevented

---

42. See infra Part III (discussing the laws governing money, banking, and finance, and the risks of underregulation).

43. See Mehrsa Baradaran, Regulation by Hypothetical, 67 Vand. L. Rev. 1247, 1255–57 (2014) (citing stress tests and living wills as key examples of banking "regulation by hypothetical").

44. 31 U.S.C. § 5330(a)(1), (d) (2024) (requiring money transmitters, including transmitters of "value that substitutes for currency," to register with the Treasury); 31 C.F.R. § 1022.380(a)(1) (2025) (requiring money services businesses [MSBs] to register with FinCEN).

the issuance of shadow money by railroad, canal, and mining companies,[45] retail giants,[46] and social media conglomerates.[47] Per Professor Dan Awrey of Cornell Law School, "[f]or most of the twentieth century, banks enjoyed a virtual monopoly over private money creation."[48] Today, gaming companies follow fintech and cryptocurrency companies that have been issuing shadow money for over a decade.[49] They engage in activities in ways that confuse regulatory categories and boundaries.[50] In the twenty-first century, the sovereign struggles to govern money and banking. History suggests banking regulation is incomplete without a vision of concretely regulating nonbank corporate monies.

Part II shows how gaming companies create money through games, online stores, and gift cards. Gaming money is critical in organizing information, data governance, and behavior within the game.[51]

---

45. Congress mitigated the circulation of "scrip" during the Civil War through the nearly forgotten Stamp Payments Act of 1862, a regulatory form of legal tender law. For the contemporary codification of the Stamp Payments Act, see 18 U.S.C. § 336 (2024) ("Whoever makes, issues, circulates, or pays out any note . . . or other obligation for a less sum than $1, intended to circulate as money or to be received or used in lieu of lawful money of the United States, shall be fined under this title or imprisoned . . . ."); see also infra section I.C. (discussing how railroad, canal, and mining companies have issued scrip).

46. See, e.g., Arthur E. Wilmarth, Jr., Wal-Mart and the Separation of Banking and Commerce, 39 Conn. L. Rev. 1539, 1568–69 (2007) (arguing that "federal and state legislators have repeatedly passed laws to separate banks from commercial enterprises," including the Banking Act of 1933, widely known as the Glass–Steagall Act, as well as the Bank Holding Company Act of 1956).

47. See, e.g., Elizabeth Dwoskin & Gerrit De Vynck, Facebook's Cryptocurrency Failure Came After Internal Conflict and Regulatory Pushback, Wash. Post (Jan. 28, 2022), https://www.washingtonpost.com/technology/2022/01/28/facebook-cryptocurrency-diem/ [https://perma.cc/ZJJ9-Z55G] (describing policymakers' response to Facebook's attempt to issue "Libra," a stablecoin).

48. Dan Awrey, Bad Money, 106 Corn. L. Rev. 1, 39 (2020) [hereinafter Awrey, Bad Money].

49. See infra Part III.

50. See Dan Awrey, Unbundling Banking, Money, and Payments, 110 Geo. L.J. 715, 719–20 (2022) (discussing how "shadow payment platforms (SPPs)" have "forced policymakers to rethink the legal, technological, and institutional architecture of our existing systems of money and payments" (internal quotation marks omitted) (quoting Dan Awrey & Kristin van Zwieten, Mapping the Shadow Payment System 1 (SWIFT Inst., Working Paper No. 2019-001, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3462351 (on file with the *Columbia Law Review*))) [hereinafter Awrey, Unbundling]; Saule T. Omarova & Graham S. Steele, Banking and Antitrust, 133 Yale L.J. 1162, 1244–50 (2024) (arguing a host of recent unbundling dynamics have undermined "the traditional public-policy principles embedded in the U.S. banking law").

51. Although the broader data governance dimensions of gaming money warrant thorough analysis, they are beyond the scope of this Article, which focuses on money, banking, and finance. For now, it is sufficient to note that data collection is intrinsic to the gaming money business model and prefigures each of the financial harms this Article addresses.

Moreover, the monetization of video games leads to many harmful practices. First, gaming companies manipulate exchange rates between gaming money and government currency, rendering the nominal value of many retail financial products and services illusory.[52] Second, gaming companies have created environments ripe for laundering money between gaming money systems and chartered banks.[53] Third, gaming companies expose gamers, developers, and counterparties to new forms of payments and liquidity risk.[54]

Part III argues that gaming companies also present a novel legal challenge, which is nevertheless surmountable. Unfortunately, many policymakers have implicitly subscribed to the metaphor of a "magic circle," a term some scholars use to separate worlds of play from the real world, that is the proper realm of law,[55] even as many dispute the metaphor's utility.[56] In the courts, the gaming industry regularly leverages the background laws of intellectual property, speech, and communications that encase technology and entertainment companies from regulation.[57] Gaming companies constitute and reinforce this

---

52. See infra section II.C.1.

53. See infra section II.C.2.

54. See infra section II.C.3.

55. Historian Johan Huizinga coined the metaphor in 1938 in his book *Homo Ludens*. See Johan Huizinga, Homo Ludens: A Study of the Play-Element in Culture 10 (Roy Publishers trans., 1950) (1938) ("The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds . . . within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart."). For foundational legal treatment of the "magic circle" metaphor, see Joshua A.T. Fairfield, The Magic Circle, 11 Vand. J. Ent. & Tech. L. 823, 824–25 (2009) [hereinafter Fairfield, Magic Circle] ("The purpose of the magic circle is to protect virtual worlds from outside influences—law, real-world economics, real-world money, and the like."); id. at 825 ("This Article seeks to debunk the magic circle. The thrust of my argument is simple: There is no 'real' world as distinguished from 'virtual' worlds. Rather, all supposedly 'virtual' actions originate with real people, and impact real people, albeit through a computer-mediated environment.").

56. See Trey Hickman & Kristin E. Hickman, The Myth of the Magic Circle: Rejecting a Single Governance Model, 2 U.C. Irvine L. Rev. 537, 537–43 (2012) (discussing different perspectives regarding the magic circle metaphor and arguing not for jettisoning it, but rather for redefining it "from a regulatory perspective," as "a worthwhile endeavor").

57. See infra section III.A (discussing how companies structure some forms of gaming money as licensed virtual content rather than financial instruments, enabling them to disclaim user property interests and alienability rights to evade a suite of laws beyond financial regulation, where the virtuality defense is anticipated, but not yet deployed); see also Brown v. Ent. Merchs. Ass'n, 564 U.S. 786, 790 (2011) ("California correctly acknowledges that video games qualify for First Amendment protection."); Colvin v. Roblox Corp., 725 F. Supp. 3d 1018, 1027 (N.D. Cal. 2024) ("The plaintiffs' claims are not barred by Section 230 because they do not treat Roblox as a publisher or speaker."); Coffee v. Google, LLC, No. 20-cv-03901-BLF, 2022 WL 94986, at *12–13 (N.D. Cal. Jan. 10, 2022) (holding that a loot box item is not a "thing of value" under California gambling law because the platform's terms of service prohibit sale); Taylor v. Apple, Inc.,

defense through contract and property law—terms of service (ToS) and end-user license agreements (EULAs) disclaiming convertibility, user property rights, and deposit-like and bank-like features.[58] The disclaimers are revealing: The need to deny such categorization of these legal and financial relations presupposes that the broader public may view the balances this way. Indeed, SEC disclosures and other financial statements reveal some companies may classify gaming money as liabilities on their balance sheets while simultaneously telling those same consumers that gaming money has no monetary value and constitutes no property right.[59] Effectively, gaming companies operate as if exempt from many important laws governing money, banking, and finance.[60] Situating the analysis within the law and technology literature on virtual spaces[61] and

---

No. 20-cv-03906-RS, 2021 WL 11559513, at *5 (N.D. Cal. Mar. 19, 2021) (holding that virtual items obtained from loot boxes lack transferable value in the "real world" and thus lie beyond gambling regulation); Comment Letter from Jeffrey P. Ehrlich, McGuireWoods LLP, to Bureau of Consumer Fin. Prot., at 2, 9 (Mar. 31, 2025), https://downloads.regulations.gov/CFPB-2025-0003-0105/attachment_1.pdf (on file with the *Columbia Law Review*) (urging the CFPB to abandon its proposed rule applying the Electronic Fund Transfer Act [EFTA] to forms of gaming money "akin to tokens at an arcade" that "do not represent real-world monetary value" because "the consumer is still just purchasing an entertainment commodity . . . to use on a specific platform to enhance the entertainment experience.").

58. See, e.g., Epic Account Balance Terms, Epic Games (June 4, 2025), https://legal.epicgames.com/en-US/epicgames/account-balance-terms [https://perma.cc/7G9J-ST3R] (emphasizing that among other features, the Epic Account Balance does not establish personal property rights, is not a bank account or a payment account, does not "constitute deposits," and is not FDIC-insured); Steam Subscriber Agreement § 3(C), Valve Corp. (Sep. 18, 2025), https://store.steampowered.com/subscriber_agreement/ [https://perma.cc/HZL8-K69L] ("Steam Wallet funds do not constitute a personal property right . . . .").

59. See infra section II.B.3 (discussing Roblox reporting on its gift card accounting).

60. See infra Part III (arguing that gaming companies often claim content is "virtual," beyond the reach of governance).

61. For an extensive series of essays written shortly after Linden Labs, the developer and publisher of PC Game *Second Life*, issued the first gaming money, see generally The State of Play: Law, Games, and Virtual Worlds (Jack M. Balkin & Beth Simone Noveck eds., 2006). For similar work, see, e.g., Mark A. Lemley, The Dubious Autonomy of Virtual Worlds, 2 U.C. Irvine L. Rev. 575, 578–79 (2012) (arguing that while the internet has complicated the magic circle metaphor, "the physical architecture of the world we create is at least as powerful a determinant of how people will act as the legal rules and the social norms that more directly intend to govern behavior"); Harrison M. Rosenthal & Genelle I. Belmas, Cyber-Recapitulation? What Online Games Can Teach Social Media About Content Management, 61 Jurimetrics 331, 351–52 (2021) (arguing that while games might not be sovereign entities, the magic circle is still useful in determining whether legal intervention is appropriate); see also F. Gregory Lastowka & Dan Hunter, The Laws of the Virtual Worlds, 92 Calif. L. Rev. 1, 71 (2004) ("Given the complexity of ascertaining a virtual world's emerging legal rules and balancing them with avatar rights and wizardly omnipotence . . . real-world courts entertaining virtual disputes is . . . not very appealing. Perhaps . . . it would be best to require that the laws of the virtual worlds develop within their own jurisdiction.").

platform power,[62] the Article argues that virtuality—or more accurately, the claim of sovereignty over a virtual world—is an insufficient defense against financial regulation. Lawmakers should adopt the regulatory axis of "convertibility," as it tracks the power of private money creation and, thus, the level of public governance necessary.[63] Governments have consistently regulated entities that support the conversion of private money into currency and bank deposits, paying close attention to the instruments and new technologies of conversion.[64] Some companies may not yet engage in pernicious activity at scale and hence may only require light regulatory supervision. However, regulators should not wait for a micro issue to become a macro issue. Despite working in uncertain conditions with limited information, financial regulatory agencies aim to anticipate and ideally prevent crises.[65]

Part IV offers a graduated framework for regulating gaming money, replacing the industry's magic circle with public administrative standards revolving around convertibility to government money, bank deposits, and now, stablecoins, at scale. Based on existing laws, the Consumer Financial Protection Bureau (CFPB) could lead other regulators to examine large

---

62. In a new casebook, scholars define platforms as "large-scale, centralized places—physical or virtual—that allow people to interact or transact." Morgan Ricks, Ganesh Sitaraman, Shelley Welton & Lev Menand, Networks, Platforms, and Utilities: Law and Policy 7 (2022) (offering railroads, stock exchanges, and social media companies as examples of platforms); see also K. Sabeel Rahman, The New Utilities: Private Power, Social Infrastructure, and the Revival of the Public Utility Concept, 39 Cardozo L. Rev. 1621, 1668–69 (2018) (characterizing platforms as "linking producers and consumers of goods, services, and information"). Some law and technology scholars offer more specific definitions. See Julie E. Cohen, Between Truth and Power: The Legal Constructions of Informational Capitalism 37–47, 63–74 (2019) (describing how platforms both generate and intermediate information networks, while also disciplining infrastructures that facilitate particular types of interactions and value extraction); see also Amy Kapczynski, The Law of Informational Capitalism, 129 Yale L.J. 1460, 1466 (2020) (building on Cohen's account by showing how platform companies leverage various background laws, including laws related to data governance, trade secrecy, intermediary immunities, and the First Amendment). For a canonical example of platform power in the tech sector, see Lina M. Khan, Note, Amazon's Antitrust Paradox, 126 Yale L.J. 710, 710 (2017) (arguing that the consumer welfare standard in antitrust law failed to recognize platform power).

63. See Saleh M. Nsouli, John B. McLenaghan & Klaus-Walter Riechel, Concepts of Convertibility and Stages of Monetary Integration, *in* Currency Convertibility in the Economic Community of West African States 3 (1982) ("A currency may therefore have different degrees of convertibility vis-à-vis other currencies, depending on the ease with which it can be converted and the extent to which it can be used for foreign transactions.").

64. See, e.g., Fact Sheet on MSB Registration Rule, Fin. Crimes Enf't Network, https://www.fincen.gov/fact-sheet-msb-registration-rule [https://perma.cc/F5G3-27Q9] (last visited Feb. 6, 2026) (extending banking regulations to money services businesses such as "currency dealers or exchangers," "check cashers," "issuers of traveler's checks or money orders," "sellers or redeemers of traveler's checks or money orders," and "money transmitters").

65. See, e.g., Baradaran, supra note 43, at 1281 ("Proper risk modeling must incentivize firms to envision and prepare for the worst-case scenario.").

gaming companies that support converting gaming money to currency and bank deposits and other familiar financial instruments for unfair practices.[66] As a practical reality in this political moment, the CFPB is unlikely to move forward, and its very existence is in peril.[67] Ultimately, Congress should also pass a Gaming Money Act, empowering regulators to license and supervise companies issuing gaming money. Licensed gaming money companies would face tailored rate controls, customer identification requirements, and structural separation of gaming money operations from broader business activity, according to relative harms and risks outlined in Parts I and II. These laws would apply regardless of the technological media of gaming money or its characterization per the laws governing media, entertainment, and the arts, but according to its interface with the public money system.

The Article concludes by reviewing the argument and how it suggests a more concerning future for the governance of money, banking, and finance. The stakes are becoming more urgent. Sony has applied for a national trust bank charter to issue cryptocurrency (stablecoins), placing some of its gaming money operations in a new, cognizable, and regulated (if underregulated) space.[68] This move signals that video game companies are seriously interested in building out private monetary systems we hardly understand. If technology companies can engage in regulatory arbitrage across imagined lines of virtuality and reality, then policymakers and scholars must reconstruct regulation.[69]

---

66. In 2024, the CFPB expressed concern about video games, focusing on the most apparent harms, such as payment processing errors and privacy violations, but did not adopt a structural framework. CFPB, Banking in Video Games and Virtual Worlds 16 (2024), https://files.consumerfinance.gov/f/documents/cfpb_banking-in-video-games-and-virtual-worlds_2024-04.pdf [https://perma.cc/L8JS-27TE] [hereinafter CFPB Report]; LFG (Looking for Gamers): CFPB Wants to Hear About Your Video Game Loot, CFPB (Jan. 10, 2025), https://www.consumerfinance.gov/about-us/blog/lfg-looking-for-gamers-cfpb-wants-to-hear-about-your-video-game-loot/ [https://perma.cc/S9Y3-YQ3V] (proposing a rule to interpret EFTA to cover gaming, but providing minimal details, right before a change in leadership).

67. Trump Administration Attempts to Close the CFPB, Block Agency's Work, Econ. Pol'y Inst. (Jan. 16, 2026), https://www.epi.org/policywatch/trump-administration-closes-the-cfpb/ (on file with the *Columbia Law Review*) (detailing the timeline over which the Trump administration has challenged the CFPB).

68. Application of Sony Bank Incorporated to Establish a National Trust Bank and Commence Certain Activities Involving Cryptocurrency, Off. of the Comptroller of the Currency (Oct. 6, 2025), https://www.occ.gov/topics/charters-and-licensing/digital-assets-licensing-applications/connectia-trust.pdf [https://perma.cc/H64P-HKCK].

69. See Awrey & Judge, supra note 41, at 2322 (arguing there is a disconnect between the reality of a complex, dynamic, uncertain financial system and regulatory processes that "assume a high degree of knowability, stability, and predictability in designing rules that are both effective and legitimate"); see also id. at 2350–53 (arguing a "holistic mindset" contemplates "emerging, systemic issues that have not yet congealed enough to be salient using a more conventional lens").

I. SHADOW MONEY

Chartered banking incorporates three core functions: money creation, transfer, and lending.[70] Here, we focus on money creation. Banking law scholars have referred to different contemporary forms of nonbank money as "shadow money,"[71] "bad money,"[72] "platform money,"[73] and similar terms. This Article uses the term shadow money to refer to various financial instruments issued by nonbank corporations that serve most or all of the functions of money without government regulation. Since money creation is a legal privilege of banks, nonbank corporations that issue shadow money also engage in shadow banking per expansive, overlapping definitions of that term (engaging in unregulated banking activity).[74] This Part analyzes the history of regulating a continuum of shadow monies from the perspective of banking regulation and its forgotten companion, legal tender regulation. First, it discusses monetary instruments issued by the U.S. government, then instruments issued by nonbank corporations. Finally, it addresses the typical harms caused by tech companies that evade regulation. In Part II, this Article discusses gaming money as shadow money within this continuum, demonstrating how the general harms identified here arise in the specific context of the gaming industry.

A. *Government Money*

There are many scholarly disagreements as to what constitutes money. For many neoclassical economists, money serves only three functions: "a medium of exchange, a unit of account, and a store of value."[75] Other economics textbooks cite a mnemonic rhyme—"Money's a matter of functions four, a Medium, a Measure, a Standard, a Store"—meaning a medium of exchange, a common measure of value (or unit of account), a standard of deferred payment, and a store of value.[76]

---

70. See Awrey, Unbundling, supra note 50 (explaining the "bundled" system of banking).

71. See Crawford, supra note 41, at 159 (explaining "the rise of shadow money").

72. See Awrey, Bad Money, supra note 48, at 2–8 (defining bank deposits and regulated money market fund (MMF) shares as "good money," but various contemporary fintech instruments as "bad money," unsafe and lacking in credibility).

73. See Raúl Carrillo, Platform Money, 41 Yale J. on Regul. 894, 900 (2024) (defining "platform money" as "digital wallet balances, held out by technology companies as if they were as safe as FDIC-insured bank deposits").

74. Initially, scholars focused on shadow banking within high finance, but they now address business practices in consumer finance. See, e.g., Levitin, Rent-A-Bank, supra note 41, at 342 (expanding the definition of shadow banking to include consumer-facing activities).

75. N. Gregory Mankiw, Principles of Macroeconomics 325 (6th ed. 2009) (emphasis omitted).

76. Alfred Milnes, The Economic Foundations of Reconstruction 55 (1919).

Over the past decade, against the background of the global financial crisis, the Eurozone crisis, and the popularity of digital currency, many legal scholars studying banking and finance have focused more specifically on money, offering different, often more complex definitions. These definitions inform this Article's analysis, but to deftly grasp the broader argument, economist Hyman Minsky offers a practical quip: "[E]veryone can create money; the problem is to get it accepted."[77] Anyone can issue an IOU, but the IOU likely has little value beyond a bilateral relationship. Whether or not an IOU is "money" is a matter of law and power.

Many legal scholars and economists plot financial instruments within a "hierarchy of money," which helps situate gaming money within monetary history.[78] Atop the hierarchy are government-issued currencies.[79] People are most likely to use currencies because the government promises to accept them to satisfy government debts (such as taxes, fines, and fees).[80] Governments also establish currency as the common denominator for settling debts between private parties in the courts.[81] Government subjects hold these government IOUs, and currency becomes money. The government directly spends into the economy by issuing new money through cash, coins, cards,[82] or whatever

---

77. Hyman Minsky, Stabilizing an Unstable Economy 255 (McGraw Hill 2008) (1986).

78. See, e.g., Pistor, Code of Capital, supra note 13, at 3 (arguing that "only legal tender can be a true store of value" and that it thus sits atop a hierarchy of assets that can be coded as capital); Katharina Pistor, Moneys' Legal Hierarchy, *in* Just Financial Markets? Finance in a Just Society 185, 187–90 (Lisa Herzog ed. 2017) (arguing that "[h]ierarchy in finance is not a question of fundamental values, but of structures rooted in law and power"). Pistor engages extensively with the scholarship of Perry Mehrling. See Pistor, Moneys' Legal Hierarchy, supra note 78, at 185 ("Following Mehrling (2012) and others, I use the term money to refer to both state and private money, where private money consists of private claims to future payments that can be used as means of payment in their own rights."); Perry Mehrling, The Inherent Hierarchy of Money, *in* Social Fairness and Economics: Economic Essays in the Spirit of Duncan Foley 394, 394 (Lance Taylor, Armon Rezai & Thomas Michl eds., 2013) ("Always and everywhere, monetary systems are hierarchical."); see also Stephanie Bell, The Role of the State and the Hierarchy of Money, 25 Cambridge J. Econ. 149, 160 (2001) ("The debt of the state, which is required in payment of taxes and is backed by its power to make and enforce laws, is the most acceptable money in the pyramid and, therefore, occupies the first tier.").

79. Bell, supra note 78, at 160.

80. See Christine Desan, Money as a Legal Institution, *in* Money in the Western Tradition: Middle Ages to Bretton Woods 18, 24 (David Fox & Wolfgang Ernst eds., 2016) ("Spending and taxing by the government enlarges and constricts money flow. As they anticipate expansion and contraction in supply relative to demand, people determine how much value to attribute to money.").

81. Id. (explaining that the government creates a unit of account that the public and public authorities, including courts, use to settle obligations).

82. See Raúl Carrillo, Seeing Through Money: Democracy, Data Governance, and the Digital Dollar, 57 Ga. L. Rev. 1207, 1218–19 (2023) [hereinafter Carrillo, Seeing Through Money].

instruments it chooses, so long as it proclaims the government will accept them in satisfaction of debts to that government.[83] Many scholars argue that the ability to issue currency and regulate private money is a core component of sovereignty.[84] To distinguish the liabilities of the sovereign, scholars may refer to currency as "high-powered money" within the hierarchy.[85] Governments then regulate other monies according to their functional proximity to government-backed currency. "Low-powered" private money (like gaming money) gains expansive acceptance by its convertibility (at least potentially) into high-powered money. Gaming money sits near the bottom of this hierarchy—below stablecoins and other deposit substitutes and closer to the scrip that railroad and mining companies issued in the nineteenth century.[86] For some scholars, nearly any IOU can become money given sufficient legal reinforcement.[87]

B. *Bank Money*

Bank money lies slightly beneath government money on the hierarchy.[88] The Treasury issues currency,[89] but Congress has delegated general management of the monetary system to the central bank and the broader commercial banking sector, in part to prevent government officials from manipulating it for their own interests.[90] The U.S.

---

83. See, e.g., John Maynard Keynes, A Treatise on Money 4 (MacMillan & Co. 1935) (1930) (calling the power to determine the money of the economy a "right [that] is claimed by all modern States and has been so claimed for some four thousand years at least"); Adam Smith, The Wealth of Nations 312 (Random House 1937) (1776) (observing that "[a] prince, who should enact that a certain proportion of his taxes should be paid in a paper money of a certain kind, might thereby give a certain value to this paper money").

84. For literature on monetary sovereignty, see, e.g., Karina Patrício Ferreira Lima, Sovereign Solvency as Monetary Power, 25 J. Int'l Econ. L. 424, 424 (2022) ("Drawing on contemporary critiques of money and finance, [this article] argues that as long as the international monetary system is structured upon a global hierarchy of currencies, the solvency of sovereign states is set to be critically determined by their monetary power."); Katharina Pistor, From Territorial to Monetary Sovereignty, 18 Theoretical Inquiries L. 491, 492 (2017) ("It goes without saying that only countries that issue their own currencies retain control over their monetary policies, a precondition for 'monetary' sovereignty.").

85. See Philip Cagan, Determinants and Effects of Changes in the Stock of Money, 1875–1960, at 45 (1965) (introducing "high-powered money" to refer to "bank reserves and currency held by the public").

86. See infra section II.C.

87. See Georg Friedrich Knapp, The State Theory of Money 31–32 (H.M. Lucas & J. Bonar trans., abr. ed. 1924) (1895) (arguing that currency, a coat-check ticket, and a stamp are sanctioned means of payment "to which legal ordinance gives a use independent of its material").

88. This account draws on a previous account of banking law by the Author. See Carrillo, Platform Money, supra note 73, at 909–15.

89. See U.S. Const., art. I, § 8, cl. 5 (granting Congress the power to coin the nation's money and regulate its value).

90. See, e.g., Lev Menand, Why Supervise Banks? The Foundations of the American Monetary Settlement, 74 Vand. L. Rev. 951, 958 (2021) [hereinafter Menand, Why Supervise?] ("The legislators who established the OCC, the Fed, and the FDIC believed

government charters banks to create the instruments people recognize and use as money.[91] Indeed, many scholars have treated banks as public utilities and common infrastructure.[92] A new loan that credits a borrower's account generates a deposit just as much as receiving funds from an external source, and this deposit maintains par value with a U.S. dollar bill.[93] Banks across different jurisdictions and technological contexts have also issued notes, checks, prepaid debit cards, and other instruments with similar attributes.[94] Historically, the law reserved the claims of the one-to-one peg to government-backed money to banks.[95] In exchange for their privileges, chartered banks accepted specific responsibilities regarding safety and soundness, inclusiveness, and integrity.

Regulators make the process of obtaining banking charters more challenging than a generic corporate charter.[96] Chartering locks in commitments regarding services to depositors, monitoring of illicit flows, and safety and soundness.[97] As there is no omnibus screening process, a

---

that the power to expand the money supply was too great to leave in the hands of elected bodies and that doing so would lead to corruption, stagnation, and a debased currency.").

91. See United States v. Phila. Nat'l Bank, 374 U.S. 321, 326 (1963) (describing the money-creating role of commercial banks); see also Brief of Thirty-Three Banking Law Scholars as *Amici Curiae* in Support of Appellee at 1–5, Lacewell v. Off. of the Comptroller of the Currency, 999 F.3d 130 (2d Cir. 2021) (No. 19-4271-cv) [hereinafter Lacewell Amici Brief] (explaining that a fundamental aspect of banking is the creation of money); Michael McLeay, Amar Radia & Ryland Thomas, Money Creation in the Modern Economy, Bank Eng. Q. Bull., Mar. 14, 2014, at 14, 16 (describing how bank lending creates new money).

92. See, e.g., Alan M. White, Banks as Utilities, 90 Tul. L. Rev. 1241, 1244 (2016) (advocating for the "broad application of public utility law to banks" in order to "assert democratic control of the state and market institutions that banks have become").

93. McLeay, Radia & Thomas, supra note 91, at 16 ("When a bank makes a loan . . . it does not typically do so by giving them thousands of pounds worth of banknotes. Instead, it credits their bank account with a bank deposit . . . . At that moment, new money is created."). On the merits and limits of the *making* and *taking* framings, see Howell E. Jackson, Toward a Mixed View, Just Money (Feb. 13, 2020), https://justmoney.org/towards-a-mixed-view/ [https://perma.cc/J85U-MCFT] (comparing an endogenous money view to post-Newtonian physics).

94. See Carrillo, Seeing Through Money, supra note 82, at 1281–99 (analyzing stored-value instruments).

95. Gary B. Gorton & Jeffery Y. Zhang, Taming Wildcat Stablecoins, 90 U. Chi. L. Rev. 909, 940 (2023) ("Banks had to back their note issuance one-for-one with state bonds that were deposited with the state treasurers.").

96. See Menand, Why Supervise?, supra note 90, at 958 (describing the various requirements needed to obtain a bank charter).

