Taxing Novelty

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The advent of any new and unfamiliar economic activity sparks a flood of questions across a variety of legal fields, including tax law. This Article diagnoses the legal uncertainties surrounding novel activities as challenges of legibility in statecraft. Legibility is the process by which the state simplifies complex and often unfamiliar systems into a format that can be governed. Across broad areas of the law, placing things and activities into different legal categories is a means for the state to achieve legibility.

This Article aims to incorporate the framework of legibility into existing scholarly discourse on legal categories. Through the case study of taxing cryptocurrency, this Article develops a descriptive account of how legal decision-makers render novel economic activities legible. This descriptive account uncovers ways in which achieving legibility can be challenging for these decision-makers and accompanying risks to legal systems, including the risks of legal arbitrage by powerful interest groups. The Article applies these insights to propose legal reforms specific to tax law. It advocates for tax law to move towards fewer tax categories, which can ease legibility challenges and reduce potential risks.

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INTRODUCTION

As new and unfamiliar economic activities emerge, tax law struggles to determine how the income stemming from these novel activities should be taxed. This Article diagnoses the uncertainty surrounding the appropriate taxation of the novel as a challenge of legibility in statecraft. To effectively govern, the state must take complex and unfamiliar activities and simplify them into a legible form. Through the case study of taxing cryptocurrency, this Article explores how and why this essential process of achieving legibility can be problematic for the state. It also highlights accompanying risks to legal systems, including the tax system. In response to these challenges and risks, this Article proposes that tax law should implement broader categories, which will ease legibility challenges and reduce potential risks.

What is legibility?[1] This Article's analysis draws on the concept of legibility presented by James Scott in his book *Seeing Like a State*.[2] In his work, Scott provides the insight that, to govern and regulate complex systems, the state must first simplify these systems into a framework that can easily be observed, understood, and monitored by the state. It must translate these complex systems into a form that is *legible* to the state. Legal categories are a means for the state to achieve this necessary legibility. Legal categories simplify complex activities and things by distilling their legally salient features and prescribing particular legal outcomes based on those features. These legal categories facilitate effective governance because they allow the state to avoid the impossible task of making individualized governance decisions for all circumstances.

This Article aims to introduce the concept of legibility into the rich scholarly discourse on the construction and application of legal categories, such as debates around the relative benefits of rules versus standards.[3] Introducing legibility advances the scholarly discourse first

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[1] For a more detailed exploration of the concept of legibility, see *infra* Part I.C below.

[2] *See generally* JAMES C. SCOTT, SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED 76-83 (1998) (exploring the historical role of legibility in statecraft).

[3] *See infra* Part I.A (summarizing conventional scholarly debates on legal categories).

by highlighting the essential role that categorization plays in statecraft. But, more importantly, the framework of legibility provides greater insight into how and why it can be difficult for legal decision-makers to construct and apply legal categories. This improved insight can inform more robust legal reforms and institutional changes to ease the difficulties of constructing and applying legal categories.

While legibility challenges are presented by all new and unfamiliar economic activities, this Article uses the appropriate tax categorization of income from cryptocurrency as a case study of legibility challenges. Since the introduction of Bitcoin in 2008, cryptocurrencies and the use of blockchain technology in a variety of contexts have expanded rapidly.[4] This technology has brought with it a whole host of questions regarding how it should fit into our legal system.[5] One of these questions is how income stemming from cryptocurrency and blockchain activities should be taxed, a question that tax scholars have begun to explore.[6]

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[4] Cryptocurrency is a digital currency that is typically not backed by any central authority and is secured via cryptography. ESWAR S. PRASAD, THE FUTURE OF MONEY: HOW THE DIGITAL REVOLUTION IS TRANSFORMING CURRENCIES AND FINANCE 109 (2021). Most cryptocurrencies use blockchain technology to securely document transfers. QUINN DUPONT, CRYPTOCURRENCIES AND BLOCKCHAINS 83-84 (2019). Blockchains are a form of "[d]istributed computing technologies that securely record data on append-only digital ledgers and execute code." *Id.* at 29.

For a more detailed discussion of mechanics, functions, and purpose of cryptocurrency and blockchain technology, see *infra* Part II.C below.

[5] *See, e.g.*, White House, Press Release, Executive Order on Ensuring Responsible Development of Digital Assets (Mar. 9, 2022) https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/ [https://perma.cc/HRM2-G69W] (directing various agencies to submit evaluations and reports on a range of legal issues related to digital assets, including consumer protection, financial regulation, and climate change mitigation); Kristin N. Johnson, *Regulating Cryptocurrency Secondary Market Trading Platforms*, 2020 U. CHI. L. REV. ONLINE 26 (2020) (outlining SEC efforts to regulate cryptocurrency exchanges); Juliet M. Moringiello & Christopher K. Odinet, *The Property Law of Tokens*, 74 FLA. L. REV. 607 (2022) (analyzing the property law challenges brought by non-fungible tokens ("NFTs")).

[6] *See, e.g.*, Eric D. Chason, *Crypto Assets and the Problem of Tax Classifications*, 100 WASH. U. L. REV. 765 (2022) (arguing for greater classification power to be delegated to the IRS for the purposes of classifying cryptocurrency); Omri Marian, *Law, Policy, and the Taxation of Block Rewards*, 175 TAX NOTES FED. 1493 (2022) [hereinafter Marian, *Taxation of Block Rewards*] (analyzing the appropriate tax treatment of blockchain staking rewards).

Tax law revolves around questions of categorization.[7] Determining the proper tax treatment of economic gains requires a person to place those gains and the economic activities surrounding them into the appropriate tax categories, or "cubby-holes."[8] Placing economic gains into these cubby-holes is a means to render the economic activities surrounding those gains legible to the state. And which cubby-hole these gains and activities fall into can impact if, how, where, and when the economic gain is taxed, providing motivation for taxpayers to seek the most favorable tax classifications possible.[9] Cryptocurrency and blockchain are not falling neatly into these cubby-holes, resulting in both confusion and opportunities for legal arbitrage.

Through the case study of cryptocurrency taxation, this Article chronicles the process by which legal decision-makers render new economic activities legible. This descriptive account highlights barriers to achieving legibility, such as lack of familiarity with new economic activities, and shows how the difficulty of accurately rendering these activities legible can present risks to the legal system.

While this Article's account focuses on tax law, it does not tell a story of tax exceptionalism.[10] It acknowledges that the need to place novel

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In addition to questions of appropriate tax treatment, cryptocurrency and blockchain also present important tax administration concerns. *See* Omri Marian, *Blockchain Havens and the Need for Their Internationally-Coordinated Regulation*, 23 Fla. Tax Rev. 770, 787-93 (2020) (explaining how blockchain networks can provide taxpayers with similar benefits as tax havens); Manoj Viswanathan, *Tax Compliance in a Decentralizing Economy*, 34 Ga. St. U. L. Rev. 283, 318-33 (2018) (discussing tax compliance issues stemming from blockchain technology, as well as the gig economy).

[7] *See* Charles I. Kingson, *The David Tillinghast Lecture: Taxing the Future*, 51 Tax L. Rev. 641, 643 (1996) ("How we characterize income — what category we put it in — lies at the heart of both our statutes and treaties.").

[8] *See* Edward D. Kleinbard, *Equity Derivative Products: Financial Innovation's Newest Challenge to the Tax System*, 69 Tex. L. Rev. 1319, 1320 (1991) ("Our tax system works by describing a finite number of idealized transactions and attaching to each a set of operative rules — what might be termed a set of tax cubbyholes.").

[9] *See infra* Part II.B (describing the impact of categorization on if, how, where, and when to tax economic gains).

[10] Tax exceptionalism is a view that tax law is unique in its complexity and, as a result, legal analysis and approaches that are appropriate for other legal and regulatory regimes might not be appropriate in the context of tax law. Numerous scholars have addressed this concept of tax exceptionalism with some rejecting the concept. *See, e.g.*, Paul L. Caron, *Tax Myopia, or Mamas Don't Let Your Babies Grow Up to Be Tax Lawyers*, 13

economic activities into the appropriate legal categories is not unique to tax law and that other fields of law are struggling with the need to integrate novel economic activities into existing legal structures.[11] However, tax law presents a useful lens through which to look at this pervasive challenge because of the extreme extent to which tax law relies on categorization compared to other legal fields. The reliance on categorization itself is not unique to tax, but the intensity of the reliance is.[12]

VA. TAX REV. 517, 531 (1994) (rejecting "myth" that tax law is different from other areas of law); Kristin E. Hickman, *The Need for* Mead*: Rejecting Tax Exceptionalism in Judicial Deference*, 90 MINN. L. REV. 1537, 1542 (2006) (rejecting the perception of tax exceptionalism in the context of *Chevron* deference); Lawrence Zelenak, *Thinking About Nonliteral Interpretations of the Internal Revenue Code*, 64 N.C. L. REV. 623, 639 (1986) (rejecting idea that complexity of the tax code supports a nonliteral approach to statutory interpretation). Others embrace it. *See, e.g.*, Bradford L. Ferguson, Frederic W. Hickman & Donald C. Lubick, *Reexamining the Nature and Role of Tax Legislative History in Light of the Changing Realities of the Process*, 67 TAXES 804 (1989) (explaining differences in drafting of federal tax legislation versus non-tax legislation). This Article does not take a position on the validity of tax exceptionalism in all contexts. However, it does contend that the challenge of appropriately categorizing and rendering legible novel economic activities is not unique to tax law and some of the proposed responses to this challenge. *See infra* Part III. It can apply to legal and regulatory regimes other than tax law.

[11] *See generally* JULIE E. COHEN, BETWEEN TRUTH AND POWER: THE LEGAL CONSTRUCTIONS OF INFORMATIONAL CAPITALISM (2019) (analyzing the system legal changes that the data economy has produced); Veena B. Dubal, *Winning the Battle, Losing the War?: Assessing the Impact of Misclassification Litigation on Workers in the Gig Economy*, 2017 WIS. L. REV. 739 (2017) (exploring the challenges and employment law impacts of worker classification decisions in the gig economy); Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973 (2019) (describing the failures of antitrust law to respond to tech platforms' patterns of vertical integration).

[12] Kristin Hickman and Claire Hill likewise used tax law as a lens through which to analyze issues of compliance and regulatory responses, historical contingency, and the legitimacy and efficacy of regulatory regimes in their article *Concepts, Categories, and Compliance in the Regulatory State*. They "present the federal income tax laws as a polar case of a regulatory regime that notoriously struggles with both efficacy and legitimacy" but "assume . . . that tax and other regulatory regimes differ in degree rather than in kind." Kristin Hickman & Claire Hill, *Concepts, Categories, and Compliance in the Regulatory State*, 94 MINN. L. REV. 1151, 1157-58 (2010).

For discussions of the difficulties presented by the reliance of tax law on categorization, see Edward D. Kleinbard, *The Right Tax at the Right Time*, 21 FLA. TAX REV. 208, 230-31 (2017) (describing tax law's fundamental reliance on "categoriz[ing] all business activit[ies] into a few discrete cubbyholes" and proposing a broad redesign of

The Article is also not telling a story of cryptocurrency exceptionalism or tech exceptionalism more broadly.[13] It is true that the digitalization of the global economy over recent decades has caused legal institutions to be repeatedly confronted with emerging technologies and their resulting economic activities that must be rendered legible and integrated into our legal regimes.[14] However, these emerging technologies have merely highlighted the existing challenges of legibility. The need for and difficulty of achieving legibility is not unique to or caused by emerging technologies like cryptocurrency. Legibility challenges occur for all economic activities that are new and unfamiliar to the state.[15]

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capital income taxation to address the limitations of the current approach); Jeff Strnad, *Taxing New Financial Products: A Conceptual Framework*, 46 STAN. L. REV. 569, 570 (1994) (explaining that the "tax system is based on a system of 'tax cubbyholes,'" which present problems when new financial products are developed that do not "fit squarely into a particular cubbyhole" but also noting that similar issues exist in the case of financial regulation).

[13] While beyond the scope of this Article, the question of whether emerging technologies warrant unique legal interventions have been a subject of lively scholarly discourse. *See, e.g.*, Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. L.F. 207 (1996) (rejecting the need for new laws for cyberspace); Meg Leta Jones, *Does Technology Drive Law? The Dilemma of Technological Exceptionalism in Cyberlaw*, 2018 U. ILL. J.L. TECH & POL'Y 101 (2018) (rejecting the concept of tech exceptionalism); Orin S. Kerr, *The Problem of Perspective in Internet Law*, 91 GEO. L.J. 357 (2003) (arguing that when applying laws to the internet, legal decision-makers must confront a unique problem of perspective); Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501 (1999) (responding to Easterbrook and arguing that cyberlaw could offer valuable lessons on legal limits and possible reforms to combat those limits).

[14] *See* Neal Katyal, *Disruptive Technologies and the Law*, 102 GEO. L.J. 1685, 1685-89 (2014) (providing a brief overview of legal challenges of three specific technological innovations — wearable cameras, 3D printing, and self-driving cars); William Sowers, *How Do You Solve a Problem like Law-Disruptive Technology?*, 82 L. & CONTEMP. PROBS. 193, 199-200 (2019) (describing ways that "law-disruptive technology" does not fit into our existing legal structures); *see also* U.N. CONF. TRADE & DEV., DIGITAL ECONOMY REPORT 2019: VALUE CREATION AND CAPTURE: IMPLICATIONS FOR DEVELOPING COUNTRIES 1-9 (2019) (describing the development of the digital economy beginning in the 1990s).

[15] Examples of new and unfamiliar economic activities that James Scott describes include communal land tenure practices in Southeast Asia and different customary naming practices across various European countries. SCOTT, *supra* note 2, at 33-36, 64-71. This Article also unpacks legibility challenges associated with innovative financial instruments. *See infra* Part II.A.

This Article's descriptive contributions and insights are, therefore, applicable to contexts other than the appropriate legal responses to emerging technologies such as cryptocurrency. And they are also applicable across all fields of law — not simply tax law.

While this Article provides valuable theoretical, descriptive, and diagnostic contributions to the literature, it also uses the insights derived from the new legibility framework to prescribe specific legal reforms. The new legibility framework can inform reforms across many fields of law. Here, this framework's application is considered in the context of tax law. The Article argues that legibility challenges warrant re-examining tax law's current approach to legal categories. It advocates for tax law to implement broader categories, which will alleviate some of the difficulties of rendering novel economic activities legible.

This Article proceeds as follows. Part I provides necessary theoretical and legal background. It reviews the existing scholarly discourse on the legal categories, explains the role of categorization in tax law specifically, and introduces the new framework of legibility. Part II applies this new legibility framework. It uses the case study of taxing cryptocurrency to chronicle tax law's struggles to render legible novel economic activities. This descriptive account highlights the challenges of achieving legibility and accompanying risks to the tax system. Part III introduces legal reforms stemming from the insights provided by the new legibility framework.

I. Legal Categories and Legibility: Applying a New Framework

The aim of this Part is to situate this Article's contribution within existing scholarship on constructing and applying legal categories. It also explains the role and policy justifications for tax law's intense reliance on categorization. After reviewing the contours of the existing debate on legal categories and exploring the function of categorization within tax law specifically, it introduces to this scholarly discussion the concept of legibility. It explains how the process of placing economic activities into legal categories simplifies those activities into a format that is readily understandable to the state. Rendering activities legible via categorization is essential to effective governance. The framework of legibility articulated in this Part is then applied in Part II to offer greater insight into how and why the law struggles to integrate novel

and unfamiliar activities into existing legal frameworks. This insight is applied in Part III to propose potential legal and institutional reform.

A. *Categories in the Law: The Conventional Debate*

Much of law is a project of categorization. The world does not come neatly divided into legal categories,[16] and the stakes of categorization are high. Whether or not an activity falls into a particular category can radically alter a person's tax bill,[17] prescribe the length of a person's prison sentence,[18] and dictate the level of damages paid in lawsuits.[19] These high stakes encourage gaming as people seek the most advantageous legal categorization.[20] Questions of how to construct legal categories and how to subsequently interpret and apply those legal categories to real-world situations have occupied much legal thought. This Section provides an overview of those debates.[21]

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[16] As H.L.A. Hart explains: "Fact situations do not await us neatly labeled, creased, and folded, nor is their legal classification written on them to be simply read off by the judge." H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. L. REV. 593, 607 (1958); *see also* Lee Anne Fennell, *Sizing Up Categories*, 22 THEORETICAL INQUIRIES L. 1, 2 (2021) ("Questions and controversies surrounding categorization are ubiquitous in law and policy."); Frederick Schauer, *Institutions as Legal and Constitutional Categories*, 54 UCLA L. REV. 1747, 1747 (2007) ("Law carves up the world. In a universe of almost infinite particulars, the law with its categories groups together particulars that are in important respects different, and separates particulars that are in important ways similar.").

[17] *See infra* Part I.B.1 (describing the impact of tax categories on calculating tax liability).

[18] *See, e.g.*, Joanna Shepherd, *Blakely's Silver Lining: Sentencing Guidelines, Judicial Discretion, and Crime*, 58 HASTINGS L.J. 533, 538-43 (2007) (reviewing the history and purpose of federal and state sentencing guidelines).

[19] *See, e.g.*, Homer Clark, *The Treble Damage Bonanza: New Doctrines of Damages in Private Antitrust Suits*, 52 MICH. L. REV. 363 (1954) (discussing the imposition of treble damages in private antitrust lawsuits).

[20] *See* Fennell, *supra* note 16, at 2 ("Categorization carries consequences . . . . These high stakes predictably generate conflict and gaming.").

[21] This discussion is not meant to be exhaustive but aims to acquaint the reader with some of the key challenges and debates surrounding categorization in the law.

1. On Constructing Categories

With respect to the question of how to construct legal categories, the debate over whether laws should be constructed as rules versus standards has been prominent.[22] A rule dictates that a specific legal result must follow if a certain set of conditions are met; in contrast, a standard provides general parameters for when a circumstance should precipitate a legal result.[23] A law stating that tax returns must be filed by April 15th is a rule; a law stating that tax returns must be filed within a reasonable time following the close of the taxable year is a standard.

