SUSTAINABLE MONEY

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ABSTRACT

Despite its laudable goals, sustainable development has been criticized for its discursive aspects. These include that the vagueness of the term combined with the lack of embodiment in law allow numerous private governance standards to support almost any company or project as "sustainable"; that the positive of bringing numerous stakeholders with divergent interests together becomes a negative because it is difficult to set and enact specific priorities; and that generalized agreement with the goals of sustainable development can mask the causes of problems and the potential for novel solutions. These criticisms suggest that commentators should explore discrete areas of law that have not yet been considered in the context of sustainable development. For example, no one has considered the role of money (and laws about money) despite the considerable attention paid to issues of finance and investing. This Article is therefore the first to survey money laws like gold and silver bans, relaxed usury laws and extensive government incentives for lenders to charge interest, fractional-reserve banking, legal tender, and functional currency. Collectively, these laws render money into inflationary governmental credit so that modern money itself is unsustainable and therefore contributes to harming the economy, environment, and society. The Article closes with recommendations for additional study.

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INTRODUCTION

Although sustainable development is regarded as a laudable goal, critics have nevertheless attacked its discursive aspects.[1] In various formulations of sustainability's "three pillars" (such as the three E's, three P's, or triple bottom line), numerous stakeholders with distinct—often divergent—interests are tantalized at the prospect of mutually beneficial solutions achievable by considering the economic, environmental, and social aspects of every company or project.[2] Enamored by this shared desire for

1. *See, e.g.*, Jaye Ellis, *Sustainable Development and Fragmentation in International Society*, *in* GLOBAL JUSTICE & SUSTAINABLE DEVELOPMENT 57 (Duncan French ed., 2010) (recognizing, in analysis of the "discourses, debates and rhetoric about sustainable development," that the concept "is virtually impossible to oppose outright, but it is far from possessing a taken-for-granted quality"); Scott Fulton, David Clark & Maria Amparo Albán, *Environmental Sustainability: Finding a Working Definition*, 47 ENV'T L. REP. 10,488, 10,488 (2017) (claiming that, "despite its expanding presence in environmental policy discourse [since 1987], sustainability still suffers from ambiguity that must be overcome if governmental and private-sector decisionmakers are to optimize the concept's potential"); Becky L. Jacobs & Brad Finney, *Defining Sustainable Business—Beyond Greenwashing*, 37 VA. ENV'T L.J. 89, 90–91 (2019) (calling the lack of "a precise, authoritative definition" for sustainability a "threat . . . to a generally positive and important trend").

2. *E.g.*, PETER JACQUES, SUSTAINABILITY: THE BASICS 116 (2015) (relating the triple bottom line to the three P's of "people, profits, and plant" and the three E's of "ecology, economy, and equity" and calling it "a way of operating multi-criteria accounting" to balance the trade-offs of economic growth, environmental values, and social justice); Allison Peck, *Sustainable Development and the Reconciliation of Opposites*, 57 ST. LOUIS

positive outcomes, stakeholders might overlook the lack of enforceable standards or the concept's overly broad scope and thus fail to see the downsides of supposed win-win-win solutions.[3] Professor Albert C. Lin therefore writes that the "environmental myth" of sustainable development needs to be displaced with "more compelling and powerful narratives" by building on existing ideas like creation myths.[4] Professor Jorge E. Viñuales agrees that a new model or narrative is needed that "lift[s] the veil drawn by sustainable development" and thereby "confronts (instead of obscures) the sometimes hard choices that must be made."[5]

In extending these metaphors further, consider the word "apocalypse." While this term conjures large-scale, end-of-times catastrophe (which is how at least a few legal commentators view problems like climate change),[6] its Greek origin is a lifting of the veil, or in New Testament use, an awakening or revelation.[7]

Turning to a biblical example for a different narrative,[8] the Gospel of Saint Matthew recounts how Temple authorities demanded the annual tax from Jesus and Peter, neither

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U. L.J. 151, 158 (2012) (writing that the ambiguity of the term sustainable development creates a "'big tent,' spacious enough to accommodate three usually disparate factions").

3. *E.g.*, Michael Burger, *The Story with Sustainability*, 43 ENV'T L. REP. 10,356, 10,356 (2013) ("Sustainability promises that humanity—operating on scales from global civilization to local enclaves—can achieve simultaneous economic development, environmental protection, and social equity, a kind of holistic harmony that requires hard labor but no sacrifice."); William H. Rodgers, Jr., *The Myth of the Win-Win: Misdiagnosis in the Business of Reassembling Nature*, 42 ARIZ. L. REV. 297, 297 (2000) (attacking "the conviction that gains from economic development could be enjoyed without sacrifice of the natural world" as "a convenient, powerful, and serviceable myth [that] . . . happens to be faulty at its foundations").

4. Albert C. Lin, *Myths of Environmental Law*, 2015 UTAH L. REV. 45, 90 (2015). Some commentators have already located the seeds of sustainable development in the practices and texts of ancient cultures and indigenous peoples. *See, e.g.*, Nancy Ehrenreich & Beth Lyon, *The Global Politics of Food: A Critical Overview*, 43 U. MIAMI INTER-AM. L. REV. 1 (2011) (discussing the agricultural practices of the Inca that centered around the cultivation of quinoa); Paulette L. Stenzel, *The Pursuit of Equilibrium as the Eagle Meets the Condor: Supporting Sustainable Development Through Fair Trade*, 49 AM. BUS. L.J. 557, 590 (2012) (explaining how the intergenerational equity dimension of sustainability "is a long-standing one among indigenous people of the Western Hemisphere," including the Great Law of the Iroquois).

5. Jorge E. Viñuales, *The Rise and Fall of Sustainable Development*, 22 REV. EUR. CMTY. & INT'L ENV'T L. 3, 6–7 (2013).

6. *See, e.g.*, Burger, *supra* note 3, at 10,356 (contrasting the "pastoral utopia" of sustainability with the "environmental apocalypse" of climate change, which focuses on "crisis and catastrophe"); Robin Kundis Craig & Melinda Harm Benson, *Replacing Sustainability*, 46 AKRON L. REV. 841, 843–44 (2013) (arguing that climate change has already become such a major problem that sustainable development is an insufficient concept to guide responses).

7. David L. Barr, *The Apocalypse of John*, *in* BLACKWELL COMPANION TO THE NEW TESTAMENT 632, 643 (David E. Aune ed. 2012) ("Literally, the word means to remove the veil."); George Wolfe, *Apocalypse Does Not Mean War*, OLIVE BRANCH 1, 1 (2012) (explaining that "the linguistic derivation of the term apocalypse does not denote calamity or human-inflicted mass destruction; rather, 'apocalypse' comes from the Greek word *apokalyptein* which means, 'to uncover,' as if one were removing a veil"); *id.* (claiming that the biblical usage is more akin to an awakening or paradigm shift); *see, e.g.*, *Isaiah* 25:7 ("And the Lord will destroy on this mountain the covering that is cast over all peoples, the veil that is spread over all nations."); 2 *Corinthians* 3:14–15 (describing the "veil" that lies over the minds of those who are bound by the Law of Moses).