97. See David Zaring, Modernizing the Bank Charter, 61 Wm. & Mary L. Rev. 1397, 1401 (2020) ("To even apply for a charter . . . '[b]ank organizers are required to submit detailed financial information, business plans, and performance projections in order to convince chartering authorities of their ability to provide banking services in a safe and sound manner.'" (second alteration in original) (quoting Robert C. Hockett & Saule T. Omarova, "Special," Vestigial, or Visionary? What Bank Regulation Tells Us About the Corporation—and Vice Versa, 39 Seattle U. L. Rev. 453, 474–75 (2016))).

new bank chooses its regulator when it applies for a charter—usually the Office of the Comptroller of the Currency (OCC), an independent Treasury bureau, for national banks,[98] or the Federal Deposit Insurance Corporation (FDIC) and state regulators for most banks with state charters.[99] The Federal Reserve System (Fed) is the primary regulator for sizeable state-chartered banks that are members of the system, the bank holding companies (BHCs) that own most banks, foreign banks, and any large firm that the Financial Stability Oversight Council (a group of leaders of regulatory agencies) designates as systemically important.[100]

Banking regulators also engage in a mode of governance distinguishable from most other regulatory agencies—supervision. Banking supervision predates the Administrative Procedure Act by nearly a century.[101] Rather than enumerate prohibited activities, Congress authorized supervisors to detect and address problematic practices on an iterative basis.[102] According to Professor Lev Menand's review of the history of supervision, examiners often occupy offices within regulated institutions, conduct inspections, issue directives, and replace management when necessary.[103] Disputes with supervised banks seldom result in lawsuits.[104] In 1963, the Supreme Court concluded that federal supervision is "one of the most successful [systems of economic regulation], if not the most successful," to which "we may owe, in part, the virtual disappearance of bank failures."[105] Other financial regulators now have supervisory mandates. For instance, the CFPB co-supervises banks with over $10 billion in assets.[106]

---

98. Marc Labonte, Cong. Rsch. Serv., R44918, Who Regulates Whom? An Overview of the U.S. Financial Regulatory Framework 13 (2023), https://sgp.fas.org/crs/misc/R44918.pdf (on file with the *Columbia Law Review*).

99. Id. at 13, 28.

100. Id. at 16.

101. See Menand, Why Supervise?, supra note 90, at 994–96 (arguing that the National Banking Act of 1863 marked the beginning of the modern system of banking supervision); id. at 961 (explaining that the APA "sidestepped supervision by focusing on formal actions").

102. Id. at 953–54 (describing the expansive, proactive, and discretionary authority of banking supervisors).

103. Id. at 954–55 (observing that "[f]or large banks, this dialogue is continuous, with agency examiners working, day in and day out, at offices and desks inside the bank"); id. at 978 (pointing out "the ability of the banking agencies to enter banks uninvited, direct bank activities, and remove bank officers and directors").

104. Id. at 954–55 ("[I]t is the very rare dispute . . . that culminates in any formal action." (second alteration in original) (internal quotation marks omitted) (quoting In re Subpoena Served Upon the Comptroller of the Currency, 967 F.2d 630, 633–34 (D.C. Cir. 1992))).

105. United States v. Phila. Nat'l Bank, 374 U.S. 321, 330 (1963) (alteration in original) (internal quotation marks omitted) (quoting Kenneth Culp Davis, 1 Administrative Law Treatise § 4.04, at 247 (1st ed. 1958)).

106. See 12 U.S.C. §§ 5515(a)–(b) (2024).

Within the New Deal framework, Congress situated supervision in a broader campaign to structurally separate banking and commerce.[107] Congress aimed to prevent banks from engaging in generic commercial activity,[108] making unsound loans to business partners, excessively concentrating economic power, corrupting the integrity of banking, and jeopardizing stability.[109] It also wanted to prevent commercial firms from using banks to fund risky business activities, exacerbate predatory behavior, or further complicate the moral hazard of bailouts.[110] As such, regulators can also compel restructuring and divestiture of banking conglomerates (even if they compel divestiture infrequently).[111]

C. *Shadow Money*

As this section discusses, other powerful institutions, including financial institutions and technology companies, issue money to establish the rules, structure, and dynamics of economies. When governments allow private monies, the issuers must follow architectural rules of the hierarchy of money.[112] In the United States, money has a constitutional basis in Article I.[113] Given time, the consequences of failing to regulate private money creation can be dire. For instance, the financial crises of

---

107. See Saule T. Omarova, The Merchants of Wall Street: Banking, Commerce, and Commodities, 98 Minn. L. Rev. 265, 273, 275 (2013) [hereinafter Omarova, Merchants of Wall Street] ("The separation of banking and commerce is one of the fundamental principles underlying the U.S. system of bank regulation.").

108. See id. at 275 ("In effect, the entire system . . . is designed to keep institutions that are engaged in deposit-taking and commercial lending activities from conducting, directly or through some business combination, any significant non-financial activities, or from holding significant interests in any general commercial enterprise.").

109. See id. ("The main arguments in favor . . . [have] included the needs to preserve the safety and soundness of insured depository institutions, to ensure a fair and efficient flow of credit to productive economic enterprise, and to prevent excessive concentration of financial and economic power in the financial sector." (citing Bernard Shull, The Separation of Banking and Commerce in the United States: An Examination of Principal Issues 29–30, 46–47, 52 (Off. of the Comptroller of the Currency, Econ. Working Paper No. 1999-1, 1999))).

110. See id. at 275–76 (detailing the "safety and soundness argument").

111. Omarova & Steele, supra note 50, at 1214 (noting that federal bank regulators have the power to "force divestiture" and restructuring of conglomerates but observing that banking regulators have "rarely used" the Federal Deposit Insurance Act to do so).

112. See Rohan Grey, Monetary Resilience, 41 W. New Eng. L. Rev. 505, 509–12 (2019) ("[E]ven 'private' monies have a 'public' dimension, in the sense that they implicate, and must remain accountable to, the broader public monetary regime under which they operate.").

113. See U.S. Const. art. I, § 8, cl. 5; id. § 10, cl. 1 (prohibiting states from coining money or emitting bills of credit); see also Christine Desan, The Constitutional Approach to Money: Monetary Design and the Production of the Modern World, *in* Money Talks: Explaining How Money Really Works 109, 114 (Nina Bandelj, Frederick F. Wherry & Viviana A. Zelizer eds., 2017) (using the United States as an example of the constitutional approach to money wherein its currency operates as a "sovereign IOU").

1907, 1933, and 2008 resulted from runs on private money that policymakers failed to regulate via banking law.[114]

Shadow money creates immediate legal problems. Today, although many laws nominally restrict money creation to chartered banks, statutory conflicts and permissive interpretation by courts and agencies help nonbank companies create financial instruments that begin to look like money.[115] In financial regulation, agencies are responsible for ensuring compliance—a company does not have to cease monetary business practices until an agency initiates legal action.[116]

The New Deal supervisory paradigm eroded over time.[117] As early as the 1950s, the Fed began treating securities dealers similarly to banks and assisting them in money creation.[118] In the 1970s, the Securities and Exchange Commission (SEC) and the Department of Justice abetted the rise of money market mutual funds (another issuer of deposit substitutes).[119] In the 1990s, they generally allowed banks to engage in additional commercial activities.[120] Today, major technology companies "are investing billions of dollars to create dominant information technology systems, platforms, and ecosystems across the financial universe."[121] Big tech platforms in retail banking are "likely . . . to leverage their customer relationships, unlimited funds, superior data and AI capabilities . . . to monopolise the origination and distribution of loans to households and small . . . enterprises."[122] Nonbank companies

---

114. Menand, Why Supervise?, supra note 90, at 1018–19.

115. See Nicholas K. Tabor, Katherine E. Di Lucido & Jeffery Y. Zhang, A Brief History of the U.S. Regulatory Perimeter 2, 16–23 (Fed. Rsrv. Bd., Fin. & Econ. Discussion Series Working Paper No. 2021-051, 2021), https://www.federalreserve.gov/econres/feds/files/2021051pap.pdf [https://perma.cc/H9D7-FYZG] (detailing the rise of "nonbank banks," acknowledging that "[a]ccounts of changing technology have figured in much of this discourse").

116. See Labonte, supra note 98, at 2–3 ("Regulators can compel firms to modify their behavior through enforcement powers . . . includ[ing] . . . cease-and-desist orders . . . .").

117. Menand, Why Supervise?, supra note 90, at 1015. See also William K. Black, The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry 5–35 (updated ed. 2013) (2005) (discussing how "desupervision" led to the Savings and Loan Crisis); Menand, Why Supervise?, at 956 n.20 (crediting Black for coining the term "desupervision").

118. Menand, Why Supervise?, supra note 90, at 1015.

119. See Morgan Ricks, Money as Infrastructure, 2018 Colum. Bus. L. Rev. 757, 812 [hereinafter Ricks, Money as Infrastructure] (explaining the role of the DOJ in the rise of the money market mutual fund industry).

120. See Omarova, Merchants of Wall Street, supra note 107, at 278–80 (detailing the effects of the Gramm–Leach–Bliley Act).

121. Dirk A. Zetzsche, William A. Birdthistle, Douglas W. Arner & Ross P. Buckley, Digital Finance Platforms: Toward a New Regulatory Paradigm, 23 U. Pa. J. Bus. L. 273, 278–79 (2020).

122. Jorge Padilla, BigTech "Banks", Financial Stability and Regulation, Fin. Stability Rev., Spring 2020, at 11.

create shadow money primarily by issuing instruments that substitute for either bank deposits or notes.

1. *Deposits.* — The legal definitions of what constitutes a "bank" or "deposit" are now muddled. Professor Morgan Ricks has demonstrated why this is a critical problem for monetary governance, offering "no practical way forward" for regulators to stop shadow money and shadow banking.[123] Although the Banking Act of 1933 (popularly known as the Glass–Steagall Act) prohibits a firm without a banking charter from issuing or accepting deposits,[124] the statute lacks a definition of "deposit," meaning regulators cannot easily invoke it against shadow money issuers, frustrating proper governance.[125] Although one might imagine that regulators could combine or cross-reference statutory provisions, constructive analysis is generally unhelpful. For instance, the Federal Deposit Insurance Act of 1950 defines a "deposit" as "money or its equivalent received or held by a bank,"[126] but the Glass-Steagall Act classifies "bank[s]" as chartered institutions that accept "deposits."[127] Courts have generally hesitated to clarify definitions of "bank" and "deposit."[128]

As a result, many technology companies now not only transfer but store money in "digital wallets" (software applications) like Venmo and CashApp that lack standard bank account protections, including FDIC insurance.[129] According to a 2024 Federal Reserve consumer payments study, "[y]ounger consumers report relying more heavily on digital wallets (80% Gen Z & 78% millennial), while older generations rely more on check, credit card and ACH."[130] In the cryptocurrency and digital asset industry, the stablecoin company Circle issues U.S. Dollar Coin (USDC), which it markets as a Digital Dollar, implying it is just as stable as a dollar bill.[131] But USDC—like Venmo and CashApp balances—is a privately issued liability, merely pegged to currency value.[132]

---

123. Ricks, Money as Infrastructure, supra note 119, at 812. See also Dan Awrey & Kristin van Zwieten, The Shadow Payment System, 43 J. Corp. L. 775, 776 n.2 (2018) ("There are several definitions of a 'bank' under U.S. law.").

124. See 12 U.S.C. § 378(a)(2) (2024).

125. Ricks, Money as Infrastructure, supra note 119, at 809–10 ("'Deposit' is not defined in the entry restriction provision in federal law.").

126. 12 U.S.C. § 1813(l)(1).

127. Id. § 1841(c)(1)(B).

128. See, e.g., Bd. of Governors of Fed. Rsrv. Sys. v. Dimension Fin. Corp., 474 U.S. 361, 374 (1986) (halting the Fed Board's attempt to expand how deposits are defined in the Bank Holding Company Act).

129. See, e.g., Carrillo, Platform Money, supra note 73, at 899–900.

130. Fed. Rsrv. Fin. Servs., Consumer Payments Study 12 (2024), https://fedpaymentsimprovement.org/wp-content/uploads/2024-consumer-payments-study.pdf [https://perma.cc/F3TL-VTBM].

131. See Arthur E. Wilmarth, Jr., We Must Protect Investors and Our Banking System From the Crypto Industry, 101 Wash. U. L. Rev. 235, 316 n.398 (2023) ("Congress could

Second, the law explicitly allows some nonbank financial institutions to originate loans.[133] From the perspective delineated earlier in this Part and the framework of this Article, these companies constructively participate in the creation of money via lending. For instance, nonbank companies engage in "bank partnerships" (sometimes referred to as "rent-a-bank" arrangements), in which a nonbank company operates the interface with consumers and connects them with banks, but does not hold loans on its own books, allowing nonbank firms to offer credit without the responsibilities of charters.[134] In some cases, a commercial entity and a bank may issue a cobranded credit card that provides financial rewards for purchases of particular commercial products.[135] The nonbank companies enjoy the rights of the bank with equivalent responsibilities.[136] Among these privileges that the nonbank can take advantage of is the lack of a universal, national bank usury cap or a weak usury cap in the state where the bank is operating.[137] Lawmakers, bankers, and scholars consistently debate these partnerships.[138]

2. *Notes.* — Before the Civil War, state-chartered banks tended to issue physical notes (redeemable for gold or silver coins) rather than

---

require all issuers and distributors of stablecoins to be FDIC-insured banks by amending Section 21(a) of the Glass–Steagall Act, 12 U.S.C. § 378(a).").

132. Joe Light & Vildana Hajric, Coinbase, Circle to Move All USDC Reserves Into Cash, Treasuries, Bloomberg (Aug. 23, 2021), https://www.bloomberg.com/news/articles/2021-08-23/coinbase-circle-to-move-all-usdc-reserves-into-cash-treasuries (on file with the *Columbia Law Review*).

133. See, e.g., Cuttino, supra note 18, at 1534 (noting that "some states requir[e] a license for any consumer lending . . . at certain interest rates [or] principal amounts" (citations omitted)).

134. See Levitin, Rent-A-Bank, supra note 41, at 359 (describing how "[a] nonbank lender contracts with a bank to make loans according to the nonbank lender's specifications and then sells the loans to the nonbank lender," although not situating this dynamic in terms of money creation); id. at 345 (observing how "consumer lending has become disaggregated over the past several decades with different components of a single lending transaction being handled by different institutions").

135. See, e.g., Mike Whalen, Bank Partnership or Go It Alone?, Goodwin Procter LLP: Fintech Flash (Aug. 23, 2016), https://www.goodwinlaw.com/en/insights/publications/2016/08/08_23_16-bank-partnership-or-go-it-alone (on file with the *Columbia Law Review*) (observing that "[b]ank partnerships in lending are nothing new," as private-label credit cards, for instance, predate contemporary fintech significantly).

136. See Levitin, Rent-A-Bank, supra note 41, at 333 (arguing that in a partnership,"[t]he nonbank then claims to shelter in the bank's exemption from state usury laws and other consumer protection laws, as well as the benefit of the choice-of-law provisions applicable to the bank," and "claims that it is exempt from state licensure requirements for nonbank lenders").

137. See, e.g., id. at 349–50 (citing Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp., 439 U.S. 299, 313–14 (1978), in which the Court held that an OCC-chartered national bank may export the interest rate in its "home" state when lending to consumers in different states).

138. See id. at 336 (arguing that "rent-a-bank lending stands on an uncertain and contested legal foundation").

deposit balances.[139] Legal scholars and economists across the intellectual and political spectra have agreed these notes were economically no different from bank deposits and circulated as money.[140]

But the National Bank Acts of 1863 and 1864 taxed these private bank notes and limited circulation.[141] Upholding the legislation, the Supreme Court favored government and government-backed money, holding that United States notes (greenbacks) and national bank notes "are issued on the credit of the government; and . . . will, perhaps, satisfy the wants of the community, in respect to a circulating medium, as perfectly as any mixed currency that can be devised."[142] The Federal Reserve Act of 1913 and the Banking Act of 1933 (Glass–Steagall Act) finally cemented the Federal Reserve Note and the commercial bank account as the dominant, legitimate forms of money.[143] As Professor Dan Awrey notes, "[f]or most of the twentieth century, banks enjoyed a virtual monopoly over private money creation."[144]

In a less well-known fashion, corporations have also issued notes throughout U.S. history. As early as the nineteenth century, corporations issued "scrip," or "common tender."[145] This Article argues that scrip was a very "low-powered" money within the hierarchy of money.[146] Scrip was often a note "redeemable in the goods or services of the issuer" but could be used to purchase other goods and services or other monies within a network.[147] In the mid-nineteenth century, U.S. railroad and

---

139. See Gary B. Gorton & Jeffery Y. Zhang, Protecting the Sovereign's Money Monopoly, 75 Ala. L. Rev. 955, 974 (2024) (explaining that "[p]rivate bank notes were used widely as an alternative" to paper money and specie).

140. See, e.g., Ludwig von Mises, The Theory of Money and Credit 53 (H.E. Batson trans., Yale Univ. Press 1953) (1912) ("[B]anknotes, say, and cash deposits differ only in mere externals, important perhaps from the business and legal points of view, but quite insignificant from the point of view of economics."); A. Mitchell Innes, What Is Money?, 30 Banking L.J. 377, 407 (1913) ("A bank note differs in no essential way from an entry in the deposit register of a bank.").

141. Bruce Champ, The National Banking System: A Brief History 5–6 (Fed. Rsrv. Bank of Cleveland, Working Paper No. 07-23R, 2007) https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1156&context=ypfs-documents (on file with the *Columbia Law Review*).

142. Veazie Bank v. Fenno, 75 U.S. 533, 549 (1869) (anchoring the sovereign power to prohibit private banking in Art. I, Section 8, Clause 5 of the U.S. Constitution, which grants Congress the power to coin money and regulate its value).

143. See Menand, Why Supervise?, supra note 90, at 1001–05.

144. Awrey, Bad Money, supra note 48, at 39.

145. Richard H. Timberlake, Private Production of Scrip-Money in the Isolated Community, 19 J. Money, Credit & Banking 437, 438–39 (1987) [hereinafter Timberlake, Private Production] (emphasis omitted).

146. See Cagan, supra note 85 (defining "high-powered money"). This Article logically extends the concept: "Low-powered money" consists of privately issued instruments, the acceptance of which depends on their relationship to high-powered money, especially concerning convertibility.

147. Bruce Champ, Fed. Rsrv. Bank of Cleveland, Private Money in Our Past, Present, and Future (2007), https://www.clevelandfed.org/publications/economic-commentary/

canal companies issued "technologically cutting-edge[] paper note obligations . . . which were receivable in payment to that entity and often in state taxes as well."[148] Networked transportation "made their redemption far more likely, while their value nonetheless ensured successful circulation as small denomination money."[149] Additionally, "[f]rom 1820 to 1875, . . . transportation companies, merchants, and farmers issued a significant amount of small-denomination currency."[150] Economist Richard Timberlake refers to these instruments as "unaccounted money" or "unaccounted currencies."[151] Because corporations issued scrip illegally, it is inherently difficult to measure the supply of scrip in circulation.[152]

To help nationalize the banking system and centralize money creation, Congress passed the Legal Tender Acts of 1862 to 1863.[153] The government issued U.S. notes, known as "greenbacks" (the precursor to Federal Reserve notes, or "dollar bills").[154] In a series of cases known as the *Legal Tender Cases*, the Court affirmed Congress's power under Article I to issue paper currency and declare it legal tender for private debts, cementing public money's place in the hierarchy of currency and empowering it as a medium of exchange.[155]

The government also passed the Stamp Payments Act of 1862. The first of its two components addressed public finance squarely: In response to a cash and coin circulation problem, in 1862 the government authorized the receipt of postage stamps in values of "less than $5" as payment of debts.[156]

2007/ec-20070101-private-money-in-our-past-present-and-future [https://perma.cc/SSZ2-YVY7] [hereinafter Champ, Private Money].

148. John Haskell & Nathan Tankus, Virtual Currency (in the Shadows of the Money Markets), Just Money (Apr. 9, 2020), https://justmoney.org/j-haskell-n-tankus-virtual-currency-in-the-shadows-of-the-money-markets [https://perma.cc/2G6Q-KFN2].

149. Id.

150. Champ, Private Money, supra note 147.

151. See Richard H. Timberlake, Jr., The Significance of Unaccounted Currencies, 41 J. Econ. Hist. 853, 854–55 (1981).

152. See id. at 857–58 (explaining the difficulty of estimating how much unaccounted currency was in circulation).

153. 12 Stat. 345 (1862); 12 Stat. 532 (1862); 12 Stat. 709 (1863).

154. See 12 Stat. 345, 345 (1862).

155. See Knox v. Lee, 79 U.S. 457, 554 (1871) (affirming that Congress did not exceed its powers). The government can also void contractual provisions that make private debts only payable in gold. Norman v. Balt. & Ohio R.R. Co., 294 U.S. 240, 316 (1935) (holding that gold clauses interfere with the powers granted to Congress). It has also prohibited private persons from even holding gold bullion or coins. See Ruffino v. United States, 114 F.2d 696, 697 (9th Cir. 1940) (affirming the validity of the executive order restricting the holding of gold to specific licensees).

156. Thomas P. Vartanian, Robert H. Ledig & Yolanda Demianczuk, Echoes of the Past With Implications for the Future: The Stamp Payments Act of 1862 and Electronic Commerce, 67 BNA's Banking Rep. 57, 60 (1996) ("Section 1 of the Act provided for the use of postage stamps as currency for government debts valued at less than $5 . . . ."). On

The second component was regulatory in nature. Congress declared that "no private corporation, banking association, firm, or individual shall make, issue, circulate, or pay any note, check, memorandum, token, or other obligation, for a less sum than one dollar, intended to circulate as money or to be received or used in lieu of lawful money of the United States."[157] The Act followed a long tradition in legal thought, "prohibit[ing] competition to [the state's] currency" and exercising control over "the unit of account."[158] Although Congress quickly replaced the first component of the legislation with the National Bank Act of 1863, it maintained the second component, which is still good law.[159]

But Congress still struggled to stop scrip after nationalization. Immediately, "private issuers of paper money began denominating their currency in services (for example, miles of railroad service) instead of in dollars."[160] Throughout the late nineteenth and first half of the twentieth century, many companies issued scrip denominated in their own units of account—by one scholar's estimation, roughly twenty thousand coal company stores across North America from 1903 to 1958.[161] During the Great Depression, banks collapsed and merchants issued scrip in response.[162] "Often this scrip became redeemable in official currency after banks once again allowed deposit withdrawals."[163] In "company towns," railroad and mining companies paid employees with scrip.[164]

---

the history and application of the Stamp Payments Act to Bitcoin, see Reuben Grinberg, Note, Bitcoin: An Innovative Alternative Digital Currency, 4 Hastings Sci. & Tech. L.J. 159, 183–91 (2012) ("The Act is unlikely to apply to anything that (1) circulates in a limited area, (2) is redeemable only in goods, (3) does not resemble official U.S. currency and is otherwise unlikely to compete with small-denominations of U.S. currency, or (4) is a commercial check . . . ." (footnotes omitted)); see also Joshua J. Doguet, Comment, The Nature of the Form: Legal and Regulatory Issues Surrounding the Bitcoin Digital Currency System, 73 La. L. Rev. 1119, 1132–35 (2013) (arguing Bitcoin falls outside the Act because statutory terms like "note," "check," and "token" are "physical manifestation[s] of currency" (internal quotation marks omitted) (quoting Grinberg, supra, at 188)).

157. Act of July 17, 1862, ch. 196, § 2, 12 Stat. 592, 592.

158. See Christine Desan, Making Money: Coin, Currency, and the Coming of Capitalism 93–94 (2014) [hereinafter Desan, Making Money] (discussing the Anglo–Saxon political tradition of currency unification).

159. Vartanian et al., supra note 156, at 61 ("Although Section 1 of the Stamp Payment Act was soon repealed by the National Bank Act of 1863, Section 2 has remained in force."(footnote omitted)).

160. Champ, Private Money, supra note 147.

161. Timberlake, Private Production, supra note 145, at 443 ("Another source lists 20,000 coal company stores in the United States, Canada, and Mexico all of which used scrip between 1903 and 1958." (citing Gordon Dodrill, 20,000 Coal Company Stores in the United States, Mexico and Canada (1971))).

162. Champ, Private Money, supra note 147.

163. Id.

164. See Company Towns: 1880s to 1935, Va. Commonwealth Univ. Librs. Soc. Welfare Hist. Project, https://socialwelfare.library.vcu.edu/programs/housing/company-

Although Congress banned scrip for wages under the Fair Labor Standards Act of 1938, it did not invoke legislation or pass new bills to eliminate scrip.[165]

There is also a technological dimension to legal tender law and policy. Today, the government distributes currency into the economy via mints, various Treasury bureaus, and administrative agencies and regulates its use.[166] This system underscores the government's crucial responsibilities in managing the quality and quantity of money and ensuring the stability and integrity of the monetary system.[167] As part of its mission, the government plays a crucial role in preventing other entities from mimicking the U.S. currency's legal and technological functions and from developing private money that competes with U.S. currency. Most importantly, various agencies deploy sophisticated security measures to combat counterfeiting.[168] The Treasury also requires financial institutions to regulate and report significant currency flows.[169] The Commodity Futures Trading Commission (CFTC) supervises foreign currency exchanges.[170]

Still, for over eight decades, the federal government has gradually permitted the creation of stored-value instruments resembling scrip. Businesses issue store-branded gift cards, which circulate as money on

---

towns-1890s-to-1935/ [https://perma.cc/44BT-P7SQ] (last visited Oct. 10, 2025) ("In some cases, companies paid employees with a scrip that was only good at company stores.").

165. See 29 U.S.C. § 203(m) (2024) ("'Wage' paid to any employee includes the reasonable cost, as determined by the Administrator, to the employer of furnishing such employee with board, lodging, or other facilities . . . ."). See also 29 C.F.R. § 531.27(a) (2025) (requiring that employers pay employees "in cash or negotiable instrument[s] payable at par"); id. § 531.34 (providing that "scrip, tokens, credit cards, 'dope checks,' coupons, and similar devices" are not lawful for payment of wages).

166. Carrillo, Seeing Through Money, supra note 82, at 1281 (describing the role of Treasury subdepartments in the monetary system, including the Bureau of Engraving and Printing, the U.S. Mint, and the Bureau of the Fiscal Service).

167. Ricks et al., supra note 62, at 816–19; see also Christine Desan, How to Spend a Trillion Dollars: Our Monetary Hardwiring, Why It Matters, and What to Do About It 11 (Harvard Pub. L., Working Paper No. 22-04, 2022), https://ssrn.com/abstract=4056241 (on file with the *Columbia Law Review*) ("The government mobilizes to protect finance not because it is too big to fail but because it is the essential circuitry, the hardwiring, of economic exchange within our peculiar architecture.").

168. See Carrillo, Seeing Through Money, supra note 82, at 1226 ("Recent technological developments enhance the government's power to see through money and raise the stakes of new systems design.").

169. See id. at 1250 (describing the requirement that financial service providers report cash-based transactions above $10,000).

170. Foreign Currency Trading: Advisory on Foreign Currency, Commodity Futures Trading Comm'n (Feb. 5, 2001), https://www.cftc.gov/LearnAndProtect/FraudAwarenessPrevention/ForeignCurrencyTrading/forex_adv06-01 (on file with the *Columbia Law Review*).

the low end of the hierarchy.[171] Legislatures, regulators, and courts treat prepaid debit cards and gift cards differently from banknotes.[172] For example, in the 1990s, when banks and nonbanks began to issue gift cards more frequently, the Fed, OCC, and FDIC refrained from offering a formal legal opinion on their legal features and place within the regulatory taxonomy or how value flows from commercial bank deposits into the gift card ecosystem.[173] But a 1997 American Bar Association Task Force argued that regulators should treat the cards more like notes: "promises of the issuer to pay . . . upon demand."[174] Rightly or wrongly, a world of informal finance lies beyond the domain of robust financial and technological regulation.

D. *Harms & Risks*

Shadow money issuers have more freedom in business activities than traditional banks.[175] The proliferation of shadow money obscures and undermines the critical function of the monetary sovereign-chartered banks within the economy. The gap undermines a key rationale for state oversight: There is little reason for banks to "submit to special supervision when their charters no longer confer the same valuable privileges."[176] The jurisdictional gap prevents regulators from managing monetary policy and financial stability effectively.[177] Nonbank companies that engage in shadow banking may take advantage of the public power of money creation to privatize gains while socializing losses.[178] This leads to problems such as rate manipulation, money laundering, and financial instability.

---

171. See Gorton & Zhang, supra note 139, at 964–65 (explaining that gift cards act as "circulating money" but only hold value within "specific ecosystems").

172. See Steven Stites & Norman I. Silber, Merchant Authorized Consumer Cash Substitutes, 14 Va. L. & Bus. Rev. 261, 266 (2020) ("[T]he law surrounding such things as coupons, rebates, rewards, company cash, scrips, tokens, cash-back offers and the like have presented a legal patchwork that has produced confusion and incoherence.").

173. See, e.g., Task Force on Stored-Value Cards, A Commercial Lawyer's Take on the Electronic Purse: An Analysis of Commercial Law Issues Associated With Stored-Value Cards and Electronic Money, 52 Bus. Law. 653, 675 (1997) (discussing an FDIC General Counsel Opinion that indicated most stored-obligation products would not be FDIC-insured but did not comment on the legality of those products).

174. Id. at 699.

175. See Menand, Why Supervise?, supra note 90, at 1018–19 (noting that "[g]overnment agencies cannot effectively manage monetary outsourcing if only some private money issuers are subject to their oversight").

176. Id. at 1019.

177. Id.

178. For the impact of such a dynamic see, e.g., John C. Coffee, Jr., The Political Economy of Dodd–Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated, 97 Corn. L. Rev. 1019, 1079 (2012) ("The pervasive underregulation of 'shadow banking,' which continued for decades, was a leading cause of the 2008 financial debacle and the current economic stagnation.").