The distinction between rules and standards can be viewed as rules dictating a particular result ex-ante and standards, in contrast, allowing for an analysis of the appropriate legal result ex-post.[24] This distinction implicates the level of discretion that the lawmaking entity grants to the

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[22] For examples of scholarship on rules and standards in the law, see Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 568-77 (1992) (presenting an economic analysis of when laws should be constructed as rules versus standard); Thomas W. Merrill, *The* Mead *Doctrine: Rules and Standards, Meta-Rules and Meta-Standards*, 54 ADMIN. L. REV. 807, 809 (2002) (arguing that a meta-rule versus a meta-standard is the correct approach to determining the scope of *Chevron* deference); Dale A. Nance, *Rules, Standards, and the Internal Point of View*, 75 FORDHAM L. REV. 1287, 1289 (2006) (advocating a general preference for rules over standards); Pierre Schlag, *Rules and Standards*, 33 UCLA L. REV. 379, 383 (1985) (unpacking the dialectic of arguments regarding rules versus standards and determining that the dialectic has "no moment of synthesis"); Cass R. Sunstein, *Problems with Rules*, 83 CALIF. L. REV. 953, 969-95 (1995) (outlining the case both for and against rules). For discussions of rules and standards in the context of tax law, see Edward Fox & Jacob Goldin, *Sharp Lines and Sliding Scales in Tax Law*, 73 TAX L. REV. 237, 277-79 (2020) (analyzing the choice between sharp lines and sliding scales in tax law in the context of both rules and standards); Susan C. Morse, *Safe Harbors, Sure Shipwrecks*, 49 U.C. DAVIS L. REV. 1385, 1387-90 (2016) (discussing the rules versus standards literature and presenting the concept of rules-standards hybrids); David A. Weisbach, *Formalism in the Tax Law*, 66 U. CHI. L. REV. 860, 886 (1999) (assessing the shift towards standard in tax law via anti-abuse regimes and noting the connection between the level of complexity of a law and the choice of using a rule versus a standard).

[23] Morse, *supra* note 22, at 1390-91; Sunstein, *supra* note 22, at 959.

[24] Kaplow, *supra* note 22, at 559 ("Arguments about and definitions of rules and standards commonly emphasize the distinction between whether the law is given content *ex ante* or *ex post*."); Sunstein, *supra* note 22, at 961 ("Rules are largely defined by the *ex ante* character of law.").

eventual legal decision-maker.[25] The more rule-like a law, the less discretion given to a legal decision-maker; the more standard-like, the more discretion given to a legal decision-maker. Rules versus standards can also be viewed as a continuum, with rules being more specific and standards being more general.[26] Related to the questions of discretion and specificity versus generality is the role that vagueness should play in constructing legal categories.[27] Rules are commonly criticized for formalistic legal results that violate the underlying purpose and spirit of the law.[28] Standards are commonly criticized for giving people insufficient notice and guidance while providing too much discretion to legal decision-makers.[29]

Legal categories can be constructed to be either more rules-like or more standards-like.[30] For example, categories based on necessary and sufficient conditions are rules-like. These are "laws that confer a status or treatment on parties who follow a particular roadmap."[31] An example from tax law is the check-the-box regime, which allows certain businesses to elect taxation as a partnership or corporation by making elections with the IRS.[32] In contrast, goals-derived categories are standards-like. These categories are "broad prohibitions on conduct

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[25] Sunstein, *supra* note 22, at 961.

[26] Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257, 261 (1974) (analyzing legal rulemaking based on "the continuum between the highly specific rule and the highly general standard").

[27] *See generally* TIMOTHY A.O. ENDICOTT, VAGUENESS IN LAW (2000) (arguing that vagueness in the law is often necessary to adequately regulate certain behaviors).

[28] *See* Hickman & Hill, *supra* note 12, at 1156 ("[S]cholars appropriately criticize rules for allowing spirit-violative behavior that uses technical, formalistic readings to produce a result other than, and perhaps contrary to, what Congress or the implementing agency intended.").

[29] Nance, *supra* note 22, at 1299-1300.

[30] I am grateful to Kristin Hickman and Claire Hill for providing the useful framing of three types of categories within regulatory regimes: necessary-sufficient categories, goal-derived categories, and prototype-centered categories. This Article uses this framing to ground its discussion. *See generally* Hickman & Hill, *supra* note 12, at 1185-99 (explaining three types of legal categories).

[31] *Id.* at 1188.

[32] *See* Treas. Reg. §§ 301.7701-1, 301.7701-2, 301.7701-3, 301.7701-4 (2019) (check-the-box status election regime).

that violates some abstract goal of the law."[33] An example from tax law is the economic substance doctrine, which disallows income tax benefits for transactions that do not meaningfully change parties' economic positions or have a substantial purpose apart from federal income tax effects.[34]

Unlike necessary and sufficient and goals-derived categories, prototype-centered categories are a type of category that can be either rule-like or standard-like, depending on how they are constructed. Prototype-centered categories are the most important for this Article's analysis because it is this type of category that has been implicated by questions of how to appropriately tax novel economic activities, including cryptocurrency.[35]

Prototype-centered categories are legal categories that are "defined through one or more full or partial prototypes."[36] A prototype is a standard example, a paradigmatic case. Georges Seurat's work is a prototype of the Pointillism technique of painting; a car is a prototype of a vehicle. Sometimes, prototype categories will also be defined by reference to a list of features — the more of those features that the thing being categorized has, the more likely it is to fit into the prototype-centered category.[37]

Prototype-centered categories are common across various legal fields, and tax law relies heavily on prototype-centered categories.[38] Recent proposed Treasury Regulations on the appropriate tax treatment of cloud computing transactions provide a useful example of prototype categories in tax law. The proposed regulations address the question of whether certain cloud computing transactions should be placed into the

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[33] Hickman & Hill, *supra* note 12, at 1197.

[34] *See* I.R.C. § 7701(o) (codifying and clarifying economic substance doctrine).

[35] For example, whether cryptocurrency should be taxed as property or a foreign currency is determined based on whether cryptocurrency fits more closely into the prototype-centered categories of property and currency. *See* I.R.S. Notice 2014-21, I.R.B. 2014-16, 938 (concluding that virtual currency should be treated as property rather than foreign currency for tax purposes).

[36] Hickman & Hill, *supra* note 12, at 1190.

[37] *See id.* at 1190-91.

[38] *Id.* at 1187 (noting the particular importance of prototype-centered categories to their analysis of the impact of categories and compliance on the development of regulatory regimes).

prototype category of (1) provision of services or (2) lease of property for purposes of determining their tax treatment.[39] The proposed regulations first include a list of "[f]actors demonstrating classification as the provision of services," such as the provider using the property concurrently to provide services to multiple unrelated parties.[40] The regulations then go on to provide eleven examples of cloud transactions and the appropriate categorization of each of them, thereby giving legal decision-makers a series of prototypes to reference when determining whether a particular cloud transaction should be categorized as the provision of services or a lease of property.[41]

In addition to the debates over rules versus standards, another commonly debated question in category construction is that of "splitting" versus "lumping."[42] Splitting involves making categories more narrow and granular while lumping involves making categories broader.[43] For example, in tax law, "income" is often divided into different categories in order to dictate its tax treatment.[44] In the case of some tax provisions, "income" is divided into two categories: active or passive.[45] This is an instance of lumping. In the case of other tax provisions, income is subdivided further into more granular categories like dividends income or personal services income.[46] This is an instance of splitting. Splitting and lumping each have advantages and disadvantages. Splitting into more granular categories can provide the

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[39] Prop. Treas. Reg. § 1.861-19(a), 84 Fed. Reg. 40317, 40317 (Aug. 14, 2019) ("This section provides rules for classifying a cloud transaction (as defined in paragraph (b) of this section) either as a provision of services or as a lease of property.").

[40] Prop. Treas. Reg. § 1.861-19(c)(2), 84 Fed. Reg. 40317, 40326 (Aug. 14, 2019).

[41] Prop. Treas. Reg. § 1.861-19(d), 84 Fed. Reg. 40317, 40326-29 (Aug. 14, 2019).

[42] *See generally* Fennell, *supra* note 16, at 3 (explaining the difference between splitting and lumping in legal category construction); Fox & Goldin, *supra* note 22, at 277-80 (describing different approaches to category construction within tax law).

[43] Fennell, *supra* note 16, at 1.

[44] *See infra* Part I.B.

[45] An example of this is the passive foreign investment company ("PFIC") regime. *See generally* I.R.C. §§ 1291–1298 (outlining the PFIC regime). For a detailed discussion of the PFIC rules, see JOEL D. KUNTZ & ROBERT J. PERONI, U.S. INTERNATIONAL TAXATION para. B2.06 (2024).

[46] An example of this is the international tax sourcing rules. *See generally* I.R.C. §§ 861–865 (providing rules on whether different categories of income are U.S-source or foreign-source).

opportunity for more targeted legal interventions and can potentially limit the capacity for gaming by making the requirements for inclusion in a category more specific.[47] However, splitting can be costly and administratively unfeasible when contrasted with lumping.[48] These trade-offs, along with the relative benefits of rules versus standards, must be considered in construction of legal categories and will be explored in more detail in Part III.A below.

2. On Applying Categories

Once a legal category is constructed, the category must be interpreted and applied both by citizens and relevant government decision-makers. As with legal category construction, the question of how to interpret and apply these categories has been the topic of much legal debate.[49] This subpart focuses on questions of applying prototype-centered categories, which, as explained above, are the most relevant to this Article's analysis.[50]

Prototype-centered categories have been implicated in debates on the use of analogical reasoning in applying the law.[51] Legal analogical reasoning goes something like this. Legal Rule 1 treats Activity A in a particular way. Activity A has characteristics x, y, and z. Activity B also has characteristics x, y, and z. Therefore, Legal Rule 1 should treat Activity B in the same way as Activity A.[52]

Analogical reasoning is essential in applying prototype-centered categories. To determine whether something is close enough to the prototype to warrant inclusion in the category, the decision-maker must

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[47] *See* Fennell, *supra* note 16, at 13.

[48] *Id.* As discussed in more detail in Part III.A below, splitting also presents a greater challenge for achieving legibility, which could have implications for legal arbitrage as well as other risks to the legitimacy and coherence of legal systems.

[49] As with the discussion in Part I.A.1, this discussion is not meant to be exhaustive but aims to acquaint the reader with some of the key points of scholarly debate.

[50] *See supra* note 35 and accompanying text.

[51] For further descriptions and discussions of analogical reasoning, see generally RONALD DWORKIN, LAW'S EMPIRE (1986); EDWARD H. LEVI, AN INTRODUCTION TO LEGAL REASONING (1949).

[52] *See* Cass R. Sunstein, *Commentary: On Analogical Reasoning*, 106 HARV. L. REV. 741, 744-45 (1993) (explaining the basic operation of analogical reasoning in both legal and non-legal contexts).

determine whether the thing being categorized shares enough legally salient characteristics with the prototype to warrant inclusion in the category. That the characteristics being analogized are legally salient (i.e., relevant to the legal rule at issue) is necessary for effective analogical reasoning.[53] For example, the fact that two birds are both red is irrelevant to their classification under the Endangered Species Act. But the fact that the two birds both live in a habitat that is being destroyed is relevant.[54]

Analogical reasoning has come under attack by scholars for a variety of reasons. For example, Larry Alexander has argued that analogical reasoning can exacerbate mistakes of the past and that moral reasoning is a superior means of making legal decisions.[55] Various scholars have attacked the logical validity and soundness of analogical reasoning.[56] Other scholars, however, have come to the defense of analogical reasoning, arguing that it makes law more predictable,[57] serves as a force to slow the pace of law's development,[58] and allows people to reach agreement on particular legal outcomes even if they do not agree on broader principles.[59]

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[53] *Id.* at 745 ("For analogical reasoning to operate properly, we have to know that *A* and *B* are 'relevantly' similar, and that there are not 'relevant' differences between them.").

[54] Endangered Species Act of 1973, Pub. L. No. 93-205, § 4(a), 56 Stat. 1354 (1973).

[55] Larry Alexander, *Bad Beginnings*, 145 U. Pa. L. Rev. 57, 86 (1996) ("Correct moral principles may be discovered through exemplary reasoning, but not, as in ARIL [analogical reasoning in the law], exemplary reasoning based on the cases. Past mistakes — bad beginnings — make ARIL impossible or perverse.").

[56] *See, e.g.*, Frederick Schauer, Playing by the Rules: A Philosophical Examination of Rule-Based Decision-Making in Law and in Life (1991) (arguing that analogical reasoning is merely deduction from rules rather than a distinct form of reasoning); Richard A. Posner, *Legal Reasoning from the Top Down and from the Bottom Up: The Question of Unenumerated Constitutional Rights*, 59 U. Chi. L. Rev. 433, 435 (1992) ("Actually, most reasoning by analogy in law is an oblique form of logical reasoning.").

[57] *See* Henry M. Hart, Jr. & Albert M. Sacks, The Legal Process: Basic Problems in the Making and Application of Law 398 (William N. Eskridge, Jr. & Philip P. Frickey eds., 1994).

[58] Emily Sherwin, *A Defense of Analogical Reasoning in Law*, 66 U. Chi. L. Rev. 1179, 1186 (1999).

[59] *See* Sunstein, *supra* note 52, at 791.

Given these potential problems with analogical reasoning, as well as the possibility for gaming in the context of categorization, scholars have proposed using efficiency as the guidepost for making choices regarding categorization.[60] For example, within tax law scholarship, David A. Weisbach has argued that efficiency should direct doctrinal disputes within tax law (i.e., questions on which legal category a given asset or item of income should fall into).[61] Weisbach claims that in the case of these problems of line-drawing between similar economic activities, "[d]octrinal concerns, such as whether various reified constructs can be fit together, or traditional tax policy concerns, such as whether something is 'income' within the Haig-Simons definition, are neither helpful nor relevant to most disputes."[62] Instead, he suggests that the focus should be on how taxpayer's behavior will change in response to line-drawing decisions and that these decisions should be made in a way that has the lowest efficiency costs.[63] As the following Section explains, doctrinal categories serve a key function in tax law, including preventing abuse. As a result, determining how best to construct and apply these

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[60] *See generally* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW (8th ed. 2011) (analyzing legal issues from a law and economics perspective).

[61] David A. Weisbach, *Line Drawing, Doctrine, and Efficiency in the Tax Law*, 84 CORNELL L. REV. 1627, 1631 (1999) [hereinafter, Weisbach, *Line Drawing*]; *see also* David A. Weisbach, *An Efficiency Analysis of Line Drawing in the Tax Law*, 29 J. LEGAL STUD. 71, 74-79 (2000) (providing an economic model of efficiency analysis in the context of tax doctrinal disputes).

[62] Weisbach, *Line Drawing*, *supra* note 61, at 1628.

[63] *Id.* at 1629-31. As an example, he lauds the implementation of the "check-the-box" regulations, which replaced a four-factor test on the appropriate tax classification of business entities and instead based entity classification on a combination of whether the entity was publicly traded and whether it made an affirmative election for a particular tax treatment. *Id.* at 1628-31. He viewed the four-factor test as "enormously inefficient" and the new check-the-box regime to present fewer opportunities for inefficient taxpayer behavior. *Id.* at 1629-31. Interestingly, the check-the-box regime opened the door to many tax planning opportunities, weakening the effectiveness of the international tax system. *See* Edward D. Kleinbard, *Stateless Income*, 11 FLA. TAX REV. 699, 732 (2011) ("The check-the-box regulations permitted U.S. firms effectively to avoid the strictures of subpart F in many instances . . . ."); Lawrence Lokken, *Whatever Happened to Subpart F? U.S. CFC Legislation After the Check-the-Box Regulations*, 7 FLA. TAX REV. 186, 198-203 (2005) (demonstrating how the check-the-box regulations allowed multinational companies to avoid the subpart F income tax regime).

legal categories is an essential task and one that cannot be reduced to a single value like efficiency.

This subpart summarized some of the key scholarly debates surrounding the construction and application of legal categories. The following Section explores how legal categories function within one specific area of the law — tax law.

B.   *Tax Law's Categories*

Tax law relies heavily on categorization. This Section explains the function of categorization within tax law — tax categories are used to determine if, how, when, and where economic gains are taxed. It also explains the policy justifications for categorization within tax law. This Section provides necessary background for understanding the challenges of achieving legibility explored in Part II and the legal reforms proposed in Part III.

1.   The Impact of Categories: If, How, When & Where

Categorization is central to tax law — the first step to determine the way that economic gain should be taxed is to place the assets and activities that produced that economic gain into their appropriate categories.[64] Which category (or categories) those assets and activities fall into dictates if, how, when, and where the income stemming from them is taxed.

Categorization answers the important gating question of whether economic gains are taxed at all. There are certain economic gains that are of the type that are generally within the broader category of the taxpayer "income" but are excluded by specific code provisions.[65] For example, interest income is generally included as income,[66] but interest paid to the taxpayer from state and local bonds is excluded from gross income.[67] Likewise, compensation for services is generally considered to

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[64]   Kingson, *supra* note 7, at 643; Kleinbard, *supra* note 8, at 1320.

[65]   *See, e.g.*, I.R.C. § 61(b) (cross-referencing to Subtitle A, Chp. 1, Subchap, B, Part III of the Internal Revenue Code for specific statutory exclusions to the general principle that gross income from tax purposes is "all income from whatever source derived").

[66]   I.R.C. § 61(a)(4).

[67]   *Id.* § 103(a).