8. At least one legal commentator has found the rough outlines of sustainable development in the Bible. *See* Edward Z. Fox, *The Role of Law and Lawyers in a Sustainable Society*, 43 ARIZ. ST. L.J. 713, 714 (2011) (summarizing how the Book of Leviticus contained commands for the Israelites to leave the ground fallow every seventh year and to leave the edges of the field unharvested for the needy and strangers).

of whom had money since Peter had abandoned his work to follow Jesus.[9] Jesus told Peter to go fish and to look inside the mouth of the first fish he caught; when Peter did, there was a silver coin of sufficient value to pay both of their taxes and to cover the exchange into Temple money.[10] One knowledgeable about the three pillars of sustainable development readily sees the economic in performing work to earn money, the environmental in the taking of fish from the sea, and the social in that Peter was a poor laborer.[11] Lift the veil of the sustainable development approach, however, and one can better appreciate the miracle of the coin: a poor man's take of fish from the sea was combined with the silver money he needed.[12] This miraculous, unreplicated, and unnatural pairing of notional money and real sustenance[13] sustainably bridged the gap between the human economy and nature's "Great Economy."[14] Stated differently, Peter went fishing and simultaneously caught a coin minted from silver, so that something crafted by man and mined from the earth was gained by Peter's toil and modest resource extraction—and then exchanged as the exact amount needed to fulfill the Temple debt.[15] This lesson can be found in modern narratives as well, such as those of poet-farmer Wendell Berry,[16] so it can be rephrased in contemporary terms: sustainable money—money that is not a pure abstraction and is instead linked by sustained, fixed exchange rates to specific natural resources[17]—is essential for sustainable development.

9. *Matthew* 17:24–27.

10. *Id.*

11. *See, e.g.*, John C. Dernbach, *Creating the Law of Environmentally Sustainable Economic Development*, 28 PACE ENV'T L. REV. 614, 622 (2011) (writing about the melding of economic development, environmental protection and restoration, and social development or human rights within sustainable development).

12. *See, e.g.*, Andries G. van Aarde, *A Silver Coin in the Mouth of a Fish (Matthew 17: 24-27)—A Miracle of Nature, Ecology, Economy and the Politics of Holiness*, 27 NEOTESTAMENTICA 1, 21–22 (1993) (discussing the miracle of the coin in the fish's mouth as showing, inter alia, the "exploitation" that accompanies money changing, "the evil of the socio-political ostracism of the peripheral groups of people," and the importance of the ecological relationship between man and his environment).

13. In modern times, money has become purely an accounting abstraction, almost entirely unlinked to nature, unlike silver which is mined and has historically been almost universally recognized as money. *See infra* Part II.B.

14. *See* WENDELL BERRY, WHAT MATTERS?: ECONOMICS FOR A RENEWED COMMONWEALTH 117–19 (2010) (describing the nonnegotiable importance of protecting the "Great Economy," "Tao," or "Kingdom of God"—the natural and supernatural world that we inhabit that is "both known and unknown, visible and invisible, comprehensible and mysterious").

15. Christopher P. Guzelian, *Silver: A Morally Good Money*, 15 PROCESOS DE MERCADO: REVISTA EUROPEA DE ECONOMIA POLITICA (MKT. PROCESSES: EUROPEAN REV. POL. ECON.) 213, 232–33 (2018) [hereinafter Guzelian, *Silver*].

16. Wendell Berry, *Inverting the Economic Order*, 36 COMMUNIO: INT'L CATHOLIC REV. 475 (2009), http://www.communio-icr.com/files/BerryInvertingTheEconomicOrder.pdf [http://perma.cc/HDR2-MEHL]. *See generally* BERRY, *supra* note 14, *passim* (generally discussing twin harms of poverty and environmental harm caused by the financial system).

17. *Cf. Leviticus* 27:16 ("If a person consecrates to the Lord any inherited landholding, its assessment shall be in accordance with its seed requirements: fifty shekels of silver to a homer of barley seed."); *Matthew* 17:24–27 (stating that Jesus equated one fish with one Greek silver "stater" coin). But in inflationary times or times when natural resources have been exhausted and money as a notional abstraction has become untethered from those resources that remain, the ability to exchange money for food at a reasonable rate of exchange will break down. *See Revelation* 6:6 ("And I heard a voice from among the four living beings say, 'A quart of wheat for a denarius or three quarts of barley for a denarius. And don't waste the olive oil and wine.'").

This straightforward proposition raises fundamental questions about the effect of money (and its laws) on sustainable development. After all, scholars have addressed issues related to money, including sustainable finance and foreign investment,[18] tax laws and displaced workers,[19] the lending practices of the International Money Fund and World Bank in exacerbating environmental destruction and poverty among farmers of the Global South,[20] and the benefits of monetary assistance to farmers to increase food sovereignty.[21] Left unconsidered, however, is a fundamental question of what is meant by "money." Under current law, money is not like Peter's silver coin of standard weight but is instead untethered from the tangible, existing in forms ranging from paper to code, and backed by national laws rendering it little more than inflationary credit to benefit the government but little else.[22] Expanding upon both the historical miracle of the coin in the fish's mouth and the more contemporary criticisms by Berry, this Article overcomes the discursive hindrances of the myth of sustainable development and argues that money law is a root cause of economic harm, environmental destruction, and worsening poverty.

Section I addresses the criticisms of sustainable development. Critics tend not to reject the basic concept that lawmakers, policymakers, and businesses should consider multiple perspectives in gauging impacts.[23] Instead, critics highlight discursive problems: how the ambiguity of the concept coupled with a lack of hard law empower private actors to make almost any company or project appear sustainable, how this umbrella concept draws in so many concerns that setting and implementing priorities is impossible, and how a shared identification with the three pillars (or their variants) creates blinders to causal problems and potential solutions.[24]

18. *See, e.g.*, Virginia Harper Ho, *Sustainable Finance & China's Green Credit Reforms: A Test Case for Bank Monitoring of Environmental Risk*, 51 CORNELL INT'L L.J. 609, 610–11 (2018) (calling sustainable finance "the integration of environmental, social, and governance ('ESG') considerations into global financial systems . . . to promote financial stability, asset pricing, risk assessment, and more efficient allocation of capital toward investments that promote sustainable and resource-efficient development"); Stephen Kim Park, *Investors as Regulators: Green Bonds and the Governance Challenges of the Sustainable Finance Revolution*, 54 STAN. J. INT'L L. 1, 8 (2018) (calling the most important issues in sustainable or "green" financing "the purchase, holding, and trading of equity securities (i.e., shares in publicly traded corporations) and debt securities (e.g., bonds) issued by firms").

19. *See, e.g.*, Kathryn Kisska-Schulze & Karie Davis-Nozemack, *Humans vs. Robots: Rethinking Tax Policy for a More Sustainable Future*, 79 MD. L. REV. 1009, 1012 (2020) (exploring how "seemingly disconnected tax policies collectively imperil the U.S. social safety net system" and arguing that "sustainability provides an approach for balancing economic and social goals and addressing intergenerational equity").

20. *See, e.g.*, Ehrenreich & Lyon, *supra* note 4, *passim*.