1. *Rate Manipulation.* — U.S. banking law and consumer financial protection law impose various forms of rate regulation, and issues may trigger regulation under both sets of laws.[179] Banking laws against rate manipulation protect deposited holders but are also crucial for the integrity of the financial system. Limits on how banks price their products can prevent abuse of power stemming from their special privileges.[180] Banking laws dictate the terms of credit that banks offer to insiders and affiliated entities[181] and also monitor gift card issuance that involves a national bank.[182]

Regulators also monitor how banks control conversion rates between bank deposits, foreign currency, partner-issued prepaid debit card balances, reward points, and cashback deals to ensure fair practices and instill confidence in the banking system.[183] The OCC charters and directly supervises national "credit card banks" (e.g., American Express Bank and Capital One Bank).[184]

Although the CFPB is often reduced to consumer protection agency, it is also more substantive financial regulator, and directly supervises and takes enforcement actions against banks and nonbank companies issuing money-like instruments.[185] The CFPB also monitors the redemption of credit card rewards,[186] and conducts biennial reviews of the credit card

---

179. See Omarova & Steele, supra note 50, at 1207–09 ("[N]umerous banking laws and regulations target pricing of bank products.").

180. See id. at 1207–08.

181. See id. at 1211–13.

182. See Credit Cards, Debit Cards, and Gift Cards, Off. of the Comptroller of the Currency, https://www.occ.gov/topics/consumers-and-communities/consumer-protection/credit-cards-debit-cards-and-gift-cards/index-credit-cards-debit-cards-gift-cards.html [https://perma.cc/7JD2-C2D7] (last visited Feb. 5, 2026) ("Credit, debit, and gift cards have made the access to credit more convenient, but they come with terms and conditions that consumers should understand."); What You Should Know About Gift Cards, Fed. Deposit Ins. Corp. (Dec. 2019), https://www.fdic.gov/consumers/consumer/news/december2019.html [https://perma.cc/H96P-BHVA] ("Bank gift cards, which carry the logo of a payment card network (e.g., Visa, MasterCard), are also subject to Credit CARD Act Protections and can be used wherever the brand is accepted.").

183. See, e.g., News Release 2014-157, Off. of the Comptroller of the Currency, OCC Fines Three Banks $950 Million for FX Trading Improprieties (Nov. 12, 2014), https://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157.html [https://perma.cc/U3L9-M76Y] (fining "several large banks" that "permitted an environment to develop in which unscrupulous traders discussed manipulating foreign exchange markets" (quoting Thomas J. Curry, Comptroller of the Currency)).

184. See Zaring, supra note 97, at 1462–64 (discussing the history of the "credit card bank" special purpose charter, noting that most credit card banks are actually "bank affiliate[s] that can get around state usury laws").

185. See infra section IV.C.1–.2 (discussing the CFPB's role as a gap-filling banking and shadow money regulator).

186. CFPB, Credit Card Rewards 3 (2024), https://files.consumerfinance.gov/f/documents/cfpb_credit-card-rewards_issue-spotlight_2024-05.pdf [https://perma.cc/3DWY-AE2L] [hereinafter CFPB, Credit Card Rewards].

market.[187] Credit card companies must notify cardholders at least forty-five days ahead of a change in rates.[188] The CARD Act of 2009 "restrict[ed] fees[] [and] prohibit[ed] expiration in less than five years."[189] Under Regulation E, the CFPB regulates a range of conversion-related consumer practices: error resolution rules,[190] consumer access to account information,[191] disclosure of fees,[192] and disclosures related to "currency conversion" and "foreign exchange processing" fees under the Prepaid Card Rule.[193] The CFPB Remittance Transfer Rule, also promulgated under Regulation E, requires remittance transfer providers to disclose the applicable exchange rate and fees before the transaction and on the receipt.[194]

Some scholars and regulators argue that manipulation of reward programs can disproportionately benefit more affluent individuals.[195] For cardholders with low scores, banks and credit card companies typically charge more interest and fees on a rewards card than on non-rewards cards.[196] The CFPB has taken action against credit card issuers for unfair

---

187. CFPB, CARD Act Report: A Review of the Impact of the CARD Act on the Consumer Credit Card Market 4 (2013), https://files.consumerfinance.gov/f/201309_cfpb_card-act-report.pdf [https://perma.cc/39LL-CJ2H].

188. When Can My Credit Card Company Increase My Interest Rate?, CFPB, https://www.consumerfinance.gov/ask-cfpb/when-can-my-credit-card-company-increase-my-interest-rate-what-can-i-do-to-get-the-rate-back-down-en-69/ [https://perma.cc/7E82-8M2V] (last modified Sep. 10, 2024).

189. Greg L. Johnson, Amy L. Pierce & Deborah S. Thoren-Peden, CARD Act Will Exempt Prepaid Phone Cards (Not Mobile Broadband/Internet Access), Pillsbury (May 18, 2010), https://www.pillsburylaw.com/en/news-and-insights/card-act-will-exempt-prepaid-phone-cards-not-mobile-broadband.html [https://perma.cc/T24R-AW4J].

190. Consumer & Cmty. Affs., Prepaid Accounts Rule: Interagency Consumer Compliance Examination Procedures, Fed. Deposit Ins. Corp. (Feb. 22, 2019), https://www.fdic.gov/news/financial-institution-letters/2019/fil19009.html [https://perma.cc/98P2-LYEH].

191. CFPB Proposes Strong Federal Protections for Prepaid Products, CFPB (Nov. 13, 2014), https://www.consumerfinance.gov/about-us/newsroom/cfpb-proposes-strong-federal-protections-for-prepaid-products/ [https://perma.cc/A6WG-XUTM].

192. CFPB Finalizes Strong Federal Protections for Prepaid Account Customers, CFPB (Oct. 5, 2016), https://www.consumerfinance.gov/about-us/newsroom/cfpb-finalizes-strong-federal-protections-prepaid-account-consumers/ [https://perma.cc/Y6TU-QHZQ].

193. See 12 C.F.R. § 1005.18(b)(4)(ii) (2025) (requiring long-form disclosure of all prepaid account fees); 12 C.F.R. § 1005 (Supp. I 2025), comment 18(b)(2)(viii)(A)–2.iii.C (identifying international transaction charges as subject to disclosure).

194. See 12 C.F.R. § 1005.31(b) (requiring pre-payment disclosure and a receipt showing exchange rates, fees, and other charges); id. § 1005.32 (creating narrow exceptions in which companies may provide estimated rather than exact figures).

195. See, e.g., Vijay Raghavan, Consumer Law's Equity Gap, 2022 Utah L. Rev. 511, 562–63 (arguing that merchants pass credit card interchange fees onto low-income consumers in the context of structural issues with consumer protection).

196. See CFPB, Credit Card Rewards, supra note 186, at 5 ("[C]ardholders with near-prime and subprime scores typically pay more in interest and fees on a rewards card than a card without rewards, even after accounting for the value of earned rewards." (citing

practices related to rewards.[197] But the complexity of rewards programs with vague conditions, devaluation of rewards, and revocation of earned rewards remains a significant problem.[198]

Partnership lending has increased the risk of rate manipulation, almost necessarily given its scale. Three-quarters of credit card accounts include rewards programs.[199] Cardholders can apply rewards to a wide variety of purchases, including retail goods, merchandise, gift cards, travel, college savings, and financial market investments.[200] The bank leverages a merchant's relationship with its customers.[201] They "make large payments to merchants for rewards[,] . . . including . . . [through] revenue sharing[] [and] origination bounties."[202] The nonbank partner "typically controls the value of rewards . . . [and] the inventory available for reward redemption" without banking regulation.[203]

2. *Money Laundering*. — Congress and the Treasury have enrolled financial institutions, especially banks, in anti-money-laundering efforts for many purposes of governance.[204] The "Bank Secrecy Act / Anti-Money Laundering regime" (BSA/AML) has rendered a mass surveillance system that supports financial regulation, criminal law enforcement, and national security.[205] The government does not require

---

Sumit Agarwal, Andrea Presbitero, André F. Silva & Carlo Wix, Who Pays for Your Rewards? Redistribution in the Credit Card Market, Fed. Rsrv. Bd. Sys., Fin. & Econ. Discussion Series Working Paper 2023-007 (2023))).

197. See, e.g., Bank of America, N.A., No. 2023-CFPB-0007, at 22–23 (July 11, 2023) (consent order) (imposing civil penalties and restitution for opening credit card accounts without permission and withholding rewards).

198. See CFPB, Credit Card Rewards, supra note 186, at 12–22 (identifying four recurring themes from several hundred consumer complaints regarding credit card rewards programs: "unexpected promotional conditions, devaluation, redemption problems, and revocation").

199. CFPB, Consumer Financial Protection Circular 2024-07: Design, Marketing, and Administration of Credit Card Rewards Programs 2 (2024), https://files.consumerfinance.gov/f/documents/cfpb_circular-2024-07.pdf [https://perma.cc/MBX5-56LV]. Consumers have earned substantial and increasing credit card rewards in recent years. CFPB, Credit Card Rewards, supra note 186, at 9 ("Consumers earned more than $40 billion in rewards on major issuers' general purpose credit cards in 2022, increasing over 50 percent from 2019 levels." (citing CFPB, The Consumer Credit Card Market 69–70 (2023), https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2023.pdf [https://perma.cc/K4R3-T4FH])).

200. CFPB, Credit Card Rewards, supra note 186, at 7.

201. See id. at 9 (explaining that "[i]n a co-brand relationship, banks bid for the right to leverage the brand recognition and loyalty program of a particular merchant").

202. Id.

203. Id. at 10.

204. See, e.g., Kathryn Judge, Financial Regulation Beyond Stability, 19 J.L. Econ. & Pol'y 194, 200 (2024) (arguing that the government enrolls financial institutions into the BSA/AML regime for many purposes, including the prevention of corruption).

205. See 12 U.S.C. §§ 1829b, 1951–1959 (2024) (establishing recordkeeping duties for banks and other insured depository institutions); 18 U.S.C. §§ 1956–1957, 1960 (criminalizing money laundering and unlicensed money transmission); 31 U.S.C. §§ 5311–

that banks identify and report all instances of possible money laundering or terrorist financing, but the recordkeeping and reporting requirements are the most effective tools available.[206] The Treasury may examine any records of domestic financial institutions, nonfinancial trades, or businesses relevant to BSA/AML law.[207] FinCEN shares roughly 6,500 intelligence reports annually with 165 federal, state, and local agencies.[208] FinCEN covers a wide array of "financial institutions," including banks,[209] which must verify, authenticate, and maintain records of ID for accountholders.[210] Financial institutions must also file "suspicious activity reports" when they suspect a customer derived funds from illegal activity or find a transaction unusual, and the transactions are above particular monetary thresholds (e.g., $5,000 for banks).[211]

But many scholars, policymakers, and industry voices have criticized the effectiveness of BSA/AML law.[212] "The [Nasdaq] *2024 Global Financial Crime Report* found that more than $3.1 trillion in illicit funds flowed through the global financial system" in 2023.[213] Although assessing effectiveness is challenging, experts are troubled by many metrics, including an estimation of seized funds relative to total illicit funds, inferences from patterns from public leaks of confidential documents, and findings from third-party reporting.[214]

Many financial technology companies deliver new financial instruments via distributed networks, which cross international borders.

5314, 5316–5336 (establishing recordkeeping obligations, as well as the filing of Currency Transaction Reports, Suspicious Activity Reports, and beneficial ownership information); see also Carrillo, Seeing Through Money, supra note 82, at 1267–71 (arguing that BSA/AML operates as a system of mass financial surveillance).

206. Judge, supra note 204, at 201–03 ("[T]he IRS reported in early 2023 that over the past three years, more than 83% of their investigations recommended for prosecution had a primary subject with a related BSA filing.").

207. See 12 U.S.C. § 1953.

208. Joanna Derman, Fully Equip FinCEN to Combat Money Laundering and the Financing of Terrorism, Project on Gov't Oversight (Apr. 28, 2022), https://www.pogo.org/testimonies/fully-equip-fincen-to-combat-money-laundering-and-the-financing-of-terrorism (on file with the *Columbia Law Review*).

209. See 31 U.S.C. § 5312(a)(2) (defining "financial institution" to include banks and entities transmitting "value that substitutes for currency").

210. Id. § 5318(l); see also 31 C.F.R. § 1020.220 (2025).

211. 31 U.S.C. § 5318(g)(6)(B); see also 31 C.F.R. §§ 1020.310, 1020.320, 1022.320.

212. See Judge & Kashyap, supra note 20, at 3 ("The United States' current anti-money laundering (AML) regime is expansive, expensive and one of America's most important domestic public-private initiatives . . . . [S]everal indicators suggest it is falling far short of what is possible.").

213. Nasdaq Releases First Global Financial Crime Report, Measuring the Scale and Human Impact of Financial Crime, Nasdaq (Jan. 16, 2024), https://www.nasdaq.com/press-release/nasdaq-releases-first-global-financial-crime-report-measuring-the-scale-and-human [https://perma.cc/E2EV-RLPT].

214. See Judge & Kashyap, supra note 20, at 10–19 (surveying the landscape from a "number of different vantage points, with each perspective providing additional but incomplete insights into just how well the system is currently working").

"This novel infrastructure fundamentally alters the organizational . . . patterns that anchor traditional jurisdictional claims."[215] Treasury has delegated BSA/AML supervision to the financial regulators based on sectoral taxonomies (for instance, banking regulators regulate banks).[216] The Treasury has also designated the IRS as a supervisor of last resort for all other financial institutions.[217] Thus, the IRS must supervise a wide array of businesses (including cryptocurrency companies, casinos, and card clubs).[218] As of the writing of this Article, the current Treasury leadership is transforming BSA/AML law, but signs point toward a general lessening of obligations for financial institutions, including digital asset platforms.[219] On June 18, 2025, then-Deputy Secretary of the Treasury Michael Faulkender indicated that they will "find the optimal fulcrum for balancing the somewhat opposing forces of costs and benefits."[220]

3. *Financial Instability.* — Safety and soundness regulation promotes bank solvency to protect financial and macroeconomic stability.[221] Most importantly for gaming money, regulators impose strict requirements to manage liquidity and payment risk. All firms face liquidity risk: the possibility that they might not be able to satisfy short-term financial

---

215. Saule T. Omarova, Technology v. Technocracy: Fintech as a Regulatory Challenge, 6 J. Fin. Regul. 75, 93–94 (2020) (arguing companies have developed "innovative financial instruments" that break regulatory categories to increase profits).

216. See 31 C.F.R. § 1010.810(b)(1)–(7) (2025) (delegating BSA examination authority to banking regulators).

217. Id. § 1010.810(b)(8).

218. See IRM 4.26.1.4.1.1 (Feb. 15, 2019), https://www.irs.gov/irm/part4/irm_04-026-001 [https://perma.cc/A62W-GWH9] (listing money services businesses, casinos, and card clubs); id. 4.26.9.13 (Nov. 12, 2019), https://www.irs.gov/irm/part4/irm_04-026-009 [https://perma.cc/9Y6H-Z6B5] (providing for examination of virtual currency businesses).

219. See Press Release, Scott Bessent, Sec'y, U.S. Dep't of the Treasury, Treasury Secretary Scott Bessent Remarks Before the American Bankers Association (Apr. 9, 2025), https://home.treasury.gov/news/press-releases/sb0078 [https://perma.cc/QT8C-DCBX] (announcing Treasury's aim to reform the BSA/AML framework to "explicitly permit financial institutions to de-prioritize lower risks"); M. Kendall Day, Stephanie Brooker, Jason Cabral, Ella Alves Capone, Sam Raymond, Roxana Akbari, Rachel Jackson, & Jimmy Scoville, 2025 Year-End Developments in Anti-Money Laundering, Gibson Dunn (Jan. 12, 2026), https://www.gibsondunn.com/2025-year-end-developments-in-anti-money-laundering/ [https://perma.cc/U8W7-DUQM] (cataloguing changes including FinCEN guidance lowering burdens for filing suspicious activity reports and DOJ policy against "regulation by prosecution" in the digital asset industry).

220. Press Release, Michael Faulkender, Deputy Sec'y, U.S. Dep't of the Treasury, Deputy Secretary Faulkender Lays Out Guiding Principles for Bank Secrecy Act Modernization (June 28, 2025), https://home.treasury.gov/news/press-releases/sb0173 [https://perma.cc/GC5Y-ZD7X].

221. See Bd. of Governors of the Fed. Rsrv. Sys., The Fed Explained: What the Central Bank Does 55 (11th ed. 2021), https://www.federalreserve.gov/aboutthefed/files/the-fed-explained.pdf [https://perma.cc/9XFR-CKVZ] [hereinafter Bd. of Governors of the Fed. Rsrv. Sys., The Fed Explained].

obligations.[222] "[B]anks . . . fund long-term loans (like mortgages) with short-term liabilities (like deposits)".[223] This "maturity mismatch" can "create[] liquidity risk if depositors withdraw funds suddenly," causing a bank run.[224] Payments risk refers to the potential for a "cascading failure of payments technologies" to disrupt retail payments and hinder broader economic activity.[225] For instance, credit card payments "could take several days to ultimately settle," heightening the possibility of default.[226] Professor Hilary Allen has characterized a payments crisis as "look[ing] more like a rolling blackout than a bank run."[227]

The U.S. government backstops banks through federal deposit insurance and Federal Reserve emergency support to manage liquidity risk. The FDIC typically insures up to "$250,000 per depositor, per FDIC-insured bank, per ownership category."[228] Insured depositors are less likely to withdraw their funds.[229] In the event of collapse, the FDIC

222. See Kevin Werbach & David Zaring, Systemically Important Technology, 101 Tex. L. Rev. 811, 858 (2023) ("Liquidity risk refers to the risk that a company may not have sufficient funding to satisfy its short-term needs."). The Congressional Research Service overviews how to analyze these challenges: "[A] bank's balance sheet—its assets, liabilities, and capital (equity)—provides the foundation for analyzing many banking issues." Raj Gnanarajah & Andrew P. Scott, Cong. Rsch. Serv., IF10035, Introduction to Financial Services: Banking 1 (2022), https://www.everycrsreport.com/files/2022-01-13_IF10035_de888abc5e9027474920d342aba2bb756d381fe3.pdf [https://perma.cc/F3NJ-PU2Z]. Most of a bank's assets include loans made, securities, bonds, and other financial market instruments. See id. Banks use liabilities and equity to "make loans and acquire assets." Id. Liabilities include customer deposits, "as the bank owes these funds to its customers and creditors. The difference between the assets and liabilities equals the bank's equity (assets - liabilities = equity)." Id.

223. Will Kenton, Understanding Liquidity Risk in Banks and Business, With Examples, Investopedia, https://www.investopedia.com/terms/l/liquidityrisk.asp (on file with the *Columbia Law Review*) (last updated Apr. 30, 2026).

224. Id. This Article examines funding liquidity risk on the liability side of the balance sheet. For a classic analysis of bank runs, see Douglas W. Diamond & Philip H. Dybvig, Bank Runs, Deposit Insurance, and Liquidity, 91 J. Pol. Econ. 401, 401 (1983) ("During a bank run, depositors rush to withdraw their deposits because they expect the bank to fail . . . . In a panic with many bank failures, there is a disruption of the monetary system and a reduction in production.").

225. See Hilary J. Allen, Payments Failure, 62 B.C. L. Rev. 453, 453 (2021) [hereinafter Allen, Payments Failure].

226. See id. at 462 ("There also is credit risk embedded in many traditional forms of retail payment, such as checks and credit cards, where the payment could take several days to ultimately settle, leaving at least one party to the transaction exposed to default.").

227. Id. at 455.

228. Deposit Insurance FAQs, Fed. Deposit Ins. Corp., https://www.fdic.gov/resources/deposit-insurance/faq [https://perma.cc/C7F9-8UV3] (last updated Apr. 1, 2024); accord 12 U.S.C. § 1821(a)(1)(E) (2024) (defining the "standard maximum deposit insurance amount" as $250,000).

229. See Fed. Deposit Ins. Corp., Options for Deposit Insurance Reform 8 (2023), https://www.fdic.gov/analysis/options-deposit-insurance-reforms/report/options-deposit-insurance-reform-full.pdf [https://perma.cc/BGY4-WNGF] ("It is important to recognize that insured depositors do not have an incentive to run based on fears that their deposits are at risk.").

follows a unique resolution process.[230] The Fed acts as a lender of last resort.[231] It may provide access to the Federal Reserve payments services and the discount window,[232] allowing banks to borrow against good collateral when facing emergencies.[233]

In exchange for government protection, banks must adhere to prudential requirements.[234] "Banks need a robust [liquidity and] cash flow management system"[235] and must "[c]onduct[] stress tests to simulate adverse market conditions,"[236] "develop contingency funding plans to address [these] potential liquidity shortfalls,"[237] draft "living wills" to provide plans to wind down failing banks safely,[238] and "mitigate potential risks associated with payment processing."[239]

---

230. See Matthew Bruckner, Who's Down With OCC('s Definition of "Banks")?, 24 U. Pa. J. Bus. L. 144, 147–48 (2021) (comparing the bank resolution process to traditional bankruptcy proceedings).

231. See 12 U.S.C. § 347b (authorizing Federal Reserve banks to make advances to member banks); Bd. of Governors of the Fed. Rsrv. Sys., The Fed Explained, supra note 221, at 54.

232. See 12 U.S.C. § 248a ("All Federal Reserve bank services covered by the fee schedule shall be available to nonmember depository institutions and such services shall be priced at the same fee schedule applicable to member banks . . . .").

233. See id. § 347b ("Any Federal Reserve bank, under rules and regulations prescribed by the Board of Governors . . . may make advances to any member bank on its time or demand notes having maturities of not more than four months and which are secured to the satisfaction of such Federal Reserve bank.").

234. See, e.g., 12 C.F.R. § 3.10(a) (2025) (capital standards for national banks). Such regulatory requirements encourage institutions to mitigate risk. See Todd Phillips & Matthew Adam Bruckner, Consumer Shadow Banks, 35 Stan. L. & Pol'y Rev. 226, 238 (2024) ("Risk-based capital requirements ensure bankers [and shareholders] . . . are in first-loss positions ahead of their depositors, including a total capital ratio of at least 8% and leverage ratio of at least 4%, with heightened requirements for larger and more systemically risky institutions.").

235. Kenton, supra note 223.

236. Id.; see also Matthew C. Turk, Stress Testing the Banking Agencies, 105 Iowa L. Rev. 1701, 1713–15 (2020) (analyzing Dodd–Frank stress test procedures capaciously); Rory Van Loo, Stress Testing Governance, 75 Vand. L. Rev. 553, 556 (2022) (arguing stress tests are "central tools of modern governance").

237. Kenton, supra note 223. The Basel Committee on Banking Supervision "introduced . . . the liquidity coverage ratio (LCR) . . . to ensure that banks have a sufficient stock of high-quality liquid assets to survive a hypothetical thirty-day stress scenario . . . . The NSFR [net stable funding ratio] . . . is designed to constrain the reliance of banks on unstable, short-term sources of wholesale funding." Awrey & Judge, supra note 41, at 2335.

238. See Baradaran, supra note 43, at 1300–10 ("Living wills are a response to perhaps the most vexing problem that emerged from the recent crisis: the realization that certain firms were too big to fail.").

239. Payments Risk Management 101: Key Components and Best Practices, Stripe, https://stripe.com/resources/more/payments-risk-management-101-key-components-and-best-practices [https://perma.cc/9XAC-2A9E] (last updated Aug. 12, 2024). "These risks include fraud, . . . data breaches, . . . operational failures, and financial losses." Id.; see also Allen, Payments Failure, supra note 225, at 467 (describing how the cascade effect of individual risks impacts a larger system).

Nonbank companies do not have to abide by these rules and face different types of liquidity and payments risk. The distress for nonbank corporations storing and transferring money, as well as selling tangible goods and services, creates various kinds of risk compared to banks, especially concerning their inventory and supply chains.[240] If unexpected events cause disruptions at a nonbank company that maintains consumer balances, it can cause consumers to withdraw or spend funds on goods and services quickly. While the former scenario resembles a bank run, the latter scenario is a run on inventory. Moreover, "liquidity problems in large corporations can result in job losses, reduced consumer spending, and a decline in investor confidence," as well as "reputational damage," and "in severe cases, insolvency or bankruptcy."[241] As demonstrated during the global financial crisis and the COVID-19 pandemic, however, the federal government may support non-financial firms in exigent circumstances.[242]

Recent literature examines the systemic financial risk that tech companies create and the likelihood of government bailout. Professors Kevin Werbach and David Zaring have argued technology regulators should designate some technology firms as "systemic[ally] importan[t]."[243] Technology firms that appear stable can suffer through a chain reaction of interdependency, especially as the tech and finance sectors "are necessarily interconnected because money is money; it is the representation of value, unit of account, and means of exchange across all firms and users."[244] In 2020, researchers at the RAND Corporation studied financial contagion—the "disease-like spread of economic shocks"[245]—flowing from revenue shortfall at major technology

240. See Peter Atwater, The Troubling Parallels Between Supply Chains and Securitisation, Fin. Times (Aug. 31, 2021), https://www.ft.com/content/cece55b7-d137-4278-9e21-25ffba999946 (on file with the *Columbia Law Review*) ("Today, in response to shortages, businesses and even governments are shifting to what I call a 'just-in-case' business model. They are stockpiling critical supplies, onshoring previously outsourced production and boosting inventories where possible.").

241. Kenton, supra note 223.

242. See Eric Milstein & David Wessel, What Did the Fed Do in Response to the COVID-19 Crisis?, Brookings (Jan. 2, 2024), https://www.brookings.edu/articles/fed-response-to-covid19/ [https://perma.cc/VN74-P3AY] (detailing various measures the Federal Reserve took to support nonbank corporations during the pandemic); see also Adam Levitin, In Defense of Bailouts, 99 Geo. L.J. 435, 453–57 (2011) [hereinafter Levitin, In Defense of Bailouts] (arguing systemic risk is not limited to financial firms and analyzing the federal government rescue of the auto industry during the 2008 financial crisis).

243. Werbach & Zaring, supra note 222, at 813–14.

244. Id. at 833. See also Rory Van Loo, Digital Market Perfection, 117 Mich. L. Rev. 815, 858–69 (2019) (arguing that mass digital switching by consumers could trigger firm and sector instability with potential systemic consequences).

245. Jonathan William Welburn, Aaron Strong, Florentine Eloundou Nekoul, Justin Grana, Krystyna Marcinek, Osonde A. Osoba, Nirabh Koirala & Claude Messan Setodji, RAND Corp., Systemic Risk in the Broad Economy: Interfirm Networks and Shocks in the

companies.[246] They found that a run on goods and services at Amazon would generate more significant contagion and loss of economic value than a run on any bank.[247] Other scholars have argued dominant tech companies may cause "counterparty contagion," "informational contagion," or a "common shock"[248]—"a shock caused to a particular sector that leads to multiple entities in the sector simultaneously collapsing and causing broad harm to the economy."[249]

II. GAMING MONEY

This Part surveys the structure of the video game industry and the mechanics of gaming money. Companies issue a spectrum of private financial instruments within games and distribution platforms, such as the Sony PlayStation Store and Microsoft Store, which gamers can "cash out" into a bank account or digital wallet or onto a gift card.[250] Gaming money is critical in organizing information, data governance, behavior, and culture within the game. As this Part will explain, gaming money also helps some gamers shop for and purchase more products faster and more easily. In many instances, games allow players to store value on their game account—items, in-game currency (what this Article terms "play money" below), cryptocurrency, or balances denominated in fiat currency. Digital wallets (console, computer, and smartphone applications) help gamers use this value to make payments outside the game. Players may purchase items from in-game or console-based stores. As opposed to consumer protection concerns, the money and banking perspective focuses our attention not on the purchases so much as the

---

U.S. Economy 5 (2020), https://www.rand.org/content/dam/rand/pubs/research_reports/RR4100/RR4185/RAND_RR4185.pdf (on file with the *Columbia Law Review*) (citing Rudiger Dornbusch, Yung Chul Park & Stijn Clessens, Contagion: Understanding How It Spreads, 15 World Bank Rsch. Observer 177, 178 (2000)).

246. See id. at 31 (estimating the total economic loss a 1% shock to each firm can cause).

247. See id. at 32 tbl. 6.1 (finding that a run at Amazon could cause a loss of $77 billion in the economy and a run at Bank of America a loss of $23 billion).