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be included in the taxpayer's gross income,[68] but pay to certain members of the military serving in combat zones is excluded.[69]

Categorization is also necessary to determine how income is taxed. Different categories of income may be taxed at different rates.[70] Whether and how taxpayers can offset gains with losses can be determined by categorization. For example, if economic activities are categorized as "passive" rather than "active," any losses stemming from those activities can only be used to offset income from other economic activities that have been categorized as passive.[71] Losses from passive economic activity, therefore, cannot be used to offset active income, such as wages. These passive activity loss rules essentially silo taxpayers' economic activities into passive and active buckets and consider the tax treatment of each separately.

Where income is taxed is also a question of categorization. Categorizing is at the center of international tax law. International tax law is a complex field of law that seeks to answer a seemingly straightforward question. When a taxpayer earns cross-border income, which country should be allowed to tax them?[72] The country of the taxpayer's residence? Or the country that is the source of the income? International tax law has answered this question by developing a classification and assignment system.[73] This system of classification and assignment divides income into different categories and assigns taxing authority over those categories to either the residence country or the source country.[74] The OECD's Model Tax Convention, which has

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[68] *Id.* § 61(a)(1).

[69] *Id.* § 112(a).

[70] For example, income that falls into the category of long-term capital gains is taxed at a preferential rate of twenty percent, *id.* § 1(h), versus the ordinary income rate of thirty-seven percent, *id.* § 1(j).

[71] *Id.* § 469(a)(1)(A). The Section 469 passive activity rules also restrict the use of passive activity credit to only offset income from passive activities. *Id.* § 469(a)(1)(B).

[72] Michael J. Graetz & Michael M. O'Hear, *The "Original Intent" of U.S. International Taxation*, 46 DUKE L.J. 1021, 1033 (1997) ("The basic task of international tax rules is to resolve the competing claims of residence and source nations in order to avoid the double taxation that results when both fully exercise their taxing power.").

[73] *See* Steven A. Dean, *A Constitutional Moment in Cross-Border Taxation*, 1 J. ON FIN. FOR DEV. 1, 1-3 (2021) (describing the classification and assignment system).

[74] *Id.* at 1.

formed the basis of many bilateral tax treaties,[75] enumerates fifteen different categories of income and specifies which country shall be entitled to tax each.[76] The U.S. statutory rules governing the taxation of foreigners and foreign income likewise rely on classifying income into different categories.[77] Whether income falls into these broader categories of U.S.-source or foreign-source then informs how various other Code provisions apply to that income, such as the extent to which a taxpayer can claim a foreign tax credit.[78] The question of where (and how) international income is taxed is a question of classification, a question of categories.

Categories can also drive the timing of taxation. For example, income that falls into the category of farm income is subject to different timing rules. Taxpayers engaged in farming (or fishing) businesses can elect to average their farming income over three or four years rather than pay income taxes based on their actual income for each year.[79]

2.   Justifications for Tax Law's Categories

The project of determining if, how, where, and when to tax economic gains is a project of making a series of decisions regarding the appropriate category, or "cubby-hole," to place those economic gains and the assets and activities that produce them into. Why are the answers to if, how, where, and when to tax not the same for all types of economic gains? Categorization serves as a mechanism through which the tax system effects a variety of normative and policy goals.[80]

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[75] *See* ORG. ECON. CO-OPERATION & DEV., MODEL TAX CONVENTION ON INCOME AND ON CAPITAL 12 (2017) (explaining the impact of the OECD Model Tax Convention on treating drafting by both OECD member states and non-OECD member states over the past several decades).

[76] *Id.* at 33-41.

[77] The statutory source rules are contained in I.R.C. §§ 861–865.

[78] I.R.C. § 904(a) (foreign tax credit rules); KUNTZ & PERONI, *supra* note 45, at para. A2.01 ("These [source] rules serve as the basis for applying the Code provisions governing the taxation of the foreign activities of U.S. persons and the U.S. activities of foreign persons.").

[79] I.R.C. §§ 1301(a)–(b).

[80] The discussion below is not intended to be an exhaustive list of the motivations for taxing different categories of income differently. It instead focuses on some of the more prominent reasons justifying categorization in tax law.

Categorization plays a particularly important role in international tax law. International tax law's classification and assignment system furthers the goals of efficiency and fairness.[81] From an efficiency perspective, it is largely agreed upon in the international tax community that double taxation is undesirable and that only one country should tax an item of cross-border income in order to encourage international commerce.[82] The international tax system prevents the inefficiency of double taxation by placing income into different categories and then specifying a single country that is given the authority to tax that income.

In addition to promoting efficiency, international tax law's classification and assignment system is used to achieve a fair allocation of taxing authority over cross-border income among countries. Both the residence country and source country are considered to have a legitimate claim to tax an item of cross-border income.[83] The classification and assignment system deals with these dueling claims by classifying income into different categories, such as interest income or personal services income. It then grants taxing authority over each class of income to either the residence or source country based on which country is considered to have the closest economic allegiance to that category of income.[84] A taxpayer owes economic allegiance to the

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[81] *See supra* notes 73–76 and accompanying text (describing the classification and assignment system).

[82] *See* REUVEN S. AVI-YONAH, INTERNATIONAL TAX AS INTERNATIONAL LAW: AN ANALYSIS OF THE INTERNATIONAL TAX REGIME 1 (2007) (naming the concept that cross-border income should only be taxed once as a common norm within international tax law); Bret Wells & Cym H. Lowell, *Income Tax Treaty Policy in the 21st Century: Residence vs. Source*, 5 COLUM. J. TAX L. 1, 13-14 (2013) (describing the resistance to double taxation and its role in motivating the original design of the international tax system in the 1920s).

[83] The source country's claim is typically justified under the benefits principle — the concept that the source country is justified in taxing income because it provided the necessary benefits and resources to facilitate the creation of that income. *See* AVI-YONAH, *supra* note 82, at 11-12; Mitchell A. Kane, *A Defense of Source Rules in International Taxation*, 32 YALE J. ON REGUL. 311, 315 (2015). And the residence country's claim is typically justified by the political affiliation between the residence country and the taxpayer as well as the benefits provided by the residence country to the taxpayer. *See* Reuven S. Avi-Yonah, *All of a Piece Throughout: The Four Ages of U.S. International Taxation*, 25 VA. TAX REV. 313, 320 (2005); Kane, *supra* note 83, at 314.

[84] *See* Amanda Parsons, *The Shifting Economic Allegiance of Capital Gains*, 26 FLA. TAX REV. 308, 324-30 (2023) (explaining the concept of economic allegiance and how it was

countries the economic life of which contributed to the production, possession, and consumption of wealth.[85] The approach of allocating taxing rights based on relative economic allegiance is connected to the benefits principle, a driving norm of international tax law that dictates that a country is justified in taxing income because of the benefits and resources provided by the country to the taxpayer.[86] Dividing taxing authority based on relative economic allegiance of income achieves fairness within international taxation, allowing countries to tax economic activities based on their relative contribution to those activities. Categorization is the mechanism through which this fairness is achieved.

Categorization also plays an important role in efforts to prevent tax avoidance. Congress and Treasury have placed various anti-abuse provisions in the tax code and regulations to counter efforts by taxpayers to structure economic activities in a way that lowers their tax burdens. One example of this is the regime for U.S. shareholders of passive foreign investment companies ("PFICs").[87] Before the enactment of the PFIC rules, U.S. persons were able to avoid current taxation as well as secure preferential tax rates by investing through foreign corporations.[88] The PFIC rules were passed as part of the Tax Reform Act of 1986 to prevent this form of tax avoidance.[89] The gating question when determining whether the PFIC rules apply is one of categorization. How much of a foreign company's income falls into the

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used in the initial development of the international tax system to assign taxing authority over different classes of income).

[85] *See Fin. Comm.*, *Report on Double Taxation*, League of Nations Doc. E.F.S.73.F.19, 22-23 (1923) (describing the concept of economic allegiance).

[86] *See* AVI-YONAH, *supra* note 82, at 1 (citing benefits theory as one of the unifying norms of international tax law); Parsons, *supra* note 84, at 321-24 (explaining benefits theory and its relationship to economic allegiance).

[87] *See generally* I.R.C. §§ 1291–1298 (outlining the PFIC regime). For a detailed discussion of the PFIC rules, see KUNTZ & PERONI, *supra* note 45, at para. B2.06.

[88] *See* Norman Sternlicht, *History and Analysis of the PFIC Legislation*, 15 INT'L TAX J. 59, 59 (1989).

[89] *See* Stephen E. Shay, *The Post-TAMRA Treatment of U.S. Shareholders of PFICs: Part I*, 70 J. TAX'N 296, 296 (1989) ("The [PFIC] rules were designed to curtail the opportunities offered under prior law to defer U.S. tax through the use of offshore investment funds.").

category of passive income (versus active income)?[90] Or, what percentage of the foreign company's assets produce or are held for the production of passive income?[91] Categorizing a company's economic activities and assets as passive versus active dictates whether a complex and punitive anti-avoidance regime applies to its shareholders.

Applying different tax treatment to different categories of economic activities and assets allows the tax system to effect a myriad of other normative and policy goals. Categorization is used as a tool to ensure that a person's tax bill accurately reflects their ability to pay. The concept that taxing burdens should be distributed amongst citizens based on their relative ability to pay is a central normative concept in tax law.[92] Certain types of economic activities, such as farming, may lead to highly variable income, resulting in a taxpayer's income in any given year not accurately reflecting their overall ability to pay. Categorization is used to address this problem. As discussed above, income from farm and fishing businesses is a separate category of income that is granted special tax treatment.[93] Taxpayers have the option of averaging their income over several years, smoothing out these variations and allowing their tax burdens to better align with their ability to pay.[94]

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[90] I.R.C. § 1297 (a)(1) (defining a passive foreign investment company to include a company with respect to which seventy-five percent or more of its gross income for a taxable year is passive income).

[91] *Id.* § 1297 (a)(2) (defining a passive foreign investment company to include a company with an asset make-up of at least fifty percent assets that produce passive income or are held for the production of passive income).

[92] *See* W. Elliot Brownlee, Federal Taxation in America: A History 97-98 (3d ed. 2016) (identifying the personal income tax system established in the Revenue Act of 1916, which included a progressive rate structure, as incorporating the ability-to-pay philosophy of taxation); Liam Murphy & Thomas Nagel, The Myth of Ownership: Taxes and Justice 20 (1st ed. 2004) (identifying ability to pay as one of the "traditional criteria of tax equity" and explaining that "[h]istorically, the main alternative to the benefit principle has been the principle that tax should be levied in accordance with taxpayers' 'ability to pay'"); Joel Slemrod & Jon Bakija, Taxing Ourselves: A Citizen's Guide to the Debate Over Taxes 64 (4th ed. 2008) (explaining the centrality of the ability to pay concept, which holds that tax burdens should be divided amongst people based on who is best able "to bear the sacrifice of material well-being a tax burden entails").

[93] *See supra* note 79 and accompanying text.

[94] I.R.C. § 1301; *see* T.D. 8972, 67 Fed. Reg. 817, 818 (Jan. 8, 2002) (explaining the policy rationale for allowing different treatment of the category of farm and fishing is to

As discussed above, interest earned from state and local bonds is tax-exempt.[95] Tax-exempt treatment of state and local bond interest is a means through which the federal government can achieve the policy goal of sharing revenues with states and localities.[96] Lower interest rates reduce the costs of borrowing for states and localities financing operations and infrastructure investments with debt.

Finally, tax categories can serve to express societal values. Granting categories of activities favorable tax treatment expresses the belief that those activities are beneficial to society and should be encouraged. For example, as discussed above, compensation for serving in a combat zone is exempt from gross income.[97] A key justification for creating and exempting this specific category of income is to recognize the significant risk that those serving in combat zones face.[98] By creating this category of combat pay and defining the service activities that fall within it, the tax code projects a message that we value the risk that these service people take and believe they should be compensated.

Interpreting and applying tax law is a process of continual categorization. The choice of which category an economic activity or asset falls into dictates if, how, where, and when the income stemming

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"limit[] the adverse effects of a progressive rate structure on farmers whose income varies significantly from year to year in response to fluctuations in the farm economy").

[95] I.R.C. § 103(a). This general exclusion is subject to limitations. *Id.* § 103(b) (listing exceptions to I.R.C. § 103(a)'s exclusion of state and local bond interest from gross income).

[96] While constitutional concerns were the original motivation for exempting state and local bond interest from taxation, this revenue sharing policy goal has motivated the policy since constitutional concerns declined. *See* BORIS BITTKER & LAWRENCE LOKKEN, FEDERAL TAXATION OF INCOME, ESTATES, AND GIFTS para. 15.1.1 (2024) ("With the waning of the doctrine of intergovernmental tax immunity, Congress has preserved the exemption as a kind of revenue sharing, enabling states and cities to borrow at interest rates lower than those on taxable obligations of similar quality."); Kevin M. Yamamoto, *A Proposal for the Elimination of the Exclusion for State Bond Interest*, 50 FLA. L. REV. 145, 162 (1998).

[97] I.R.C. § 112(a).

[98] *See* SAUL PLEETER, ALEXANDER O. GALLO, BRANDON R. GOULD, MAGGIE X. LI, SHIRLEY H. LIU, CURTIS J. SIMON, CARL F. WITSCHONKE & STANLEY A. HOROWITZ, INST. FOR DEF. ANALYSES, RISK AND COMBAT COMPENSATION iii (2011), https://apps.dtic.mil/sti/pdfs/ADA555257.pdf [https://perma.cc/4Y4E-X9AG] ("The principal justification for combat compensation is to recognize military personnel who face significant combat risk.").

from it will be taxed. Behind each of these classification decisions lie important normative and policy goals. While tax law's process of categorization is perhaps particularly intensive compared to some other areas of law, questions of categorization permeate all areas of the law.

Legal categories also serve another important purpose. They are a means for the state to make legible activities. States must make activities legible to govern them. The following Section explores this concept of legibility and explains how viewing the challenge of governing novel economic activities through the lens of legibility can advance the scholarly discourse surrounding legal categories.

C.   *Legibility & Legal Categories*

When considering the role of legal categories and how these categories should be constructed and applied, it is essential to consider the interplay between legal categorization and legibility. As this subpart explains, sorting activities into legal categories is an imperative of statecraft because it allows the state to transform complex systems into a governable format. By recognizing this imperative and incorporating legibility into the scholarly discourse on legal categories, scholars can achieve greater insight into the challenges of legal categorization and how these challenges can be addressed.

1.   What Is Legibility?

By placing things and activities into legal categories, the state simplifies complex systems and makes them legible. As Lee Anne Fennell explains, "[c]ategories make the world legible by blunting certain informational signals and accentuating others."[99] Regulating any activity would become administratively impossible without this process of distilling the legally salient characteristics of things and activities and placing them in categories based on those characteristics. Because the state does not have the capacity to make individualized governance decisions, this process of achieving legibility through categorization is necessary.[100]

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[99] Fennell, *supra* note 16, at 13.

[100] *Id.* (highlighting the "prohibitive administrative and specification costs that would be associated with perfect individuation").

What does this Article mean when it says that something is made legible? This Article's use of the terms legible and legibility generally aligns with the Oxford English Dictionary definition of legible — "[t]hat can be easily understood or interpreted; having a readily discernible nature or significance."[101] But this Article is viewing the process of making something legible from the perspective of the state. Because it is viewing this process from the perspective of the state, it is viewing legibility through the lens of a specific purpose — governance. How can and should government institutions, including legislatures, administrative agencies, and courts, take complex activities and turn them into something that can easily be understood and, as a result, can be effectively governed?

By viewing legibility from the perspective of the state, this Article mirrors political scientist James Scott's conception of legibility, which he articulates in his book *Seeing Like a State*.[102] Scott argues that central state governance requires the state to make local activities legible. To make local activities legible, the state needs to gather information about these activities and then simplify that information into a standardized format that state actors can easily understand.[103] Scott explains that once he began to view statecraft in terms of legibility:

> [P]rocesses as disparate as the creation of permanent last names, the standardization of weights and measures, the establishment of cadastral surveys and population registers, the invention of freehold tenure, the standardization of language and legal discourse, the design of cities, and the organization of transportation seemed comprehensible as attempts at legibility

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[101] *Legible*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/view/Entry/107079?redirectedFrom=legible+#eid (last updated Dec. 2023) [https://perma.cc/UJG4-L38X]; see *Legibility*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/view/Entry/107078 (last updated June 2024) [https://perma.cc/B4LF-EP36] (defining legibility as "[t]he quality of being legible").

[102] *See generally* SCOTT, *supra* note 2 (exploring the concept of legibility in the context of statecraft).

[103] *Id.* at 2-3; *see also* Melissa M. Lee & Nan Zhang, *Legibility and the Informational Foundations of State Capacity*, 79 J. POL. 118, 118, 119-20 (2017) (providing a useful synthesis of Scott's conception of legibility and connecting legibility to state capacity to prevent free-riding).

and simplification. In each case, officials took exceptionally complex, illegible, and local social practices, such as land tenure customs or naming customs, and created a standard grid whereby it could be centrally recorded and monitored.[104]

Scott identifies a pattern throughout history of diverse, intricate, and local practices that, on the surface, were illegible to the central state. The only way that the state could incorporate these practices into its administrative system was to either transform the practices or reduce them to a "shorthand."[105] This shorthand was informed by the needs of the state, such as the need to raise revenues through taxation.[106] Scott shows how, throughout history, states had to take complex, unfamiliar systems and figure out a way to render them legible in order to effectively govern them.

This Article examines the challenge of achieving legibility in the specific context of tax law. It examines tax law's attempts to take complex and novel economic activities and simplify them into tax law's categories in order to raise revenues, redistribute income and wealth, and regulate private behavior.[107]

Tax law's categories, as well as legal categories more generally, are a clear example of the process of achieving legibility. This is particularly pronounced in the case of prototype-centered categories. As explained above, prototype-centered categories determine what is in and what is out of the category either by comparison to a full or partial prototype or by determining whether the thing or activity being categorized possesses certain enumerated features typical of the prototype.[108] This analysis necessarily involves simplifying the thing or activity being categorized. The analysis of whether a thing or activity falls into a prototype-centered category requires analyzing whether it is similar

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[104]   SCOTT, *supra* note 2, at 2.