21. *See, e.g.*, Alison Hope Alkon, *Resisting Environmental Injustice Through Sustainable Agriculture: Examples from Latin America and Their Implications for U.S. Food Politics*, *in* ENVIRONMENTAL INEQUALITIES BEYOND BORDERS: LOCAL PERSPECTIVES ON GLOBAL INJUSTICES 185, 185–92 (JoAnn Carmin & Julian Agyeman eds. 2011) (arguing for direct monetary aid from the government to small farmers).

22. *See generally* Christopher P. Guzelian, *The Dollar's Deadly Laws that Cause Poverty and Destroy the Environment*, 98 NEB. L. REV. 56 (2019) [hereinafter Guzelian, *Dollar's Deadly Laws*].

23. *See* Duncan French, *Sustainable Development*, *in* RESEARCH HANDBOOK ON INTERNATIONAL ENVIRONMENTAL LAW 130, 130–31 (Malgosia Fittzmaurice, David M. Ong & Panos Merkourris eds., 2010) (recognizing a difference between the style and substance of sustainable development because the concept remains a popular political and policy paradigm despite significant divergence in the views on how to achieve results).

24. *See infra* Parts I.A–C.

Section II then addresses several laws—both those of the United States and of Northern-tier nations like the United Kingdom—that regulate the use of money. These laws combine to cause, perpetuate, and accelerate many of the ills addressed by sustainable development scholars.[25] Such laws include gold and silver bans, relaxed usury laws and extensive government incentives for lenders to charge interest, national currencies' legal tender and functional currency privileges, and legalization of fractional-reserve banking; collectively, these laws render money into inflationary government credit that degrades economy, society, and environment alike.[26] In limning the effect of money and money laws on sustainable development, this Article necessarily addresses these issues with some familiar terms but avoids falling into the same linguistic traps bemoaned above because of two key differences: the singular focus on money laws that heretofore have not been addressed, and the consideration of new narratives that "lift the veil" on the myth of sustainable development. This focus and these narratives reveal how modern money itself is unsustainable and thus adversely affects the three pillars.

The recognition that current laws make money unsustainable sets the stage for additional research, including how legal reforms that make money sustainable are the lynchpin to economic, environmental, and social sustainability. The Article therefore concludes with recommendations for additional study.

I. A CONCEPT UPON WHICH EVERYONE AND NO ONE AGREE: THE DISCURSIVE SHORTCOMINGS OF SUSTAINABLE DEVELOPMENT

The term "sustainable development" entered the mainstream with the 1987 publication of *Our Common Future*, which is commonly called the Brundtland Report.[27] The Brundtland Report defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[28] The report further identified the interrelationship of economic development, environmental harms, and social problems like poverty.[29] The Brundtland Report helped bring representatives of divergent interests together; after all, it is hard to dislike an approach to law, policy, and business that balances multiple perspectives in attempting to attain beneficial results for all.[30] In measuring results, however, one finds little progress despite a generation having passed since publication of the Brundtland

25. *See infra* Section II.

26. *See infra* Section II.

27. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 43 (1987) [hereinafter BRUNDTLAND REPORT], http://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf [http://perma.cc/E8WJ-WHN3]; *see* Gerlinde Berger-Walliser & Paul Shrivastava, *Beyond Compliance: Sustainable Development, Business, and Proactive Law*, 46 GEO. J. INT'L L. 417, 423–24 (2014) (calling the Brundtland Report "a watershed event because it set the stage for the establishment of the current sustainable development paradigm").

28. BRUNDTLAND REPORT, *supra* note 27, at 43.

29. Berger-Walliser & Shrivastava, *supra* note 27, at 425 ("The Brundtland Report synthesizes sustainability in terms of the 'Three E's': environment, economy, and equity.").

30. Viñuales, *supra* note 5, at 4 (claiming that the concept of sustainable development could "bring all States and other stakeholders to the negotiating table" and "was very successful in managing the political collision between 'development' and 'environment' throughout the 1980s and the 1990s").

Report; by many measures, the environment is now worse off, and sustainable development has failed to emerge as a coherent body of law.[31]

A line of critics attribute this lack of legal development and the attendant practical consequences to problems of rhetoric and framing.[32] As this Section summarizes, these critiques fall into three general categories: the ambiguity of the term coupled with the lack of hard law can render almost any company or product "sustainable" when measured by private governance metrics; a capacious scope allows so many, often competing, perspectives that setting priorities (and thus implementation) is impossible; and vague agreement with variants of the three pillars masks problems (and the shortcomings of proposals to address them) and creates blinders to better solutions. These criticisms suggest that the solution is neither to keep plodding on, nor is it to jettison the ideals of sustainable development. Instead, breaking the stasis requires recourse to new narratives that deal with a discrete body of law that has not been considered previously.

A. *How, Precisely, Is Development "Sustainable"? Without Hard Law, Stakeholders Can Stretch Private Standards To Cover Almost Anything*

Black's Law Dictionary defines "tort" as a "civil wrong, other than breach of contract, for which a remedy may be obtained, usu[ally] in the form of damages; a breach of a duty that the law imposes on persons who stand in a particular relation to one another."[33] This definition is no more specific than the Brundtland Report definition of "sustainable development" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[34] Of course, sustainable development is also ironic, or even oxymoronic, as the combination of two irreconcilable concepts—the first focused on preservation, the second on change.[35]

Viewed tropologically, however, sustainable development functions by making us pause and consider the substance conveyed in this mash-up of opposites.[36] The modifier

31. Nancy D. Perkins, *The Dialects and Dimensions of Sustainability*, 21 J. ENV'T & SUSTAINABILITY L. 331, 338 (2015) (characterizing as "troubling" the "failure of global sustainability initiatives to impose binding obligations on nations, a situation that has resulted in the deterioration of the world's environmental health"); *id.* at 344 ("Working with sustainability is challenging because its substance is unlike that of most areas of law practice; statutes devoted to sustainability are few, and there is no uniform law of sustainability.").

32. *E.g.*, Douglas A. Kysar, *Sustainable Development and Private Global Governance*, 83 TEX. L. REV. 2109, 2117 (2005) (criticizing sustainable development as too vague to guide concrete policy choices); Michael McCloskey, *The Emperor Has No Clothes: The Conundrum of Sustainable Development*, 9 DUKE ENV'T L. & POL'Y F. 153, 155, 157 (1999) (critiquing the Brundtland Report's definition of "sustainable development" as operationally deficient); Susan L. Smith, *Ecologically Sustainable Development: Integrating Economics, Ecology, and Law*, 31 WILLAMETTE L. REV. 261, 281 (1995) ("Discussions of sustainable development have been plagued with confusing and imprecise notions of the meaning of sustainable development."); *id.* at 282 ("Absent a more rigorous concept of sustainable development, however, formulating natural resources laws that provide better guidance than the current generation of 'public interest' statutes would be difficult.").

33. *Tort*, BLACK'S LAW DICTIONARY (11th ed. 2019).