248. Levitin, In Defense of Bailouts, supra note 242, at 55–61 (internal quotation marks omitted).

249. M.P. Ram Mohan & Sai Muralidhar K., Conceptualizing "Systemically Important Technological Institutions" as Too Big to Fail Entities: Moving the Insolvency Goal Post, 57 Vand. J. Transnat'l L. 877, 890 (2024) (citing Levitin, In Defense of Bailouts, supra note 242, at 460); see also Nordine Abidi & Ixart Miquel-Flores, Too Tech to Fail? 27 (Eur. Banking Inst., Working Paper No. 124, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4149787 [https://perma.cc/N8VG-VKJ8] ("[W]e find that bondholders of BigTech institutions appear to have an expectation that the government will (possibly) shield them from losses in the event of a 'tech failure' and, as a result, they do not accurately price risk.").

250. See, e.g., Everything Gaming: Buy and Sell Safely, Gameflip, https://gameflip.com/overview/sell/game-items [https://perma.cc/HZF8-XP32] (last visited Oct. 31, 2025) ("SELL YOUR ITEMS FOR REAL CASH").

unspent balances, in which the issuer owes the balance holder future value.

As detailed below, in some cases, players may also transfer value from gamer to gamer. Some gaming companies that store value allow users to "cash out"—convert gaming money to bank deposits.[251] The dominant companies allow developers to use their software to create third-party platforms where gamers can exchange gaming money or use it to speculate.[252]

A. *Offline Games*

In the 1970s, companies like Nintendo initially focused on manufacturing and selling analog fun, such as playing cards.[253] In the 1980s, digital gaming took off as players (primarily teenagers) gathered at mall arcades.[254] They inserted coins into the slots of tollbooth-sized machines to play now-classic titles like Space Invaders, Ms. Pac-Man, and Donkey Kong and could play until they lost the game or ran out of tokens.[255] Beginning in the late 1970s, hardware manufacturers started to sell "consoles"—small computers for playing platform-specific games.[256] These devices enabled companies to deliver games from the arcade booth to a household television set (consoles such as the Nintendo Entertainment System, Sega Genesis, and Sony PlayStation). Technological development of game consoles, console cartridges, and memory cards allowed gamers to save progress and points on their own

---

251. See infra sections II.B.1 and II.B.2.

252. See infra section II.C.2.

253. See Gili Malinsky, From Creating Japanese Playing Cards in 1889 to Becoming One of the Most Iconic Video Game Companies in History, See How Nintendo Has Evolved, Bus. Insider (Mar. 18, 2019), https://www.businessinsider.com/nintendo-game-boy-super-mario-history-evolution-2019-3 [https://perma.cc/8MXL-8CQ2] ("Nintendo would become the biggest card-selling company in the country, before morphing into its numerous iterations (a taxi company, a food manufacturing company, a toy company) and finding worldwide success with its enterprising video game systems and games in the '80s.").

254. Kyle Riismandel, Arcade Addicts and Mallrats: Producing and Policing Suburban Public Space in 1980s America, 5 Env't, Space, Place 65, 66 (2013) ("The video game arcade emerged at a propitious moment for suburban development. During the 1970s and 80s, a mall-building boom in these outlying areas provided new commercial and recreational spaces eventually overtaken by suburban teens.").

255. Tim Wu, The Attention Merchants: The Epic Struggle to Get Inside Our Heads 191–97 (2017) ("[C]abinets with various games . . . started cropping up in various public places, sometimes collected in amusement arcades, alongside pinball machines.").

256. Id. at 196 ("Atari . . . thought a home video game system could succeed by allowing people to play the most popular arcade games . . . on their televisions . . . . Atari licensed *Space Invaders* in 1979; it would . . . sell a million [consoles] that year; then two million units in 1980, and by 1982 it had sold 10 million . . . .").

games.[257] Computer gaming companies made more complicated games with their own internal economies.[258]

B. *Online Games*

In the twenty-first century, games have moved online and become increasingly social. Multiplayer, interactive video games adopt powerful graphic processing hardware and AI to enhance the gaming experience.[259] For many gamers, online gaming and innovative technology make gaming feel more authentic through "real-time player interaction and increasingly personalized interfaces."[260] Some gaming companies are industry stalwarts (e.g., Sony, Nintendo, and Valve, the dominant platform distributor of computer games[261]), some are relatively new publishers (e.g., Roblox), and many are Silicon Valley titans (e.g., Meta, Apple, Google, and Microsoft).[262] The industry leaders, Sony and Microsoft, manufacture consoles and develop, publish, and sell games through online stores.[263]

Like most other technology companies, gaming companies surveil their users, tending toward "data maximization"—constantly collecting and sharing data under the premise that it will necessarily improve

---

257. See Shannon Symonds, Saving in Video Games, Strong Nat'l Museum of Play (July 14, 2011), https://www.museumofplay.org/blog/saving-in-video-games/ [https://perma.cc/Q5HJ-82TR] (discussing the evolution of saving capacities in video games).

258. In the 1960s, Mabel Addis, the first known woman game designer, created the first game with storytelling. In *The Sumerian Game*, a player would "act as the ruler of the Mesopotamian city-state of Lagash, in Sumer, in 3500 B.C." Anna Diamond, Overlooked No More: Mabel Addis, Who Pioneered Storytelling in Video Gaming, N.Y. Times (Aug. 24, 2024), https://www.nytimes.com/2024/08/24/obituaries/mabel-addis-overlooked.html(on file with the *Columbia Law Review*).

259. See The Future of Artificial Intelligence in Video Games, Colum. Eng'g, https://ai.engineering.columbia.edu/ai-applications/ai-video-games/ [https://perma.cc/4WP3-CZRT] (last visited Oct. 10, 2025) (discussing how AI is used to make video game graphics look more photorealistic).

260. Revolutionizing the Gaming Industry Through Embedded Payments, J.P. Morgan (Oct. 27, 2023), https://www.jpmorgan.com/insights/payments/payment-trends/revolutionizing-gaming-through-embedded-payments [https://perma.cc/ZE7G-4BVV].

261. Louis Ashworth, Valve Conquered PC Gaming. What Comes Next?, Fin. Times (July 4, 2025), https://www.ft.com/content/f4a13716-838a-43da-853b-7c31ac17192c (on file with the *Columbia Law Review*).

262. NVIDIA started as a company focused on developing "accelerated, or graphics-based, computing" for personal computers and video games. Andrew Nusca, This Man Is Leading an AI Revolution in Silicon Valley—And He's Just Getting Started, Fortune (Nov. 16, 2017), https://fortune.com/2017/11/16/nvidia-ceo-jensen-huang/ [https://perma.cc/UE4Z-3UEB]. It now sells AI software and hardware. Id.

263. See About Sony Interactive Entertainment, PlayStation, https://www.playstation.com/en-us/corporate/about-us/ [https://perma.cc/R8SG-38HA] (last visited Oct. 31, 2025); Xbox Games, Xbox, https://www.xbox.com/en-us/games [https://perma.cc/R6U2-TSKH] (last visited Apr. 4, 2026).

desired outcomes.[264] This means gaming companies have realized they can not only build psychographic profiles of their players to sort, store, score, share, and sell, but predict the behavior of players writ large. Gaming databases include social media data, browsing history, and records of in-game behavioral interactions.[265] Mobile games allow companies to access more detailed information about players' locations, social contacts, and sensor data.[266] Some companies that offer virtual reality (VR) headsets can accurately identify unique users by tracking brief head, hand, and eye movements.[267]

Moreover, gaming companies increasingly interact with individuals and groups in personalized ways based on their identities, more quickly expanding the user base and enhancing ways to keep gamers on their platforms. An estimated 76% of children in the United States play video games.[268] Due to "specific . . . gaming motivations,"[269] as well as tailoring to make games more gender-neutral (within a historically male-dominated user base), roughly half of gamers are women and girls.[270] Additionally, many companies now design their games with racial

---

264. See Omri Ben-Shahar, Data Pollution, 11 J. Legal Analysis 104, 140 (2019) (internal quotation marks omitted) (defining data maximization as the collection of all possible data).

265. See N. Cameron Russell, Joel R. Reidenberg & Sumyung Moon, Privacy in Gaming, 29 Fordham Intell. Prop. Media & Ent. L.J. 61, 74–75 (2019) (noting that some games collect location data, require access to a smartphone's contacts, and purchase histories).

266. Id. at 75 (noting that Nintendo, creator of mobile game *Pokémon Go*, "can use a device's 'precise' location based on GPS and mobile network access").

267. See Vasilis Xynogalas & M.R. Leiser, The Metaverse: Searching for Compliance With the General Data Protection Regulation, 14 Int'l Data Priv. L. 89, 97 (2024) (collecting studies on VR user re-identification through motion data). For examples of legal literature on VR, MR, and AR, see Joshua A.T. Fairfield, Mixed Reality: How the Laws of Virtual Worlds Govern Everyday Life, 27 Berkeley Tech. L.J. 55, 84 (2012) (arguing mixed reality ends the "enduring and erroneous theoretical idea of the Magic Circle"); Mark A. Lemley & Eugene Volokh, The Real Law of Virtual Reality, 51 U.C. Davis L. Rev. 51, 64 (2017) (exploring novel problems presented by AR and VR).

268. 2023 Essential Facts, supra note 4, at 2.

269. Tomoko Yokoi, Female Gamers Are on the Rise. Can the Gaming Industry Catch Up?, Forbes (Mar. 4, 2021), https://www.forbes.com/sites/tomokoyokoi/2021/03/04/female-gamers-are-on-the-rise-can-the-gaming-industry-catch-up/ (on file with the *Columbia Law Review*) (last updated Dec. 10, 2021) (discussing how the gaming industry has taken steps to work toward gender inclusion within different spheres).

270. Ent. Software Ass'n, Power of Play: 2025 Global Video Games Report 7 (2025), https://www.theesa.com/wp-content/uploads/2025/09/PoP-2025-v10-web-spreads.pdf [https://perma.cc/8FXU-6XRS] (reporting that 40% of global gamers are female); see also Kishonna L. Gray & David J. Leonard, Introduction *in* Woke Gaming: Digital Challenges to Oppression and Social Injustice 3, 7–10 (Kishonna L. Gray & David J. Leonard eds., 2018) (critiquing a discriminatory culture in the wake of GamerGate, an online harassment campaign, but promoting a new wave of women, gender nonconforming, and queer developers, and developers of color).

representation in mind.[271] Outside of the gaming context, Professor Salomé Viljoen characterizes targeted advertising as a paid data-driven capability structured around consumer identity.[272] She explains that economic value in data markets is produced through classification into group categories, which underwrites behavioral and identity-based targeting among advertisers.[273] Video game companies have operationalized this fact by relying on player data and algorithmic audience segmentation to sustain consumer demand, particularly through in-game advertising. Identity-based advertising increases the industry's range and endurance as companies compete to win lifelong, brand-loyal gamers.[274]

Above all, the operating principles of data maximization have accompanied new monetization opportunities. Gaming companies earn most of their revenue through microtransactions.[275] They use algorithms to combine "behavioral, biometric, and personal data" and to control "prices" (or what this Article refers to as exchange rates), as well as the "availability of goods or services on a highly individualized level."[276] Some gaming terms of service flatly state that "[p]rices of in-game items may be determined by factors not disclosed to the player."[277] The availability of

---

271. See Chad Valdez, Indigenous Representation in Video Games, Cultural Survival (Mar. 26, 2024), https://www.culturalsurvival.org/news/indigenous-representation-video-games [https://perma.cc/2DKU-MASE] (discussing the evolution of indigenous representation in videogames).

272. See Salomé Viljoen, A Relational Theory of Data Governance, 131 Yale L.J. 573, 590 (2021).

273. See id. at 607, 609–11 (discussing how data flows allow companies to structure advertising content around "the social fact of group identity via shared preferences, social patterns, and behaviors that make people similar to one another").

274. See Nick Woodford, The Rise of Gaming in Advertising: Insights From Industry Leaders on Growth, Challenges, and Opportunities, Advert. Wk., https://advertisingweek.com/the-rise-of-gaming-in-advertising-insights-from-industry-leaders-on-growth-challenges-and-opportunities/ [https://perma.cc/2228-2FK3] (last visited Oct. 10, 2025) ("[W]ith the growing maturity of intrinsic in-game ads, advanced audience targeting is . . . enabling brands to precisely reach player segments that align with their campaigns across various games and platforms."); see also CFPB Report, supra note 66, at 15 (providing examples of demographic identity markers commonly used in in-game advertising, including "age, gender, family, and economic status"); Roblox Corp., Annual Report (Form 10-K) (Feb. 11, 2026), https://www.sec.gov/Archives/edgar/data/1315098/000131509826000024/rblx-20251231.htm [https://perma.cc/7L3Y-7TMM] [hereinafter Form 10-K] at 15 (describing "immersive ads" as ad units that creators insert "for Roblox to programmatically serve ad content from advertisers"). See, e.g., id. at 18 ("Users build a direct relationship with the Roblox brand by establishing an identity and creating their social graph . . . . [T]his approach . . . promotes loyalty and engagement.").

275. See supra note 6 and accompanying text.

276. CFPB Report, supra note 66, at 14; see also King et al., supra note 6, at 137 (examining exploitative data practices within microtransactions in video games).

277. King et al., supra note 6, at 137 & tbl. 3; see also CFPB Report, supra note 66 (noting industry experts commonly use the term "dynamic odds" to describe the business practice of adjusting gameplay based on player data).

funds, including in user accounts, may change at any time.[278] Platforms deploy nearly identical contractual language: Gaming money has no cash value and is non-transferable, and the platform operator has a unilateral modification authority operator.[279] They contractually disclaim the characteristics (convertibility, property status, deposit-like features) that would trigger, for instance, banking or money transmitter regulation.[280]

Below, this Article considers three different types of gaming money: "play money," instruments earned or purchased in games; "store money," instruments held in proprietary digital wallets; and gift cards, which are also IOUs of gaming companies and play a crucial role in converting and transferring financial value between the gaming industry and the rest of the economy.

1. *Play Money*. — While companies can still monetize games with currency, gaming money helps further streamline multipoint ecosystems.[281] Typically, players can easily earn gaming money within a game by completing specific tasks, defeating another player, or discovering money during gameplay.[282] They can then use gaming money to buy energy, lives, boosters, or level-ups within the game or outside of it. Gaming money offers players a more frictionless, interactive, and

278. See Microsoft Services Agreement, Microsoft (July 30, 2025), https://www.microsoft.com/en-us/servicesagreement [https://perma.cc/5ENA-VHTF] ("Microsoft may at any time regulate, control, modify and/or eliminate the game currency and/or virtual goods associated with any one or more Xbox games or apps as it sees fit in its sole discretion."); Legal, Rockstar Games, https://www.rockstargames.com/eula [https://perma.cc/2W9G-KNQ9] (last updated Feb. 28, 2025) (stating in the end user agreement that the publisher may revise or take action that impacts the perceived value of or purchase price for items and gaming money at any time). See also Epic Games Terms of Service § 10, Epic Games, https://legal.epicgames.com/en-US/epicgames/tos [https://perma.cc/A8ZS-VHTJ] [hereinafter Epic Games, Terms of Service] (last updated Feb. 27, 2026) ("The features, pricing, availability, and functionality of Credits and other In-Game Content may change at any time without notice . . . .").

279. See, e.g., Epic Games, Terms of Service, supra note 278, § 10 ("Credits are not the same as cash, gift cards, or banks accounts and cannot be exchanged for real currency or other items outside the Epic ecosystem." (emphasis omitted)); PlayStation Network Terms of Service and User Agreement § 8.13, Sony, https://www.playstation.com/en-us/legal/psn-terms-of-service/ [https://perma.cc/XR8S-NPEG] [hereinafter PSN Terms of Service] (last updated Mar. 2025) ("Virtual Items have no value or application outside of the game or PlayStation Store, and may not be sold, transferred, or redeemed for real money or items of value. Virtual Items may be modified or removed without notice.").

280. See User Agreement, Elec. Arts, https://www.ea.com/legal/user-agreement [https://perma.cc/V43F-MLN9] (last updated Dec. 11, 2025) (disclaiming all property rights in virtual currency and reserving the right to change pricing, availability, and functionality without notice); Roblox Terms of Use § 3(g), Roblox, https://en.help.roblox.com/hc/en-us/articles/115004647846-Roblox-Terms-of-Use (on file with the *Columbia Law Review*) (last updated Dec. 19, 2025) (reserving unilateral right to modify or eliminate virtual items "with or without notice").

281. See J.P. Morgan, supra note 260 (proposing the inclusion of "an embedded payments ecosystem" to "minimize friction[]" for players when switching between games and platforms).

282. Id.

organized environment by simplifying the acquisition and use of virtual goods and services.

Players also have the option to purchase gaming money with currency, which can further reduce friction. For example, in *Fortnite*, an extremely popular cooperative battle game, players buy blocks of V-Bucks via bank accounts, which they then use in increments to pay as they play.[283] The publisher, Epic Games, organizes and values gameplay and enables gamers to purchase items and services within the game without having to retrieve credit card information and interrupt the experience.[284]

While monetization with currency may organize a system of achievements that sets gameplay parameters, gaming money tracks progress while more easily enabling in-game transactions. The gaming money is a crucial component of an in-game economy. Many games have "in-game marketplaces" in which players can purchase and trade assets.[285] This social aspect of gaming money enhances the overall experience, making players feel more connected and engaged.[286] For gaming companies, platform-specific money keeps users on the platform. Gaming money, like other forms of digital assets, can also "reduc[e] the transaction fees associated with other forms of payments and even reduc[e] the cost of funding."[287]

Some companies deploy gaming money within a "loot box." "A loot box is a seemingly randomized package" of gaming money and items, and "the player only knows the contents after paying and opening the package."[288] Gaming companies market "the contents [of a loot box] . . . as containing rare and valuable items missing from a player's collection,

---

283. See Redeem Your V-Bucks Card, Fortnite, https://www.fortnite.com/vbuckscard (on file with the *Columbia Law Review*) (last visited Oct. 10, 2025).

284. Id.

285. CFPB Report, supra note 66, at 6.

286. Compare Hubka, supra note 5 (arguing monetization strategies aim to "maximize revenue while providing value to players," including "additional content, features, or virtual goods to players within the game, enhancing the overall gaming experience") and J.P. Morgan, supra note 260 (arguing embedded payment ecosystems add "a layer of continuity across games, enhancing the overall gaming experience and user engagement"), with King et al., supra note 6, at 139 (examining how thirteen patented in-game purchasing systems could take advantage of information asymmetries and be considered "unfair or exploitative"), and Elena Petrovskaya & David Zendle, Predatory Monetisation? A Categorisation of Unfair, Misleading and Aggressive Monetisation Techniques in Digital Games From the Player Perspective, 181 J. Bus. Ethics 1065, 1072 (2022) (surveying gamers and finding thirty-five monetization techniques that players reported as "unfair, misleading, and aggressive").

287. Elena Carletti, Stijn Claessens, Antonio Fatás & Xavier Vives, IESE Banking Initiative, The Bank Business Model in the Post-Covid-19 World 102 (2020), https://www.iese.edu/media/research/pdfs/ST-0549-E.pdf [https://perma.cc/3AT9-ULYL].

288. CFPB Report, supra note 66, at 10 n.37.

or game currency."[289] Players can sell gaming money and items for currency on third-party websites.[290] Some games, such as *Roblox* and *Axie Infinity*, support a "two-way flow," in which players can use fiat currency to purchase gaming money, but also exchange gaming money for fiat currency on gaming platforms or third-party markets.[291]

Several third-party websites operate platforms that allow gamers to exchange gaming money and items.[292] For instance, Gameflip offers an easy way to sell *FIFA* cards and coins for cash.[293] In the popular smartphone multiplayer strategy game *Clash of Clans*, there is no way to sell items within the virtual world, so players purchase other players' gaming accounts and digital wallets online.[294] In many cases, video game companies—such as Valve—prohibit players from cashing out within the game, but third-party platforms facilitate the conversion process.[295] Third-party platforms offer gateways to licit and illicit secondary markets. Some gaming companies support these markets to attract new players to their games.

Most notoriously, Valve has developed a secondary market for gaming money and items.[296] Founded in 1996, Valve Software is a U.S. video game developer, publisher, and digital distribution company headquartered in Bellevue, Washington.[297] Although Valve publishes famous online multiplayer game franchises such as *Counter-Strike*, *Half-Life*, and *DOTA*, it makes most of its profit through the dominant computer game distribution platform, Steam.[298] Valve has helped develop

---

289. Id.

290. See id. at 10 n.37, 23.

291. Id. at 17.

292. Public websites show the current exchange rate of various gaming currencies to U.S. dollars. See PlayerAuctions In-Game Currency Price Tracker, PlayerAuctions, https://www.playerauctions.com/market-price-tracker/ (on file with the *Columbia Law Review*) (last visited Oct. 10, 2025).

293. See Listings, Gameflip, https://gameflip.com/shop?page=1&term=fifa&status=onsale&limit=36&start=0 [https://perma.cc/NGJ4-XVUR] (last visited Oct. 10, 2025).

294. See Clash of Clans Accounts for Sale—CoC Bases & ID, PlayerAuctions, https://www.playerauctions.com/clash-of-clans-account/ (on file with the *Columbia Law Review*) (last visited Oct. 10, 2025).

295. See CFPB Report, supra note 66, at 17–18.

296. Id. at 21–22 (describing the Steam Community Market as a "platform-supported secondary market" where players can use Steam Wallet Funds to buy items, as well as trade and sell them).

297. Jeff Dunn, Full Steam Ahead: The History of Valve, GamesRadar (Oct. 4, 2013), https://www.gamesradar.com/history-of-valve/ [https://perma.cc/WGJ9-DRBD] ("Around that same time, it moved its headquarters about five miles south to Bellevue, Washington. And while all this was happening, Valve started work on two new endeavors that would take it beyond mere game development: Source and Steam.").

298. sblemast, Printing Money: How Valve Went From Being an Indy Game Developer to the Most Profitable Company per Employee in the USA, Digit. Innovation & Transformation, https://d3.harvard.edu/platform-digit/submission/printing-money-how-valve-went-from-being-an-indy-game-developer-to-the-most-profitable-company-per-

the Steam Community Market—a platform-supported secondary market where players buy, trade, and sell items outside individual games.[299] Valve takes a 25% cut of a game's earnings on Steam, a 20% cut of the earnings over $50 million, and a 5–15% fee for every inter-player transaction within the Steam Community Market.[300]

Steam has facilitated a popular market for "skins"—essentially costumes that alter an avatar's appearance and display social status within gaming communities.[301] Most skins do nothing to substantively change gameplay, but the Steam Community Market enables players to swap them for Steam Wallet funds, creating a secondary market.[302] Gamers can convert the value of cosmetic items into fiat currency, rendering them attractive, speculative assets.[303] Third-party websites have thus enabled casino-like games for wagering skins and Steam Wallet funds: games on games.[304] Third-party websites also facilitate "skin betting" on events like competitive gaming contests ("esports").[305]

2. *Store Money*. — Many major gaming platforms offer digital wallets, allowing gamers to purchase items from in-game or console stores. As this Article shows, companies like Sony, Microsoft, Valve, Apple, and Google manage complex systems of wallet balances, credit card points, loyalty points, and gift cards. Since they do not have to report these flows or balances, however, it is challenging to quantify the average or total amounts, making store money resemble scrip.

---

employee-in-the-usa/ [https://perma.cc/Y9M8-MS2G] (last updated Feb. 26, 2017) (describing how Valve "leverag[ed] its user base created through its success in game development . . . to launch the Steam platform").

299. See Community Market FAQ, Steam, https://help.steampowered.com/en/faqs/view/61F0-72B7-9A18-C70B [https://perma.cc/39ZZ-SNMQ] (last visited Oct. 10, 2025); see also CFPB Report, supra note 66, at 22 n.88 (explaining how users can buy and sell items on the community market).

300. CFPB Report, supra note 66, at 22 n.88 (noting that "Valve (Steam) may earn up to 15 percent of an item's total value for a transaction that occurs on the Steam Community Market"); New Revenue Share Tiers and Other Updates to the Steam Distribution Agreement, Steam (Nov. 30, 2018), https://steamcommunity.com/groups/steamworks/announcements/detail/1697191267930157838 [https://perma.cc/7S8R-CGJL].

301. CFPB Report, supra note 66, at 20 & n.79.

302. Id. at 20–21.

303. Id.

304. Id. at 22 (citing Desirée Martinelli, Skin Gambling: Have We Found the Millennial Goldmine or Imminent Trouble?, 21 Gaming L. Rev. 557, 558–61 (2017)).

305. Mark R. Johnson & Tom Brock, Gambling Rsch. Exch. Ont., How Are Video Games and Gambling Converging? 3–5 (2019), https://www.greo.ca/Modules/EvidenceCentre/files/Johnson%20and%20Brock%20(2019)%20How%20are%20video%20games%20and%20gambling%20converging.pdf [https://perma.cc/3H7R-2HRR]. See also People Make Games, How Valve Is Profiting From Steam's Back-Door Casinos, at 4:52, 6:01, 28:09 (YouTube, Nov. 7, 2022), https://www.youtube.com/watch?v=eMmNy11Mn7g (on file with the *Columbia Law Review*) (explaining how third-party sites use Steam's API to operate games where gamers can bet Call of Duty skins on virtual competitions).

Sony operates an expansive online PlayStation Store for gamers to "buy digital games, subscriptions, virtual currency, and other digital content."[306] Players can buy PlayStation Network (PSN) play money, items, and skins.[307] Notably, gamers cannot use wallet funds to purchase hardware.[308] PlayStation Direct accepts only credit cards (MasterCard, Visa, and Discover) and Klarna (a fintech company which will lend for purchases).[309]

To spend money in the store, users must create a master account linked to a digital wallet, which allows them to hold balances similarly to services like Venmo.[310] Sony prescribes acceptable payment methods (now including credit, debit, and prepaid cards, PayPal, Venmo, promotional codes, vouchers, digital and physical gift cards), and may vary them from time to time in each specific country.[311] Sony sets the cap on wallet funds at its discretion but does not publish them and reserves the right to change them.[312]

Sony's terms of service contract states that wallet funds are "non-refundable and non-transferable except where the law requires."[313] Furthermore, "Wallet Funds have no value outside PSN and can only be used to make purchases through PSN Services or certain Third-Party Services."[314] Sony has "no obligation to reverse or refund unauthorized charges."[315] Sony will not restore the value of any unused or "abandoned" funds.[316] But players can purchase digital gift cards and transfer value to other players as described below in section II.B.3. They

306. PSN Terms of Service, supra note 279, § 8.1.

307. See How to Make Purchases From PlayStation Store, Sony, https://www.playstation.com/en-us/support/store/purchase-games-apps-ps-store/ [https://perma.cc/TD5M-5VNC] [hereinafter Sony Wallet] (last visited Oct. 11, 2025).

308. PlayStation Gift Cards FAQ, PlayStation, https://www.playstation.com/en-us/playstation-gift-cards [https://perma.cc/UP6F-S99F] (last visited Oct. 11, 2025) ("PlayStation Store gift cards can only be used on digital products at PlayStation Store. Physical products from PlayStation Direct and merch from PlayStation Gear can't be purchased with a gift card.").

309. Billing & Payments FAQ, PlayStation, https://direct.playstation.com/en-us/support/billing-payments [https://perma.cc/3RPY-HZL6] (last visited Feb. 7, 2026). For more on Klarna, see Jackie Veling, Klarna Buy Now, Pay Later: 2025 Review, NerdWallet, https://www.nerdwallet.com/personal-loans/reviews/klarna-buy-now-pay-later [https://perma.cc/3K9D-CZVU] (last updated Nov. 21, 2025).

310. See Sony Wallet, supra note 307.

311. See Payment Methods Accepted on PlayStation Store, Sony, https://www.playstation.com/en-us/support/store/payment-methods-accepted-on-ps-store/ [https://perma.cc/QGC3-ARJ9] (last visited Oct. 11, 2025).

312. See PSN Terms of Service, supra note 279, § 7.2.

313. Id. § 7.3 (emphasis omitted).

314. Id. § 7.2.

315. Id. § 7.3 (emphasis omitted).

316. See id. (emphasis omitted) ("WALLET FUNDS THAT ARE DEEMED ABANDONED OR UNUSED BY LAW WILL NOT BE RETURNED OR RESTORED.").

can also buy play money and transfer it in games that convert it into bank deposits or cryptocurrency through third-party platforms.[317]

The Microsoft gaming money system is more complex than the Sony system. Unlike with the Sony wallet, Microsoft allows gamers to use wallet funds to purchase hardware "[p]roducts includ[ing] Xbox, Surface, phones, PCs and accessories."[318]

Until July 2024, Microsoft operated an Xbox Games Store, account, and wallet system separate from other Microsoft products.[319] Gamers now use a singular Microsoft Store.[320] Gamers can now purchase consoles, games, merchandise, and hardware accessories like controllers at the generic Microsoft Store.[321] As with the PlayStation store, players can also buy Microsoft play money, items, and skins.[322] Players can add funds to their wallets via credit card, debit card, PayPal account, or gift cards.[323] Gamers can also fund their wallets with the no-annual-fee Xbox Card from Barclays, which offers rewards.[324] Players earn rewards by playing games, using Bing, and purchasing products in the Microsoft Store, and can use these rewards to purchase games, devices, movies, apps, and more.[325]

Unlike Sony, Microsoft imposes a disclosed limit on wallet funds. One Microsoft wallet may contain up to $1,000, but players may hold up

317. See CFPB Report, supra note 66, at 20–23.

318. Spend the Money in My Microsoft Account, Microsoft Support, https://support.microsoft.com/en-us/account-billing/spend-the-money-in-my-microsoft-account-b7c7baec-1769-6c57-3a47-64413e69cc5d (on file with the *Columbia Law Review*) [hereinafter Microsoft Support, Spend the Money in My Microsoft Account] (last visited Feb. 7, 2026).