[105]   *Id.* at 24.

[106]   *See id.*

[107]   Reuven S. Avi-Yonah, *The Three Goals of Taxation*, 60 TAX L. REV. 1, 3 (2006) (identifying revenue raising, redistribution, and regulation as the three central goals of tax law).

[108]   *See supra* notes 35–41 and accompanying text (describing prototype-centered categories).

enough to the prototype in ways that are legally salient.[109] Because the focus is on legally salient characteristics, other non-legally salient characteristics are suppressed. This process of suppressing or ignoring certain characteristics while elevating and highlighting others is a process of simplifying the complex thing or activity to standardize it and, thus, make it governable. It is a process of achieving legibility.

2.   Achieving Legibility

In making novel economic activities legible to the state, the necessary first step for state actors is to understand the function, purpose, and mechanics of the economic activity. Only then can they draw out the legally salient features to properly categorize it. This process of achieving legibility is incredibly difficult and leaves much room for error.[110] As is discussed in more detail below, failing to properly render things and activities legible brings with it risks for the legal system overall.

H.L.A. Hart's familiar "vehicle in the park" hypothetical provides a useful example of how understanding the function and mechanics of an activity are necessary in order to properly render it legible by categorizing it.[111] The hypothetical is:

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[109] *See* Hickman & Hill, *supra* note 12, at 1194 (explaining that determining whether the borderline or penumbra cases fit into a prototype-centered category requiring determining "whether they are similar to the prototype(s) *in salient respects*" (emphasis added)).

[110] Scott is, in fact, extremely critical of central states' efforts to render local practices legible and argues that efforts to achieve legibility have created great harm throughout history. SCOTT, *supra* note 2, at 2-4 (explaining how events ranging from the collectivization in Russia to China's Great Leap Forward to various failed agricultural schemes have their roots in legibility and high-modernist thinking). This Article is not critical of states' efforts to render activities and things legible to the extent that Scott is. Some level of simplifying complex activities is necessary to develop an administrable legal system that can achieve important state goals. But the Article does acknowledge the difficulty of achieving legibility and the accompanying risks as well as potential harms. *See infra* Part II.D (discussing the risks of failing to accurately render novel economic activities legible).

[111] The "vehicle in the park" hypothetical was put forth by H.L.A. Hart in a 1958 article which sparked his famous debate with Lon Fuller as well as scores of derivative scholarship. *See* Pierre Schlag, *No Vehicles in the Park*, 23 SEATTLE U. L. REV. 381, 381 (1999)

> A legal rule forbids you to take a vehicle into the public park. Plainly this forbids an automobile, but what about bicycles, roller skates, toy automobiles? What about airplanes? Are these, as we say, to be called "vehicles" for the purpose of the rule or not?[112]

The necessary first step to determine whether each of these examples falls into the legal category of "vehicles" that are prohibited from the park is to read and understand the function, purpose, and mechanics behind each of these technologies and the resulting activities. It is only after these technologies and activities are understood that the salient legal features can be distilled, and the items can either be placed in the "vehicles" category or not.

Take, for example, roller skates. Before a legal decision-maker can determine whether they are a "vehicle" that should be prohibited in a park, they need to know that roller skates have wheels. They need to know that people attach roller skates to their feet and can use these wheels as a means to move faster than they would while walking or running. They would need to know the maximum and average speeds at which people can move on roller skates and what injuries might occur in roller skating accidents. They would need to know that some people use roller skates for recreational activities while other people use them as a means of transit. The legal categorization that renders the world legible and, thus, governable first requires understanding the purpose, function, and mechanics of the thing or activity being categorized.

Achieving legibility is a necessary step for effective governance. But rendering novel and unfamiliar activities legible presents specific challenges for legal decision-makers. Understanding how and why these challenges exist is a key addition to the scholarly discourse and can inform conversations on the effective construction and application of legal categories. The following Part explains how this process of achieving legibility has played out in the context of tax law seeking to integrate novel economic activities, including, but not limited to, emerging technologies, into the existing tax system. It diagnoses the

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(noting that "[g]enerations of Anglo-American legal thinkers have cut their interpretive teeth on this hypothetical").

[112]   Hart, *supra* note 16, at 607.

struggles that tax law has had in integrating these novel activities as struggles of achieving legibility, demonstrates the difficulties and risks inherent in achieving this legibility, and lays the groundwork for Part III's discussion of potential legal and institutional reforms.

II. TAXING NOVEL ECONOMIC ACTIVITIES: THE CHALLENGE OF LEGIBILITY

This Part diagnoses tax law's struggles to integrate novel economic activities, including those stemming from emerging technologies, as challenges to achieving legibility. Its analysis uncovers some of the key reasons how and why legal decision-makers struggle to understand and categorize these novel economic activities. It begins by describing legibility challenges faced by tax law in the context of financial instrument innovation.

This discussion emphasizes that, while legibility challenges might be particularly acute in the context of emerging technologies, they are not unique to emerging technologies. This Part then turns to an in-depth case study of tax law's efforts to render legible cryptocurrency. This case study demonstrates how different understandings of the function and mechanics of cryptocurrency can impact categorization decisions. It then explores the reasons that achieving this understanding has been difficult for legal decision-makers. It concludes by discussing potential impacts on the tax system of failing to accurately render legible novel economic activities, including the risks of legal arbitrage by powerful interest groups.

A. *Legibility Challenges of Financial Instrument Innovation*

Financial product innovation is one context in which tax law has struggled to incorporate novel economic activities into our existing tax categories. Financial product innovation is a useful example because it demonstrates that the challenges of legibility apply to all novel economic activities — the challenge is not limited to rendering legible emerging technologies.[113] Emerging technologies have merely highlighted an existing problem for the law.

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[113] I am grateful to Professor Diane Ring for exploring this parallel with financial product innovation in her commentary on Charles Kingson's lecture regarding the

Beginning in the 1970s, new financial instruments began to proliferate.[114] The appropriate income tax categorization of these new financial instruments is unclear — they do not fit neatly into our tax categories.[115] The challenge of categorizing and rendering legible these new financial instruments sparked extensive literature.[116] The challenges associated with categorizing these new financial instruments are strikingly similar to the legibility challenges that will be outlined later in this Article with respect to cryptocurrency and other emerging technologies.[117]

One of the many studies of the tax challenges of financial product innovation is a 1991 article by Professor Edward Kleinbard on the

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challenges of categorizing and taxing income from electronic commerce. *See* Diane M. Ring, *Commentary: Exploring the Challenges of Electronic Commerce Taxation Through the Experience of Financial Instruments*, 51 TAX L. REV. 663, 663-66 (1996).

[114] *See* Alvin C. Warren, Jr., *Commentary: Financial Contract Innovation and Income Tax Policy*, 107 HARV. L. REV. 460, 460 (1993) (noting remarkable innovation in capital markets in the 1970s and 1980s and characterizing the features of these new innovations as disaggregation, recombination, and risk re-allocation).

[115] *See* David S. Miller, *Reconciling Policies and Practice in the Taxation of Financial Instruments*, 77 TAXES 236, 237 (1999) ("[O]ur Internal Revenue Code . . . which has enough trouble distinguishing between debt and equity, is entirely incapable of classifying new financial products that transcend traditional boundaries."); Strnad, *supra* note 12, at 570 ("Since any given new financial product is unlikely to fit squarely into a particular cubbyhole, the appropriate tax treatment for such products is often unclear.").

[116] *See, e.g.*, Kleinbard, *supra* note 8 (exploring challenges of financial instrument taxation); Michael S. Knoll, *Financial Innovation, Tax Arbitrage, and Retrospective Taxation: The Problem with Passive Government Lending*, 52 TAX L. REV. 199 (1997) (discussing tax arbitrage opportunities presented by financial instrument innovation and possible responses); Herwig J. Schlunk, *Little Boxes: Can Optimal Commodity Tax Methodology Save the Debt-Equity Distinction?*, 80 TEX. L. REV. 859 (2002) (discussing line drawing decisions in tax law in the context of financial instruments); Reed Shuldiner, *A General Approach to the Taxation of Financial Instruments*, 71 TEX. L. REV. 243 (1992) (introducing possible reforms to address taxation of financial instruments); Strnad, *supra* note 12 (presenting possible approaches to taxing financial instruments); Warren, *supra* note 114 (explaining financial instrument innovation and its impact on taxation); David A. Weisbach, *Tax Responses to Financial Contract Innovation*, 50 TAX L. REV. 491 (1995) (exploring possible tax law reforms in response to financial instrument innovation).

[117] *See infra* Parts II.B–C.

appropriate tax treatment of equity derivatives products.[118] Viewing the challenge through a case study of an equity index swap, Kleinbard identifies a "fundamental dilemma" for the appropriate taxation of this new financial product, which is a dilemma of legibility — "does there exist a tax cubbyhole under current law into which the equity index swap can be assigned?"[119]

Kleinbard's case study demonstrates that the choice of category depends on which features of the new financial product are elevated and which are suppressed in the analysis. The way that the legal decision-maker understands the novel economic activity and its purpose, function, and mechanics inform which features the decision-maker elevates and suppresses when making the novel activity legible. In particular, the appropriate categorization of equity index swaps differs depending on whether the legal decision-maker elevates the economic similarities between equity index swaps and the leveraged purchase of equity securities or instead elevates the mechanical differences between equity index swaps and leveraged equity securities purchases.[120] Kleinbard identifies several technical features of equity index swaps, such as the fact that investors do not acquire voting rights, that he views as legally salient in this analysis.[121] The way in which Kleinbard understands the activity impacts how he categorizes it and thereby renders it legible. Kleinbard's analysis also demonstrates how rendering legible novel economic activities can be complicated when these activities fulfill different roles for different taxpayers, making it difficult to achieve legibility through a single category choice.[122]

Kleinbard identifies risks of legal arbitrage if the tax treatment of new financial products remains uncertain or is done improperly.[123] He also

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[118] *See generally* Kleinbard, *supra* note 8 (exploring equity derivatives products and their impact on the tax system).

[119] *Id.* at 1332.

[120] *Id.* at 1332-33.

[121] *Id.*

[122] *Id.* at 1354 (identifying the premise "that financial products, once correctly placed in a given tax cubbyhole, fill the same financial role for all taxpayers in all circumstances" as being "simply untrue in the contemporary capital markets").

[123] *Id.* at 1349 ("Complex Internal Revenue Code provisions invariably offer opportunities to opt in or out of the resulting analysis, as these provisions — tailored

notes the erosion of the coherence and legitimacy of the overall tax system that can accompany that arbitrage.[124] Writing in the early 1990s, he highlights how slow responses by Congress and regulatory agencies have historically prolonged uncertainty about the appropriate tax treatment of new financial products.[125] The reasons for these slow responses have been partly attributable to problems in understanding these new financial instruments in order to achieve legibility. Based on conversations with Congressional staffers and staff at Treasury and the IRS, Kleinbard found that "a lack of adequate information about the capital markets" as well as a "shortage of resources" were factors in these institutions not providing guidelines for taxpayers.[126] A lack of understanding of the mechanics of these novel financial products and a shortage of resources to obtain that understanding frustrated efforts to render new financial products legible.

As the remainder of this Part demonstrates, the legibility challenges that Kleinbard outlined in the context of financial innovation are currently playing out, most notably in the context of emerging technologies. As a result, similar risks of legal arbitrage and an overall erosion of the legitimacy and effectiveness of the tax system are present.

B.   *Rendering Legible Emerging Technologies: Tax Law in a Digitalized Economy*

There is a broad sentiment across tax policymakers and academics that our tax system is failing in the digital economy.[127] As new

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for highly particularized transactions — lose coherency in new and unintended contexts.").

[124] *Id.*

[125] *Id.* at 1349-50.

[126] *Id.* at 1351. Kleinbard also identified a belief by staffers that an absence of guidelines would have an *in terrorem* effect on taxpayers as a reason for slow legislative and regulatory responses. *Id.*

[127] *See, e.g.*, OECD, OECD/G20 BASE EROSION AND PROFIT SHIFTING PROJECT, ADDRESSING THE TAX CHALLENGES OF THE DIGITAL ECONOMY 132-39 (2015) (outlining the ways in which the digital economy is challenging existing tax law); Michael P. Devereux & John Vella, *Implications of Digitalization for International Corporate Tax Reform*, *in* DIGITAL REVOLUTIONS IN PUBLIC FINANCE 91, 92 (Sanjeev Gupta, Michael Keen, Alpa Shah & Geneviève Verdier eds., 2017) (describing the failure of companies to pay their fair share of taxes in the digital economy); Lilian V. Faulhaber, *Taxing Tech: The Future of*

technologies emerge and bring with them new economic activities and business models, our current tax system is often failing to adequately tax the economic gains stemming from these new technologies and to do so in ways that fulfill the underlying norms and goals of tax policy.[128] There have been many sources of this failure, ranging from the difficulty of assigning monetary value to intangible assets such as data that have emerged in the digital economy[129] to the ability of digital companies to conduct extensive business activities without a physical presence.[130]

One specific challenge is placing digital assets and economic activities into tax law's categories. Charles Kingson was an early identifier of this. He asked during a 1996 lecture: "Can or should we fit the age of signals, software programs, and financial substitutes into the old and familiar tax concepts?"[131] Kingson was particularly concerned about whether and

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Digital Taxation, 39 VA. TAX REV. 145, 184 (2019) (noting that similarities amongst various tax reform proposals "add up to one consistent story about the way that countries around the world see the current international tax system as failing to keep up with advances in the economy"); Wolfgang Schön, *Ten Questions About Why and How to Tax the Digitalized Economy* 1 (Max Planck Inst. for Tax L. & Pub. Fin., Working Paper 2017–11) (noting that "[o]ne of the striking features of the current debate on the international taxation of the digitalized economy is the overwhelming consensus that the international tax regime needs to be reshaped" and analyzing whether this consensus is correct).

[128] *See, e.g.*, Parsons, *supra* note 84, at 310 (explaining how the current international sourcing rules yield results out of line with international tax law's normative goals when applied to value creation in the digital economy).

[129] *See* Omri Marian, *Taxing Data*, 47 BYU L. REV. 511, 519 (2022) (describing the attempt to apply our current income tax system to data by assigning it monetary value as an "insurmountable task"); Adam B, Thimmesch, *Transacting in Data: Tax, Privacy, and the New Economy*, 94 DENV. L. REV. 145, 174 (2016) (identifying valuation of data as the biggest barrier to applying our existing tax rules to personal data transactions).

[130] *See* OECD/G20 BASE EROSION AND PROFIT SHIFTING PROJECT, *supra* note 127, at 125 (identifying the rise of digital technologies and the decreased need for physical presence in a jurisdiction as challenging international tax law's nexus rules); Reuven S. Avi-Yonah, *International Taxation of Electronic Commerce*, 52 TAX L. REV. 507, 515-16 (1997) (explaining how features of the then-emerging e-commerce technology was in conflict with existing international tax laws); Faulhaber, *supra* note 127, at 150 ("Commentators and critics agree that something about these companies' ability to provide goods and services without a physical presence, combined with their use of data, allows them to use fundamentally different business models that were not necessarily envisioned when the existing regulatory and legal environment was designed.").

[131] Kingson, *supra* note 7, at 642.

how income in our increasingly digitalizing economy could be sorted into the tax law categories of royalties, services, sales, and interest.[132] Kingson's concern stems from international tax law's reliance on a system of classification and assignment — which country is assigned taxing authority over cross-border income is determined by which category income is placed in.[133] The digitalization of the global economy has only accelerated since Kingson's lecture, and the concern about proper categorization of income under international tax law has continued to be a concern within the tax law community.[134] The digital economy has brought categorization challenges outside of international tax law and its classification and assignment system as well. For example, does a user's transfer of personal data to a digital company in exchange for free services constitute a taxable barter transaction or a free goods transaction, which would escape taxation?[135]

As explained in Part I.C, categorization is a means of making activities legible to the state. Tax law faces categorization challenges in the digitalized economy, including rendering emerging technologies and their accompanying economic activities legible so that the state can tax these activities and affect other tax policy goals. Cryptocurrency provides a useful case study to understand these challenges. The following Section develops this case study.

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[132] *Id.*

[133] *See supra* notes 73–76 and accompanying text (explaining international tax law's classification and assignment system). As described in more detail in Part II.C below, whether income is considered to be royalties, services, sales or interest has implications beyond the question of which country is allowed to tax the income.

[134] *See, e.g.*, OECD/G20 Base Erosion and Profit Shifting Project, *supra* note 127, at 99 (identifying one of the broad tax policy challenges brought by the digital economy as "[c]haracterization: The development of new digital products or means of delivering services creates uncertainties in relation to the proper characterisation of payments made in the context of new business models, particularly in relation to cloud computing").

[135] *See* Louise Fjord Kjærsgaard & Peter Koerver Schmidt, *Allocation of the Right to Tax Income from Digital Intermediary Platforms — Challenges and Possibilities for Taxation in the Jurisdiction of the User*, 2018 Nordic J. Com. L. 146, 148 (2018) (contending that transactions between data providers and data collectors are taxable barter transactions); Thimmesch, *supra* note 129, at 158-61 (describing the categorization choice between a taxable barter transaction and free goods transaction).

C.   *Taxing Blockchain: A Case Study of Legibility Challenges*

This Section presents the efforts to apply tax law to blockchain as a case study of legibility challenges. It first provides an overview of cryptocurrency and its underlying blockchain technology. It then turns to two interrelated questions of taxation of cryptocurrency. First, do cryptocurrency staking rewards fall into a category under current law that prevents them from being treated as income when a taxpayer receives them? And, if not, should lawmakers create a new category that would give staking rewards that treatment?

This analysis and description show the relationship between how legal decision-makers understand a technology and how categorization questions are answered. It also reveals the political dynamics at play between industry interests and legal decision-makers — including judges, administrative decision-makers, and legislators — as the latter attempt to answer these categorization questions. This case study grounds Part II.D's account of the barriers to rendering legible new economic activities and the impact of failing to do so correctly.