34. BRUNDTLAND REPORT, *supra* note 27, at 43.

35. Barbara Stark, *Sustainable Development and Postmodern International Law: Greener Globalization?*, 27 WM. & MARY ENV'T L. & POL'Y REV. 137, 151–52 (2002) (adopting a postmodern perspective of sustainable development as the merger of two metanarratives—environmentalism and economic development—that creates "an intentional oxymoron, a paradox" where "one term endlessly undoes the other").

36. *See, e.g.*, Jeff Todd, *Satire in Defamation Law: Toward a Critical Understanding*, 35 REV. LITIG. 45, 57 (2016) ("As tropes, both irony and hyperbole depend upon rhetorical identification for their

"sustainable" forces a consideration of multiple perspectives and thus acts as a check on unfettered economic development while simultaneously allowing some development to occur.[37] Accordingly, irony has had a positive effect by altering the perspectives of seemingly opposed stakeholders so that they now agree on a common goal of development that balances the triple bottom line without sacrificing the needs of future generations.[38] Having assented to this goal, the stage is set for acquiescence to companies, investments, and projects that fulfill it.[39]

The question therefore is not how sustainable development is defined but how it is measured and enforced; phrased differently, what specific standards exist to meet the general aims of sustainable development? Here is where the difference between tort and sustainable development becomes important. The vague definition of tort comes into focus via specific laws: one finds clarity by applying the elements and defenses of a common law tort like trespass or negligence to a factual scenario.[40] By contrast, sustainable development suffers from a legal void that has been filled by a patchwork of industry standards, codes of corporate social responsibility, and voluntary environmental, social, and governance (ESG) disclosures that seem to allow almost anything to be labeled "sustainable."[41]

This patchwork exists in part because sustainable development has not been implemented into law, at least not in a comprehensive and systematic way.[42] Advocates do point out that sustainable development has had a key influence on international law with references in environmental (and sometimes trade and investment) treaties, opinions published by dispute resolution bodies, and in national and subnational laws.[43] After all,

effectiveness: the audience recognizes the outsized distortion, questions whether the author intends it as true, and then attempts to resolve the ambiguity by finding alternative meanings.").

37. Dernbach, *supra* note 11, at 617–22 (arguing that, because "sustainable" is an adjective that modifies "development," development must occur to improve the quality of life and standard of living of people in poor countries, but it must occur in a way that protects and restores the environment).

38. *See* KENNETH BURKE, A GRAMMAR OF MOTIVES 512 (Cal. ed. 1969) (1945) [hereinafter BURKE, GRAMMAR] (calling irony a "perspective of perspectives" that allows competing perspectives to operate simultaneously); KENNETH BURKE, PERMANENCE AND CHANGE: AN ANATOMY OF PURPOSE 90 (3d ed. 1984) (1935) [hereinafter BURKE, PERMANENCE] (discussing the concept of "perspective by incongruity," where transferring terms associated with one setting to another setting can "exemplify[] relationships between objects which our customary rational vocabulary has ignored").

39. French, *supra* note 23, at 51 (writing that the "guarantee" of environmental protection and social and economic development makes it "little wonder that politicians, policy-makers and many academics alike have been so attracted to such an apparently simple juxtaposition").

40. *E.g.*, Mark A. Geistfeld, *Conceptualizing the Intentional Torts*, 10 J. TORT L. 1, 2 (2017) (writing that different tort "categories are defined by basic differences among the elements"); *id.* at 26 (writing that intentional torts are "applied to each particular interaction").

41. *See* Federico Fornasari, *Knowledge and Power in Measuring the Sustainable Corporation: Stock Exchanges as Regulators of ESG Factors Disclosure*, 19 WASH. U. GLOB. STUD. L. REV. 167, 174–77 (2020).

42. *See* French, *supra* note 23, at 132 (writing that nations have responded positively to the "rhetoric" of reports and declarations about sustainable development but that "implementation remains an acute problem"); Perkins, *supra* note 31, at 344 ("Working with sustainability is challenging because its substance is unlike that of most areas of law practice; statutes devoted to sustainability are few, and there is no uniform law of sustainability.").

43. *E.g.*, Sumudu Atapattu, *From "Our Common Future" to Sustainable Development Goals: Evolution of Sustainable Development Under International Law*, 36 WIS. INT'L L.J. 215, 235 (2019) (calling it "clear that

treaties like the Marrakesh Agreement Establishing the World Trade Organization[44] and the North American Agreement on Environmental Cooperation[45] mention sustainable development and adherence to its principles.[46] Plus, many domestic laws incorporate sustainable development, even if they do not specifically use that term (like the National Environmental Policy Act).[47] Missing, however, is a single treaty or set of laws that articulates enforceable rules for sustainable development.[48] Treaty references are typically in preambles rather than substantive provisions, so these treaties lack enforcement mechanisms to balance the triple bottom line.[49] While at least one component principle of sustainable development has hardened into customary law—environmental impact assessment, as recognized by the International Court of Justice in *Pulp Mills on the River Uruguay*[50]—the remainder have uncertain legal statuses beyond interstate procedural commitments.[51] That leaves the clearest law of sustainable development in nonbinding instruments like the United Nations Rio

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sustainable development has influenced the development of international environmental law as no other term has in recent years").

44. Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter Marrakesh Agreement].

45. North American Agreement on Environmental Cooperation, Sept. 14, 1993, 32 I.L.M. 1480 [hereinafter North American Agreement].

46. Marrakesh Agreement, *supra* note 44, intro. (recognizing the need for trade and economic endeavor "while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development"); North American Agreement, *supra* note 45, pmbl. (opening that the parties are "CONVINCED of the importance of the conservation, protection and enhancement of the environment in their territories and the essential role of cooperation in these areas in achieving sustainable development for the well-being of present and future generations").

47. 42 U.S.C. § 4321; *see* Fox, *supra* note 8, at 718; Lin, *supra* note 4, at 64–65.

48. *See* Berger-Walliser & Shrivastava, *supra* note 27, at 441 ("[L]aws and regulations governing sustainable development are peppered across multiple practice areas, such as environmental and natural resources law, human rights law, corporate law, and economic and labor law."); *id.* at 442 (claiming that sustainable development "has not developed into 'hard law' on the international level" and that "there is no articulation of international law that may be applied by courts of an individual nation to create an enforceable obligation for a private or public party relating to sustainable development"); *id.* at 446 (writing that, similar to international law, U.S. law has failed to erect "an overreaching legal framework" or to embrace the three pillars).

49. *See* French, *supra* note 23, at 57 (writing that mention of sustainable development is primarily in preambles and early "purpose" articles); Stenzel, *supra* note 4, at 597 (writing that the North American Free Trade Agreement mentioned "sustainable development" but that its Statement of Objectives omitted any reference to it); Josephine M. Balzac, *CAFTA-DR's Citizen Submission Process: Is It Protecting the Indigenous Peoples Rights and Promoting the Three Pillars of Sustainable Development?*, 11 LOY. U. CHI. INT'L L. REV. 11, 62–63 (2013) (explicating two Submissions on Enforcement Matters under the Central American Free Trade Agreement (CAFTA) about oil exploration in Guatemala to conclude that the submissions did little to resolve infringement and so do not contribute substantively to the triple bottom line); Paulette Stenzel, *Free Trade and Sustainability Through the Lens of Nicaragua: How CAFTA-DR Should Be Amended To Promote the Triple Bottom Line*, 34 WM. & MARY ENV'T L. & POL'Y REV. 653, 734 (2010) (providing a similar example of CAFTA's inability to effect the triple bottom line of Nicaragua).