319. See Dave McCarthy, The Xbox 360 Store Will Close July 2024, But You Can Keep Playing Your Favorite Games, Microsoft (Aug. 17, 2023), https://news.xbox.com/en-us/2023/08/17/xbox-360-store-will-close-july-2024/ [https://perma.cc/6Z9Q-UMP7].

320. See Jowi Morales, Xbox 360 Store to Close July 29, 2024 — But You Can Still Play Games Without Issue, Tom's Hardware (May 1, 2024), https://www.tomshardware.com/video-games/xbox/xbox-360-store-to-close-july-29-2024-but-you-can-still-play-games-without-issue [https://perma.cc/C88J-KBUG] (explaining that former users of the Xbox Store now must make purchases via the Microsoft Store).

321. See Microsoft Support, Spend the Money in My Microsoft Account, supra note 318.

322. See Xbox Consoles, Games, Controllers, Gear & More, Microsoft Store, https://www.microsoft.com/en-us/store/b/xbox [https://perma.cc/7BXK-MCPY] (last visited Feb. 7, 2026).

323. See How to Add Money to Microsoft Account, Process Street, https://www.process.st/how-to/add-money-to-microsoft-account/ [https://perma.cc/W8LS-FT6L] (last visited Oct. 11, 2025).

324. See Craig Joseph & Kenley Young, 5 Things to Know About the Xbox Credit Card, NerdWallet, https://www.nerdwallet.com/article/credit-cards/xbox-card [https://perma.cc/WMK7-YCTE] (last updated Feb. 4, 2026).

325. See Rewards With Xbox, Xbox, https://www.xbox.com/en-US/rewards#earn [https://perma.cc/QUN4-YGHR] (last visited Oct. 11, 2025).

to five wallets with a combined limit of $5,000.[326] The Microsoft Gift Card Terms and Conditions state that refunds are conditional and wallet funds are nontransferable.[327] Moreover, the Microsoft Services Agreement provides that "Microsoft may at any time regulate, control, modify [or] eliminate the game currency [and] virtual goods . . . as it sees fit in its sole discretion."[328] Critically, unlike Sony, Microsoft clearly states players may purchase these products using play money.[329] Thus, players can earn value through games and use it for other products in the Microsoft Store. For example, Microsoft serves as a conversion platform for publishers like Epic Games, which issues *Fortnite* V-Bucks.[330] After purchasing V-Bucks from the Microsoft store, players add the V-Bucks to a *Fortnite* Shared Wallet.[331] V-Bucks purchases do not come with additional redemption codes, and players cannot gift them to other accounts.[332] Theoretically, there is no further conversion mechanism. But because players may add funds they earned in games, they may effectively bring "play money" into the "real world" through Microsoft Store purchases. This portal between the gaming industry and the rest of the economy presents particular forms of harm and risks, discussed below in section II.C.

3. *Gift Cards*. — As mentioned above, publishers also use gift cards as a conversion mechanism between gaming money and currency, adding another dimension to the system. For instance, Roblox earns nearly all of its revenue via the sale of Robux.[333] The business model, however, is

---

326. Limits on the Money in Your Microsoft Account, Microsoft Support, https://support.microsoft.com/en-us/account-billing/limits-on-the-money-in-your-microsoft-account-a37b3221-363b-e789-13cd-ff1641128004 (on file with the *Columbia Law Review*) (last visited Oct. 11, 2025).

327. See Microsoft Gift Card Terms and Conditions § 2.5, Microsoft Support, https://support.microsoft.com/en-us/account-billing/microsoft-gift-cards-terms-and-conditions-94295a5a-a0bb-070e-1d15-2145344b741d (on file with the *Columbia Law Review*) (last visited Feb. 7, 2026).

328. Microsoft Services Agreement, supra note 278, § 14(a)(vi).

329. See id. ("[Microsoft Store items] may be purchased from or on behalf of Microsoft using actual monetary instruments or using game currency.").

330. See Fortnite—1,000 V-Bucks, Xbox, https://www.xbox.com/en-US/games/store/fortnite-1000-v-bucks/C0F5HT9NV86P [https://perma.cc/4CNK-QMF6] (last visited Apr. 5, 2026) (listing V-Bucks for purchase, which can then be transferred across platforms supporting *Fortnite*'s Shared Wallet).

331. See V-Bucks Purchased on PlayStation Join Fortnite Shared Wallet, Fortnite (May 16, 2022), https://www.fortnite.com/news/v-bucks-purchased-on-playstation-join-fortnite-shared-wallet (on file with the *Columbia Law Review*) ("If you purchased V-Bucks through the Microsoft . . . Store, you must log into *Fortnite* on the corresponding platform to receive them before accessing them across all . . . Shared Wallet platforms.").

332. See Redeem Your V-Bucks Card, Fortnite, https://www.fortnite.com/vbuckscard (on file with the *Columbia Law Review*) (last visited Oct. 10, 2025).

333. See Annual Revenue of Roblox Corporation Worldwide From 2019 to 2024, by Region, Statista (Nov. 27, 2025), https://www.statista.com/statistics/1376991/annual-revenue-roblox-corporation-region/ [https://perma.cc/BLQ6-YVVH] ("Roblox generates almost all of its revenue through the sales of virtual currency, 'Robux,' which players can

highly seasonal, "with the highest percentage of . . . bookings" occurring during the winter holidays,[334] when the use of gift cards increases.[335] Players can also use gift cards to transfer the value of some play or store money between each other. For instance, although Sony prohibits players from transferring money between PlayStation wallets,[336] players can gift each other gaming money through the digital gift card system.[337]

C. *Harms & Risks*

Gaming money introduces new techniques for value extraction and potentially predatory behavior by companies against gamers. When gaming companies deploy money, they take advantage of built-in environments and users who have no choice but to participate in the surveilled monetary system to continue playing the game. These are the same "harms and risks" discussed in section I.D, as illustrated here in the gaming money context.

1. *Rate Manipulation.* — Some companies blur the distinction between gaming and currency. The use of instruments like Robux undermines the psychological link between gameplay and real expenditure. For instance, eliminating the need to use one's credit card during gameplay or go to a store makes the consumer less sensitive to the actual monetary cost of a purchase.[338] The European Consumer Organisation has reported that virtual currencies reduce what researchers call "payment aversion"—the mental friction that ordinarily restrains spending.[339] Moreover, "[g]aming companies . . . us[e]

---

use to purchase virtual items sold by the *Roblox* developer and creator community on the platform.").

334. Form 10-K, supra note 274, at 19 (noting Roblox has "historically experienced seasonality in monetization . . . and tend[ed] to generate higher levels of bookings in the fourth quarter of the year primarily due to the end-of-year holiday season").

335. Id. at 25 (noting holidays "lead to increased spend on pre-paid Robux gift cards, and we expect this trend to continue").

336. PSN Terms of Service, supra note 279, § 7.3 ("Funds added to the PSN Wallet are non-refundable and non-transferable except where the law requires." (emphasis omitted)).

337. PlayStation Store Gift Cards, PlayStation, https://www.playstation.com/en-us/playstation-gift-cards/ [https://perma.cc/W7LP-XNR4] (last visited Feb. 8, 2026) (noting that "[d]igital currencies like V-Bucks, EA SPORTS FC Points and Call of Duty® Points can absolutely be purchased with a PlayStation Store gift card").

338. See Marie-Claire Broekhoff & Carin van der Cruijsen, Paying in a Blink of an Eye: It Hurts Less, but You Spend More, 221 J. Econ. Behav. & Org. 110, 112 (2024) (finding that convenience and lower salience of a payment reduce the "pain of paying" and increase the likelihood of overspending for mobile payments as compared to credit card payments, much less cash).

339. Bureau Européen des Unions de Consommateurs, Monetising Play: Regulating In-Game and In-App Premium Currencies 16 (2024), https://www.beuc.eu/sites/default/files/publications/BEUC-X-2024-061_Monetising_play_Regulating_in_game_and_in_app_premium_currencies.pdf [https://perma.cc/2QZ5-DAJ2] (describing how, according to the "'pain of paying' principle," cash payments involve "an aversion to

behavioral, biometric, and personal data to manipulate prices and the availability of goods or services on a highly individualized level."[340] Companies may set prices using algorithms that consider "factors that are not disclosed to the player"—reserving the right to change "the availability, value, and quality of goods, including those in the user's account, . . . at any time."[341] Companies may deploy several tactics to obscure the fiat value of gaming money itself, including (1) confusing consumers about the comparative value of different forms of gaming money,[342] for instance, by packaging them together as deals, (2) confusing gamers about exchange rates between gaming money and currency,[343] or (3) confusing consumers about withdrawal rates and ratios.[344]

The 2024 class action *Noel v. Roblox Corporation* offers a detailed account of how Roblox confuses gamers and captures value throughout its Robux operations.[345] According to the complaint, Roblox maintains substantially distinct exchange rates for when gamers and developers

---

payment," whereas when consumers use "other forms of payment such as credit cards, fidelity cards, vouchers, virtual credits, or when the transaction is in general less tangible, they tend to spend more" (footnotes omitted) (citing Priya Raghubir & Joydeep Srivastava, Monopoly Money: The Effect of Payment Coupling and Form on Spending Behavior, 14 J. Experimental Psych. 213 (2008))).

340. CFPB Report, supra note 66, at 14; see also King et al., supra note 6, at 137 (describing how video games "use . . . individual and/or player population data to optimize the type and scheduling of purchasing offers or discounts for each player").

341. CFPB Report, supra note 66, at 14–15; infra section III.A.

342. See Petrovskaya & Zendle, supra note 286, at 1072 (discussing player testimony about how having multiple gaming currencies makes actual costs unclear, beyond typical predatory advertising considerations).

343. See id. (discussing player testimony about how using gaming money instead of fiat currency creates confusion about the cost of in-game purchases); see also Advertising Body Consults on New Guidance on Ads for 'Loot Boxes' and Other In-Game Purchases, Soc'y for Computs. & L. (Nov. 6, 2020), https://www.scl.org/12095-advertising-body-consults-on-new-guidance-on-ads-for-loot-boxes-and-other-in-game-purchases/ [https://perma.cc/DK9T-HN57] ("[W]here consumers can buy credits to use for in-game purchases, their cost must be clear . . . . If the real-world price given is indicative or approximate, this should be made clear to consumers, and information about how this price was calculated should be easily available.").

344. Tonya Mosley & Allison Hagan, Boundless Creativity or Labor? Critics Say Roblox Hoards Profits and Shortchanges Kids' Safety, WBUR (Jan. 18, 2022), https://www.wbur.org/hereandnow/2022/01/18/roblox-kids-safety-profits [https://perma.cc/Y8FT-JLDZ] ("If you have a huge payday because you made a successful game, you're a sort of virtual millionaire on Roblox . . . . But the moment you choose to take that Robux off the platform, if you choose to withdraw it, only at that point are your assets devalued." (internal quotation marks omitted) (quoting investigative journalist Quintin Smith)).

345. Complaint at 4–5, Noel v. Roblox Corp., No. 3:24-cv-00963-JSC (N.D. Cal. filed Feb. 16, 2024), 2024 WL 3747454 ("Roblox has built its entire platform around profiting from the creative development of its users . . . and exploiting their labor for Roblox's own profit.").

purchase Robux versus when they withdraw them.[346] For example, the complaint notes that on February 2, 2024, $4.99 was worth 400 Robux (approximately $0.0125 per singular Robux), while gamer-developers converting Robux back to dollars receive $3.50 for 1,000 Robux (approximately $0.0035 per singular Robux).[347]

Roblox's own terms confirm the platform's power over rates. The Terms of Use state that the corporation "has and retains all rights in and to Robux," including "the right to modify, revoke, or terminate your license to use Robux without notice, payment, or liability to you."[348] Moreover, "Roblox makes no guarantees or warranties regarding Robux or their availability or value."[349] Indeed, in September 2025, Roblox began to generate even more confusion by implementing two different conversion rates as a general matter.[350] Roblox will grandfather in any Robux earned before September 5, 2025 at the "Old Rate" of $0.0035 per singular Robux, while the company will convert any Robux earned after that at a "New Rate" of $0.0038.[351] Developers do not appear to have a right to appeal the rates or even the categorization of funds.[352]

This Article contends that Roblox extends this dynamic into the physical retail world by issuing closed-loop gift cards denominated in the sovereign's unit of account.[353] If a consumer purchases a gift card denominated in dollars, it is still only a claim on whatever quantity of Robux is available at the exchange rate Roblox sets.[354] Because the dollar value of the cards is only spendable when converted to Robux—the value of which Roblox controls—the nominal dollar value of the card is illusory. By changing the exchange rate within its gaming environment at will, Roblox can retroactively change the card's value within the game and the nature of the gamers' purchase. Although companies may alter

---

346. See id. at 4 ("When purchasing Robux, one Robux is valued at 0.0125 USD, meaning $4.99 USD can buy you 400 Robux; however, when trying to cash out Robux from the platform, the conversion rate significantly differs and one Robux is worth only $0.0035 USD, meaning 1,000 Robux can only be converted for $3.50.").

347. Id.

348. Roblox Terms of Use § 3(e), Roblox, https://en.help.roblox.com/hc/en-us/articles/115004647846 (on file with the *Columbia Law Review*) (last updated Jan. 7, 2026).

349. Id.

350. See Developer Exchange—Help and Information Page, Roblox, https://en.help.roblox.com/hc/en-us/articles/13061189551124-Developer-Exchange-Help-and-Information-Page [https://perma.cc/9LN8-KDTM] (last visited Apr. 5, 2026).

351. Id.

352. See Developer Exchange Terms of Use, Roblox, https://en.help.roblox.com/hc/en-us/articles/115005718246-Developer-Exchange-Terms-of-Use [https://perma.cc/GKW9-695V] [hereinafter Roblox Developer Exchange Terms of Use] (last visited Apr. 5, 2026).

353. See supra section II.B.3.

354. See supra notes 348–349 and accompanying text.

the price of goods at will, Roblox's proprietary unit of account renders another layer and opportunity for opacity of pricing.

2. *Money Laundering*. — Experts have warned that modern gaming presents a significant risk of money laundering: "disguising financial assets so they can be used without detection of the illegal activity that produced them."[355] Fraudsters can use stolen credit card numbers and gaming credentials to purchase items and then sell them for gaming money.[356] They can then conduct various transactions to conceal the source of the funds.[357] Eventually, they can sell gaming money for cryptocurrency or convert the value to a digital wallet balance, commercial bank deposit, or cash, claiming they earned the funds the old-fashioned way.[358] Money laundering may occur when "players of a video game can trade in-game goods" and when "an established market for exchanging virtual assets for legal tender or cryptocurrency exists—even though those transactions are usually forbidden by the publisher."[359]

---

355. What Is Money Laundering?, Fin. Crimes Enf't Network, https://www.fincen.gov/what-money-laundering [https://perma.cc/2XL3-GYAR] (last visited Oct. 12, 2025); see also Jean-Loup Richet, U.N. Off. on Drugs & Crime, Laundering Money Online: A Review of Cybercriminals' Methods (2013), https://arxiv.org/pdf/1310.2368.pdf [https://perma.cc/86SY-ZPWV] (warning that online games were becoming a haven for money laundering).

356. A fraudster "can open different player accounts on several online gaming platforms and 'use those accounts to buy gaming assets with illegally obtained funds.' They can then send the assets to other accounts . . . [and] convert them to fiat currency using third-party markets." Paul O'Donoghue, Video Game Currencies Enabling 'Proliferation of Money Laundering,' Says US Govt Agency, AML Intel. (Apr. 10, 2024), https://www.amlintelligence.com/2024/04/news-video-game-currencies-enabling-proliferation-of-money-laundering-says-us-govt-agency/ [https://perma.cc/AUU4-D74T] (quoting CFPB Report, supra note 66, at 32); see also, e.g., Microsoft Corp. v. Gameest Int'l Network Sales Co., No. 17-CV-02883-LHK, 2017 WL 4517103, at *1 (N.D. Cal. Oct. 10, 2017) (describing a scheme in which over $2 million in virtual gaming currencies was fraudulently purchased with stolen credit cards).

357. See, e.g., Microsoft Corp. v. FIFAVIP Co., No. 17-CV-02887-LHK, 2017 WL 4517060, at *1 (N.D. Cal. Oct. 10, 2017) (describing how fraudsters solicit sales of virtual gaming currencies through their websites while using credit cards associated with stolen Microsoft Accounts to facilitate the sales); Money Laundering Through Cryptocurrencies, UN Toolkit on Synthetic Drugs, https://syntheticdrugs.unodc.org/syntheticdrugs/en/cybercrime/launderingproceeds/moneylaundering.html [https://perma.cc/W8AX-TJU3] (last visited Oct. 11, 2025) (describing a similar method of obscuring the source of funds through multiple transactions in the cryptocurrency space).

358. CFPB Report, supra note 66, at 31–32; see also Michael Crider, How to Make Real Money Playing Video Games, How to Geek (May 16, 2017), https://www.howtogeek.com/306389/how-to-make-real-money-playing-video-games/ [https://perma.cc/6744-ADD5] (describing how "[p]layers can . . . get paid in real-world credit via PayPal, Bitcoin, Steam Wallet credit, or even real bank transfers"); Roblox Developer Exchange Terms of Use, supra note 352 (laying out Roblox's rules for cashing out Robux for currency).

359. Matthew Roomberg, The Video Game Industry's Money Laundering Problem: When Do Game Publishers Become Money Transmitters?, 91 Fordham L. Rev. Online 161, 166 (2023), https://fordhamlawreview.org/wp-content/uploads/2023/05/Roomberg_

Fraudsters have bought V-Bucks from the Epic Games official store using stolen credit cards and then sold them on the dark web.[360] In 2018, a German security company uncovered a scheme in which "scammers [on Facebook] use[d] stolen credit cards to buy in-app currencies from mobile games *Clash of Clans*, [*Clash*] *Royale*, and *Marvel Contest of Champions*, then [sold] those currencies . . . for cash."[361]

Platform distributors like Valve can also promote money laundering (intentionally or otherwise). Valve's Steam Community Market allows players to buy and trade items using dollar-denominated Steam Wallet funds.[362] While players cannot transfer Steam Wallet funds directly, they can use them to purchase items from each other on the Steam Community Market.[363] Nominally, there is no way to withdraw funds from a Steam Wallet balance.[364] But Valve's application programming interface (API) enables secondary markets for skins and gaming money.[365] External platforms also provide trading venues where players can post skins when betting on esports or other games.[366]

Vol.-91.pdf [https://perma.cc/P9A2-LAZV] (footnote omitted); id. at 165 ("Although some games allow players to cash out their virtual currency for real-world value, most games, even those that permit trading, do not." (footnotes omitted)); see also 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, 106–07 (2020) ("Using video games to launder money is not new.").

360. Anthony Cuthbertson, How Children Playing Fortnite Are Helping to Fuel Organised Crime, The Independent (Jan. 14, 2019), https://www.independent.co.uk/news/fortnite-v-bucks-discount-price-money-dark-web-money-laundering-crime-a8717941.html [https://perma.cc/CLU6-B2VA]; Brad Gershel, Popular Video Game Serves as a Reminder of Regulatory Risks of In-Game/In-App Virtual Currencies, Ballard Spahr LLP, (Jan. 29, 2019), https://www.moneylaunderingnews.com/2019/01/popular-video-game-serves-as-a-reminder-of-the-regulatory-risks-of-in-game-in-app-virtual-currencies/ [https://perma.cc/A8YX-N8BT].

361. Matthew Gault, Scammers Are Using 'Clash of Clans' to Launder Money From Stolen Credit Cards, Vice (July 20, 2018), https://www.vice.com/en/article/scammers-are-using-clash-of-clans-to-launder-money-from-stolen-credit-cards/ [https://perma.cc/PH8E-2PNW].

362. See supra section II.B.1; see also CFPB Report, supra note 66, at 21.

363. Community Market, Steam, https://steamcommunity.com/market/ [https://perma.cc/54MN-8XYA] (last visited Oct. 11, 2025).

364. CFPB Report, supra note 66, at 22.

365. See John Paul Koning, In-Game Virtual Items as a Form of Criminal Money, Moneyness (Nov. 28, 2019), https://www.moneyness.ca/2019/11/in-game-virtual-items-as-form-of.html [https://perma.cc/V5T8-U2MY] (describing how money launderers purchase Call of Duty skins as a "bridge currency," purchasing items on Steam and reselling them on secondary trading venues like OPSkins, Bitskins, and Skins.cash for bank money).

366. CFPB Report, supra note 66, at 22–23. "[S]ome third-party websites entice users with gaming assets, like discounted bundles of game currency or rare virtual items, in exchange for downloading applications, watching advertiser content, or submitting personal details." Id. at 32–33 (citing Matt Burgess, A Huge Scam Targeting Kids With *Roblox* and *Fortnite* "Offers" Has Been Hiding in Plain Sight, Wired (Aug. 14, 2023), https://www.wired.com/story/poison-pdf-scam-fortnite-roblox/ [https://perma.cc/SS8T-

In October 2019, Valve announced it had shut down a money laundering ring built around *Counter-Strike: Global Offensive*, a game developed, published, and sold by Valve.[367] By the end of the year, Valve disclosed that "nearly all" *Counter-Strike* loot box sales on the marketplace were "fraud-sourced."[368] Valve responded to such events ex-post by banning specific accounts[369] but does not appear to have adequately addressed structural concerns. In September 2024, computer scientists Dan Cooke and Angus Marshall analyzed publicly available transactional data from the Steam Community Market.[370] The scholars deployed traditional automated money laundering detection systems used by banking and other businesses, identified irregularities in the frequency and value of transactions, produced evidence of potential money laundering, and identified how the Steam platform more easily supports money laundering than banks.[371]

Similarly, litigation defense has also revealed that nominally closed-loop platforms are likely quite open. In *Doe v. Roblox Corporation*, a 2023 class action lawsuit in the Northern District of California, Roblox successfully excluded more than 300 Roblox accounts from a settlement, as it alleged that accountholders had each "spent over 80,000 Robux (equating to over $1,000)" on virtual items, and appeared to "be engaged in money laundering or other improper behavior."[372] Valve does not verify identities.[373] Most gaming companies necessarily collect some

---

92Q9]); see also Justin Carter, Report: Gambling Sites 'Thriving' Due to Use of Steam's Marketplace, Game Developer (Nov. 7, 2022), https://www.gamedeveloper.com/game-platforms/report-valve-s-steam-marketplace-in-deep-relationship-with-third-party-gambling-sites [https://perma.cc/JY85-22RQ] (analyzing a report from investigative gaming journalists).

367. Valve Shuts Down Money Laundering via CS:GO Game, BBC News (Nov. 1, 2019), https://www.bbc.com/news/technology-50262447 [https://perma.cc/3YC5-GLP6].

368. Tim Bradshaw, Video Games Are Easy Channel for Money Launderers, Fin. Times (Jan. 2, 2020), https://www.ft.com/content/1008d340-24f6-11ea-9a4f-963f0ec7e134 (on file with the *Columbia Law Review*) (internal quotation marks omitted) (quoting Valve).

369. See Jody Macgregor, CS:GO Ban Wave Results in Over $2 Million Worth of Skins and Other Items Being Lost, PCGamer (July 1, 2023), https://www.pcgamer.com/csgo-ban-wave-results-in-over-dollar2-million-worth-of-skins-and-other-items-being-lost/ [https://perma.cc/WP8B-J4AL] (reporting that Valve "banned roughly 40 CS:GO accounts for trading, with the result that more than $2 million worth of in-game items have been lost").

370. Dan Cooke & Angus Marshall, Money Laundering Through Video Games, A Criminals' Playground, Forensic Sci. Int'l, Sep. 2024, at 1–6.

371. Id. at 4–6.

372. Plaintiff's Motion in Support of Preliminary Approval of a Class Action Settlement at 6–7, Doe v. Roblox Corp., No. 3:21-cv-03943-WHO (N.D. Cal. filed Mar. 28, 2023).

373. Valve, Privacy Policy Agreement, Steam, https://store.steampowered.com/privacy_agreement/ [https://perma.cc/PA42-ZC85] (last visited Nov. 2, 2025) ("When setting up an Account, Valve will collect your email address and country of residence . . . .

personally identifiable information during online gameplay, including email address(es) and credit card payment information,[374] but players do not need to share money laundering reports with financial regulators.[375] Although Treasury recently identified "emergent money laundering risks associated with sports betting, offshore sports betting, and virtual asset gambling," it has not addressed similar vulnerabilities presented by gaming money systems, or use of gaming money for gambling or other illicit activities.[376]

3. *Financial Instability*. — Unlike rate manipulation and money laundering, financial instability is not a present harm of gaming money. But the structural features of these systems—such as unregulated balances, no obligation to honor redemptions, and opaque accounting—merit attention. Roblox is the only major gaming company whose public disclosures allow direct measurement of gaming money liabilities, because "[s]ubstantially all of [its] bookings are generated from sales of virtual currency" ($6.79 billion in fiscal year 2025), which are initially recorded as deferred revenue ($6.51 billion outstanding as of December 31, 2025).[377] For other companies, the aggregate value of outstanding gaming money balances is either undisclosed or consolidated into broader deferred revenue categories wherein it cannot be identified. Although the Developer Exchange Program (DevEx) permits only a

---

We do not require you to provide or use your real name for the setup of a Steam User Account."). But see Shane Kelly, Note, Money Laundering Through Virtual Worlds of Video Games: Recommendations for a New Approach to AML Regulation, 71 Syracuse L. Rev. 1485, 1506 (2021) (noting that in 2019, Linden Labs, developer of *Second Life*, created a money services business (MSB) subsidiary to satisfy BSA/AML requirements); id. at 1507 ("[A]nyone who makes an in-game credit card transaction" must share their "name, address, date of birth, and social security number.").

374. See, e.g., PSN Terms of Service, supra note 279, § 3.6 (noting that Sony may request additional documentation for account creation). See also Julia K. Whitelock, Justin B. Hosie & Jason Esteves, Mo Data, Mo Problems: Data Protection and Privacy Concerns for the Gaming Industry, Hudson Cook (July 10, 2024), https://www.hudsoncook.com/article/mo-data-mo-problems-data-protection-and-privacy-concerns-for-the-gaming-industry/ [https://perma.cc/5H4G-LV3Y] ("Applications and devices may collect users' banking information and track users' location, interaction with games, devices, and other applications (e.g., integrated social media), and biometric data (e.g., eye posture, voice, heart rate).").

375. See Kelly, supra note 373, at 1488 ("[A]gencies 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.").

376. See U.S. Dep't of the Treasury, 2024 National Money Laundering Risk Assessment 84 (Feb. 2024), https://home.treasury.gov/system/files/136/2024-National-Money-Laundering-Risk-Assessment.pdf [https://perma.cc/6HF6-KUKU] (dedicating a "Special Focus" section to "online gaming" focused on sports betting but without a connection to video games).

377. Form 10-K, supra note 274, at 72 (reporting bookings of $6,788,430 thousand for fiscal year 2025); id. at F-5 (reporting current deferred revenue of $4,168,971 thousand and long-term deferred revenue of $2,336,959 thousand as of December 31, 2025); see also id. at 81 (explaining that "[d]eferred revenue consists of the unearned portion of bookings for which [Roblox has] not yet satisfied [its] performance obligations").

fraction of users to convert Robux into dollars,[378] the corporation has lowered the eligibility threshold over time, expanded the class of users, and "increased the amount creators can receive in fiat currency based on earned Robux by 8.5%."[379] The DevEx program paid out $1.50 billion in 2025, up from $922.8 million in 2024.[380] Roblox does not have to honor redemptions for these liabilities, which are not notes or deposits.[381] The opacity regarding the outstanding gift card balances of other companies can become a structural problem within the industry. Bankruptcies can destroy gift card value.[382] For instance, when bookseller Borders collapsed in 2011, it extinguished $211 million in outstanding gift card value.[383]

Platform-hosted digital wallets offered by companies like Microsoft, Sony, and Valve issue gaming money and provide the balance infrastructure within the gaming sector, albeit without the consumer protections and regulations typically associated with traditional banking.[384] Digital wallets help gamers make payments outside of the game. In many ways, points in these accounts may resemble bank deposit systems. Like interbank payment systems, the gaming wallet system helps facilitate storing, exchanging, transferring, and gifting funds between gamers.[385] In the case of Microsoft, the financial value issued endogenously flows through the rest of its business activities and, thus, the tech sector and the "real economy."[386]

Sony's wallets have few consumer protections compared to bank accounts or digital wallets like PayPal.[387] Players can only deposit funds in

---

378. Id. at 16 (reporting that over 23,500 creators participated in the Developer Exchange Program in 2025, out of 127 million average daily active users); Roblox Developer Exchange Terms of Use, supra note 351 (requiring minimum 100,000 earned Robux, excluding purchased Robux).