1.   Cryptocurrency and Blockchain: Functions and Mechanics

Cryptocurrency is a virtual currency that uses cryptography to secure transactions and ensure their validity.[136] Most cryptocurrencies are built on blockchain technology.[137] Blockchain technology enables not only

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[136]   PRASAD, *supra* note 4, at 109 (describing cryptocurrencies as digital currencies not backed by a government and "whose building blocks include some cryptographic tools"); Matt Levine, *The Crypto Story*, BLOOMBERG BUSINESSWEEK (Oct. 25, 2022), https://www.bloomberg.com/features/2022-the-crypto-story/#ledgers-bitcoin-blockchains ("Cryptocurrency is called cryptocurrency because it's a currency derived from cryptography.").

For accessible overviews of cryptocurrency and blockchain technology, see Levine, *supra* note 136; Kevin Roose, *The Latecomer's Guide to Crypto*, N.Y. TIMES (Mar. 18, 2022), https://www.nytimes.com/interactive/2022/03/18/technology/cryptocurrency-crypto-guide.html. For a history of cryptocurrency, see generally FINN BRUNTON, DIGITAL CASH: THE UNKNOWN HISTORY OF THE ANARCHISTS, UTOPIANS, AND TECHNOLOGISTS WHO CREATED CRYPTOCURRENCY (2019).

[137]   *See* DUPONT, *supra* note 4, at 83-84.

cryptocurrency but also a variety of other technologies, such as non-fungible tokens ("NFTs") and many Web 3.0 apps.[138]

A blockchain is a database consisting of a series of blocks which are continually being added onto the chain and contain records of transactions.[139] The blocks are linked together into a chain (hence the term "blockchain") through cryptography — each block includes a cryptographic hash and timestamp as well as collected transaction data.[140] There are certain features of blockchain that are particularly important. It is typically permanent, unchangeable, and append-only.[141] It is publicly maintained and decentralized.[142] Blockchain networks consist of a series of nodes — a global network of computers that maintain copies of the entire blockchain, run the blockchain's software protocol, and communicate with other nodes in broadcasting and validating transactions to be added to the blockchain.[143]

Decentralization is a key element of this new technology — there is no centralized authority like a bank that validates transactions.[144] The transactions are peer-to-peer. However, the absence of a centralized authority creates a problem because transactions need to be verified. Otherwise, how do we know that someone is not transferring the same token to multiple people? The innovation of cryptocurrency aimed to prevent this double-spend problem through a consensus mechanism that would allow for a trustless peer-to-peer payment system.[145] Using this innovation, cryptocurrency hit the scene in early 2009 with the

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[138] Roose, *supra* note 136.

[139] Levine, *supra* note 136.

[140] *Id.*

[141] Zibin Zheng, Shaoan Xie, Hongning Dai, Xiangping Chen & Huaimin Wang, *An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends*, 2017 IEEE 6TH INT'L CONG. BIG DATA 557, 557 (2017).

[142] Levine, *supra* note 136. There are private blockchains as well. Roose, *supra* note 136.

[143] Javad Zarrin, Hao Wen Phang, Lakshmi Babu Saheer & Bahram Zarrin, *Blockchain for Decentralization of Internet: Prospects, Trends, and Challenges*, 24 CLUSTER COMPUTING 2841, 2847 (2021).

[144] *Id.* ("Decentralization allows the Blockchain to be non-reliant on a central authority.").

[145] *See* SATOSHI NAKAMOTO, BITCOIN: A PEER-TO-PEER ELECTRONIC CASH SYSTEM 1 (2008), https://bitcoin.org/bitcoin.pdf [https://perma.cc/E53G-MRT8] (describing the double-spend problem and the use of proof-of-work consensus mechanism to solve it).

release of Bitcoin.[146] As of March 2022, there were roughly 10,000 cryptocurrencies in existence.[147]

Although the exact mechanics of each blockchain network's protocol may vary, there are two main types of consensus protocols — proof-of-work ("PoW") and proof-of-stake ("PoS").[148] Proof-of-work involves participants on the blockchain network, referred to as "miners," racing to guess the right answer to a cryptographic puzzle.[149] As a reward for winning this race, the miner is able to add a new block to the chain and earn rewards in the blockchain's native coin in return.[150] Bitcoin uses a proof-of-work consensus mechanism.[151]

In proof-of-stake protocols, participants do not rush to answer a cryptographic puzzle. Instead, participants who stake their coins are given opportunities to add new blocks to the chain and validate transactions, earning reward tokens.[152] Network participants can stake their coins by depositing them into a smart contract — these coins are locked up for a period of time.[153] Participants who have their coins staked will be periodically selected for opportunities to (1) gather transactions and build new blocks on the chain and (2) validate blocks that other participants have built and broadcast to the chain.[154] Once the

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[146]   PRASAD, *supra* note 4, at 109. A precursor cryptocurrency, eCash, was developed in the 1980s and 1990s by David Chaum, but the endeavor never gained widespread traction. *See* BRUNTON, *supra* note 136, at 53-61 (describing Chaum's invention of eCash and the eventual failure of his company).

[147]   Roose, *supra* note 136.

[148]   Shijie Zhang & Jong-Hyouk Lee, *Analysis of the Main Consensus Protocols of Blockchain*, 6 ICT EXPRESS 93, 94 (2020).

[149]   *Id.*

[150]   DUPONT, *supra* note 4, at 102.

[151]   NAKAMOTO, *supra* note 145, at 8.

[152]   Zhang & Lee, *supra* note 148, at 94. For a description of the mechanics of proof-of-stake on the Ethereum blockchain network, see Vitalik Buterin, *Proof of Stake FAQ* (Dec. 31, 2017), https://vitalik.ca/general/2017/12/31/pos_faq.html [https://perma.cc/2A22-ZJTU]. For a description of the mechanics of proof-of-stake on the Tezos protocol, see Brief in Support of Taxpayer Joshua Jarrett's 1040-X Amended Return and Claim for Refund at 7-9, Jarrett v. United States, 79 F.4th 675 (6th Cir. 2023) (No. 3:21-cv-00419 at 11-20). [hereinafter Jarrett Brief].

[153]   Levine, *supra* note 136.

[154]   *Id.*

validators agree to the validity of the transactions in the block, it will be added to the chain.[155]

These opportunities are typically divided amongst participants based on the relative number of coins they have staked and the length of time they have been staked.[156] Participants are rewarded for building and validating blocks by receiving reward tokens in the blockchain's native currency that are newly created as part of the building of additional blocks.[157] The participant might also receive transaction fees from participants whose transactions they incorporate into the new block.[158] Staking cryptocurrency requires maintaining hardware, downloading and running the network's software, and ensuring connectivity to the network.[159] Participants also risk having to pay a penalty — known as slashing — if they validate bad transactions or fail to build a new block or validate a transaction when given an opportunity.[160] This might happen, for example, if the participant has gone offline. Holders of proof-of-stake coins may also have the option to delegate their stake to a third-party validator.[161] The third-party validator will perform the network maintenance activities on behalf of the holder of the coins and will receive a portion of the staking rewards in exchange (five to ten percent).[162]

Cryptocurrency was originally developed to function as an electronic payment system.[163] Despite this intended purpose, cryptocurrency has

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[155]   *Id.*

[156]   *What Is "Proof of Work" or "Proof of Stake"?*, COINBASE, https://www.coinbase.com/learn/crypto-basics/what-is-proof-of-work-or-proof-of-stake (last visited Sept. 19, 2024, 3:14 PM) [https://perma.cc/2KSG-2HWF].

[157]   Simon Chandler, *Proof of Stake vs. Proof of Work: Key Differences Between These Methods of Verifying Cryptocurrency Transactions*, BUS. INSIDER (July 20, 2024, 6:59 AM), https://www.businessinsider.com/personal-finance/proof-of-stake-vs-proof-of-work [https://perma.cc/5BMR-HA4B].

[158]   Levine, *supra* note 136.

[159]   *Id.*

[160]   Chandler, *supra* note 157; Levine, *supra* note 136.

[161]   N.Y. STATE BAR ASS'N TAX SECTION, REP. NO. 1461 — REPORT ON CRYPTOCURRENCY AND OTHER FUNGIBLE DIGITAL ASSETS 44 (2022).

[162]   *Id.*

[163]   *See* NAKAMOTO, *supra* note 145, at 1 (Bitcoin white paper explaining that "[w]hat is needed is an electronic payment system based on cryptographic proof instead of trust" and introducing a mechanism to effect such an electronic payment system.); PRASAD,

largely failed to take off as a payment system due to factors such as slow transaction processing and costliness.[164] While its use as a payment system might increase as the technology develops and improves, currently less than twenty percent of crypto participants have used cryptocurrency as a payment method.[165] Instead, cryptocurrency is largely being used as an investment asset.[166] This use as an investment asset can be seen through the proliferation of cryptocurrency trading platforms in recent years.[167] And major financial institutional have begun developing cryptocurrency investment vehicles for their clients.[168] Other uses of cryptocurrency have emerged as well, including earning income via DeFi lending[169] and use outside of finance in video games and social clubs.[170]

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supra note 4, at 107-09 (describing development of cryptocurrencies as an electronic payment system as a result of the financial crisis and its impact on trust in centralized banking).

[164] *See* PRASAD, *supra* note 4, at 132-34 (explaining reasons that Bitcoin has performed poorly as a medium for exchange).

[165] Jordan McKee, *Consumers View Cryptocurrency as an Asset, Not a Payment Method . . . For Now*, FORBES (May 11, 2022, 6:26 AM), https://www.forbes.com/sites/jordanmckee/2022/05/10/consumers-view-cryptocurrency-as-an-asset-not-a-payment-methodfor-now/?sh=1fb4b2dd4e85 [https://perma.cc/8452-2UBL] (reporting that nineteen percent of crypto participants have used cryptocurrency for payments).

[166] *See id.* (reporting that cryptocurrency traders use cryptocurrency as a general investment, a means of portfolio diversification, and a tool for retirement).

[167] *See The Worldwide Cryptocurrency Exchange Platform Industry is Expected to Reach $264.3 Billion by 2030*, BUS. WIRE (Nov. 29, 2022, 5:19 AM), https://www.businesswire.com/news/home/20221129005578/en/The-Worldwide-Cryptocurrency-Exchange-Platform-Industry-is-Expected-to-Reach-264.3-Billion-by-2030---Growing-Popularity-of-Mobile-Based-Trading-Platforms-is-Driving-Growth---ResearchAndMarkets.com [https://perma.cc/39M8-JSZW] (predicting an annual growth of the cryptocurrency platform industry of approximately twenty-eight percent per year).

[168] *See, e.g.*, Michael Wursthorn, *A Bitcoin ETF Is Here. What Does That Mean for Investors?*, WALL ST. J. (Oct. 19, 2021, 6:59 PM), https://www.wsj.com/articles/a-bitcoin-etf-is-almost-here-what-does-that-mean-for-investors-11634376601 (discussing ProShare's launch of a Bitcoin ETF in 2021).

[169] *See* Olga Kharif, *Crypto's Unregulated DeFi Boom Raises Shadow Banking Comparisons*, BLOOMBERG (Mar. 17, 2022, 9:40 AM), https://www.bloomberg.com/news/articles/2022-03-17/crypto-s-unregulated-defi-boom-raises-shadow-banking-comparisons?embedded-checkout=true (reporting $120 billion worth of crypto assets in DeFi apps).

[170] Roose, *supra* note 136.

Cryptocurrency and blockchain technology have exploded over the past decade. Whether these technologies will truly transform our economy and society, as some speculate, remains to be seen.[171] But this emerging technology is proving difficult to integrate into our existing tax system. The following subsection explores those difficulties in the context of staking income.

2.   Categorizing Staking Rewards

As explained above, proof-of-stake is a consensus mechanism in which opportunities to build and add new blocks to the chain and opportunities to validate blocks built by others are divided amongst participants based on the relative number of tokens they stake.[172] In exchange for building and adding new blocks to the chain and validating blocks added by other participants, participants receive reward tokens. Some participants stake their tokens and participate in these network maintenance activities directly, while others delegate their stake to third parties.

How these reward tokens, this "staking income," should be treated for tax purposes has been the subject of lively debate,[173] including recent litigation[174] and legislative proposals.[175] One question that has been

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[171] *See, e.g., id.* ("[C]rypto is not just another weird internet phenomenon. It's an organized technological movement, armed with powerful tools and hordes of wealthy true believers, whose goal is nothing less than a total economic and political revolution."); RHIAN LEWIS, THE CRYPTOCURRENCY REVOLUTION: FINANCE IN THE AGE OF BITCOIN, BLOCKCHAINS AND TOKENS 2 (2021) (describing cryptocurrencies as having the capacity to transform "everything about the way we live and transact with each other").

[172] *See supra* notes 152–162 and accompanying text.

[173] *See generally* Reuven S. Avi-Yonah & Mohanad Salaimi, *A New Framework for Taxing Cryptocurrencies*, 77 TAX LAW. 1 (2023) (exploring the correct taxation of staking rewards under current law as well as policy considerations supporting different tax treatments); Marian, *Taxation of Block Rewards, supra* note 6 (arguing that staking rewards should be income upon receipt under current law); Abraham Sutherland, *Cryptocurrency Economics and the Taxation of Block Rewards*, 165 TAX NOTES FED. 749 (2019) (advocating for block rewards to not be taxed as income upon receipt on both doctrinal and policy grounds).

[174] *See* Jarrett v. United States, 79 F.4th 675, 679 (6th Cir. 2023).

[175] *See, e.g.*, Lummis-Gillibrand Responsible Financial Innovation Act, S. 4356, 117th Cong. (2022) (proposing laws on a variety of elements of digital asset governance, including taxation).

presented is whether, under current law, staking rewards fall into a category that would result in the taxpayer *not* realizing income at the time they receive those rewards. If they do not, is the nature of cryptocurrency staking as an economic activity such that a new tax category *should* be created to grant them that treatment in the interest of a policy goal of fairness or administrability? This subsection explores these questions and the contours of the present debate about how best to answer them.

a.   Are staking rewards income upon receipt?

Cryptocurrency holders' preferred treatment of staking rewards is for them not to be treated as income when the taxpayer first receives the rewards. Instead, they would like the taxpayer to be treated as having income in the year in which the taxpayer sells those rewards. The reason they desire this treatment is deferral.[176] Deferring taxes on economic gains to a later point in time (such as when the staking reward is sold) benefits the taxpayer because they can take advantage of the time value of money. The time value of money is the basic observation that a dollar today is worth more than a dollar in the future because of the earnings potential of investing today's dollar.[177] Taking advantage of the time value of money is a central goal of tax planning.

In their efforts to secure this deferral status, crypto industry advocates have taken two approaches. First, they have argued that staking rewards should fall into an existing tax category that would grant them tax deferral. Second, if the answer to this first question is "no," they have advocated that a new category should be created for staking rewards to grant them deferral treatment. Both approaches

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[176]   Commentators, including this author, have questioned whether this desired tax treatment is rational given the taxpayer's inability to take advantage of the capital gains rate preference on any appreciation in the value of the taking rewards if they are not included in income at the time of receipt. *See, e.g.*, Marian, *Taxation of Block Rewards*, *supra* note 6 (discussing the tax planning implications of deferral of staking rewards income); Amanda Parsons, *May I Pay More? Lessons from* Jarrett *for Blockchain Tax Policy*, 176 TAX NOTES FED. 2063 (2022) (same). This question is beyond this Article's scope.

[177]   JOSEPH BANKMAN, DANIEL N. SHAVIRO, KIRK J. STARK & EDWARD D. KLEINBARD, FEDERAL INCOME TAXATION 191-92 (18th ed. 2019) (explaining the time value of money and its role in tax planning).

highlight the role of legibility in determining the tax treatment of new economic activities.

In conjunction with the recent case *Jarrett v. United States*, crypto industry advocates have argued that staking rewards should not be considered income upon receipt because reward tokens are property that is newly created by the taxpayer.[178] They argue the reward tokens are like a cake baked by a baker, apples grown by a farmer, or a book written by an author, all of which are not taxable until they are sold.[179] Reward tokens, therefore, should not be taxed as income at the time the taxpayer receives the reward tokens.[180] Advocates argue that this conclusion is based on such a fundamental principle that Congress, Treasury, and the courts have never felt the need to articulate it in any statute, regulation, or judicial opinion.[181]

Tax scholars, practitioners, and, more recently, the IRS have strongly disagreed with this argument.[182] Their reasons for disagreeing with the crypto industry's argument have focused on case law regarding when

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[178] This argument has been put forward in *Jarrett v. United* States with respect to reward tokens earned on the Tezos blockchain network. *See* Complaint at ¶ 6, Jarrett v. United States, No. 3:21-cv-00419. (M.D. Tenn. May 26, 2021) [hereinafter Jarrett Complaint].

The *Jarrett* litigation is being sponsored by a crypto advocacy alliance as well as other anonymous backers. *See* Joshua Rosenberg, *'Staking' Row Puts IRS on Hot Seat for Lack of Guidance*, Law360 (Feb. 16, 2022, 6:51 PM), https://www.law360.com/articles/1465699.

The Sixth Circuit recently ruled that the case is moot because the IRS issued the plaintiffs a refund for the amount at issue. Jarrett v. United States, 79 F.4th at 679.

[179] Jarrett Complaint, *supra* note 178, at ¶ 6.

[180] *Id.*

[181] Jarrett Brief, *supra* note 152, at 3.