50. Pulp Mills on the River of Uruguay, (Arg. v. Uru.), Rejoinder of Uruguay, 2008 I.C.J. Rep. 1, 315 (July 29).

51. *See, e.g.*, Atapattu, *supra* note 43, at 235 (writing that many "procedural components" of sustainable development "have become binding on states"); Arnold Kreilhuber & Angela Kariuki, *Environmental Rule of Law in the Context of Sustainable Development*, 32 GEO. ENV'T L. REV. 591, 597 (2020) (writing that "legal scholars continue to debate whether the precautionary principle has any legally-binding force").

Declaration on Environment and Development[52] or the Johannesburg Declaration on Sustainable Development.[53]

The absence of legal governance mechanisms is most acute with multinational corporations (MNCs), which are among the most important drivers of economic development and employment, but which also impose an outsized share of environmental harm and contribute (either directly or indirectly) to human rights violations and poverty.[54] These private actors have crafted their own patchwork of standards and thereby fragmented a concept based on integration.[55] Though fragmentation is often discussed in the context of national versus international law or of trade versus environmental bodies, fragmentation here is across thousands of private governance mechanisms.[56] Sometimes these are industry-wide ratings or certification schemes, such as the Roundtable on Sustainable Palm Oil or the Equator Principles.[57] Individual companies can pursue voluntary measurements, such as by reporting ESG factors

52. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I) (Aug. 12, 1992) [hereinafter *Rio Declaration*].

53. *Rio Declaration*, *supra* note 52, annex I (listing twenty-seven principles that nations should follow to achieve sustainable development); World Summit on Sustainable Development, *Johannesburg Declaration on Sustainable Development*, U.N. Doc. A/CONF.199/20, ¶ 11 (Sept. 4, 2002) ("We recognize that poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.").

54. S*ee* Markus W. Gehring & Avidan Kent, *International Investment Agreements and Sustainable Development: Future Pathways*, *in* ROUTLEDGE HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 561, 562–63 (Shawkat Alam et al. eds., 2012) (recognizing that transnational corporations promote some aspects of sustainable development but have also been accused of "violations of a wide range of human rights" and adverse effects on the environment); Berger-Walliser & Shrivastava, *supra* note 27, at 427–29 ("The rise in ecological degradation has paralleled an increase in the scale and severity of ecological crises caused by private-sector actions . . . . [Specifically] an immensely interdependent system of corporate industrial actions."); Stephen Kim Park & Gerlinde Berger-Walliser, *A Firm-Driven Approach to Global Governance and Sustainability*, 52 AM. BUS. L.J. 255, 259–60 (2015) (recognizing that much environmental degradation is attributable to MNCs).

55. *See* Ellis, *supra* note 1, at 57; Park & Berger-Walliser, *supra* note 54, at 259–60.

56. *See* Fornasari, *supra* note 41, at 199 (explaining how "the [Corporate Social Responsibility] and [socially responsible investing] approaches to ESG factors disclosure created a fragmented regulatory landscape, where different frameworks were elaborated and used, and where moral considerations were mixed with financial, business and marketing ones").

57. *See, e.g.*, Park & Berger-Walliser, *supra* note 54, at 283–84; Elise Groulx Diggs, Mitt Regan & Beatrice Parance, *Business and Human Rights as a Galaxy of Norms*, 50 GEO. J. INT'L L. 309, 335–37 (2019) (describing the Equator Principles, which condition large development loans on the satisfaction of criteria like conducting environmental and social impact assessment and including stakeholders like indigenous peoples in the process); Melissa Schoeman, Note, *The Obvious Solution to Unsustainable Palm Oil: Why National Enforcement Remains a Necessary Mechanism Despite the Emergence of Alternate Regulatory Schemes*, 40 N.C. J. INT'L L. & COM. REG. 1085, 1096–97 (2015) (describing how the Roundtable on Sustainable Palm Oil brings together multiple stakeholders to establish criteria for the production of palm oil and its products); *see also* THE EQUATOR PRINCIPLES 4–6 (2020), http://equator-principles.com/wp-content/uploads/2020/05/The-Equator-Principles-July-2020-v2.pdf [http://perma.cc/5GU8-F6R8] (describing environmental and social factors); *About*, ROUNDTABLE ON SUSTAINABLE PALM OIL, http://rspo.org/about [http://perma.cc/3G23-44GN] (last visited Apr. 1, 2022) ("The RSPO has developed a set of environmental and social criteria which companies must comply with in order to produce Certified Sustainable Palm Oil (CSPO). When they are properly applied, these criteria can help to minimize the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions.").

established by an external agency like the Global Reporting Initiative or by setting their own corporate social responsibility standards.[58]

Individual businesses therefore determine for themselves what is sustainable (including through cherry-picking which external standards they wish to follow), with the danger of lowest-common-denominator thinking; the desire to attain a reputation or label as sustainable while still striving for maximum profits tempts private-sector actors to establish metrics that short the environmental or the social (or both).[59] For example, the Global 100 defines sustainability comprehensively and measures multiple key performance indicators, while *Newsweek*'s annual Green Rankings consider only environmental indicators.[60] With over $1 trillion in ESG assets currently under management,[61] and with investors willing to pay a "greenium" for these assets,[62] the incentive exists for companies to "greenwash" their image via compliance with the easiest of the various sustainability measures.[63]

Of course, with few, if any, legal consequences, sometimes companies claim to be sustainable but put in little effort to back it up.[64] For example, the pursuit of palm oil production leads many large Asian companies to clear forests by burning, a process that displaces indigenous peoples and endangered species (like orangutans) while releasing

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58. *See* Fornasari, *supra* note 41, at 177–81, 184–92.

59. *See id.* at 175–76 (calling it "legitimate and indeed realistic to be doubtful about the real transformative force of [Corporate Social Responsibility]," in part because "some business leaders embraced [Corporate Social Responsibility] and sustainability as a way of advertisement and legitimization"); *id.* at 228 (expressing "doubts" that voluntary indicators "can solve the technical problems underlying ESG issues disclosure"); Ellis, *supra* note 1, at 66 (writing that sustainable development has been viewed "as a means to justify economic development at the expense of environmental protection and protection of human rights"); Donald K. Anton, *The "Thirty-Percent Solution" and the Future of International Environmental Law*, 10 SANTA CLARA J. INT'L L. 209, 215 (2013) (arguing that sustainable development has been gradually "co-opted by environmentally ambivalent or hostile agendas" into a philosophy for continued economic growth).

60. *See* Jacobs & Finney, *supra* note 1, at 95–96 ("Moreover, many of the most popular and easily identifiable sustainability designations consider only one of the five performance indicators.").