379. Form 10-K, supra note 274, at 16 (describing a September 5, 2025 increase to DevEx payout rates); see also id. at 16 (describing Developer Exchange Program eligibility criteria). The DevEx minimum was lowered from 100,000 to 50,000 Robux in January 2022 before being restored. See Developer Exchange Program Requirements Changes, Roblox Creator Hub F. (Jan. 31, 2022), https://devforum.roblox.com/t/developer-exchange-program-requirements-changes/1651282 (on file with the *Columbia Law Review*).

380. Form 10-K, supra note 274, at F-6 (reporting developer exchange fees of $1,503,106 thousand in 2025 and $922,821 thousand in 2024).

381. See Stites & Silber, supra note 172, at 266, 269–70 (comparing FDIC-insured bank deposits to unprotected gift card balances).

382. Id. at 266 (discussing merchant insolvency risk as a structural feature).

383. Sara Randazzo, Unused Borders Gift Cards Spur Fight, Wall St. J. (June 28, 2015), https://www.wsj.com/articles/defunct-gift-cards-spur-fight-1435519412 (on file with the *Columbia Law Review*) (also noting the Supreme Court declined to hear the case).

384. See supra section II.B.2.

385. See supra section II.B.2.

386. See supra section II.B.2.

387. See PSN Terms of Service, supra note 279, § 7.3 ("Funds added to the PSN Wallet are non-refundable and non-transferable except where the law requires. We have no obligation to reverse or refund unauthorized charges made using any payment method

these accounts from bank accounts but may not withdraw them into bank accounts.[388] Gamers cannot convert wallet funds into gift cards or debit card balances.[389] Sony offers digital wallets with dollar-denominated balances that players hold for purchases, but Sony can terminate or suspend accounts and players will typically not receive the funds back.[390] As for Microsoft, unlike bank deposits, players are not legally entitled to redemption of Microsoft Store balances.[391] Redemption in the context of a "run" is contingent on terms of service. Thus, Microsoft is trapping funds on its universal platform by issuing liabilities it does not have to honor.

By selling a gift card, Microsoft issues an IOU (current liability)—which it may never have to honor—for dollar-denominated funds trapped on its platform. Customers purchase gift cards using bank account money; Microsoft presumably adds a current liability to its balance sheet. But consumers can only redeem that current liability in the Microsoft Store.[392] When a consumer tops off the Microsoft Store account with the gift card, Microsoft may cease counting the value as a liability. The company may designate it as revenue, depending on whether or not a consumer spends the balance. By converting gift card value into platform balances, it does not have to account for or honor an IOU.

It is worth noting there is also general confusion in the accounting world about how to classify unredeemed gift cards.[393] "Some states consider unclaimed gift certificates to be abandoned property. New York's abandoned property statute, for example, provides that any unclaimed amount from a gift certificate . . . which remains unclaimed by the owner for five years, is considered legally abandoned, and the amount escheats to the State."[394] By contrast, casino chips have set

---

to fund the wallet. Wallet funds . . . deemed abandoned or unused by law will not be returned or restored." (emphasis omitted)).

388. Id. §§ 7.1–7.3 (establishing how players can add funds to their accounts and clarifying that, once added, the funds are not refundable).

389. See id. § 7.2 (stating wallet funds "have no value outside PSN and can only be used to make purchases through PSN Services").

390. See id. §§ 7.1–7.3, 12.2–12.3 (stating that upon account termination "you will not receive a refund for . . . any unused balance in your wallet, except as required by law" (emphasis omitted)).

391. See Microsoft Services Agreement, supra note 278, § 14(a)(vi) ("Game currency and virtual goods may never be redeemed for actual monetary instruments, goods or other items of monetary value from Microsoft or any other party.").

392. See Microsoft Support, Spend the Money in My Microsoft Account, supra note 318 ("You can spend money in your Microsoft account to buy various products, services, software and content from the Microsoft Store.").

393. Abraham Fried, Mark P. Holtzman & Aliza Rotenstein, Lost and Found, J. Acct. (Feb. 1, 2015), https://www.journalofaccountancy.com/issues/2015/feb/accounting-for-gift-cards-revenue-recognition.html [https://perma.cc/FC5A-6MW6] ("[A]ccountants have struggled with how to recognize these unredeemed gift cards as 'breakage income.'").

394. Stites & Silber, supra note 172, at 277.

expiration dates, upon which they convert to income for tax purposes.[395] Casinos adopt a practice similar to recording breakage income by claiming all unredeemed chips are "souvenirs."[396] The Supreme Court has held that the IRS should not count utility deposits with accountholder redemption rights as taxable income.[397] Gaming wallet balances do not seem to fit any of these categories well, and the ambiguity of the accounting is a problem in itself.

The above dynamics call into question whether Microsoft would ever refuse to honor its store balances. In one scenario, Microsoft refuses to honor the balances and suffers a collapse in effective demand due to the system it created. In the other scenario, it faces the risk of a run. One does not have to answer the question of which response Microsoft would make to know if the wallet system will be unstable during a crisis.

In October 2025, Sony, which has long run a regulated bank in Japan, applied to the OCC to charter "Connectia Trust" to issue U.S. dollar-denominated stablecoins, in partnership with infrastructure provider Bastion (backed by Coinbase Ventures).[398] According to press reports, players will be able to use the coins for PlayStation game purchases, subscriptions, and anime content, but it has offered little detail beyond this.[399] Critics, including large banks, have responded that stablecoins are functionally deposits and cite concerns regarding the separation of banking and commerce.[400] In many ways, the application crystallizes the issues discussed in this piece. Granted, this is a regulation of some sort, but the benefits and costs are not yet known. On one hand, Sony itself has now walked through a portal—it will not claim a virtuality defense. But it is unclear whether this is because it no longer needs to

---

395. See John Bulloch, Note, Income or Liability: How Casinos' Classification of Outstanding Chips Determine Taxability, 5 UNLV Gaming L.J. 121, 124, 141 (2014) ("In the year the chips or tokens are retired, an amount shall be recognized as income for the chips and tokens that have not and will not be redeemed.").

396. Id. at 125.

397. Comm'r v. Indianapolis Power & Light Co., 493 U.S. 203, 214 (1990) ("We hold that such dominion as IPL has over these customer deposits is insufficient for the deposits to qualify as taxable income at the time they are made.").

398. See Application of Sony Bank, supra note 68.

399. Kyle Torpey, Sony Wants to Launch a Stablecoin and So Does Everyone Else, Gizmodo (Dec. 2, 2025), https://gizmodo.com/sony-wants-to-launch-a-stablecoin-and-so-does-everyone-else-2000694582 (on file with the *Columbia Law Review*) ("The token will serve as a payment option for PlayStation games, anime streams, in-game purchases, and subscriptions across Sony's digital platforms.").

400. Letter from Paige Pidano Paridon, Bank Pol'y Inst., to Sebastian R. Astrada Re: Connectia Trust, N.A., Charter Application (2025-Charter-343503) (Nov. 7, 2025), https://bpi.com/wp-content/uploads/2025/11/BPI-comment-letter-re-Connectia-Sony-NTB-Charter-Application-11-7-25-2.pdf [https://perma.cc/WD75-2STF]; Vismaya V, Community Bankers Ask OCC to Block Sony's Crypto Bank Ambitions, Yahoo Finance (Nov. 14, 2025), https://finance.yahoo.com/news/community-bankers-ask-occ-block-104127101.html (on file with the *Columbia Law Review*).

play defense at all, rather than offense. Microsoft has not made a similar announcement, but theories of scale may soon become realities.

III. SHADOWS, GAMES, & MAGIC

Gaming companies pose a unique challenge for regulation. Even if Congress were to pass new legislation to try to ban shadow money writ large, gaming companies operate within private governance structures, claiming intellectual property, contract, and data governance laws shield them from regulation. This Part shows how some (implicit and explicit) defenders of a "magic circle" cast the industry's business practices as existing in a virtual rather than real world.[401] Especially in the early legal literature on video games, some defenders of the magic circle would focus on the absence of physical presence outside a software-mediated environment.[402] Others believe private ordering should govern virtual spaces as realms of fantasy and entertainment.[403] Still others argue constitutional protections for artistic content and expressive speech extend to broader business practices.[404] Each of these contentions is a weak argument against financial regulation, especially when "money" is on the line. The bodies of law governing money, especially, incorporate a different conception of what money is "real" enough to merit governance beyond private law. Practically speaking, the spectrum of convertibility into bank deposits (or theoretically, cash) better establishes parameters for governance.

A. *Virtuality*

From the gamers' perspective, some gaming elements are undoubtedly virtual. Companies write software that encodes specific governance structures and spaces and shapes social and legal relations.[405] Publishers and developers govern their dynamic platforms using terms of

401. See infra sections III.A and III.B.

402. Hickman & Hickman, supra note 56, at 546, 548–49 (discussing physicality, as defined by Edward Castronova, stipulating that gamers may perceive separation from the "real world" (citing Edward Castronova, Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier 22 (CESifo Working Paper Series No. 618, 2001))).

403. See Huizinga, supra note 55, at 10 (arguing spaces like playgrounds, casinos, stages, and even "the court of justice" are isolated, sacred, temporary spheres, within which special rules apply).

404. See infra section III.A.

405. See, e.g., Przemysław Pałka, Virtual Property: Towards a General Theory 17 (Dec. 20, 2017) (Ph.D. dissertation, European University Institute) (on file with the *Columbia Law Review*) (explaining the "virtual property phenomenon," which it defines "as the situation of users of online platforms, including online gaming apps, getting into relations over virtual items – entities that exist within these platforms – with the providers, other users and third parties"); id. at 141 ("[T]he process of digitalization, understood as a socio-technological phenomenon of widespread internet-connected personal computers and social networks and interactions constructed on top of them, has fundamentally altered [the assumption of a] two-layered [material and social] structure of [] reality.").

intellectual property and contracts that encase (but also reveal) the artificial nature of the boundary between games and the virtual world.

The legal scholarship on video games overwhelmingly focuses on intellectual property.[406] In the United States, much like the laws of money, intellectual property (IP) protections are granted through Article I of the Constitution.[407] Theoretically, IP laws protect the rights of creators, inventors, and consumers. Video games incorporate numerous creative elements, such as "code, manual text, box art, title, game art, music, story, game world, middleware, and graphics."[408] Most importantly for this Article's purposes, however, players actually experience games through an intellectual property license that denies them interests and rights in gaming content, which necessarily includes gaming money on the gaming platform and licensed third-party platforms.[409] These agreements are "click-through contracts" operating within a "'notice-and-choice' regime."[410] The bargain hinges on contemporary, oft-criticized theories of contractual consent.[411]

IP and its instantiating contracts make gaming money unique in specific ways. Gaming publishers cannot restrict the right to resell tangible board game items, but they can limit the right to resell video game items.[412] Property scholars have observed that courts appear shy to restrict the alienability of virtual items.[413] For banking law scholars, especially, this is concerning. The law does not allow banks and other

---

406. For a recent example, in addition to the literature cited below, see, e.g., BJ Ard, Creativity Without IP? Vindication and Challenges in the Video Game Industry, 79 Wash. & Lee L. Rev. 1285, 1290 (2022) (suggesting that the video game industry provides an opportunity for new conceptions of IP law).

407. See U.S. Const., art. I, § 8, cl. 8 (granting Congress the power to "promote the Progress of Science and useful Arts by securing for limited Times to Authors and Inventors the exclusive Right . . . .").

408. 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 19 (2019).

409. See supra notes 57–58 and accompanying text (explaining that gaming companies characterize gaming money as licensed virtual content and disclaim user property, deposit, and convertibility rights); supra notes 279–280 and accompanying text (collecting platform terms stating that virtual items and gaming currency have no cash value and are nontransferable); supra notes 348–352 and accompanying text (describing Roblox's retention of all rights in Robux and its discretionary control over developer exchange).

410. Carrillo, Seeing Through Money, supra note 82, at 1224 (internal quotation marks omitted).

411. See Neil Richards & Woodrow Hartzog, The Pathologies of Digital Consent, 96 Wash. U. L. Rev. 1461, 1463 (2019) (finding current consent-based models "fall far short of the gold standard"); Viljoen, supra note 272, at 597–98 (asserting "there is general scholarly agreement that data governance is in need of repair").

412. See MAI Sys. Corp. v. Peak Comput., Inc., 991 F.2d 511, 518 n.5 (9th Cir. 1993) (concluding customers using licensed software "do not qualify as 'owners'").

413. See Danielle D'Onfro, Contract-Wrapped Property, 137 Harv. L. Rev. 1058, 1073–74 (2024) ("[C]ourts have hesitated to imply a strong prohibition on servitudes into intellectual property law.").

regulated financial institutions to license rather than sell financial instruments and disclaim liability for illicit use.[414] "This disconnect between the law of intangibles and popular understandings of property is a well-documented source of consumer confusion."[415] Professor Danielle D'Onfro argues that NFTs "offer[] a high[]-stakes example" of the urgent need to "[s]ort[] out whether [new digital assets] fall under the law of property or the law of contract."[416] Given the platform power of companies in the system, regulators should be even more concerned about gaming money.

In many cases, game rules override traditional understandings of law. As Professor Joshua Fairfield wrote in his canonical article on law and gaming worlds, "[t]he purpose of the magic circle," or "the supposed metaphorical line between the fantasy realms of virtual worlds and what we consider to be the real world," "is to protect virtual worlds from outside influences—law, real-world economics, real-world money, and the like."[417] In other words, the magic circle metaphor helps to determine whether adverse parties can advocate for rights or appeal to the states for remedy.[418]

Since the beginning of the law and virtuality debates, however, other "scholars [have] dispute[d] the existence of any meaningful line for differentiating online and real-world activities."[419] For Professor Yochai Benkler, "[t]here is no 'governance of a virtual world.'"[420] Rather, "[t]here is simply the question of governance in the relations among users of a class of software platforms that have certain degrees of freedom in their design."[421] The main distinction between gaming companies and other e-commerce enterprises at the time was merely that the computational and artistic qualities of the endeavor were superior.[422]

---

414. See supra section I.B.

415. D'Onfro, supra note 413, at 1134.

416. Id. at 1134–35.

417. Fairfield, Magic Circle, supra note 55, at 824–25; see also id. at 837–40 (noting that "[t]he interaction between money and the magic circle deserves special mention, since it is the intrusion of real-world dollars into virtual worlds that precipitated the current spate of virtual-world litigation").

418. Id. at 825 ("Following this reasoning, real-world law is appropriately left out of virtual worlds.").

419. Hickman & Hickman, supra note 56, at 542; see also Fairfield, Magic Circle, supra note 55, at 825 ("The thrust of my argument is simple: There is no 'real' world as distinguished from 'virtual' worlds. Rather, all supposedly 'virtual' actions originate with real people, and impact real people, albeit through a computer-mediated environment.").

420. Yochai Benkler, There Is No Spoon *in* The State of Play: Law, Games, and Virtual Worlds 180, 180 (Jack M. Balkin & Beth Simone Noveck eds., 2006).

421. Id.

422. See id. at 180–82 (discussing differences in commercial experience as opposed to virtual reality); cf. Pałka, supra note 405, at 103 (citing and addressing Benkler, supra note 420, among other legal scholars, arguing that "scholars who engaged in the debate

Although the scholars in the virtuality debate note the presence of money in the context of the commercialization of gaming environments, these scholars wrote before microtransactions dominated the gaming industry. For instance, Benkler observes that the presence of money in video games (with minimal convertibility at the time) necessarily invites the law in some way.[423] Here, however, by "money," Benkler seems to mostly mean profits and the ability to cure a monetizable injury.[424] Following this logic further, however, the problem is not just commercialization but the operation of money qua money. Money serves an enabling function even in private law, enabling the standardization of value in property and contracts. Money makes damages easily calculable, inviting tort and criminal law.[425] Records of monetary transactions render surveillance data for platform operators, law enforcement, and hackers alike. When money flows, the law makes human activity more legible.

B. *Materiality*

The argument that gaming money exists in a virtual space separate from reality is insufficient to defend against financial regulation. Opponents of regulation will need to clarify why we should consider gaming money less real than any other software-mediated money. Like other digital money issuers, they still embed money in material infrastructure and culture—in everyday life. The task is essential to monetary sovereignty and exchange.[426] We can often touch, see, and hear money; these features differ across time and place. We have a physical relationship with digital money that is still grounded in the rest of our earthly existence.[427] Gaming money impacts the regulated financial system within the physical world as well.

That said, we should not associate the materiality of money merely with physicality.[428] All money, whether in analog or digital form, eases

---

noticed that there is a new type of object that people get into relations over with other persons, even if they did not call it this way").

423. Benkler, supra note 420, at 182 ("Jack Balkin is right that someone will get hurt, some time, and particularly where there is money at stake the law will come into this space, and do its damage, or maybe its repair.").

424. Id.

425. See Eldar Haber, The Criminal Metaverse, 99 Ind. L.J. 843, 868–69 (2024) (emphasizing that because the metaverse will function as a commercial environment involving real money and property interests, law may address the theft of virtual assets).

426. See Christine Desan, The Monetary Structure of Economic Activity: A Constitutional Analysis, 86 Law & Contemp. Probs. 77, 80 (2024) (detailing how, as a preliminary matter, money concretizes a common sense of value on which to facilitate further economic exchange).

427. See Carrillo, Seeing Through Money, supra note 82, at 1210 (discussing the materiality of money at the user interface, particularly in smartphone applications).

428. See A. Mitchell Innes, The Credit Theory of Money, 31 Banking L.J. 151, 155 (1914) ("The eye has never seen, nor the hand touched a dollar. All that we can touch or see is a promise to pay or satisfy a debt due for an amount called a dollar.").

and tightens constraints on what differently situated people can do practically: It helps make the material conditions of human relations and organization.[429] The features that make gaming money virtual compared to other forms of value that only exist within closed computer environments are not readily apparent. Regulators have hesitated to regulate many forms of cryptocurrencies and digital assets because of a conception of virtuality.[430] We should see gaming money as within the legal regime already governing commercial bank deposits, platform money, cryptocurrencies, gift cards and reward points, and myriad abstract instruments of high finance.[431] From this perspective, the imaginary boundary between virtuality and reality is another axis of unregulated money and banking activity. Gaming companies' extension of monetary systems into a digital world is not an abrupt innovation but an evolution along a legal and technological continuum.

Moreover, by making gaming money intellectual property, gaming companies actually achieve a first step toward functional sovereignty over monetary systems. As Professor Christine Desan writes, "the tokens representing the unit of account must be both durable and difficult to imitate," or they "will be either lost or multiplied without a stakeholder's permission, disturbing the balance between outflow and inflow, supply and demand, tax credit and tax redemption that creates stable value."[432] According to Desan, one major solution to the challenge of creating a token that is "rare, imperishable, and takes skill to work" is to "control the means of producing tokens" so then "the system can function."[433] Like governments that operate printing presses and mints, companies create the instruments materializing the unit of account, but through digital technology and intellectual property law, they can produce completely unique money at nearly zero marginal cost, destroying it as well as creating it at will.[434]

C. *Convertibility*

Monetary regulation has long included oversight of technology at the interface of the monetary system, particularly concerning the convertibility of instruments into government-backed money, which is

---

429. See Desan, Money's Design Elements, supra note 13, at 341–42 (arguing money organizes a material world, which allows a group to measure, generate, and distribute resources).

430. See supra Part II.

431. See Awrey, Bad Money, supra note 48, at 1–2 (arguing that most money consists of privately issued claims, from bank deposits and money market instruments to platform-based balances like PayPal and stablecoins).

432. Desan, Making Money, supra note 158, at 52 (offering a legal and historical account of the material nature of money creation strongly informing this Article).

433. Id.

434. Id.

crucial for a currency's acceptance as money.[435] The sovereign governs how money changes hands. The public is likely to adopt private money that people can easily convert to state money.[436] Therefore, governments regulate convertibility with an eye on law, technology, and culture. They often monitor nonbank corporations to prevent them from evolving into full-fledged shadow banks.[437] Regulators should assess how companies enable the convertibility of gaming money and apply tiered regulations based on the permissibility, scope, scale, velocity, and price of convertibility. Convertibility triggers jurisdiction. But the dangers and thus the case for regulation begin when currency flows in, or the company begins to use its own unit of account or otherwise mimic monetary functions.

For many states across time and place, the standardization of convertibility between precious metals, paper notes, and other stores of value was or remains central to the laws of money and banking.[438] Regulation around the technology of convertibility of money is a core component of banking law in the Anglo-American legal tradition.[439] Constitutional politics before the Civil War featured debates over money, banking, and their materials.[440] These debates would continue from the Civil War until the founding of the Federal Reserve System, if mostly at the level of high monetary policy.[441] As discussed in Part II, many people

---

435. See id. at 70 (describing the creation of the highly regulated monetary conversion process of "free minting" in thirteenth century England).

436. Id. at 30 ("[A] government can create an ideal commodity money system by identifying the metal content of each coin . . . and converting metal to coin at the demand of users. Coin is easier to use than raw metal, so people will often prefer to take it . . . .").

437. See supra Part II.

438. See Desan, Making Money, supra note 158, at 24 ("'Money' is invented when a community, acting through a stakeholder, denominates in a homogeneous way the disparate contributions received from members, and recognizes them as a medium and mode of payment.").

439. As Professor Lev Menand explained:

> [I]n the 1690s, . . . Parliament and the Crown repudiated their traditional role in managing the money supply . . . . [T]hey fixed the exchange rate between government-issued money, known as pounds, and gold and silver metal, and . . . pledged . . . [not to] alter the exchange rate . . . . Parliament chartered the Bank of England . . . to issue two new forms of money: paper notes and deposit account balances[,] . . . convertible with government-issued money at par.

Lev Menand, The Logic and Limits of the Federal Reserve Act, 40 Yale J. on Regul. 197, 207–08 (2023).

440. See Veazie Bank v. Fenno, 75 U.S. 533, 536–37 (1869) (observing that "[a]t the beginning of the rebellion" a litany of "bank notes issued by numerous independent corporations variously organized under State legislation, of various degrees of credit, and very unequal resources" circulated while the federal government dealt in gold and silver).

441. See Nadav Orian Peer, Negotiating the Lender of Last Resort: The 1913 Federal Reserve Act as a Debate Over Credit Distribution, 15 N.Y.U. J.L. & Bus. 367, 411 (2019) ("When the law authorizes a central bank to act as a lender of last resort against certain assets, it is essentially providing a guarantee that these assets will be easily convertible into legal tender. That guarantee is a highly valuable advantage . . . .").

today, especially within the Gen-X, Millennial, and Gen-Z generations, use less regulated media, such as digital wallets on smartphones, to store value, make payments, and even settle debts.[442]

Other areas of law may contain different conceptions of virtuality and convertibility in video games. For instance, Professor Eric Chaffee has written about the potential application of securities regulation in video games (specifically *Second Life*, one of the earliest to feature convertibility of gaming money) within a broader discussion of securities regulation in virtual space.[443] Chaffee argues that "[b]ased upon the intended scope of the federal securities law, various constitutional law principles, and the importance of allowing experimentation within virtual space," the SEC's jurisdiction must end in the "real world," that *Second Life* stocks have no anchor in the real world, and thus that *Second Life* securities are not securities for federal securities law purposes.[444] Although Linden Labs was one of the first publishers to convert gaming money to bank money directly, Chaffee focuses primarily on the stocks issued within the game and explicitly deems the convertibility of the Linden Dollars into bank deposits to be mostly irrelevant.[445]

By contrast, Professor Christine Kim, approaching virtuality from a tax law perspective, adopts a different perspective on virtuality, arguing that if the IRS does not impose taxation on virtual assets, income, and wealth, it will encourage tax havens in the Metaverse.[446] The IRS has defined a self-imposed boundary regarding the taxation of gaming ecosystems with two-way convertible currencies. To tax cryptocurrency holders, the IRS created a subcategory called "convertible virtual currency" (CVC).[447] Recipients of CVC must report the fair market value of CVC as taxable income, and using CVC for goods or services may incur tax liabilities.[448] In 2019, the IRS indicated it would tax Robux and V-Bucks as CVCs but faced backlash and later retracted this classification.[449]

---

442. See Carrillo, Platform Money, supra note 73, at 907–08; supra Part II.

443. See Chaffee, supra note 40, at 1393, 1424–28.

444. Id. at 1397, 1435.

445. Id. at 1422–25; see also Couture, supra note 40, at 235 (responding to Chaffee's argument, countering that the virtual transactions likely trigger federal securities regulation, but they nevertheless deserve a new exemption because application of relevant regulations would likely "stifle creativity within this innovative space").

446. See Kim, supra note 39, at 806.

447. See IRS Notice 2014-21, 2014-16 I.R.B. 938.

448. Id.

449. Brian Fung, IRS Quietly Deletes Guideline that Fortnite Virtual Currency Must Be Reported on Tax Returns, CNN Bus., https://edition.cnn.com/2020/02/13/tech/fortnite-taxes/index (on file with the *Columbia Law Review*) (last updated Feb. 14, 2020).

D. *Comparative Financial Regulation*

Many underexplored intersections between financial regulation and the laws of media, entertainment, and the arts offer comparative analysis for the governance of gaming money. Most notably, these intersections also feature their own regulatory and doctrinal interpretations concerning virtuality, materiality, and convertibility. When regulators have previously opposed technology companies creating private monetary systems, the intensity of scrutiny has matched the potential for convertibility to bank money and cash at scale. First, this section discusses tensions between financial regulation and media, entertainment, and the arts. It then offers a more holistic critique of the likely legal and political defenses of the industry.

1. *Media.* — Social media has undoubtedly changed finance and vice versa. One of the most prominent American fintech companies, Venmo, "arguably became so popular because of its social media features, including a 'global social media' feed detailing payments by people around the world until 2021."[450] In China, Tencent, one of the world's largest video game companies, began as a messaging app, then a gaming company, and then a social media platform before adding the incredibly popular WeChat Pay app.[451]

Major gaming companies have previously avoided liability for some user actions by claiming they only host user-generated expressive content and are thus protected by the Communications Decency Act (CDA) of 1996 and the First Amendment of the U.S. Constitution. Section 230 of the Communications Decency Act (CDA) protects "interactive computer service" providers from liability for the conduct of content producers.[452] Video games are no exception: Section 230 generally defends gaming companies from liability for player wrongdoing on their platforms.[453] In *Colvin v. Roblox*, however, the U.S. District Court for the Northern District of California held that a Section 230 defense did not bar claims regarding Robux under state unfair competition and negligence law because they did not concern Roblox as a "publisher or speaker."[454]

---

450. Carrillo, Platform Money, supra note 73, at 907 (citing Ian Carlos Campbell, Venmo Drops the Global Social Feed that Could Make Your Payments Visible to Strangers, The Verge (July 20, 2021), https://www.theverge.com/2021/7/20/22585467/venmo-removes-global-social-feed-private-payments) (on file with the *Columbia Law Review*) (announcing the removal of the feed)).

451. China: A Digital Payments Revolution, CGAP (Sep. 2019), https://www.cgap.org/research/publication/china-digital-payments-revolution (on file with the *Columbia Law Review*) (walking through the evolutions of WeChat Pay and Alipay).

452. 47 U.S.C. § 230 (2024).

453. See Daniel Garces, How the Loss of Section 230 Could Affect the Video Game Industry, Fordham Intell. Prop. Media & Ent. L.J. (Mar. 5, 2023), http://www.fordhamiplj.org/2023/03/05/how-the-loss-of-section-230-could-affect-the-video-game-industry/ (on file with the *Columbia Law Review*).

454. Colvin v. Roblox Corp., 725 F. Supp. 3d 1018, 1027 (N.D. Cal. 2024).

Roblox is now facing liability for facilitating child gambling in "online casinos."[455]

Even if Congress repealed section 230, the First Amendment might protect gaming companies from regulation.[456] Courts generally afford video game content the same protections as, for instance, books and movies.[457] In 2011, the Supreme Court struck down legislation regulating violence in video games as abridging the First Amendment rights of children.[458] As Justice Antonin Scalia famously wrote for the Court, "Reading Dante is unquestionably more cultured and intellectually edifying than playing Mortal Kombat. But these cultural and intellectual differences are not *constitutional* ones."[459]

Writing in 2005, Professor Jack Balkin predicted that as companies commercialize virtual spaces, "game designers [would] invoke the First Amendment both to protect their artistic vision and to avoid regulation of their business practices."[460] He argued, however, that virtuality should not exempt them from consumer protection laws.[461] "Commodification" invites state action, commodification being "the ability to buy and sell things in virtual worlds using real world currency or in order to obtain real world currency."[462] Real-world commodification "breaches the barrier between the virtual and real worlds" and thus delivers the law.[463] Platform owners can manage this by stating in the EULA that "players . . . have no expectations of property rights in virtual items[] . . . [and] assume all risks of monetary loss."[464] But according to Balkin, they should not be able to both sell items en masse and claim they are also their property per creative expression.[465]

---

455. See id. ("Roblox is not facing liability for the content posted on its platform. It is facing liability for allegedly facilitating transactions between minors and online casinos that enable illegal gambling, and for allegedly failing to take sufficient steps to warn minors and their parents about those casinos.").