[182] *See, e.g.*, Rev. Rul. 2023-14, 2023-33 I.R.B. 484 (holding that proof-of-stake validation rewards were taxpayer income in "the taxable year in which the taxpayer gains dominion and control over the validation rewards"); N.Y. State Bar Ass'n Tax Section, *supra* note 161, at 45-50 (concluding that staking rewards should be treated as taxable income upon receipt and encouraging Treasury to issue guidance clarifying this treatment); Avi-Yonah & Salaimi, *supra* note 173, at 24 ("It seems clear that Staking Rewards, when received, should give rise to income for federal income tax purposes."); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1493 ("Under current law and existing guidance, block rewards are clearly taxable upon receipt. There is no legal ambiguity on this issue. Calls for Treasury to issue 'clarifying guidance' and attempts to force courts to issue advisory opinions on the matter are in fact calls to change [existing] law and guidance.").

property should be includable in a taxpayer's gross income. The primary case that these parties point to is *Glenshaw Glass*, which held that a taxpayer has income upon "undeniable accessions to wealth, clearly realized, and over which the taxpayers have complete dominion."[183] Tax scholars and practitioners have maintained that staking rewards clearly meet this standard and, therefore, fall into the legal category of income.[184]

If a specific exclusion applies, it is possible for a taxpayer to realize income under the *Glenshaw Glass* test but not have to recognize that income until the property is later sold.[185] This is the case for some types of taxpayer-created property, such as crops[186] or manufactured items.[187] Critiques of the crypto industry's argument contend that staking rewards do not fall under any of these specific statutory exclusions and, therefore, should be included in gross income upon receipt.[188]

The issue at the heart of this debate is one of categorization. It is a question of how the tax system should categorize and thus make legible economic gains stemming from proof-of-stake blockchain networks. The crypto industry advocates are arguing that participants on a proof-of-stake blockchain fit the prototype of manufacturers, farmers, or

[183] Comm'r v. Glenshaw Glass Co., 348 U.S. 426, 431 (1955); *see, e.g.*, N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47 (using the *Glenshaw Glass* standard to evaluate whether staking rewards should be taxed as income upon receipt); Avi-Yonah & Salaimi, *supra* note 173, at 24 (same); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1496-97 (same).

[184] *See, e.g.*, N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47 ("Where staking rewards are received, the recipient has an accession to wealth (subject to the discussion below regarding whether the rewards are dilutive), the amount is clearly realized, and the staker has dominion and control over the staking rewards. Thus, in the absence of an exception, staking rewards would appear to be gross income when received."); Avi-Yonah & Salaimi, *supra* note 173, at 34 ("The realization requirement under *Glenshaw Glass* is clearly met for Staking Rewards . . . ."); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1497 ("Staking rewards are clearly taxable upon receipt under the *Glenshaw Glass* standard . . . .").

[185] N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47.

[186] Treas. Reg. § 1.61-4(a) (as amended in 1997).

[187] Treas. Reg. § 1.61-3(a) (as amended in 1992).

[188] N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47; Avi-Yonah & Salaimi, *supra* note 173, at 34 ("The realization requirement under *Glenshaw Glass* is clearly met for Staking Rewards . . . ."); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1497-1500.

creators of intellectual property.[189] They then elevate certain features of blockchain staking activities in their analysis of whether proof-of-stake participants fit into these prototypes. In determining which prototype staking participants should fall into, they focus their analysis on one of the three ways in which blockchain participants earn staking rewards — by building new blocks to be added to the chain. In the process of building these blocks, the participants create new reward tokens that are added to their wallets.[190] Advocates argue that proof-of-stake blockchain participants fall into the prototype of manufacturers, farmers, and creators of intellectual property because staking rewards are property newly created by the taxpayer. But that characterization only holds for staking rewards received by the taxpayer in exchange for building new blocks.[191] It does not apply to the other two ways in which participants earn staking rewards — by validating blocks created by other participants and as transaction fees from other participants.[192] They are aiming to fit staking activities into a particular legal category by elevating one component of this emerging technology while suppressing others.

Critics of the crypto industry's position are likewise making arguments about which legal category staking rewards should fall into. Their arguments are also informed by their understanding of the function and purpose of the emerging technology and elevation of certain elements of the technology as the most legally salient. These discussions focus more on participants' role in validating transactions versus building new blocks to be added to the chain.[193]

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[189] Jarrett Brief, *supra* note 152, at 23 (comparing staking on blockchain networks to farmers growing wheat); Jarrett Complaint, *supra* note 178, at ¶ 6 ("Like a baker who bakes a cake using ingredients and an oven, or a writer who writes a book using Microsoft Word and a computer, Mr. Jarrett created property. Like the baker or the writer, Mr. Jarrett will realize taxable income when he first sells or exchanges the new property he created . . . .").

[190] *See supra* notes 157–158 and accompanying text.

[191] *See* Amanda Parsons, *Cryptocurrency, Legibility, and Taxation*, 72 DUKE L.J. ONLINE 1, 14-15 (2022) (explaining how Jarrett's argument focuses on only one means of earning staking rewards).

[192] *See supra* notes 157–158 and accompanying text.

[193] *See, e.g.*, N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47 (describing proof-of-stake participants activities as "simply . . . validating transactions involving other

Additionally, in response to the claim that proof-of-stake participants are creating new property, some critics have emphasized that reward tokens are not created directly by the actions of the taxpayer. They are created by a software protocol.[194] The lack of control that the participant has over the process of maintaining the network is another factor that has been elevated in these discussions. The fact that participants are bound by a software protocol and, therefore, do not possess the same autonomy that, for example, a creator of intellectual property might have is viewed as another legally salient feature of the emerging technology that should inform whether it fits into the prototype category advocated for by the crypto industry.[195] Other critics have understood the initial staking of tokens as a salient feature of the technology to determine its appropriate legal categorization.[196] They argue that this initial contribution of tokens is what is facilitating their receipt of future tokens, thus pointing towards reward tokens falling into the legal category of earned income taxable at the time of receipt versus newly created property.[197]

The IRS revealed that it disagreed with the crypto industry's conclusions when it issued Revenue Ruling 2023-14. The ruling states

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units of the same cryptocurrency"); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1499 ("Stakers (and miners) are not creators of new tokens. . . . They provide a service of validating transactions of other network participants.").

[194] *See, e.g.*, N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 161, at 47 ("[S]taking rewards are generated by a software protocol and then delivered to the taxpayer in exchange for taking certain actions relating to the software protocol's consensus mechanism . . . while the taxpayer's actions led to its receipt of the staking rewards, the staking rewards were not created by the taxpayer's actions."); Marian, *Taxation of Block Rewards*, *supra* note 6, at 1499 ("The fact that the tokens are newly created is completely irrelevant because the validators are not the ones who created them. Validators did not program the new tokens into existence. They follow a fixed protocol.").

[195] *See, e.g.*, Marian, *Taxation of Block Rewards*, *supra* note 6, at 1499 (contrasting the control that a proprietary baker has over his production activities to the lack of control that proof-of-stake validators possess).

[196] *See, e.g.*, Avi-Yonah & Salaimi, *supra* note 173, at 36-37 (focusing on the initial staking of tokens in their analysis of the tax treatment of staking rewards).

[197] *Id.* at 25-26 ("Technology-wise, stakers *earn* income in the form of tokens after they 'stake' or contribute a particular crypto to the PoS network. Thus, from that perspective, Staking Rewards are earned and are a different concept than creating property." (emphasis added)).

that validation rewards received on a proof-of-stake blockchain were income upon receipt, based on the *Glenshaw Glass* test.[198] While the analysis provided in revenue rulings is minimal, the holding indicates that the IRS was elevating and suppressing the same features of the proof-of-stake technology as the crypto industry's critiques. The IRS decision focuses exclusively on validation rewards and does not mention rewards for building new blocks.[199] This suggests that in its efforts to render legible cryptocurrency staking, the IRS understood validation rewards to be the primary source of staking rewards.

This understanding and exclusive focus on validation rewards has provided the opportunity for crypto advocates to highlight the importance of staking rewards received for building new blocks rather than simply validating blocks. They contend that the revenue ruling does not close the book on the appropriate tax treatment of staking rewards because it does not address building new blocks.[200] Crypto advocates, therefore, continue to argue that staking rewards should be granted deferral under current law. In doing so, they are pushing legal decision-makers to categorize and render cryptocurrency staking legible in a way that secures that desired tax treatment.

b.   *Should staking rewards be income upon receipt?*

As the previous subsection explains, cryptocurrency advocates have zealously argued that judges and administrative decision-makers will have correctly rendered legible staking rewards if they place them in an existing tax category that does not treat them as income until they are sold. But, if agencies and courts reject the position that this is staking rewards' appropriate categorization under current law, they have argued that the nature of staking as an economic activity is such that Congress (or the courts) should amend the law to create a new tax category for staking rewards. And, if Congress and the courts correctly understand and render legible staking rewards, this new category will grant staking

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[198]   Rev. Rul. 2023-14, 2023-33 I.R.B. 484.

[199]   *Id.*

[200]   *See* David L. Forst, Sean P. McElroy & Matthew L. Dimon, *Sound and Fury, Signifying Nothing: Rev. Rul. 2023-14 and Staking*, 180 TAX NOTES FED. 1867, 1870-71 (2023).

rewards deferred treatment because it satisfies tax policy goals of efficiency, equity, and administrability.[201]

The crypto industry's advocacy for a new tax category for staking rewards is a useful example of how proponents of a novel economic activity can shape the ways legal decision-makers understand that novel activity. By shaping that understanding, industry advocates can engage in legal arbitrage. They can influence the legal regime constructed to govern the new economic activity in ways that are most favorable to the industry but might not properly align with collectively agreed upon policy goals.

This Article looks at two instances of this advocacy. First, advocacy surrounding the *Jarrett* litigation. Second, responses to the Senate Finance Committee's July 2023 request for comments on various issues relating to the appropriate taxation of digital assets.[202] Recent political developments suggest that this advocacy and the risks of legal arbitrage will only accelerate. Former President Trump delivered a keynote address at a bitcoin conference in July 2024, expressing full support for cryptocurrency and promising that "from now on the rules will be written by people who love your industry, not hate your industry."[203] As of July 2024, a pro-crypto super PAC had raised over $200 million, and Vice President Kamala Harris was reported to be warming to the industry.[204]

In conjunction with the *Jarrett* litigation, advocates argued that there were also strong policy arguments in favor of not taxing staking rewards

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[201] Efficiency, equity, and administrability are generally understood as the three primary metrics by which a tax policy is judged. Avi-Yonah, *supra* note 107, at 1.

[202] Letter from Senate Comm. on Fin. to Members of the Digit. Asset Cmty. & Other Interested Parties (July 11, 2023), https://www.finance.senate.gov/imo/media/doc/20230711letterrerequestforcommentsigned.pdf [https://perma.cc/27C2-L8ZZ]. As of July 2024, the Senate Finance Committee had not released comment letters or held a hearing on digital asset taxation. The letters analyzed in this Article have been collected from organization websites, legal databases, and news outlets.

[203] Former President Trump, *quoted in* Kimberlee Kruesi, *Trump Calls for US to Be 'Crypto Capital of the Planet' in Appeal to Nashville Bitcoin Conference*, AP NEWS (July 27, 2024, 3:57 PM), https://apnews.com/article/donald-trump-bitcoin-cryptocurrency-stockpile-6f1314f5e99bbf47cc3ee6fc6178588d [https://perma.cc/VQS9-4YXD].

[204] George Hammond, James Fontanella-Khan & James Politi, *Kamala Harris Campaign Seeks 'Reset' with Crypto Companies*, FIN. TIMES (July 27, 2024), https://www.ft.com/content/1a4c5066-9cc0-4849-993b-06a28022ad66.

until the taxpayer sells those rewards tokens. One of those arguments is grounded in equity considerations. Issuing staking rewards has an inflationary effect.[205] When new reward tokens are issued, the value of the staker's existing tokens decreases. Advocates have argued that, because of this dilution in the value of existing tokens, taxing the staker on the value of the staking rewards at the time they are received would overstate the staker's "true economic gain."[206] When the amount taxed deviates from a taxpayer's true economic gain, this could create issues of fairness. So, the argument goes, a taxpayer who earns income through staking will be overtaxed compared to one who earns income through another means.[207] To correct this unfairness, stakers should only be taxed when they sell their reward tokens.

In making this argument, advocates are elevating certain features of the technology that help their argument (the issuance of new reward tokens) while simultaneously suppressing other elements that are unhelpful (the disproportionate nature of most staking rewards). They are also presenting these inflationary effects as a special problem for cryptocurrency that necessitates special tax treatment. But inflation is a feature of all currencies.[208]

Another argument that advocates in the *Jarrett* case made in favor of not taxing staking rewards until they are sold is grounded in administrability. They argued that both the frequency and the low dollar amounts associated with cryptocurrency staking make it difficult, if not impossible, for stakers to track and report their staking income if it is taxed upon receipt.[209] In making this argument, advocates present a technical explanation of one specific proof-of-stake network in which

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[205] Mattia Landoni & Abraham Sutherland, *Dilution and True Economic Gain from Cryptocurrency Block Rewards*, Tax Notes Fed. 1213, 1213 (2020). Abraham Sutherland is counsel for the taxpayer in *Jarrett*.

[206] *Id.*

[207] *Id.* at 1222 ("If block rewards are taxed as realized income, without a way to quantify the effect of dilution, cryptocurrency owners are likely to suffer from overtaxation.").

[208] Letter from Jillian Grennan, Omri Y. Marian, Tyler Menzer & Matthew Foreman, to Senate Comm. on Fin. 11, https://papers.ssrn.com/sol3/papers.cfm?abstract_id= 4576425 [https://perma.cc/VKH6-FAZZ]. This author was a signatory on this letter.

[209] *See* Jarrett Brief, *supra* note 152, at 31-34.

compliance would be particularly difficult.[210] They elevate details of the particularly complex example of the technology while suppressing the fact that the proof-of-stake network at issue in the litigation does not present excessive compliance burdens, as evidenced by the fact that the taxpayer in the case has been able to clearly calculate their staking income. Additionally, similar challenges exist in other high-frequency trading contexts, such as algorithmic trading.[211] Crypto advocates do not highlight these parallels, and it is not clear why special treatment should be granted to cryptocurrency staking. However, it is possible that crypto industry advocates would argue that new categories should be created in tax law for those novel economic activities as well.

The equity and administrability arguments presented in *Jarrett* carry over to letters submitted by industry advocates in response to the Senate Finance Committee's call for comments on the taxation of digital assets. For example, the DeFi Education Fund repeated the equity issues raised in *Jarrett*. The organization explained that taxing stakers on reward tokens upon receipt would "not reflect a validator's true economic gain" because "[v]alidator rewards are often inflationary in nature."[212] Coin Center explains that taxing rewards upon receipt will "overtax[] the citizen."[213] Other commenters highlight administrability challenges in their advocacy for taxing staking rewards at the time of sale. Coin Center argued that taxing staking rewards upon receipt "generates extreme accounting difficulties,"[214] and the Chamber for Digital Commerce argued instead that taxing staking rewards at the time of sale would "make compliance easier for individuals and

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[210] *Id.*

[211] *See* Julie Yvin, *Algorithmic Trading — How to Maintain Compliance When Outsourcing?*, KPMG UK Blog (Dec. 19, 2022), https://kpmg.com/uk/en/blogs/home/posts/2022/11/algorithmic-trading.html [https://perma.cc/274D-8DAU] (discussing tax compliance for algorithmic traders in the EU context).

[212] Letter from DeFi Educ. Fund to Senate Comm. on Fin. 3, (Sept. 8, 2023), https://www.defieducationfund.org/_files/ugd/84ba66_94bb62e0bac1428585c944bc068 84bd2.pdf [https://perma.cc/H5GE-E4VT].

[213] Landon Zinda, *Coin Center Suggestions to Address Uncertain Tax Treatment of Digital Assets*, Coin Ctr. (Aug. 21, 2023), https://www.coincenter.org/coin-center-suggestions-to-address-uncertain-tax-treatment-of-digital-assets/ [https://perma.cc/56RY-JY22].

[214] *Id.*

businesses."[215] The Securities and Financial Markets Association ("SIMFA") made a more general statement on administrability concerns. They stated that Congress needs to consult industry experts to create "tax rules that take into account the realities of the digital asset marketplace, and that will be administrable and enforceable as a practical matter."[216]

In addition, efficiency arguments appear throughout the comment letters. Specifically, industry advocates warn that unwise tax policies could negatively impact the development of blockchain technology and dampen its economic impact. Coin Center likens policy choices for cryptocurrency to those made with respect to the internet. It argues that "[t]he American economic success story of the internet . . . happened because a deliberate effort was made to ensure that the underlying internet technology itself, another free and open network technology like cryptocurrencies, was regulated with a light touch."[217] It advocates for similar treatment of the crypto industry. This elevates the similarities between the internet and cryptocurrency (that they are both free and open network technology) while suppressing their differences (such as risks that cryptocurrency poses for the financial system[218]). Blockchain Association concludes that the IRS's view that staking rewards should be income upon receipt under current law is incorrect.[219]

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[215] Letter from Chamber of Digit. Com. to Senate Comm. on Fin. 12, (Sept. 8, 2023), https://digitalchamber.wpenginepowered.com/wp-content/uploads/2023/09/Chamber-of-Digital-Commerce-SFC-Digital-Asset-Response.pdf [https://perma.cc/29S6-UVU2] [hereinafter Chamber of Digital Commerce].

[216] Letter from Josh Wilsusen, Exec. Vice President, Advoc., Sec. & Fin. Mkts. Ass'n, to the Senate Comm. on Fin. 2, (Sept. 8, 2023), https://www.sifma.org/wp-content/uploads/2023/09/Tax-Treatment-of-Digital-Assets.pdf [https://perma.cc/J7L9-MTXF].

[217] Zinda, *supra* note 213.

[218] *See* Lev Breydo, *Crypto Contagion: FTX, a Sector's Crisis, and the Future of Digital Assets*, The CLS Blue Sky Blog (Mar. 28, 2023), https://clsbluesky.law.columbia.edu/2023/03/28/crypto-contagion-ftx-a-sectors-crisis-and-the-future-of-digital-assets/ [https://perma.cc/W6NT-Z2NE] (discussing these systemic risks).