61. Simon Constable, *What Is Greenwashing? Here Is What Investors Need To Know*, WALL ST. J. (Nov. 8, 2020, 8:00 PM), http://www.wsj.com/articles/what-is-greenwashing-here-is-what-investors-need-to-know-11604881371?page=4 [http://perma.cc/QY4Z-DNWK].

62. *See, e.g.*, Park, *supra* note 18, at 15 (explaining that because "demand for green bonds has far outstripped supply," the result is a "'greenium' in which green bonds sell at higher prices (i.e., a premium) vis-à-vis comparable plain vanilla bonds").

63. *See* Jacobs & Finney, *supra* note 1, at 99–100; Park, *supra* note 18, at 36–37; Fabiana Negrin Ochoa & Dieter Holger, *How To Tell if a "Sustainable" Business Is "Greenwashing"*, WALL ST. J. (Oct. 10, 2020, 11:00 AM), http://www.wsj.com/articles/how-to-tell-if-a-sustainable-business-is-greenwashing-11602342001?mod=article_inline [http://perma.cc/5CDK-SZ3K]; *see* Jacobs & Finney, *supra* note 1, at 99 (writing that "many of the definitions, rankings, and ratings of sustainability do not require a company to take such broad and in-depth actions to receive a 'certification' of sustainability").

64. *See* Jacobs & Finney, *supra* note 1, at 100 (writing that "confusion provides companies with an opportunity to promote their supposed sustainable practices and products while not always meeting consumer or investor expectations"); Park & Berger-Walliser, *supra* note 54, at 288 (writing that MNCs can enjoy the benefits of corporate social responsibility without the corresponding responsibilities because of the lack of legal liability for greenwashing).

significant greenhouse gases.[65] These companies received over $40 billion in loans from Japanese, European, and North American banks—several of which have sustainability pledges that specifically mention deforestation.[66] Several large Brazilian companies have a reputation for harmful practices: Vale has faced two deadly dam accidents, Petrobras is tied to a corruption scandal, and JBS has been accused of packaging beef raised on illegally deforested areas.[67] These companies have embraced voluntary sustainability initiatives—seemingly driven less by the desire to do good and more by the hesitance of ESG-conscious investors regarding Brazilian companies.[68]

Some commentators who criticize the ambiguity of sustainable development propose their own definitions.[69] Though well-intentioned, redefinition does little more than add to the dozens, if not hundreds, of definitions that already exist.[70] Besides, an ambiguous concept is not necessarily problematic; rather, the lack of hard-law standards gives force to that concept and the questionable legitimacy of the fragmented private governance alternatives.[71] If the problem is a failure of law, then the solution lies in a focus on law's failures and on legal change to correct them.[72]

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65. *See* Hiroko Tabuchi, *How Big Banks Are Putting Rain Forests in Peril*, N.Y. TIMES (Dec. 3, 2016), http://www.nytimes.com/2016/12/03/business/energy-environment/how-big-banks-are-putting-rain-forests-in-peril.html [http://perma.cc/8RVB-328H].

66. *Id.*

67. *See* Jeffrey T. Lewis & Paulo Trevisani, *Brazil's Recent Past a Challenge to Winning ESG Credibility*, WALL ST. J. (Feb. 4, 2021, 2:27 PM), http://www.wsj.com/articles/brazils-recent-past-a-challenge-to-winning-esg-credibility-11612450800?page=1 [http://perma.cc/KTP7-RTV4].

68. *See id.*

69. *E.g.*, Fulton et al., *supra* note 1, at 10,490 (redefining environmental sustainability as "[t]he avoidance, to the maximum practicable extent, of irreversible and irretrievable commitment of resources").

70. *See, e.g.*, Atapattu, *supra* note 43, at 238–39 (opining that "looking for a more precise definition of sustainable development is misguided"); Jonathan Rosenbloom, *Sustainability: Defining It Provides Little Value, but Its Meaning Is Essential*, 43 ENV'T L. REP. 10,344, 10,344 (2013) (arguing that "defining sustainability may prove to be a meaningless task . . . that misdirects a discourse on how to incorporate sustainability into our lives that must move forward"); *see* Smith, *supra* note 32, at 276 (noting that, by 1995, "sustainable development" had already "been defined in more than seventy different ways").

71. *See* Atapattu, *supra* note 43, at 238–39 (calling sustainable development a "meta-concept like democracy or justice which depends on other principles for its realization," so one challenge is "delineating the concept and bringing more clarity on the exact legal substance," which "includes translating the principles and rules into concrete tasks and obligations"); David Barnhizer, *Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government*, 18 GEO. INT'L ENV'T L. REV. 595, 599–600 (2006) ("Law is empty platitude unless effective, efficient, and adequately financed enforcement entities are created and allowed to function relatively free of political influence. It should be obvious from this that voluntary codes of practice are not law and therefore have limited effectiveness."); Park & Berger-Walliser, *supra* note 54, at 285–86 (calling current sustainability rulemaking "suboptimal" because of questions about the legitimacy of soft law and private governance standards and the lack of accountability for adherence to them).

72. *See* Gehring & Kent, *supra* note 54, at 563–64 (recommending that sustainable development goals be incorporated more fully into investment treaties); Robin Kundis Craig, *Climate Change Means the Death of Sustainability*, 43 ENV'T L. REP. 10,354, 10,354 (2013) ("To talk about sustainability in the abstract is to philosophize, not to pursue meaningful policies and laws."); Lin, *supra* note 4, at 71 (calling sustainable development "an important driver of modern environmental law" but arguing that "its conceptual failures threaten to undermine the entire enterprise of environmental law").

B. A Big Tent of Many Voices Where Everyone Speaks but No One Listens

Focusing policymakers on legal reform is difficult given the breadth of sustainable development as epitomized by the "big tent" metaphor that welcomes divergent and competing stakeholders to come together.[73] Granted, rhetorical theories do support the juxtaposition of perspectives because considering an issue from a different—even an opposite—vantage point can reveal new understandings and thus new solutions.[74] Particularly when confronting environmental dilemmas, stakeholders should avoid rigid, binary framings so that they do not overlook shared interests and the chance for mutually beneficial connections.[75]

However, the capaciousness of sustainable development and its goal of accommodating everything and everybody results in paralysis. Returning to the metaphor of a big tent, imagine the resulting cacophony of many languages crowded under a tarp where everyone has a chance to speak, but no one can hear specific messages because of the din.[76] The strength of sustainable development to bring together stakeholders by integrating many issues becomes a weakness when policymakers must enact law because there is no "broad social consensus" for implementation.[77] Instead, the "different array of topics and concerns" makes it "very difficult to set priorities."[78]

For example, the African Continental Free Trade Area,[79] a treaty signed by fifty-four of the fifty-five African Union members,[80] holds the potential to be a legal framework for the implementation of sustainable development objectives.[81]After all, the treaty embraces sustainable development, mentioning this term in its objectives and making specific reference to topics covered by the World Trade Organization's Sustainable Development Goals (SDGs) like gender equality and food security.[82] The

73. *See* Peck, *supra* note 2, at 158 (writing that the ambiguity of sustainability development creates a "'big tent,' spacious enough to accommodate three usually disparate factions").