456. See Mark A. Lemley & Sonali Maitra, Video Game Law 309–32 (2024) (discussing censorship and First Amendment law).

457. See, e.g., Brown v. Ent. Merchs. Ass'n, 564 U.S. 786, 802 (2011).

458. Id. at 799–800 (holding that California legislation regulating violence in video games violates the First Amendment rights of young gamers).

459. See id. at 796 n.4.

460. See Jack M. Balkin, Law and Liberty in Virtual Worlds, 49 N.Y.L. Sch. L. Rev. 63, 63–65 (2004); see also, e.g., Candy Lab Inc. v. Milwaukee Cnty., 266 F. Supp. 3d 1139, 1146 (E.D. Wis. 2017) (holding the AR game "Texas Rope 'Em" had "sufficient expressive content" for First Amendment protection).

461. Balkin, supra note 460, at 76–80.

462. Id. at 77.

463. Id.

464. Id. at 78.

465. See id. ("Platform owners, however, cannot have it both ways. They cannot simultaneously encourage the purchase and sale of virtual items and then write the EULA so that all virtual items remain the property of the platform owner.").

When considering any arguments in favor of a magic circle around content providers, regulators should recognize policymakers and scholars have already contemplated the prospect of regulating virtual private money issued by a social media company. When Meta (then Facebook) launched the Diem (then Libra) stablecoin project in 2019, executives promised to work with a suite of Silicon Valley companies—including Coinbase, PayPal, Visa, Mastercard, Stripe, Uber, Spotify, and eBay—to create a "vibrant financial services economy" on the blockchain.[466] Ultimately, policymakers and the banking industry, among other opponents, pushed Meta to shut down the project.[467]

To the Author's knowledge, not once during the Meta Diem debates did a proponent of the project suggest that the laws governing media, speech, and communications would generically encase the project from financial regulation. Opponents expressed concern about global network power and, more specifically, the convertibility of the Diem stablecoins across multiple currency zones and jurisdictions.[468] Ultimately, to effectively compete with banks, the Meta Diem project would have had to ensure that users could rapidly convert currencies using its (permissioned) blockchain, especially during periods of pronounced financial distress.[469] Many feared that Meta could destabilize the global financial system.[470] Overall, policymakers have already prevented the development of a social media shadow bank, based on hypothetical reasoning, before the Diem Project even existed. Following precedent, a video game industry defense to the regulation of gaming money that is rooted in nonliability for media platforms should prove of limited value.

2. *Entertainment.* — Some opponents of regulating the entertainment sector prioritize 'play' or "gameplay" as central to a

---

466. Nick Statt, Facebook's Calibra Is a Secret Weapon for Monetizing Its New Cryptocurrency, The Verge (June 18, 2019) https://www.theverge.com/2019/6/18/18682838/facebook-digital-wallet-calibra-libra-cryptocurrency-kevin-weil-david-marcus-interview [https://perma.cc/952H-HJET].

467. Meta sold the Diem assets to Silvergate Bank (which later collapsed in the March 2023 banking crisis). See Romain Dillet, Facebook Ditches Diem Stablecoin With Asset Sale to Silvergate, TechCrunch (Jan. 27, 2022), https://techcrunch.com/2022/01/27/facebook-reportedly-ditches-diem-stablecoin-with-asset-sale/ [https://perma.cc/L2RB-A5JA].

468. See, e.g., Katharina Pistor, Written Statement of Proposed Testimony for Examining Facebook's Proposed Cryptocurrency and Its Impact on Consumers, Investors, and the American Financial System: Hearing Before the H. Comm. on Fin. Servs., 116th Cong. 9 (2019), https://www.congress.gov/116/meeting/house/109821/witnesses/HHRG-116-BA00-Wstate-PistorK-20190717-U1.pdf [https://perma.cc/W4YU-GNK2] ("If Libra were to achieve its ideal scale, the network effects of this infrastructure would impede competition for alternatives that might better achieve the laudable goals the Libra White Paper has spelled out.").

469. Id. at 79 ("[T]he holders of Libra coins . . . shall be able to exchange their Libras against (local) fiat currency on demand without suffering major haircuts.").

470. See, e.g., Omarova & Steele, supra note 50, at 1249 (discussing the stability risks of a "superplatform").

virtuality defense.[471] Yet, as a model for reasoning around "play," regulators might look to gambling law, which occupies a peculiar position between the laws of banking, securities, entertainment, and various dimensions of criminal law. Congress has passed several statutes to control online gambling,[472] but states, nations, and tribes are presumptively in charge of gambling law as a general matter.[473] Some states and tribes prohibit online gambling, and plaintiffs have even brought lawsuits against video game companies (including Valve) under those laws.[474] Most state gambling laws do not recognize virtual items, including game items, as having value, but some states and tribes regulate them if players can cash out.[475] A virtual item is more likely to have economic and thus legal value if a player can cash it out for "real-world money" on demand.[476] But according to Professor Sheldon Evans, gambling regulators are not likely to hold gaming companies responsible for transactions that they "contractually prohibit in their EULAs."[477]

Some federal, state, and tribal laws regulate online gambling, explicitly targeting the convertibility of chips to government-backed money. Players can buy chips and use them at other establishments operated by the casino, and casinos may lend chips through casino "markers," which require the recording of ID and an assessment of creditworthiness.[478]

---

471. See, e.g., Edward Castronova, The Right to Play, 49 N.Y.L. Sch. L. Rev. 185, 185 (2004) ("Virtual worlds represent a new technology that allows deeper and richer access to the mental states invoked by play, fantasy, myth, and saga. These mental states have immense intrinsic value to the human person, and therefore any threats to the magic circle are also threats to a person's well-being.").

472. See, e.g., Unlawful Internet Gambling Enforcement Act of 2006, Pub. L. No. 109-347, §§ 801–807, 120 Stat. 1884, 1952–1962; Professional and Amateur Sports Protection Act, Pub. L. No. 102-559, 106 Stat. 4227 (1992).

473. See Murphy v. Nat'l Collegiate Athletic Ass'n, 584 U.S. 453, 483 (2018) ("These provisions implement a coherent federal policy: They respect the policy choices of the people of each State on the controversial issue of gambling.").

474. See, e.g., Ali Jones, An Indigenous American Tribe Is Suing Valve for "Actively Encouraging" Illegal Gambling, PCGames (Apr. 16, 2019), https://www.pcgamesn.com/counter-strike-global-offensive/csgo-skin-betting-quinault [https://perma.cc/VQJ2-WZ29] (describing a lawsuit in which the Quinault Nation claimed Valve encouraged gambling on *Counter-Strike: Global Offensive* without abiding by tribal or state gambling law).

475. See Evans, supra note 37, at 409.

476. Id. at 410 ("[C]ourts heavily rely on real-world value and the cash-out rule in assessing the prize/value element. But these cases, especially those involving virtual rewards, make the mistake of assuming that goods can only have real-world import if they can be converted into real-world money.").

477. Id. at 416; see also id. at 382 (describing the limits on real-world money and boundaries on recompense).

478. See, e.g., Nev. Gaming Control Bd., Minimum Internal Control Standards: Cage and Credit 2 (Apr. 1, 2023), https://www.gaming.nv.gov/siteassets/content/divisions/audit/mics/cage-and-credit.pdf [https://perma.cc/HA9Q-35SG] (requiring casinos to

But players cannot convert chips to cash out beyond a bounded casino and hospitality industry system.[479] This system enhances security and fraud prevention, as casinos can trace the movements of their tokens using radio-frequency identification (RFID) technology.[480] The Treasury regulates casinos through the IRS and FinCEN. The IRS has specific accounting rules for casino chips.[481] Moreover, outside of gambling regulation per se, the IRS supervises card clubs and casinos for compliance with anti-money-laundering laws.[482] In this context, the federal government explicitly governs an entertainment space. For the purposes of BSA/AML law, FinCEN licenses casinos and the IRS supervises them.[483]

Under California gambling law, courts have long accepted a version of the magic circle defense holding that virtual items obtained through loot boxes are not "thing[s] of value" under state gambling statutes because they lack real-world transferable value.[484] In *Coffee v. Google*, the court went further, holding that even when players can clearly use informal markets to cash out value, the platform ToS prohibiting transfer or sale is dispositive—contract law patrols the boundary between regulated and unregulated value.[485]

However, in *Colvin*, the plaintiffs alleged that Roblox violated its duty of care by "knowingly and improperly facilitating and profiting from these online casinos."[486] Roblox claimed that gamers buy Robux for enjoyment, much like "movie or amusement park tickets," asserting

---

record the gambler's identity, verify "credit worthiness using a method permissible under Regulation 6.120," and obtain approval for credit limits before lending).

479. See, e.g., N.J. Admin. Code § 13:69E-1.6A(f) (2018) ("Each gaming chip and plaque is solely evidence of a debt that the issuing casino licensee owes to the person legally in possession . . . .").

480. Frank Legato, In the Chips, GGB Mag. (Apr. 2, 2010), https://ggbmagazine.com/article/in-the-chips/ [https://perma.cc/D7XB-AKVK] (reporting on the development of RFID and casino tracing technology).

481. See Khadijah McFadden, Note, The Tax Web of Unredeemed Gambling Chips, 97 U. Det. Mercy L. Rev. 95, 95 (2019) (arguing the IRS must provide a reason as to why it excludes unredeemed gambling chips from other gross income).

482. See 31 C.F.R. § 1010.100 (2025).

483. Id. § 1021.100 (defining casinos as financial institutions under BSA/AML law).

484. Taylor v. Apple, Inc., No. 20-cv-03906-RS, 2021 WL 11559513, at *5 (N.D. Cal. Mar. 19, 2021) ("[T]he lack of any real-world transferable value to the items takes them outside the meaning of the statute."); see also Coffee v. Google, LLC, No. 20-cv-03901-BLF, 2022 WL 94986, at *12–13 (N.D. Cal. Jan. 10, 2022) (same); Soto v. Sky Union, LLC, 159 F. Supp. 3d 871, 880 (N.D. Ill. 2016) ("Added enjoyment simply does not have measurable worth, and it cannot be a 'thing of value' under [California Penal Code] section 330b(d).").

485. *Coffee*, 2022 WL 94986, at *13 ("[T]he sale of virtual chips for cash on a secondary market violates the Terms of Use. The virtual chips cannot constitute a 'thing of value' based on this prohibited use." (alteration in original) (internal quotation marks omitted) (quoting Kater v. Churchill Downs Inc., 886 F.3d 784, 788 n.2 (9th Cir. 2018))); see also id. at *12 (taking judicial notice of ToS).

486. Colvin v. Roblox Corp., 725 F. Supp. 3d 1018, 1024 (N.D. Cal. 2024).

plaintiffs had not suffered real "economic loss."[487] The court responded that movie or amusement park tickets have "economic value," in this case, even without a direct convertibility mechanism.[488] The opinion emphasized that gaming currency within platforms is not "virtual," and thus beyond the realm of legal injury: "Those tickets do have economic value, even if they cannot be exchanged for cash."[489] Although *Colvin* does not address regulatory issues, it adopts the premise that gaming money in places of play is not "virtual" in a way that lies beyond the law.

More importantly, and in direct support of this Article's thesis, in December 2025, *De Ridder v. Roblox Corp.* became the first California-law decision to address what this Article terms play money as belonging to the "real world."[490] The court held that Robux are "things of value" because, unlike gaming items, they can be banked across the Roblox platform and exchanged for cash through the Developer Exchange Program.[491] For this court, the magic circle held when there was no conversion mechanism but failed when Roblox supplied it.

Overall, opponents of regulations must clarify why financial regulation would cease at the boundary of entertainment law. According to Balkin, although gaming platforms involve new forms of play, they are similar to shopping at the mall and thus do not deserve constitutional protection.[492] Indeed, Professors Colleen Baker and Christoper Odinet argue that games and entertainment are increasingly going to become part of the everyday digital banking experience.[493]

3. *The Arts.* — The laws of finance, art, and artistic expression have a long, if undertheorized, history,[494] which bears relevance to the regulation of gaming money. Pre-digital art worlds intertwined with regulated banking. For example, the Department of Law Bureau of Investor Protection and Securities enforces the New York Theatrical Syndication Financing Act of 1983 through supervising the financing and ticketing of not only Broadway productions but concerts, sporting events,

---

487. Id.

488. Id.

489. Id. at 1024.

490. De Ridder v. Roblox Corp., 811 F. Supp. 3d 1116, 1120–23 (N.D. Cal. 2025).

491. See id. at 1122 ("Robux can be taken out of the game in which they're won and banked for later use on any game or experience on the Roblox platform . . . .").

492. Balkin, supra note 460, at 80 (arguing that "virtual spaces that are designed to be shopping malls and emporia for the purchase and sale of real and virtual goods should be treated as such").

493. Colleen Baker & Christopher K. Odinet, The Gamification of Banking, 2025 U. Ill. L. Rev. 1567, 1571 (arguing "[t]he next phase in the gamification of finance will be in banking: specifically, the *gamification of banking*," which will help banks find and keep new customers and collect more data about them).

494. See Zachary Small, Token Supremacy: The Art of Finance, the Finance of Art, and the Great Crypto Crash of 2022 3–4 (2024) (beginning a book on non-fungible tokens (NFTs), written from a journalistic perspective, by discussing Renaissance bankrolling of the fine arts).

and other entertainment productions.[495] In the digital world, new art lending services have emerged, but regulation remains fragmented.[496] Banks help wealthy individuals use art collections as collateral.[497] Additionally, major auction houses like Sotheby's and Christie's have engaged in digital financial services for decades.[498]

Recently, companies and celebrities have marketed non-fungible tokens (NFTs) as digital art.[499] The entertainment and art industries are the digital asset sector's primary partner in the volatile space.[500] Music, film, and TV companies have issued NFTs "to provide verified access to digital content (e.g., audio, video, or literary works) or to concerts and other events."[501] Consumers may redeem some NFTs for other entertainment goods or services.[502] Christie's reported over $100 million in NFT sales by September 2021 at the height of the boom and folded

---

495. See N.Y. Arts & Cult. Affs. Law § 23.01 (McKinney 2025) (finding "the integrity of box office operations . . . is a matter affected with a public interest and subject to the supervision of the state for the purpose of safeguarding ticket purchasers"); N.Y. Comp. Codes R. & Regs. tit. 13, § 50.1(b) (2025).

496. See, e.g., Monique Sofo, How to Monetize an Art Collection, Christie's Int'l Real Est.: Luxury Defined (May 10, 2017), https://www.christiesrealestate.com/blog/how-to-monetize-an-art-collection [https://perma.cc/7KXD-YW3F] ("Many serious art collectors are increasingly looking to art-secured financing . . . . Athena Art Finance, based in New York, is the leading independent specialist in this field . . . ."); see also Alessandra Dagirmanjian, Note, Laundering the Art Market: A Proposal for Regulating Money Laundering Through Art in the United States, 29 Fordham Intell. Prop. Media & Ent. L.J. 687, 691 (2019) (noting that no regulatory regime specifically or comprehensively addresses money laundering via art markets); Art-Backed Lending and Liquidity Solutions, MoMAA (June 24, 2025), https://momaa.org/art-backed-lending/?srsltid=AfmBOorPixc0voys5nblLycX4hsVJvOA1-UTnNarW53LEUxdBdPXPA8F [https://perma.cc/ZV9R-ZGZT] ("In the United States, art-backed loans typically fall under standard secured lending regulations, though specific provisions regarding artwork storage, insurance, and valuation have emerged.").

497. See Fine Art Financing, J.P. Morgan Private Bank, https://privatebank.jpmorgan.com/nam/en/services/lending/specialty-lending/fine-art-financing [https://perma.cc/YKF5-49L5] (last visited Oct. 12, 2025) ("[J.P. Morgan] can help you expand your [art] collection, fund new investments or pursue other financial goals without disrupting your investment strategy.").

498. See Jorge Contreras, The Art Auctioneer: Duties and Assumptions, 13 Hastings Commc'ns & Ent. L.J. 717, 741 (1991) (explaining Sotheby's lending practice of financing part of the buyer's purchase price); see also, e.g., Sotheby's Goes High-Tech, CBS News (Jan. 20, 1999), https://www.cbsnews.com/news/sothebys-goes-high-tech/ [https://perma.cc/4G2W-YHK9] (on file with the *Columbia Law Review*) (describing Sotheby's first major online auction in 1999).

499. See Sofia Aizenman, Note, The Art World of Digital Assets: How Non-Fungible Tokens Create a Loophole in Anti-Money Laundering Regulations, 44 Cardozo L. Rev. 1179, 1208 (2023) ("NFTs are widely understood as a form of digital art . . . .").

500. See Andrew Appleby, Taxing Tokens, 91 Tenn. L. Rev. 321, 343 (2024) ("Music and entertainment have also emerged as prevailing use cases for NFTs.").

501. Id.

502. Id. at 344 ("[T]he NFT may be redeemed for goods or services at an event, including merchandise, food, and beverage.").

NFT sales into its general business following the bust.[503] Auction houses turned to Twitter (now X) and Discord (a gaming communications platform) as communications changed during the pandemic.[504] In 2022, Christie's launched a venture capital arm for art and cryptocurrency.[505] Sotheby's has its own NFT marketplace, Sotheby's Metaverse.[506] The NFT cultural phenomenon has created a stream of articles arguing for and against regulation.[507]

During the NFT boom in 2020 and 2021, the SEC adopted a cautious approach without taking a firm stance.[508] In September 2023, the Commission settled with an NFT issuer, Stoner Cats NFT,[509] finding that NFTs issued by a team of Hollywood producers were unregulated securities per its test from *SEC v. W.J. Howey Co.*[510] But the SEC did not

503. Ella Feldman, Christie's Helped Drive the Art World's NFT Craze. Now, the Auction House Is Shutting Down Its Digital Art Division, Smithsonian Mag. (Sep. 9, 2025), https://www.smithsonianmag.com/smart-news/christies-helped-drive-the-art-worlds-nft-craze-now-the-auction-house-is-shutting-down-its-digital-art-division-180987306/ [https://perma.cc/LE6Z-GEHU]; see also Press Release, Christie's, Christie's Surpasses $100 Million in NFT Sales (Sep. 28, 2021), https://www.christies.com/presscenter/pdf/10210/Christie%27s%20Surpasses%20$100M%20in%20NFT%20Sales_RELEASE_9-28-2021_10210_1.pdf (on file with the *Columbia Law Review*).

504. See Elizabeth Howcroft, The New Masters: How Auction Houses Are Chasing Crypto Millions, Reuters (Nov. 9, 2021), https://www.reuters.com/business/finance/new-masters-how-auction-houses-are-chasing-crypto-millions-2021-11-08 [https://perma.cc/L6DY-CJH3] (discussing auction houses' use of social media to arrange NFT purchases); Eileen Kinsella, Is This the Next Art-Market Bubble? A Unique NFT for the Popular 'Nyan Cat' GIF Just Sold for a Whopping $560,000, Artnet (Feb. 22, 2021), https://news.artnet.com/market/nyan-cat-nft-sells-for-560000-1945679 (on file with the *Columbia Law Review*) (describing an NFT auction streamed on Twitch).

505. Kelly Crow, Christie's Launches Venture-Capital Arm Focused on Tech in Art, Crypto, Wall St. J. (July 18, 2022), https://www.wsj.com/articles/christies-venture-capital-nft-11657916141 [https://perma.cc/8DMM-2PAH].

506. Digital Art, Sotheby's, https://www.sothebys.com/en/departments/digital-art [https://perma.cc/2M86-G44F] (last visited Oct. 12, 2025).

507. See, e.g., Joshua A.T. Fairfield, Tokenized: The Law of Non-Fungible Tokens and Unique Digital Property, 97 Ind. L.J. 1261, 1293 (2022) (arguing that NFTs are "digital personal property" and should be regulated as such); Andrew Lom, Rachael Hashmall, Glen Barrentine, Kevin J. Harnisch & Magdalena Oropeza, US SEC Continues to Pursue Aggressive and Arbitrary Regulation of NFTs, Norton Rose Fulbright (Sep. 2023), https://www.nortonrosefulbright.com/es-419/knowledge/publications/7cd6583a/us-sec-continues-to-pursue-aggressive-and-arbitrary-regulation-of-nfts [https://perma.cc/AK63-RQCR] (arguing against the SEC's current method of NFT regulation).

508. See Thomas Lee Hazen, Rational Investing or Speculative Fever?: SPACs, Robinhood, and Digital Assets—Securities Markets or Casinos?, 101 N.C. L. Rev. 553, 595 (2023) (noting that the SEC did not bring an enforcement action treating NFTs as securities until 2023).

509. Id. at 596 (discussing Stoner Cats, the first enforcement action).

510. Id. at 595–97, 596 n.163 (noting the findings of the SEC order against Stoner Cats); Eric Hall, SEC Settlement With Stoner Cats May Signal Agency's Intent to Assert Its Authority Over Unregistered Securities in the NFT Space, DLA Piper (Sep. 26, 2023), https://www.dlapiper.com/en/insights/publications/intellectual-property-news/2023/

provide a point-by-point analysis of the elements of the *Howey* test for precedent.[511] Ultimately, the SEC approach warns of how gaming companies may shield gaming money by claiming financial instruments are works of art, if not claiming they are in some way unreal.

Here, regulators might look at the Treasury's treatment of the intersection between art and finance for lessons concerning pitfalls. The art industry is a nominally self-regulated industry, but it is especially susceptible to money laundering.[512] The Treasury has not clarified the status of NFT issuers regarding anti-money-laundering laws.[513] This ambiguity is strange, as NFTs present "additional layer[s] of secrecy" and obscurity to the art money laundering process.[514] Patrons can purchase NFTs with other cryptocurrencies and "exchange numerous tokens using coins linked to different accounts," posing further regulatory challenges.[515] FinCEN has similarly excluded gaming money from its reach and, like the IRS, has opted not to extend its conception of "convertible virtual currency" to gaming money.[516] This approach presumes that gaming money operates within "closed-loop" systems.[517]

IV. GOVERNING GAMING MONEY

For any substantive governance of gaming money to succeed, regulators must overcome the virtuality defense. Internationally, other regulators have explicitly done so. For instance, in March 2025, the European Union's Consumer Protection Cooperation Network issued Key Principles on In-Game Virtual Currencies declaring that some forms of gaming money constitute "digital representations of real-world monetary value."[518] As one industry reporter described it, game

---

sec-settlement-with-stoner-cats-may-signal-agencys-intent-to-assert-its-authority [https://perma.cc/S23B-5TSR] ("SEC applied the Supreme Court's *Howey* test, determining that Stoner Cats NFTs constituted 'investment contracts.'").

511. See In re Stoner Cats 2, LLC, S.E.C. Release No. 11233, 2023 WL 5956272, at *2 (Sep. 13, 2023) ("[Stoner Cats 2, LLC] offered and sold the Stoner Cats NFTs as investment contracts, and therefore securities, pursuant to the test laid out by the U.S. Supreme Court in SEC v. W.J. Howey Co., 328 U.S. 293, 298–99 (1946) . . . .").

512. Aizenman, supra note 499, at 1180; see also id. at 1196–98 (noting that the art industry's self-regulated nature "mak[es] it a business more susceptible to criminals successfully transferring dirty money through million-dollar art sales without legal consequences").

513. See id. at 1181 (remarking on the exclusion of NFTs from BSA/AML laws).

514. Id. at 1180–81.

515. Id.

516. See Kelly, supra note 373, at 1488–95, 1410 (arguing that "FinCEN should consider requiring video game developers who host virtual worlds and marketplaces for in-world currency to form a supervisory board").

517. Roomberg, supra note 359, at 174 (arguing that closed-loop games are unlikely to trigger money transmitter regulation).

518. Consumer Protection Cooperation Network, Key Principles on In-Game Virtual Currencies 1 (2025), https://commission.europa.eu/document/download/8af13e88-

developers and regulators had long agreed that in-game currencies legally exist within a "closed loop," meaning they have no real monetary value outside the context of the game within which they are situated, and are akin to "theme park currencies."[519]

The absence of a magic circle does not mean some business models deserve less scrutiny than others. But the virtuality defense operates with different intensity across each type of gaming money outlined in Part II—play money, store money, and gift cards. The defense can hardly be said to apply to gift cards and should not apply to store money given proper financial accounting and disclosure. The defense retains some traction, however, with respect to play money, and the involvement of any type of gaming money casts an aura of unseriousness.

A. *Default Authorities*

While government regulation can provide flexibility through standards rather than strict rules, there must still be clear criteria between prohibited and unprohibited gaming money activities and qualitative and quantitative thresholds for concern.[520] Gaming companies deploy forms of play money, store money, and gift cards as if they are not financial liabilities, but licensed content, achieving functional monopoly over token production, exchange rates, and alienability that other shadow money issuers lack. Despite this encasement, agencies should closely supervise and regulate platform-based companies that convert gaming money to currency or support conversion at scale.

Before January 2025, the CFPB was well-positioned to lead in this space and draw the lines.[521] The CFPB can take legal action against a wide array of financial services businesses.[522] In Part I, this Article

---

6540-436c-b137-9853e7fe866a_en [https://perma.cc/UR7E-5EBD] (defining in-game virtual currencies as "digital representations of real-world monetary value" when "they serve no purpose other than, or for which other functions are secondary to providing for a method of payment").

519. George E. Osborn, Fight Breaks Out Over EU's New In-Game Currency Rules, Video Games Indus. Memo (Apr. 17, 2025), https://www.videogamesindustrymemo.com/p/fight-breaks-out-over-eus-new-in [https://perma.cc/7NYT-66PD] (internal quotation marks omitted).

520. See Hickman & Hickman, supra note 56, at 556–57 ("Nevertheless, if meaningful regulation is to be accomplished, some dividing line between acceptable and unacceptable spheres of regulation is necessary.").

521. See e.g., CFPB Report, supra note 66, at 3 ("The Consumer Financial Protection Bureau (CFPB) is monitoring non-traditional markets where financial products and services may be offered, including the use of virtual currencies in games and virtual worlds.").

522. The CFPB can take action against a "covered person," which is "any person that engages in offering or providing a consumer financial product or service[] and . . . any affiliate of [such] a person . . . if [the] affiliate acts as a service provider to [the covered] person." 12 U.S.C. § 5481(5)–(6) (2024). A "consumer financial product or service" is "offered . . . primarily for personal, family, or household purposes." Id.

discussed how over the past two decades, the CFPB has become the gap-filling banking regulator over consumer-facing shadow money issuers. That said, as of the writing of this Article, CFPB supervision is essentially defunct, and the existence of the institution itself is in question.[523]

Until then, state regulators might have to take the lead in this regulatory ecosystem, especially if federal regulators within reach do not take action. Given the business activity of gaming companies, the California Department of Financial Protection and Innovation (DFPI), a banking and consumer financial protection regulator, is likely the most important, as California remains an industry hub.[524] In 2023, California enacted the Digital Financial Assets Law (DFAL), becoming one of the first U.S. states to implement a virtual currency-specific regulatory regime.[525] "Beginning July 1, 2026, . . . [t]he DFAL prohibits an entity from engaging in digital financial asset business activity unless the entity holds a license from the DFPI."[526] "The new law promotes consumer and investor protection by creating a robust regulatory framework, including supervision and enforcement authority, for certain crypto activities," and other digital financial business activity.[527] Critically, DFPI's treatment of gaming money may validate the convertibility threshold this Article proposes. The statute excludes from its definition of "digital financial asset" any "value issued and usable only within an online . . . game platform"[528]—codifying the virtuality defense for play money that remains inside the magic circle—but nevertheless adopting the proper category of analysis. Venture capital firm Andreessen Horowitz has

523. Jeff Kauflin, How Trump's Hatchet Man is Destroying Consumer Protections, Forbes (Jan. 7, 2026), https://www.forbes.com/sites/jeffkauflin/2025/11/03/trumps-gutting-of-the-consumer-financial-protection-bureau-is-leaving-the-public-vulnerable-to-abuses/ [https://perma.cc/AB2S-HYJM] ("Russell Vought's dismantling of the Consumer Financial Protection Bureau is putting the public at risk in areas ranging from auto loans and digital payments to credit cards and credit reports.").

524. See Julia Stoll, Video Game Industry in the United States—Statistics & Facts, Statista (Dec. 17, 2025), https://www.statista.com/topics/8790/video-game-industry-in-the-united-states/ (on file with the *Columbia Law Review*) (noting that many of the largest gaming companies in the United States are in California and that California has the highest in-state video game industry output).