[219] Letter from Marisa T. Coppel, Senior Couns., & Sarah A. Milby, Senior Pol'y Dir., Blockchain Ass'n to the Senate Comm. on Fin. 8 (Sept. 8, 2023), https://theblockchainassociation.org/wp-content/uploads/2023/09/Blockchain-Association-Letter-to-Senate-Finance-Committee-RFI-09-08-2023-.pdf [https://perma.cc/48HV-EVYM].

It argues that the lack of clarity around this point is disincentivizing participation in staking activities, which is "the opposite of what the industry needs" because "the more staking activity, the more secure the blockchain networks."[220] Crypto Council for Innovation advocates for clarity on taxing digital assets that will foster "consumer use-cases" and "ongoing industry development."[221]

The efficiency arguments appearing in the comment letters link to a broader theme in advocacy surrounding the taxation of cryptocurrency more generally: the technology is extremely complex, and the government is going to mess things up if it does not rely on industry guidance. The idea that cryptocurrency is "complex," "unique," and "novel" is emphasized across these letters. Commenters identify "the complexities and unique challenges that the evolving digital asset landscape presents,"[222] describe their "complex[] and novel features,"[223] and highlight the "unique nature"[224] and "novelty of cryptocurrencies as assets."[225] Others describe the varied nature of digital assets as coming in multiple flavors.[226]

The need for industry representatives to educate lawmakers about the new, complex technologies is also present in comment letters. The Blockchain Association criticizes the IRS for relying in Revenue Ruling 2023-14 "on an overly simplistic description of staking that fails to recognize the many forms that staking can take."[227] The association

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[220] *Id.* at 9.

[221] Letter from Sheila Warren & Ji Hun Kim, Crypto Council for Innovation, to the Senate Comm. on Fin. 1 (Sept. 8, 2023), https://media.cryptoforinnovation.org/2023/09/CCI-Letter-to-Senate-Finance-Committee.pdf?_gl=1*170aag6*_ga*MTgwMzYzNTc2MS4xNzIxODQ4NTM1*_ga_F9NE23R22E*MTcyMTg1MTE4MS4yLjEuMTcyMTg1MTQzNC4zNy4wLjA [https://perma.cc/C93Y-UGWC].

[222] Chamber of Digital Commerce, *supra* note 215, at 1.

[223] Letter from Josh Wilsusen, *supra* note 216, at 1.

[224] Warren & Kim, *supra* note 221, at 1.

[225] Zinda, *supra* note 213.

[226] Letter from Lawrence Zlatkin, Vice President, Tax, Coinbase Glob., Incl., to the Senate Comm. on Fin. 2 (Sept. 7, 2023), https://www.taxnotes.com/fatca-expert/digital-economy/coinbase-makes-recommendations-digital-asset-taxation/2023/09/26/7hd7q/ [https://perma.cc/MMU4-BZRT] (noting "[d]igital assets come in multiple 'favors' [sic]").

[227] Coppel & Milby, *supra* note 219, at 9.

recommends that Congress should only draft legislation "after studying and hearing from knowledgeable and interested participants in the industry."[228]

As discussed in more detail below, by being the ones to educate lawmakers about this novel, complex technology, industry advocates can direct how legal decision-makers render it legible. As the educators, they position themselves to highlight the elements of that technology that will lead to the most favorable regulatory treatment while suppressing other elements that might point to less favorable regulation.

Questions regarding the proper tax treatment of staking rewards show how different understandings of proof-of-stake technology and its salient features point to different legal conclusions. The state of the current debate also shows the difficulties of rendering these proof-of-stake technologies legible — difficulties that apply to other new economic activities as well. The barriers to correctly rendering legible novel economic activities open the possibility of legal arbitrage, which this Section has demonstrated is already playing out. The next Section explores those barriers in more detail, as well as the possibility of legal arbitrage and impact of "getting it wrong."

D.   *Legibility Challenges and the Impact of Getting It Wrong*

This Section catalogs the barriers to correctly rendering legible emerging technologies that the previous Section's case study of cryptocurrency highlights. While the case study of cryptocurrency grounds this discussion, the barriers highlighted apply to many novel economic activities. This Section then explores the threats to the legal system when legal decision-makers fail to transcend those barriers and categorize novel economic activities in a way that aligns with the law's underlying rationales and goals.

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[228]   *Id.*; *see also* Letter from DeFi Educ. Fund, *supra* note 212, at 1 (explaining their mission "to educate lawmakers about the technical workings and benefits of decentralized finance").

1.   Barriers to Achieving Legibility

Legal decision-makers face multiple barriers when attempting to render legible a novel economic activity — lack of familiarity, complexity, heterogeneous uses of a new technology, and rapid pace of development, for example. Most of these are barriers that crypto advocates have rightly stressed in their comment letters.[229]

The unfamiliar nature of new economic activities can frustrate efforts to render those activities legible so as to govern them. Lack of familiarity has stymied efforts to craft a legal and regulatory response to cryptocurrency. For example, Senator Cynthia Lummis, along with Senator Kirsten Gillibrand, introduced a bipartisan bill in June 2022 addressing a variety of legal and regulatory issues relating to cryptocurrency.[230] Shortly after introducing the bill, Senator Lummis cautioned that she did not expect the bill to go through the Senate quickly because of the lack of familiarity that Senators had with cryptocurrency. As she explained in an interview: "It's a big topic, it's comprehensive, and it's still new to many U.S. Senators and so it's a lot for them to digest."[231] The senators introduced a revised version of the bill in July 2023, and several hearings on the matter have been held.[232] But as of July 2024, the bill has still not been brought forward for a vote.

Lack of familiarity is made even worse by industry interests using highly technical language to unnecessarily complicate the novel activity and give the impression that it is something only experts can understand. Scholars have documented this technique in the context of algorithms and the ways in which this obfuscation frustrates efforts to

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[229] *See supra* notes 212–216 & 219–221 and accompanying text.

[230] Lummis-Gillibrand Responsible Financial Innovation Act, S. 4356, 117th Cong. (2021-2022).

[231] Senator Cynthia Lummis, *quoted in* Brian Quarmby, *Lummis-Gillibrand Crypto Bill Likely Deferred to Next Year*, COINTELEGRAPH (July 20, 2022), https://cointelegraph.com/news/lummis-gillibrand-crypto-bill-likely-deferred-to-next-year.

[232] Lummis-Gillibrand Responsible Financial Innovation Act, S. 2281, 118th Cong. (2023–2024); Jesse Hamilton, *A Second Round of the Lummis-Gillibrand Crypto Bill Elevates CFTC, Defines DeFi*, COINDESK (July 12, 2023, 4:00 AM), https://www.coindesk.com/policy/2023/07/12/a-second-round-of-the-lummis-gillibrand-crypto-bill-elevates-cftc-defines-defi/ [https://perma.cc/F47B-7UCH].

understand and regulate emerging technologies.[233] However, this same process of obfuscation through technical jargon is possible in the context of any unfamiliar economic activity.

While industry interests can purposefully paint novel activities as more complex than they are, complexity of a novel activity can be a legitimate barrier to achieving legibility. This complexity may be derived from the economic activity itself. For example, a single innovation might produce income in multiple ways. These different means of income production might point to inclusion in different legal categories.

This has proven to be a barrier to achieving legibility in the context of taxing cryptocurrency. When taxpayers are participating in a blockchain network, they are often not engaging in what can be considered a single economic activity. For example, in the context of staking, when a participant earns staking income, they are earning that income through three different means: building new blocks on the blockchain, validating blocks built by others, and transaction fees.[234] The analysis of which prototype category staking income should fall into is different for each of these three means of earning staking rewards. Yet, on the surface, the participant appears to be engaging in a single economic activity. The varied nature staking makes it difficult for the state to distill the legally salient elements of cryptocurrency staking to choose a single prototype category. We saw this difficulty play out in Revenue Ruling 2023-14. While the ruling purported to answer the question of whether staking income was income upon receipt, the ruling only addressed validation tokens (i.e., tokens received for validating blocks).[235] This allowed those representing the crypto industry to argue that there is still an open question with respect to income from building blocks.[236] The complexity

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[233] *See, e.g.*, Frank Pasquale, The Black Box Society: The Secret Algorithms that Control Money and Information (2015) (describing industry efforts to use complexity to obfuscate the function and impact of algorithms); Jenna Burrell, *How the Machine 'Thinks': Understanding Opacity in Machine Learning Algorithms*, 3 Big Data & Soc'y 1 (2016) (identifying opacity as an intentional corporate strategy in the context of machine learning algorithms).

[234] *See supra* notes 152–162 and accompanying text.

[235] Rev. Rul. 2023-14, 2023-33 I.R.B. 484.

[236] Forst et al., *supra* note 200, at 1870-71. Revenue rulings also hold no precedential value. *See Understanding IRS Guidance: A Brief Primer*, IRS (Apr. 16, 2024),

of the technology weakened the IRS's ability to render this technology legible.

Similar issues emerge in the context of other novel economic activities, including innovative financial products. Many of the financial products developed in the 1970s had "hybrid" features, making the discrete categorization of their derived income difficult.[237]

Complexity can also result from the features of the underlying innovation that facilitates a novel economic activity rather than the activity itself. This is particularly difficult when those features differ from product to product. These differences complicate the process of achieving legibility because the differences might be legally salient. This requires the state to have a deeper knowledge of the innovation in order to recognize and interpret those differences. If the items differ in legally salient ways, the state must make more categorization decisions. Each variation of the innovation may need to be rendered legible, not just the novel activity more generally.

This barrier to achieving legibility has been seen sharply in the cryptocurrency context. The mechanics of blockchain networks are not homogeneous. Even amongst blockchain networks using the same category of consensus protocols, like proof-of-stake, the exact mechanics of each blockchain network will often differ.[238] As a result, the state may not only need to understand blockchain technology at a high-level, but also the more granular details of the functions of each network to determine if those differences are legally relevant. If these differences are legally relevant, the state might need to categorize economic gains stemming from different blockchain networks in different ways.

Furthermore, complexity may result when people and companies deploy the innovation in different ways. Again, this has been seen in the context of cryptocurrency. The ways in which people use cryptocurrency and blockchain technology are not homogenous. As previously discussed, some people use cryptocurrency as a payment

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https://www.irs.gov/newsroom/understanding-irs-guidance-a-brief-primer   [https://perma.cc/Q6UL-P4TU].

[237] *See* Strnad, *supra* note 12, at 571-72 (discussing the possibility of bifurcating these types of financial instruments in order to tax the income stemming from them).

[238] *See supra* note 148 and accompanying text.

system — but those people are in the minority.[239] The more common use of cryptocurrency is as an investment asset.[240] But cryptocurrency serves other uses as well, including some outside of finance such as crypto social clubs.[241] Some owners of cryptocurrency on proof-of-stake blockchain networks stake their tokens while others do not.[242] The same person might use their cryptocurrency for multiple purposes, or the way in which they use cryptocurrency might vary over time. We could see the use of cryptocurrency change over time.

Heterogeneity is a feature that can frustrate rendering legible many novel economic activities. Going back to the example of whether roller skates are vehicles in a park, whether a person uses the roller skates for recreation versus as a means of commuting to work could impact whether the roller skates fall into the category of vehicle. In financial products context, Kleinbard identified varied uses of innovative financial products by different taxpayers as a challenge in developing an effective legal regime to tax these novel financial instruments.[243]

Finally, the rapid pace of development and emergence of novel economic activities is another barrier to effectively rendering these novel activities legible. This can clearly be seen in Treasury's efforts to provide guidance on tax categorization of blockchain technology. Treasury is struggling to keep up with changes to blockchain technology. The guidance issued by Treasury has been limited and has also quickly become out-of-date.[244] For example, Treasury issued guidance in 2014

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[239] *See supra* notes 163–165 and accompanying text.

[240] *See supra* notes 166–168 and accompanying text.

[241] *See* Roose, *supra* note 136.

[242] *See* Tanaya Macheel, *What Investors Need to Know About 'Staking,' the Passive Income Opportunity at the Center of Crypto's Latest Regulation Scare*, CNBC (Feb. 11, 2023, 12:19 PM EST), https://www.cnbc.com/2023/02/11/what-investors-need-to-know-about-crypto-staking.html [https://perma.cc/9R9G-3J4Z] (reporting a staking participation rate amongst retail investors of 13.7%).

[243] Kleinbard, *supra* note 8, at 1354.

[244] The key pieces of guidance issued by Treasury on the tax treatment of cryptocurrency include: I.R.S. Notice 2014-21, 2014-16 I.R.B. 939 (addressing whether mining income should be considered income upon receipt); Rev. Rul. 2019- 24, 2019-44 I.R.B. 1004 (addressing whether hard forks and air drops result in income); I.R.S. Notice 2023-27, 2023-15 I.R.B. 634 (addressing the treatment of NFTs as collectibles); Rev. Rul. 2023-14, 2023-33 I.R.B. 484.

on the tax treatment of mining rewards, which participants on proof-of-work networks like Bitcoin receive.[245] Proof-of-work blockchain networks, most notably Bitcoin, are still important in the crypto space. But, within two years of the 2014 ruling, proof-of-stake blockchain began to outpace proof-of-work.[246] It was not until 2023 that the IRS issued its first ruling on income from proof-of-stake blockchain networks.[247] IRS guidance is not keeping pace with the technological changes that are happening within blockchain, leading to uncertainty and, as discussed below, opportunities for legal arbitrage.[248]

Similar delays have been seen in other contexts. For example, it was not until 1998 that Treasury finalized regulations on the appropriate classification of software transactions under the source of income rules.[249] The very next year, Salesforce, a company at the forefront of the emerging software as a service ("SaaS") model, was founded, and with it came the proliferation of cloud computing.[250] It took Treasury another two decades to propose regulations for the appropriate classification of cloud computing transactions under the source of income rules, and these regulations have still not been finalized.[251] As soon as the state rendered legible one new technology, another emerged.

In their efforts to appropriately categorize and thereby render legible novel economic activities, legal decision-makers face substantial barriers. The next subsection explores the impact on the legal system if legal decision-makers fail to effectively overcome those barriers.

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[245] *See* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

[246] Felix Irresberger, Kose John, Peter C. Mueller & Fahad Saleh, *The Public Blockchain Ecosystem: An Empirical Analysis* 7, tbl. 1 (NYU Stern Sch. of Bus., Working Paper, 2021), http://dx.doi.org/10.2139/ssrn.3592849 [https://perma.cc/XN9J-2Q9K] (showing increasing numbers of blockchain networks being introduced using either proof-of-stake or hybrid protocols).

[247] Rev. Rul. 2023-14, 2023-33 I.R.B. 484.

[248] *See infra* Part II.D (discussing the potential for legal arbitrage around the tax treatment of staking income).

[249] T.D. 8785, 1998-2 C.B. 494 (Sept. 30, 1998) (preamble to final § 861 software classification regulations).

[250] *Our Story*, Salesforce, Inc., https://www.salesforce.com/company/our-story/ (last visited Sept. 16, 2024) [https://perma.cc/7EP6-24EM].

[251] Prop. Treas. Reg. § 1.861-19, 84 Fed. Reg. 40317, 40319-20 (Aug. 14, 2019).

2.   The Impact of Getting It Wrong — Illegitimacy and Incoherence

Failure to meet the challenges of legibility discussed above can have a detrimental impact on legal systems. One facet of this detrimental impact relates to the risk of legal arbitrage that legibility challenges open.

As discussed above, the risk of legal arbitrage is already being revealed in the case of cryptocurrency taxation. Crypto advocates rightly identified many of the barriers to achieving legibility that legal decision-makers face, including the novelty and complexity of the technology.[252] To help legal decision-makers overcome these barriers, advocates have expressed a willingness and desire to "educate" them about blockchain technology and its function and mechanics. For example, the Proof of Stake Alliance, the industry alliance sponsoring the *Jarrett* litigation, states that part of their mission is "[e]ducating legislators, regulators, and the public on issues that impact proof-of-stake technologies."[253] The DeFi Education Fund, one of the organizations that submitted a comment letter to the Senate Finance Committee, views part of their mission to be "educat[ing] lawmakers about the technical workings and benefits of decentralized finance," and it concludes in its comment letter that staking rewards should, under current law, be properly categorized as receiving favorable tax treatment.[254]

When industry advocates educate legal decision-makers about a novel economic activity, they are instructing them on how to render that novel activity legible. In doing this, they have the capacity to engage in legal arbitrage — securing the most favorable legal treatment but not the legal treatment that best accomplishes a law's goals and its underlying norms. Industry advocates can elevate to legal decision-makers the features of a new activity that is most likely to achieve a favorable legal outcome, even if those are not the most legally salient features. They could also suppress features that weigh against the desired legal

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[252]   *See supra* notes 212–216 & 219–221 and accompanying text.

[253]   *Our Mission*, Proof of Stake All., https://www.proofofstakealliance.org/ (last visited Sept. 16, 2024) [https://perma.cc/NYG8-SK9M].

[254]   Letter from DeFi Educ. Fund, *supra* note 212 (concluding that staking rewards should not be included in taxpayer income until they are sold).

outcome or even completely misrepresent the nature of the novel economic activity.

This legal arbitrage could occur at the legislative level, with industry groups lobbying Congress for favorable categorization of the novel economic activities. It could occur at the agency level, with industry interests flooding agencies in the notice and comment process with portrayals of the economic activity that are most likely to achieve their desired categorization. Or, with respect to agency decision-making, present the economic activity in the manner that is likely to achieve the most favorable outcomes. Finally, this legal arbitrage could occur at the judicial level, with interest groups bringing forward litigation to force categorization decisions and then highlighting to the court the features of economic activity most favorable to them while suppressing those least favorable to them. The cryptocurrency case study showed how opportunities for legal arbitrage have already opened up for that novel economic activity at the legislative and judicial levels.