74. *See, e.g.,* BURKE, PERMANENCE, *supra* note 38, at 90 (discussing the concept of "perspective by incongruity," where transferring terms associated with one setting to another setting can "exemplify[] relationships between objects which our customary rational vocabulary has ignored").

75. *See* Jeff Todd, *Ecospeak in Transnational Environmental Tort Proceedings*, 63 U. KAN. L. REV. 335, 345 (2015) (citing M. JIMMIE KILLINGSWORTH & JACQUELINE S. PALMER, ECOSPEAK: RHETORIC AND ENVIRONMENTAL POLITICS IN AMERICA 10 (1992)) (explaining how framing issues in polarizing terms "conceals other sources of solidarity and of conflict that, if more closely examined, could reveal what is needed to cut through environmental dilemmas").

76. *See* Perkins, *supra* note 31, at 344–45 (writing that sustainability is comprised of different dialects so that initiatives "employ[] language that is unique to the entity pursuing sustainable objectives" and that "seemingly unrelated concepts" are pulled "under the tent of sustainability").

77. *See* Ellis, *supra* note 1, at 65–66.

78. Viñuales, *supra* note 5, at 6; *see* Fulton et al., *supra* note 1, at 10,489 ("When the three pillars are conflated in decision-making processes, paralysis sets in because of analytical complexity, a lack of consensus about prioritizing between pillars, or issues that go beyond the jurisdiction or expertise of the deciding entity.").

79. Agreement Establishing the African Continental Free Trade Area, Mar. 21, 2018, https://au.int/sites/default/files/treaties/36437-treaty-consolidated_text_on_cfta_-_en.pdf [http://perma.cc/JJA3-A5AB].

80. *About AfCFTA*, AFRICAN CONTINENTAL FREE TRADE AREA, http://africancfta.org/aboutus [http://perma.cc/87GB-6Q5A] (last visited Apr. 1, 2022).

81. Katrin Kuhlmann & Akinyi Lisa Agutu, *The African Continental Free Trade Area: Toward a New Legal Model for Trade and Development*, 51 GEO. J. INT'L L. 753, 763 (2020).

82. *Id.* at 762.

challenge, however, is achieving "full alignment with the seventeen SDGs and their 169 goals and 230 targets," which will require discussions beyond those slated for upcoming negotiations like "strategies to address food security, health . . . , and environment and climate change, along with binding rules on gender, labor, and other aspects of human rights."[83] Plus, any unified approach will need the agreement of the fifty-four signatory nations—nations that range from the very large (Ethiopia) to the very small (São Tomé and Príncipe), from the relatively well-off (South Africa) to the extremely impoverished (Burkina Faso), from those with a diversity of natural resources (Nigeria) to those that depend on a single export commodity like vanilla (Madagascar).[84] In addition, a large proportion of those nations have serious poverty, environmental injustice, human rights and labor violations, and weak institutions to enact reforms and provide redress.[85] The notion that fifty-four very different nations will agree on dozens—even hundreds—of goals and targets simply because a treaty has a framework for negotiations and general provisions about sustainability rests not on fact but on fantasy.[86]

The corrective seems simple enough: "setting a few (instead of dozens of) strategic priorities for action."[87] The solutions proffered by scholars, however, can be anything but simple when they recommend multifactor approaches[88] or set priorities that are so vague they lack specificity.[89] Professor Jaye Ellis takes a different tack: "the appropriate approach to implementing a theme as grand and overarching as sustainable development might be an incremental one, focusing on the sites at which tensions between bodies of

83. *Id.* at 762–63.

84. *See, e.g.*, Peter Lykke Lind, *The Bitter Taste of Madagascar Vanilla*, AL JAZEERA (Feb. 19, 2017), http://www.aljazeera.com/features/2017/2/19/the-bitter-taste-of-madagascar-vanilla [http://perma.cc/JPJ3-RKDU] (describing how the world's top vanilla exporting country deals with problems of poverty for farmers, thieves who steal the crop, and the use of vanilla to launder money for illegal hardwood harvesting); Prinesha Naidoo, *As World Wavers on Free Trade, Africa Embraces It*, WASH. POST (Aug. 26, 2020), http://www.washingtonpost.com/business/energy/as-world-wavers-on-free-trade-africa-embraces-it/2020/08/24/62b201f4-e5be-11ea-bf44-0d31c85838a5_story.html [http://perma.cc/3WTM-U8QS] (writing that, given how tariffs are a source of revenue, a potential hitch in negotiations is getting Nigeria and South Africa, the continent's largest economies, to eliminate about ninety percent of its tariff categories over five years); Landry Signé, *Africa's Big New Free Trade Agreement, Explained*, WASH. POST (Mar. 29, 2018), http://www.washingtonpost.com/news/monkey-cage/wp/2018/03/29/the-countdown-to-the-african-continental-free-trade-area-starts-now/ [http://perma.cc/84VK-YH2X] (listing challenges to the African Continental Free Trade Area that include the "heterogeneous size of African economies, the existence of numerous bilateral trade agreements with the rest of the world, overlapping REC memberships, divergent levels of industrial development and varying degrees of openness").

85. Collins C. Ajibo, *African Continental Free Trade Area Agreement: The Euphoria, Pitfalls and Prospects*, 53 J. WORLD TRADE 871, 890–91 (2019).

86. *See* Gehring & Kent, *supra* note 54, at 564 (writing that "sustainable development remains challenging to include in new [international investment agreements]").

87. Viñuales, *supra* note 5, at 7.

88. *See, e.g.*, LeRoy Paddock, *Stepping Up to Sustainability*, 81 UMKC L. REV. 359, 362 (2012) (listing "specific steps" for stepping up to the challenge of sustainability as "increasing reliance on partnering and collaborative problem-solving, recognizing and supporting corporate sustainability leaders, encouraging expanded use of sustainability-based supply chain requirements, designing new regulatory programs that work well with markets, promoting self-evaluation, and enhancing environmental education").

89. *See* Viñuales, *supra* note 5, at 7 (recommending that the four priorities be "participation, differentiation, decarbonization, and innovation and technology diffusion").

law and ways of knowing are felt most acutely."[90] Rather than strive for broad agreement, "sustainable development has the potential to disrupt and destabilise settled assumptions" by "draw[ing] attention to the normative implications of legal and policy measures that may not previously have seemed important, or that may not have been thematised as normative issues at all."[91] As discussed more fully in Section II, a focus on the discrete but heretofore unaddressed laws that govern money can start that "incremental" push forward.

C. The Myth of Sustainable Development Veils Unsustainable Practices and Insufficient Solutions

Perhaps the most damaging discursive feature of sustainable development is that, as an environmental myth, it draws a veil over problems and thereby prevents corrective action. According to Professor Lin, this myth "is grounded in a fundamental truth: the Earth has a limited carrying capacity, and human activity threatens to exceed it."[92] Sustainable development responds to this problem with a solution that purports "to reconcile the interests of present and future generations and of the rich and poor, assuring us in the meanwhile that we can have it all."[93] Through its retelling, sustainable development and its three pillars perform the three mythic functions of explanation, ritual, and legitimization, thus entrenching themselves to reinforce existing beliefs and practices.[94] A serious conceptual flaw, however, is that sustainable development emphasizes the economic (production and consumption) over the environmental and the social;[95] after all, "sustainable" is an adjective that modifies "development," and the notion of intragenerational equity rests upon development that benefits the poor—particularly in "developing" nations.[96] The myth therefore masks continuing harm and perpetuates existing power dynamics, with the result of increasing demands on the environment and a sacrifice of the natural world.[97]

Rhetorical theory provides additional reasons for this mythic (dys)function: choosing a particular vocabulary directs the attention toward one meaning

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90. Ellis, *supra* note 1, at 72.