525. Digital Financial Assets, Dep't of Fin. Prot. & Innovation, https://dfpi.ca.gov/regulated-industries/digital-financial-assets/ [https://perma.cc/ERX6-MU4P] (last updated Dec. 16, 2024).

526. Id. (emphasis omitted).

527. Id.

528. Cooley, California Enacts Two New Virtual Currency Laws (Oct. 19, 2023), https://www.cooley.com/news/insight/2023/2023-10-19-california-enacts-two-new-virtual-currency-laws [https://perma.cc/DEH9-LC89]. See also Cal. Fin. Code § 3102(g)(2)(B) (2026) (excluding from "digital financial asset" definition "[a] digital representation of value issued by or on behalf of a publisher and used solely within an online game, game platform, or family of games sold by the same publisher or offered on the same game platform"); id. § 3102(i)(3).

argued the law is so broad as to encompass gaming money and has requested an exemption for gaming companies.[529]

B. *The Spectrum of Governance*

This Article argues that the ultimate fix is legislative at the federal level, and if anything, it presents an opportunity to refocus the discourse of financial regulation around "money" as a category, as opposed to banking, financial services, or even legal tender. Legislation could instantiate various forms of regulation with distinct strength and reach.

As the political economy of the administrative state and financial regulatory agencies is in total flux, here we focus on how to move forward conceptually, not procedurally. New legislation could apply "strong-form regulation" to some companies, for instance, by establishing rules analogous to those governing banks, which is to say, financial institutions encroaching on money creation powers. For example, Congress could ban gaming companies from issuing gaming money without charters.[530] It could also impose exchange rate adjustment requirements on Roblox, just as it does for credit card banks.[531] Congress could require Valve to keep records identifying account holders and file suspicious activity reports, as the Treasury requires for banks and other financial institutions.[532] Legislation could also impose bank-like liquidity requirements on Sony and Microsoft.

In many respects, however, these laws are a poor fit for low-powered money. "[T]he hydraulic effects of bank regulation and the relentless forces of regulatory arbitrage" often "undercut" ex-ante rules, especially at what we see as the perimeter of the financial system.[533] We now live in a universe of pluralistic money, of hybrid monies, once again issued by multiple corporations aside from banks, in which technology companies have integrated banking and commerce.[534]

---

529. Letter from Andreessen Horowitz to Clothilde V. Hewlett, Comm'r, Dep't of Fin. Prot. & Innovation (Jan. 12, 2024), https://dfpi.ca.gov/wp-content/uploads/sites/337/2024/02/Andreessen-Horowitz-a16z-1.12.24.pdf [https://perma.cc/Z9EJ-CTAT].

530. Many proposals for financial reform aim to end shadow banking through use of the charter. See Arthur E. Wilmarth, Jr., Taming the Megabanks: Why We Need a New Glass–Steagall Act 335–36 (2020) (concluding a historical survey of crises with an argument for a "New Glass–Steagall Act," isolating commercial banking from private financial markets, generally, as well as more expansive nonbank business activities).

531. See 12 C.F.R. § 240 (2025) (requiring accurate, timely recording of foreign exchange transaction data, including exact timestamps, price, and currency pair).

532. Id. § 208.62 (requiring the filing of a Suspicious Activity Report when a bank detects a violation of federal law).

533. Awrey, Bad Money, supra note 48, at 57–58.

534. See, e.g., Jérôme Blanc, Making Sense of the Plurality of Money: A Polanyian Attempt, *in* Monetary Plurality in Local, Regional, and Global Economies 48, 59–63 (Georgina M. Gómez ed., 2018) (discussing the multiplicity of monies that have been established in recent decades by various institutions and groups).

We can plot this stage of unregulated finance along a continuum, at the end of which lawmakers seek and destroy new forms of money. Historically, the most intrusive approach has been to ban new forms of money, even without signs of convertibility. For instance, Congress tried, and failed, to ban nineteenth-century paper scrip worth less than $1.[535] Today, financial technology and cryptocurrency companies succeed at regulatory evasion in part by issuing small denominations within a supposedly closed loop of companies.[536] There is also a risk of dispersion following a ban, which may be problematic for the IRS.[537] For instance, gamers could move currency to accounts held by others in tax havens.[538] Gamers could use Virtual Private Networks to suggest they are in other countries with lax regulations.[539]

Weak-form regulation (within the supervisory ambit) may involve creating "sandboxes" in which companies may experiment with gaming money but under the eye of supervisors. Video games offer a unique laboratory environment to experiment with different tools. Some regulators create sandboxes in which agencies shield companies from the reach of most regulations for a short period.[540] Yet this Article has argued that the expanding convertibility of gaming money into currency and bank deposits warrants more than sandbox observation of private ordering. Thus, this Part focuses on differences between various strong- and medium-form approaches, arguing for medium-form approaches at this stage of gaming money development.

C. *Legislative Upgrade*

This Article favors medium-form regulation in the form of a federal Gaming Money Act, which would entail special licensing, supervision, and tailored gaming money requirements, reflecting law's core concern with money creation and sovereign privileges, adapted for a new technological context. Below, this Article offers a sketch of medium-form

---

535. See supra Part II; see also Timberlake, Private Production, supra note 145, at 439 (explaining that Congress attempted to eliminate fractional private notes, but paper scrip nonetheless continued to circulate in the 19th century).

536. See supra Part I.

537. Laurent Belsie, An Unintended Consequence of Limiting FX Borrowing by Banks, Nat'l Bureau of Econ. Rsch. (Nov. 21, 2018), https://www.nber.org/digest/dec18/unintended-consequence-limiting-fx-borrowing-banks?page=1&perPage=50 [https://perma.cc/RF3F-R9DD] (discussing the dispersion that takes place after tighter FX borrowing rules are established).

538. See Kim, supra note 39, at 806 (noting that without clear taxation rules for virtual economies, the Metaverse could function as a "new tax haven," as users may transfer and hide value via digital assets).

539. See id. at 836 ("[I]t is not hard to imagine a world where users would manipulate their IP addresses using virtual private networks (VPNs) so that it would always seem as though they were located in jurisdictions that had the best tax rates.").

540. See Hilary J. Allen, Regulatory Sandboxes, 87 Geo. Wash. L. Rev. 579, 592–601 (2019) (comparing sandboxes around the world).

regulation, establishing special gaming money licensing and supervision. This Article then proposes three core requirements, which regulators can modulate or supplement.

First, legislation should set standards for exchange rates, including fixing rates for particular periods, establishing expiration dates, clarifying accounting treatment, and mandating protections and duties regarding users. Second, legislation should require companies to authenticate and verify the identities of adult gamers who exchange gaming money. Although gaming companies need not file reports on suspicious activity, they should have records on hand for the U.S. Treasury (the IRS and FinCEN). Third, companies internalizing payment systems by issuing and holding store money must "ring-fence" or otherwise structurally separate gaming money activities from the rest of the corporate balance sheet and prepare for either a run on inventory or manage an angry customer base that stands to lose the stored value in the platform system.[541]

1. *Licensing & Supervision.* — Federal regulators have considered extending bank charters to fintech companies for some time and have now explicitly done so with the GENIUS Act.[542] Policymakers, scholars, and advocates are already debating the appropriateness of these new stablecoin charters.[543] But legislation could also design new licenses (rather than charters) for new forms of money.[544] National licensing already exists for money transmitters, and the regulatory burden is much less onerous than a charter.[545] Gaming companies would need these licenses to issue gaming money or support its convertibility. Congress could set asset or liability thresholds for supervision and other metrics. The licenses should be agnostic to the gaming technology used rather than risking the flight of gaming money to specific devices and not others.

---

541. See Steven L. Schwarcz, Ring-Fencing, 87 S. Cal. L. Rev. 69, 72 (2013) [hereinafter Schwarcz, Ring-Fencing] (noting there are competing definitions of ring-fencing, but it typically means "legally deconstructing a firm in order to more optimally reallocate and reduce risk").

542. See Guiding and Establishing National Innovation for U.S. Stablecoins (GENIUS) Act, Pub. L. No. 119-27, § 16(d), 139 Stat. 419, 462 (2025) [hereinafter GENIUS Act] (to be codified at 12 U.S.C. § 5915(d)) (requiring a state charter to engage in the business of money transmissions through a permitted payment stablecoin issuer).

543. See, e.g., Timantha Goff, How Misuse of the Trust Bank Charter Model Will Lead to More Financial Woes for Communities, Nat'l Cmty. Reinvestment Coal. (Dec. 11, 2025), https://ncrc.org/how-misuse-of-the-trust-bank-charter-model-will-lead-to-more-financial-woes-for-communities/ [https://perma.cc/BZ65-STJ3] ("NCRC has recently formally opposed several national trust bank charter applications from stablecoin and cryptocurrency firms due to their often unregulated and exploitative operations and the larger implications on community development.").

544. See Zaring, supra note 97, at 1454–55 (discussing New York's past practices issuing licenses for virtual currency exchanges).

545. See Awrey, Bad Money, supra note 48, at 46–48 (providing a general outline of the regulations "money service businesses" face at the state and federal levels compared to MMFs and banks).

Within a broader vision of regulation, gaming money charters militate toward the recentering of charters and licenses within financial regulation as a general matter. Professor Saule Omarova has proposed a federal licensing regime for high finance instruments, much like federal pharmaceutical regulation.[546] Omarova "starts with a simple premise: [I]f we cannot effectively regulate and control systemic risk associated with the increasing complexity in financial markets, we need to reduce and control the overall level of complexity in the system."[547] She argues that "the most radical and direct method of reducing systemic risk is to insert [ex-ante] regulatory controls at the point of product development, before the risk is introduced into the financial system."[548]

A similar mechanism may be necessary for gaming money (and many other low-powered instruments). In this framework, regulators would first examine whether gaming money crosses a threshold demanding chartered banking regulation (or perhaps chartered stablecoin regulation). If the agency found that the company was not engaged in money creation, it could either issue a license, refer supervision to another financial regulator, or leave the gaming money system to private ordering.[549]

2. *Rate Controls*. — Strong-form regulation might apply old rules to new companies. Regulators monitor how banks control exchange rates between bank deposits, foreign currency, partner-issued prepaid debit card balances, reward points, and cashback deals to ensure fair practices and instill confidence in the financial system.[550] Congress could impose exchange rate adjustment requirements on companies like Roblox similar to those the OCC has crafted for Capital One and Discover.[551] When banks issue gift cards or other instruments with their unit of account, however, they create high-powered money (bank credit) tied to "low-powered money" (points).[552] We should consider gaming money following a similar pattern but with even lower-powered money at a presumably smaller scale.

Under medium-form regulation, regulators should supervise gaming companies to prevent rate manipulation when converting gaming money to bank deposits and currency. For instance, regulators should monitor

---

546. See Saule T. Omarova, License to Deal: Mandatory Approval of Complex Financial Products, 90 Wash. U. L. Rev. 63, 66–68 (2012).

547. Id. at 66.

548. Id.

549. There is a doctrinal stream in banking law that suggests banking regulation takes priority over securities regulation in the context of instrument classification. See, e.g., Marine Bank v. Weaver, 455 U.S. 551, 558 (1982) (contrasting the "virtually guaranteed" returns on FDIC-insured certificates of deposit with other fixed-rate debt investments in which the investor assumes the risk of the borrower's insolvency).

550. See supra Part I.

551. See supra Part I.

552. See supra Part I (regarding gift cards).

Roblox for exchange rate practices between gaming money and currency. Holistic supervision would include examination of Apple and Google, which take a 30% cut for Roblox purchases via their apps.[553] This approach would still leave room for gaming money, allow people to play games (especially for a living), and safely convert gaming money to bank deposits or currency. A related approach focuses on consumer-facing remedies, which feature rules regarding error resolution, access to account information, and the disclosure of exchange rates, including fees.[554]

Gaming money provides an opportunity to manage the interface between consumer financial protection and banking regulation: It illuminates how these two objectives intersect in regulating new forms of shadow money and banking. From a combined perspective, Congress should enable regulators to mandate companies to issue gaming money fixing rates for specific periods, following the OCC's mandate of forty-five days' notice of change in conversion rates concerning credit card rewards.[555] If companies offer gaming money as part of credit card rewards deals, they are partners with banks in higher-powered money creation.[556] The practice points to even more significant issues about "rent-a-bank" and cobranded credit extension that may concern prudential regulators.

Here, one might claim Congress is singling out the gaming industry for popular business practices. Yet the lesson of gaming money should be to scrutinize it further and regulate similar practices. Recently, the CFPB and Department of Transportation have raised concerns regarding frequent flyer miles, which suggest some problems similar to gaming money.[557] In May 2024, they held a joint hearing to discuss ongoing

---

553. See Higgins, supra note 28.

554. See Electronic Fund Transfers (Regulation E), 12 C.F.R. § 1005 (2025) (establishing the basic "rights, liabilities, and responsibilities" of consumers using electronic fund transfer services, including procedures for error resolutions, requirements for issuing periodic receipts and statements of transfers, and disclosure of information relating to transfer fees and exchange rates). In January 2025, the CFPB sought public comment for a proposed interpretive rule on how Regulation E applies to gaming platforms. See Electronic Fund Transfers Through Accounts Established Primarily for Personal, Family, or Household Purposes Using Emerging Payment Mechanisms, 90 Fed. Reg. 3723 (proposed Jan. 15, 2025).

555. See supra section I.A.

556. See Consumer Financial Protection Circular 2024-07: Design, Marketing, and Administration of Credit Card Rewards Programs, 89 Fed. Reg. 106,277, 106,277–79 (Dec. 30, 2024) (describing credit card rewards programs that partner with third-party merchants, and explaining that as a result of this partnership, merchants may be subject to CFPB enforcement actions when they engage in "unfair, deceptive, or abusive acts" or practices related to their programs).

557. See Press Release, Rohit Chopra, Dir., CFPB, Statement of CFPB Director Rohit Chopra Regarding the Transportation Department's Probe Into Airline Rewards Programs (Sep. 5, 2024), https://www.consumerfinance.gov/about-us/newsroom/statement-of-cfpb-director-rohit-chopra-regarding-the-transportation-departments-probe-into-airline-rewards-

concerns about transparency and complexity.[558] Like gaming companies, airlines also control the value of points at redemption by altering the rates between points, miles, and total spending.[559] In many cases, however, the airlines sell points to regulated banks, which then issue them according to credit card expenditure.[560] Unlike gaming companies, airlines attempt to sell miles in a relatively decentralized network, including to car rental companies, hotels, restaurants, and coffee shops.[561] Congress should address how industries create money and new financial practices through private point systems.

3. *"Know Your Customer" Requirements.* — Regulators should supervise gaming companies to ensure they maintain information regarding adult players participating in the gaming money system. "Know Your Customer" (KYC) requirements warrant careful calibration, but the justification is structural, not instrumental. The federal government should not impose identification requirements for gaming generally, but the legal framework governing monetary sovereignty requires accountability at the interface between private money and government money. Treasury already requires digital wallet providers such as Venmo and CashApp, as well as cryptocurrency companies, casinos, arthouses, antiquities dealers, and other companies to keep records, and if necessary, file reports regarding users.[562] Gaming companies performing the same conversion function operate outside this framework entirely. There is no particular reason why the Treasury should ignore companies like Valve. Although Valve does not create illicit

---

programs/ [https://perma.cc/PZC7-AK5D] (issuing a statement about the Department of Transportation's inquiry into "potential unfair, deceptive, or anticompetitive practices" against consumers by airline rewards programs); see also Ari Goldfine, Note, The Financialization of Frequent Flyer Miles: Calling for Consumer Protection, 77 Vand. L. Rev. 233, 245 (2024) (arguing "airlines' power over points is more extensive than that of a central bank over a currency," as airlines control the value, accumulation, and expiration of points (emphasis omitted)).

558. Press Release, Rohit Chopra, Prepared Remarks of CFPB Director Rohit Chopra at the Joint Hearing on Airline and Credit Card Rewards Programs, CFPB (May 9, 2024), https://www.consumerfinance.gov/about-us/newsroom/prepared-remarks-of-cfpb-director-rohit-chopra-at-the-joint-hearing-on-airline-and-credit-card-rewards-programs/ [https://perma.cc/YG88-TBEX].

559. See Ganesh Sitaraman, Airlines Are Just Banks Now, The Atlantic (Sep. 21, 2023), https://www.theatlantic.com/ideas/archive/2023/09/airlines-banks-mileage-programs/675374/ (on file with the *Columbia Law Review*) (arguing airlines have become "more like financial institutions that happen to fly planes on the side").

560. Id.

561. See Justin Bachman, Airlines Make More Money Selling Miles Than Seats, Bloomberg (Mar. 31, 2017), https://www.bloomberg.com/news/articles/2017-03-31/airlines-make-more-money-selling-miles-than-seats (on file with the *Columbia Law Review*) (describing the business of selling miles to a range of industries).

562. See 31 C.F.R. §§ 1010.100, 1010.200, 1010.230(b), 1010.410 (2025) (defining financial institutions and entities subject to the regulation and setting out the requirements of financial institutions to verify and maintain records related to their clients' identifying information).

markets for skin betting, it permits them, supplying its API—specifically its programming code—with minimal accountability.[563] One can acknowledge the value of open-source code in innovation while still maintaining concerns about incentives and liability. Valve and third-party platforms share a user base.[564] Valve evades liability while promoting the markets it knows feature money laundering, fraud, and other illicit activity.[565]

Under strong-form regulation, Congress (or perhaps the Treasury) could impose complete BSA/AML requirements on gaming companies, mandating they abide by KYC rules identifying account holders and file reports on any activity the monitor finds suspicious. However, this Author has joined other scholars in criticizing the expansiveness of this regime, which channels data to law enforcement with minimal privacy safeguards and little to show in terms of preventing money laundering by the wealthy and privileged.[566] In practice, gaming companies would have to share a significant amount of rich, granular data with criminal law enforcement.[567] Gaming money regulation provides an opportunity for more nuanced data governance. The Gaming Money Act should impose identification requirements on gaming companies without replicating the infrastructure that has failed elsewhere, at least in terms of privacy concerns.

Under medium-form regulation, Congress could establish a "tiered KYC" regime for accountholders, requiring different levels of identification, authentication, and verification based on perceived risk, which has been widely used in other countries around the world.[568]

---

563. See Anne Mette Thorhauge & Rune K.L. Nielsen, Epic, Steam, and the Role of Skin-Betting in Game (Platform) Economies, 21 J. Consumer Culture 52, 62 (2021) (explaining how allowing skin betting benefits Valve's business strategy); Shaun Assael, Skin in the Game, ESPN (Jan. 20, 2017), https://www.espn.com/espn/feature/story/_/id/18510975/how-counter-strike-turned-teenager-compulsive-gambler [https://perma.cc/2M4W-6JQK] (explaining how Valve's open API enables players to transfer skins to online casinos).

564. People Make Games, supra note 305 (arguing many people who buy skins on these sites want to showcase them in games, and Valve would likely lose users and hurt its bottom line if the secondary markets disappeared).

565. See supra Part II.

566. See Carrillo, Seeing Through Money, supra note 82, at 1269–71 (criticizing the effectiveness of the regime in preventing money laundering by major financial institutions, while harming immigrant communities and poor people of color through mass surveillance); see also Judge & Kashyap, supra note 20, at 3 ("The United States' current anti-money laundering (AML) regime is expansive, expensive and one of America's most important domestic public-private initiatives. . . . [S]everal indicators suggest it is falling far short of what is possible.").

567. See Carrillo, Seeing Through Money, supra note 82, at 1268–69 (noting that companies under the KYC regime "share[] SARs data with other law enforcement agencies and private sector partners").

568. See, e.g., Isa Alade & Zehra G. Kavame Eroglu, Disruptive Innovations or Enhancing Financial Inclusion: What Does Fintech Mean for Africa?, 56 Vand. J.

Gamers would share basic identity information, which many already share by purchasing a console, computer, or phone and making debit and credit card purchases. They would have to supply an identification document to verify their identity. Gamers would then undergo a two-step verification process tied to a phone or email account.

Account identification requirements for minors are thorny. They deserve serious consideration, which this Article cannot encapsulate. However, surveilling the financial activity of minors is not the same as surveilling adults, and the risks of making mistakes are higher. The proposed Gaming Money Act limits KYC to adult players as a precautionary principle. Severe matters of abuse, although intermediated by gaming money, are matters for law enforcement.[569] At the same time, there are legitimate concerns about using government data, especially concerning children. On one hand, Congress could follow China in mandating gaming companies use facial recognition technology to limit how much time minors could play games and prevent abuse.[570] The United Kingdom requires gaming platforms to implement "highly effective age assurance" while leaving the method to the platform rather than mandating the use of facial recognition technology.[571] But this approach could lead to serious unintended consequences. The FTC's recent actions against gaming companies for using dark patterns to deceive children into making purchases show the dangerous power of financial surveillance over gamers,[572] and it is difficult to imagine a government dragnet approach not entailing the same risks.

Transnat'l L. 673, 738–39 (2023) (discussing tiered KYC requirements as tools of financial inclusion).

569. See Romo, supra note 30 (discussing ongoing findings and allegations regarding abuse on *Roblox*).

570. See Ben Egliston, The Unnerving Rise of Video Games that Spy on You, Wired (Feb. 1, 2022), https://www.wired.com/story/video-games-data-privacy-artificial-intelligence/ [https://perma.cc/8S86-69UY] (noting China's new facial recognition policy in its gaming industry).

571. Ofcom, Guidance on Highly Effective Age Assurance at 8–9 (2025), https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-1-10-weeks/statement-age-assurance-and-childrens-access/part-3-guidance-on-highly-effective-age-assurance.pdf [https://perma.cc/5Z3F-JS37]; see also Online Safety Act 2023, c. 50, §§ 12–13 (UK), https://www.legislation.gov.uk/ukpga/2023/50/contents [https://perma.cc/9846-FL7S].

572. In 2022, Epic Games settled with the FTC over allegations of violating the Children's Online Privacy Protection Act and deceiving players into making unintentional purchases. Press Release, FTC, Fortnite Video Game Maker Epic Games to Pay More Than Half a Billion Dollars Over FTC Allegations of Privacy Violations and Unwanted Charges (Dec. 19, 2022), https://www.ftc.gov/news-events/news/press-releases/2022/12/fortnite-video-game-maker-epic-games-pay-more-half-billion-dollars-over-ftc-allegations [https://perma.cc/WDH4-MJG9] ("In a separate administrative complaint, the FTC alleged that Epic used dark patterns to trick players into making unwanted purchases and let children rack up unauthorized charges . . . .").

4. *Ring-Fencing*. — By maintaining millions of unregulated, unaccounted balances outside of the chartered banking system, the companies keep money creation and supply away from the eyes of regulators. They follow the path of railroads and mining companies that issued scrip with a promise of redemption for goods and services but maintained a private unit of account for denominating those prices.[573] By requiring users to hold balances on their platforms in the event of insolvency, they put gamers in a position of loss without redemption. Still, they also create fragility and potential financial contagion.

A strong-form approach may ban the issuance of some gaming money or the existence of infrastructure. Companies with significant platform power and private monetary systems, such as gaming companies and airlines, present problems regulators must take seriously as more corporations store balances outside the banking system.[574] Congress or an agency could establish financial liquidity requirements if balances are redeemable, or require a plan for making sure the balances can be somehow honored in the event of the total collapse of the corporation. Like companies that issued scrip at the end of the nineteenth century and the beginning of the twentieth century, however, gaming companies do not promise that customers can withdraw funds; store balances should still be redeemable in goods and services.[575] Customers concerned about their funds in the store accounts may run on inventory in this scenario. The parallel to financial liquidity requirements, if a company is to issue store money at scale, is to create liquidity requirements for goods and services.

Although an agency could attempt to calibrate specific regimes to manage complex variables, such as ensuring sufficient stocks of goods to survive a stress scenario, the most straightforward approach is to require companies that have chosen to create store money systems to "ring-fence" the operation in new subsidiaries, structurally separating gaming money from the broader operations of the company. In practice, lawmakers may require companies to ring-fence certain activities to "mitigate systemic risk and the too-big-to-fail problem inherent in large financial institutions."[576] Congress has already crafted segregation requirements for stablecoin issuers under the GENIUS Act.[577] Gift cards compound the risk, concentrating seasonal liabilities.[578] On a related note, the Gaming Money Act should also require consistency between consumer contracts and regulatory filings. If a company reports gaming

573. See supra section I.C.

574. See supra section I.C.

575. See supra section I.C.

576. Schwarcz, Ring-Fencing, supra note 541, at 72 n.10, 103.

577. See GENIUS Act, supra note 542, § 4(a)(2) (requiring reserves to be held separately from operational funds).

578. See supra section II.C.3 (discussing insolvency risk and seasonal concentration of gift card revenue).

money balances as liabilities to the SEC, whether play money, store money, or gift card money, it cannot simultaneously disclaim those balances as carrying no monetary value, no property interest, and no deposit-like character in its terms of service.

In this case, agencies should supervise the general practice of issuing store money but establish bright lines within the broader, flexible ambit of gaming money regulation. The subsidiaries should hold gaming money licenses instead of parent companies. They would maintain separate balance sheets, meaning customers could still receive compensation if the company were to fail. Moreover, the legislature should prohibit the subsidiaries from engaging in the broader functions of banking, such as maturity transformation, or, at the core, money creation. Through cobranded credit cards, Microsoft and Sony create credit throughout the economy for which they are not responsible, which can contribute to overextension of debt, harming individuals and businesses.[579] At the least, agencies should separate that practice from the payments infrastructure of the gaming industry.

CONCLUSION

This Article has shown how gaming companies are issuing a nascent form of "shadow money," encroaching on a privilege reserved for the government and government-chartered banks. This unregulated practice leads to harms cognizable within the fragmented set of laws governing "money," including rate manipulation, money laundering, and firm and industry-level opacity and instability, exposing counterparties to risk and harm. Gaming money—as a form of "shadow money"—yields familiar, structural harms. Like nineteenth-century railroad, canal, and mining companies, twenty-first-century gaming companies issue small-denomination money for redemption in goods to evade financial regulation. Like crypto companies, gaming companies have built private monetary systems targeting specific demographics, steadily expanding acceptability and scale.

Unlike other shadow money issuers, gaming companies can invoke a distinctive defense, drawing a "magic circle" around gaming money and decrying government overreach into a "virtual world." This Article rejects that defense, drawing on how regulators already approach the intersections of money, media, entertainment, and the arts. The laws governing money do not ask whether money is "real," but whether its issuance encroaches on sovereign authority. The label "virtual" does no legal work here.

Regulators should instead govern gaming companies along a spectrum of convertibility—from chartered banking regulation for companies engaged in full-scale money creation, to Gaming Money Act

579. See supra Part II.

licensing for companies that convert gaming money to currency and bank deposits at scale, to private ordering for companies that do not sufficiently support monetary conversion to merit licensing. Agencies have consistently supervised entities that materially support the conversion of private money into currency and bank deposits at scale. Congress should pass a Gaming Money Act, establishing licensing and supervision, tailored rate controls, customer identification requirements, and structural separation calibrated to convertibility.

In the long run, gaming money matters because the arbitrage is the strongest signal yet that the regulatory system as we have known it is not geared to address the technological evolution of shadow money and a rapidly growing set of structural challenges presented by powerful tech firms. The most important gaming companies, such as Microsoft, Apple, and Google, are titanic conglomerates, not whimsical entrepreneurs. Wall Street financial institutions are considering gaming money systems.[580] Sony has already applied for a national trust bank charter to issue stablecoins, which will likely transform the sector further.[581] Prominent gaming influencers are acquiring financial services companies to serve their young audiences.[582] Gaming introduces most children in the United States to the very idea of money. The regulatory gap concerns the future in a very explicit way.

A host of laws governing "money" operate around a silent, elusive concept of "money" that no statute settles. As companies create new forms of shadow money, regulators improvise. The Gaming Money Act would address gaming money's particular harms, but the broader definitional gap demands a different answer. For now, vigilance is critical even when new forms of money appear to be oddities, unworthy of serious regulation, or—to put it crudely—just part of a game.[583]

---

580. See, e.g., J.P. Morgan, supra note 260 ("As the [gaming] industry continues to grow and evolve, the integration of seamless, embedded financial systems will be a crucial element of its success.").

581. See supra note 68 and accompanying text.

582. See Amanda Silberling, MrBeast's Company Buys Gen Z-Focused Fintech App Step, TechCrunch (Feb. 9, 2026), https://techcrunch.com/2026/02/09/mrbeasts-company-buys-gen-z-focused-fintech-app-step/ [https://perma.cc/8TT7-D3EJ] (describing how Jimmy Donaldson, or "MrBeast," "the most-subscribed creator on YouTube," has purchased Step, a financial services app for teens).

583. See Awrey & Judge, supra note 41, at 2350–53 (arguing a "holistic mindset" surveys "emerging, systemic issues that have not yet congealed enough to be salient using a more conventional lens").