Legal arbitrage is problematic because it impacts the legitimacy of the legal system at issue. If the public views legal outcomes as stemming from manipulation of legal decision-makers rather than from unbiased decisions made with the aim of achieving common policy goals, that system will be perceived as unfair or rigged. It will lose its legitimacy. Maintaining legitimacy is essential for legal regimes because when a legal system loses legitimacy, compliance with legal rules fades.[255] This is particularly problematic in the context of the tax system, where the system's administration relies heavily on social norms and voluntary compliance.[256]

Even in the absence of legal arbitrage, mis-categorizing novel economic activities is a major concern for a legal system. Avoiding mis-categorization is not simply a matter of consistency in categorization choices across legal decision-makers. Consistency is an essential goal of any legal system. The ability of legal decision-makers to make consistent categorization choices provides a person with certainty in the legal outcomes associated with given actions. But one can be consistently

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[255] *See* Hickman & Hill, *supra* note 12, at 1157 ("If people do not think a regime is legitimate, evidence suggests they are far less likely to comply.").

[256] Eric A. Posner, *Law and Social Norms: The Case of Tax Compliance*, 86 VA. L. REV. 1781, 1781-85 (2000).

wrong. Legal decision-makers could correctly and consistently identify various instances of a novel economic activity and then place those activities into the same inappropriate category each time.

The reason why a legal decision-maker can be "wrong" when rendering legible novel economic activities is that the legal consequences associated with each category are a product of conscious policy choices undergirded by social norms. As discussed in Part I.B.2 above, in the context of tax law, legal systems categorize for a reason. In tax law, categorization is a tool to ensure that a person's tax burden reflects their ability to pay. It is the basis of numerous anti-abuse provisions in the tax code. Categorization serves as a means to effect a myriad of other policy goals, each of which has a normative basis. We, as a society, have agreed that different categories of economic activities should be taxed in different ways.

International tax law's classification and assignment system is a particularly clear example of how legal decision-makers can improperly categorize novel economic activities and violate agreed-upon norms.[257] To determine which country is allowed to tax an item of cross-border income, international tax divides income into different categories. Which country is allowed to tax each category of income is determined based on which country is considered to have the strongest "economic allegiance" to that item.[258] Through this principle of economic allegiance, international tax law achieves fairness when dividing taxing authority amongst countries.[259] If a legal decision-maker takes income from a novel economic activity and places it into a category that grants taxing authority to a country without a strong economic allegiance to the item of income, they have violated this norm and failed to achieve the tax goal of fairness and equity. They were wrong in their attempt to render the novel economic activity legible via this categorization.

The challenges of rendering legible novel economic activities present serious risks for the tax system, as well as legal systems more broadly. If legal decision-makers fail to appropriately render legible novel economic activities and, as a result, place these activities in categories

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[257] For a more detailed discussion of the classification and assignment system and its normative basis, see *supra* Part I.B.2.

[258] Parsons, *supra* note 84, at 324.

[259] *Id.*

that are incorrect, this will produce legal outcomes that are incongruent with the law's underlying norms and policy goals. This leads to incoherence within the legal system. If a legal system is incoherent, it also becomes ineffective — it is no longer achieving the normative goals it is meant to reach. A legal system being incoherent and ineffective is alone detrimental. But, even worse, legal decision-makers can cause the legal system to lose legitimacy.

Because of the challenges of legibility and the substantial risks that failing to render novel economic activities legible brings to the tax system, it is essential to design legal systems and institutions in a way that facilitates achieving legibility. The following Part explores potential legal and institutional reforms.

III.   PATHS FORWARD: LEGAL REFORMS

Part I introduced the concept of legibility into the broader scholarly conversation about how to construct and apply legal categories. It demonstrated how legal categories serve an essential role in simplifying complex and unfamiliar economic activities into a format that can easily be understood and governed by the state. Part II demonstrated the challenges and risks of achieving legibility. Focusing on tax law, this Part explores possible legal reforms that flow from this new framework of legibility, informed by this Article's exploration of legibility's role in governance and the accompanying challenges and risks it presents. It ultimately recommends an approach of reducing the number of categories within tax law, which would reduce the volume of categorization choices that legal decision-makers need to make and streamline the process of achieving legibility.

One possible legal approach to regulating novel economic activities is to simply do nothing and let the law sort itself out — eventually, legal decision-makers will be able to render novel economic activities legible. This is a strategy that Kleinbard cited as being favored by Congressional and Treasury staffers with respect to new financial products.[260] They held the belief that "[t]hrough an incremental accretion of rulings and case law, the system . . . will slowly but inexorably reduce each new financial innovation to a recognizable variant (or combination of

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[260]   Kleinbard, *supra* note 8, at 1353.

variants) on one or more familiar tax cubbyhole themes."[261] Kleinbard is critical of this approach because it does not take into account the pace of innovation.[262] This approach can also lead to a disjointed and haphazard taxing regime for the new economic activity. If a taxing regime is crafted through a series of administrative rulings and judicial decisions, each decision makes an isolated choice based on specific tax scenarios rather than considering how those choices come together to create a broader tax picture. This piecemeal approach can lead to an incoherent taxing regime, and that incoherence may affect the regime's legitimacy.[263] Relatedly, this approach also ignores the risks of legal arbitrage, which could become more acute if there is a vacuum of guidance.[264]

Another possible approach is to simply create new categories for novel activities whenever they arise rather than trying to determine whether they fit into existing prototype categories.[265] This is the solution that some have proposed for cryptocurrency taxation. For example, in its comment letter to the Senate Finance Committee, Coinbase, a cryptocurrency exchange, recommended creating a new tax category for digital assets and included sample legislative language to create that category.[266] Digital services taxes are an example of the creation of a new prototype category for certain new economic activities.[267]

One downside to the new category creation approach is that it requires state institutions to draft new legislation and regulations very quickly to respond to rapid economic development. Another is that the process of creating new categories still requires legal decision-makers

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[261] *Id.*

[262] *Id.*

[263] For discussion of the impact of incremental decision-making on the coherence and legitimacy of regulatory regimes, see generally Hickman & Hill, *supra* note 12.

[264] *See supra* Part II.D.2.

[265] This is similar to "local pattern taxation" that was proposed by scholars during discussions of the appropriate taxation of new financial products. Local pattern taxation would "appl[y] a single generic [tax] treatment to all *new* financial products." Strnad, *supra* note 12, at 571.

[266] Letter from Lawrence Zlatkin, *supra* note 226.

[267] *See* Faulhaber, *supra* note 127, at 164-65 (describing digital services taxes in France as well as other countries).

to understand the mechanics and purpose of the new economic activity and render them legible. They still need to understand the new economic activity to craft the prototype category in the first place. An understanding of the new economic activity is also required to make important normative and policy choices about its tax treatment.[268] Finally, creating new categories for every novel economic activity would add complexity to the tax system by expanding on the already sprawling universe of category choices that legal decision-makers must make when determining if, when, where, and how income should be taxed.

In contrast to creating new categories for novel economic activities, tax law could decrease its reliance on categorization for both novel and existing economic activities — essentially "flattening" tax law's categories. This approach would be analogous to the "lumping" versus "splitting" approach to legal category construction that Lee Anne Fennell advocates for more broadly.[269] Instead of having many distinct categories within tax law that point to different tax treatments, the range of possible categories and tax treatments would be limited.

Rethinking the rules for sourcing cross-border income illustrates how this flattening approach could play out. The international tax system, which is created by a combination of bilateral treaties and domestic laws on taxing cross-border income, allocates taxing authority over cross-border income to either the source or residence country to avoid double taxation.[270] It accomplishes this by dividing cross-border income into different categories and assigning taxing authority over each category.[271] These categories are often quite granular. For example, the OECD Model Tax Convention currently enumerates fifteen different categories of income and prescribes a locus of taxation for each of them.[272] Sections 861 and 862 of the Internal Revenue Code, which

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[268] *See* Parsons, *supra* note 191, at 18-19 (discussing some of the normative and policy choices associated with decisions about the appropriate taxation of cryptocurrency and blockchain).

[269] Fennell, *supra* note 16, at 1 ("Although continuizing and other forms of splitting offer intuitive answers to inaccurate classification and gaming along category lines, lumping is sometimes a better solution.").

[270] Amanda Parsons, *Tax's Digital Labor Dilemma*, 71 DUKE L.J. 1781, 1791 (2022).

[271] *See supra* notes 73–76 and accompanying text (describing this classification and assignment system).

[272] ORG. ECON. CO-OPERATION & DEV., *supra* note 75, at art. 6–21.

include the basic rules for whether income should be considered U.S. source or foreign source, have nine categories.[273] Instead of fifteen categories or nine categories, this statutory scheme could be flattened down to two categories: active income and passive income. The active and passive income divide would achieve similar legal results because the existing regime typically assigns taxing authority over active income to the source country and taxing authority over passive income to the residence country.[274]

If the legal decision-maker is only presented with two category choices rather than nine or fifteen, the process of rendering the economic activity legible via categorization becomes a more manageable proposition for a legal decision-maker. Comparing the process of categorizing staking income using the existing, more granular categories versus using the flattened active versus passive categorization illustrates how the process of achieving legibility becomes more manageable.

Under existing law, there are three categories that staking income would be most likely to fall into: services income, interest, and royalties.[275] A prototype of services income is income stemming from labor. For example, if a painter is compensated for painting the exterior of someone's home, that compensation is services income. To view staking income as matching the prototype of services income, the network maintenance activities performed by blockchain participants, specifically the building of new blocks and validation of transactions, would need to be understood as active services and as the most critical element of blockchain staking. The act of staking one's tokens would need to be viewed as merely a first step to gain opportunities to perform services for the network and earn compensation for those services. The legal decision-maker would need to understand and view as legally salient the need to maintain the computer, install the software, and ensure that connectivity is always preserved. Placing a greater emphasis

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[273] I.R.C. §§ 861–862. Sections 863 to 865 introduce even more income categories.

[274] Avi-Yonah, *supra* note 83, at 322.

[275] The goal of this discussion is not to determine which prototype-centered category staking income should most appropriately be placed in. Instead, the goal of this discussion is to show how the challenges of rendering legible proof-of-stake technology shift depending on how legal categories are constructed.

on the active role of the participant themselves in operating blockchain technology makes it more likely that a decision-maker would categorize staking rewards as services income.

In contrast, to fall into either the interest or royalties category, staking would need to be viewed as a primarily passive activity. If the decision-maker views the initial act of contributing and locking up tokens as the most legally salient component of participating on the blockchain network (versus maintenance activities), they are more likely to conclude that staking income should fall into the interest or royalties category. They might focus on the ability of and frequency with which blockchain participants can delegate their stake to third parties as evidence of this passive nature. For those participants who do not delegate their stake to a third party, they might also focus on the fact that validation activities are executed by a software program while downplaying the need to maintain connectivity to be able to participate in the network.[276]

The conclusion that staking is a passive activity does not end the inquiry of whether staking income should fall into the interest or royalty category. The granularity of the existing regime means that, for both interest and royalty income, the passive nature of the economic activity is only one factor of the categorization choice. Therefore, legal decision-makers must understand other elements of staking income to render it legible under the tax regime's existing categories.

A prototype of interest income is the income that a taxpayer receives after purchasing a CD from a bank. The taxpayer is giving up access to their money for a set period and, at the end of that period, receives back the amount of money they initially contributed plus additional money. Royalties income is income that a taxpayer receives in exchange for granting another party use of or the right to use intangible property. A prototype of royalties income is a person who licenses a patented technique to a manufacturer. The manufacturer uses that technique to manufacture products and then pays the licensor a fixed percentage of sales revenues. Both prototypes share characteristics with staking income — giving up some rights to a thing that you own for a set period

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[276] For example, the perceived passive nature of staking tokens contributed to Reuven Avi-Yonah and Mohamed Salaimi's conclusion that staking rewards were most analogous to interest income. Avi-Yonah & Salaimi, *supra* note 173, at 26-27.

and receiving those rights back at the end of the period plus additional income. A key difference is that, in the case of interest, the thing that is being lent is money, while in the case of royalties, the thing that is being lent is use of intangible property.

Because of this key difference, whether a decision-maker considers staking income to be interest or royalties income turns primarily on how they understand tokens as an asset and what they view their function to be. If the decision-makers understand tokens to be a form of currency, they are more likely to categorize staking income as interest income. If they understand tokens to be a form of intangible property, they are more likely to view staking income as royalties income. The inquiry of what type of asset tokens represent is a particularly challenging one because of the heterogeneous nature of peoples' use of the technology. Sometimes, people use tokens to buy things; sometimes, they use them as investment vehicles; sometimes, they use them in video games.[277] This presents a major challenge for legal decision-makers attempting to render staking income legible under our existing system.

If the only income categories were active or passive income, then the second element of the analysis goes away. There is no need for legal decision-makers to understand the nature of tokens as an asset to determine their appropriate tax category. Flattening tax categories does not fully eliminate the need for legal decision-makers to render novel economic activities legible. They would still need to understand the activities, distill some of their legally salient features, and determine whether those features more closely match one prototype category or another. But the process becomes simpler with fewer category choices and fewer legally salient elements to consider.

Simplifying categorization choices alleviates the burden on legal decision-makers in rendering legible emerging technologies. With fewer legally salient features to consider, there is less to learn about the technology. A less burdensome process also reduces the risk of legal arbitrage. The need to rely on industry to "educate" decision-makers decreases.

In addition, flattening tax law's categories is helpful in alleviating the challenges of rendering legible novel economic activities because fewer

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[277]   *See supra* notes 165–170 and accompanying text.

categories should also result in fewer borderline cases. Imagine that a legal decision-maker is attempting to categorize income from 100 different economic activities into one of two categories — active or passive. Of these 100, there are 10 borderline cases. The other 90 are clearly active or passive. If the only relevant question is the active or passive nature of the economic activity, because there are only two categories, then the total number of borderline cases will be 10. However, more granular categories will require additional analyses of other characteristics of the economic activity. This was seen above in the example of categorizing staking income as interest or royalties, where legal decision-makers had to consider the second element of the nature of tokens as an asset. When the legal decision-maker attempts to address this second element, 9 of the 90 previously straightforward cases are now borderline. Of the 100 economic activities, 81 can easily be categorized, but 19 cannot. Each time a new characteristic must be analyzed, the number of borderline cases is likely to increase.

Borderline cases are problematic because they present an opportunity for taxpayers to push the envelope of tax compliance to varying degrees.[278] They also present the greatest risk of mis-categorization, whether because legal arbitrage or otherwise, which can contribute to incoherence and illegitimacy of the tax system. Flattening categories should reduce the frequency of these borderline cases.

Flattening tax law's categories is a promising approach for legal reform. Tax law would still be able to simplify complex economic activities into a governable format through categorization, but the process of categorization would be less intensive and less prone to arbitrage and error. However, there are some trade-offs associated with this approach. Specifically, this approach to legal reform requires policymakers to answer important questions about the role categorization can and should play in achieving the tax system's normative goals.

As discussed in Part I.B.2, there are distinct justifications for tax law's intense reliance on categorization as well as policy goals that the tax code aims to effect through categorization. Policymakers must consider

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[278] *See* Hickman & Hill, *supra* note 12, at 1165-74 (discussing the "push and pull" of compliance within complex regulatory regimes).

whether there are mechanisms other than tax categorization that can achieve the normative goals it furthers. Internationally, is there a way to fairly and efficiently divide taxing authority amongst countries that does not require granular tax categories?[279] Domestically, can the three primary goals of taxation — raising revenues, redistributing income and wealth, and regulating private behavior — be accomplished without such an intense reliance on categorization?[280] Alternatively, could we look to areas outside of tax law to accomplish those goals? For example, redistribution of wealth can occur on the spending as well as taxing side.[281] Regulating private behavior can be accomplished by regulatory regimes rather than tax penalties and incentives. Legal reforms that flatten tax law's categories are promising solutions to the challenges of achieving legibility, but in pursuing these reforms, policymakers must ensure that the policy purposes of categorization (beyond categorization as a tool to achieve legibility) are still met.

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[279] For example, Reuven Avi-Yonah argues that the recent OECD Pillar One and Pillar Two reform proposals remain consistent with the normative principles espoused in the 1923 Four Economists' report, an influential document in the original development of the classification and assignment system. Reuven S. Avi-Yonah, *The 1923 Report and the International Tax Revolution* 3-11, (Working Paper, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4365398 [https://perma.cc/2JHN-GHJ2]. The Pillar One and Pillar Two reforms depart from the strict classification and assignment system but do still require some income categorization. *See generally* OECD/G20 Base Erosion & Profit Shifting Project, Tax Challenges Arising from Digitalisation — Report on Pillar One Blueprint: Inclusive Framework on BEPS (2020), https://www.oecd-ilibrary.org/sites/beba0634-en/index.html?itemId=/content/publication/beba0634-en (describing the Pillar One Blueprint which includes categories such as income from "automated digital services"); OECD/G20 Base Erosion & Profit Shifting Project, Tax Challenges Arising from Digitalisation — Report on Pillar Two Blueprint: Inclusive Framework on BEPS (2020), https://www.oecd-ilibrary.org/sites/abb4c3d1-en/index.html?itemId=/content/publication/abb4c3d1-en (describing the Pillar Two Blueprint which includes categories such as "undertaxed payments").

[280] *See supra* note 107 and accompanying text.

[281] *See generally* Zachary Liscow, *Redistribution for Realists*, 107 Iowa L. Rev. 495 (2022) (arguing that redistribution should occur across policy areas outside of tax through a "thousand points of equity" approach).

CONCLUSION

The struggle to appropriately categorize and tax the novel is a fundamental challenge to our tax system that has been exacerbated in recent years by the digitalization of the global economy. This Article has shown that at the center of this challenge is legibility. In trying to determine the correct tax category for novel economic activities, the state must understand and simplify those activities into a format that is easily governable by the state. By introducing the theoretical framework of legibility and developing a descriptive account of its associated challenges, this Article aims to begin a discussion of how we can better position the state to effectively govern our ever-developing economy and society.