91. *Id.* at 66.

92. Lin, *supra* note 4, at 65 (citing JOHN C. DERNBACH, ACTING AS IF TOMORROW MATTERS: ACCELERATING THE TRANSITION TO SUSTAINABILITY 1 (2012); Elizabeth Burleson, *Climate Sustainability Through Ethics, Economics, and Environmental Coordination*, 43 ENV'T L. REP. 10,350, 10,351 (2013); Patrick Parenteau, *It's the Biosphere, Stupid*, 43 ENV'T L. REP. 10,347, 10,347 (2013)).

93. *Id.* (citing Rebecca M. Bratspies, *Sustainability Is the Answer—Now What Was the Question?*, 43 ENV'T L. REP. 10,352, 10,352 (2013); Burger, *supra* note 3, at 10,356).

94. *See id.* at 84.

95. *Id.* at 67, 71.

96. *See* Dernbach, *supra* note 11, at 617–22; Joshua C. Gellers & Trevor J. Cheatham, *Sustainable Development Goals and Environmental Justice: Realization Through Disaggregation?*, 36 WIS. INT'L L.J. 276 (2019) (arguing that environmental justice, which brings together the environmental and equitable pillars, receives insufficient attention in sustainability studies).

97. *See* Lin, *supra* note 4, at 67, 71; Burger, *supra* note 3, at 10,356 (describing one possible way that sustainability fits into contemporary environmental discourse as a "deceptive story that perpetuates existing power dynamics" because it "brackets big-ticket items like capitalism and consumerism, reifies existing actors and hierarchies, and affirms basic patterns of social organization, production, and consumption").

but excludes other meanings that alternate terms would suggest.[98] Given that stakeholders have divergent perspectives, they also have divergent "dialects" regarding sustainable development, such as a different vocabulary employed by the government versus agriculture.[99] A specific example of these dialects was explored by Professor Ruth Jebe, who dedicated an entire article to how "materiality" has different meanings in financial versus ESG reporting, so merging these two presents linguistic obstacles.[100]

This choice of terms is not neutral but is instead based upon the rhetorical exigence of persuading the audience to identify with the speaker or writer.[101] At the very least, choosing one set of terms—here, sustainable development and the three pillars—deflects attention away from other terms.[102] Further, the selection of ambiguous terms can suggest a shared interest or identity even when there is none, as when negotiators reach an agreement "in principle." While the negotiators can assent to the accuracy of the claim that some type of agreement exists, the euphemism masks the lack of a finished (and binding) treaty or contract, and thus does nothing more than paper over differences.[103] Exhibit A is the Rio Declaration with its nonbinding list of twenty-seven "principles"—some of which subtly reinforce the primacy of commerce, others of which contradict one another[104]—yet this Declaration nevertheless enjoys broad agreement among governments and nongovernmental organizations, and continues to have

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98. *See* M. Nils Peterson, Jessie L. Birckhead, Kirsten Leong, Markus J. Peterson & Tarla Rai Peterson, *Rearticulating the Myth of Human-Wildlife Conflict*, 3 CONSERVATION LETTERS 74, 74–75 (2010); Lawrence J. Prelli & Terri S. Winters, *Rhetorical Features of Green Evangelism*, 3 ENV'T COMMC'N 224, 226 (2009).

99. *See* Perkins, *supra* note 31, at 333–35 (recognizing at least four dialects for sustainability discourse: "the federal government, state and local governments, business and industry, and agriculture"); Tim Stephens, *Sustainability Discourses in International Courts: What Place for Global Justice?*, *in* GLOBAL JUSTICE & SUSTAINABLE DEVELOPMENT 39, 56 (Duncan French ed., 2010) (exploring the "sustainability discourses" of courts and other international tribunals to show "not only how judicial reasoning can be influenced by discourses, but also how judicial reasoning can influence the evolution of environmental discourses").

100. Ruth Jebe, *The Convergence of Finance and ESG Materiality: Taking Sustainability Mainstream*, 56 AM. BUS. L.J. 645, 646 (2019) ("Disagreement over the definition of materiality has resulted in financial and ESG disclosure occupying separate domains, a result that hampers mainstreaming of sustainability by keeping ESG factors separate from business operations.").

101. *See* Jeff Todd, *The (De)Mystification of Environmental Injustice: A Dramatistic Analysis of Law*, 93 TEMP. L. REV. 597, 605 (2021); Lloyd F. Bitzer, *The Rhetorical Situation*, 1 PHILOSOPHY & RHETORIC 1, 5–8 (1968) (characterizing the rhetorical situation as having an exigence, an audience, and constraints on the rhetor).

102. Rosenbloom, *supra* note 70, at 10,345 ("Common generalized definitions include the triple bottom line of 'economic prosperity, environmental quality, and social justice . . . .'"); *see* KENNETH BURKE, LANGUAGE AS SYMBOLIC ACTION: ESSAYS ON LIFE, LITERATURE, AND METHOD 45 (1966) ("Even if any given terminology is a *reflection* of reality, by its very nature as a terminology it must be a *selection* of reality; and to this extent it must function also as a *deflection* of reality.").

103. BURKE, GRAMMAR, *supra* note 38, at 52–53; *see* Ellis, *supra* note 1, at 66 (calling sustainable development a concept that "occupies highly contested ground" that can "paper over deep and genuine disagreements").

104. *Rio Declaration*, *supra* note 52, Principle 16 ("National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, *in principle*, bear the cost of pollution, with due regard to the public interest and *without distorting international trade and investment*." (emphasis added)). *Compare id.* Principle 12 ("Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an *international consensus*." (emphasis added)), *with id.* Principle 13 ("*States* shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage." (emphasis added)).

influence via reference in treaties, the opinions of international dispute bodies, and scholarly works on sustainable development.[105]

This reoccurring collective "we" who agree "in principle" masks legitimate points of contention and thereby functions to drive actions that can lead to more harm than good.[106] Take as an example public-private partnerships (PPPs) for food and agriculture, which exhibit the characteristics of sustainable development and a commitment to the three pillars: in an effort to lift millions of people out of poverty, they connect developing nations with private sector firms to promote greater efficiency, to build out infrastructure, and to enhance technical capacities in production.[107] Those who are already wealthy or in power benefit from PPPs. This includes multinational agriculture companies, which receive low-cost (if not free) access to land along with favorable concessions from national governments, and existing large agricultural operations in the global South, since they are easier to deal with than numerous, dispersed small-scale farmers (SSFs).[108] As to those SSFs and oft-touted goals like agricultural biodiversity and nutrient-rich crops, a "review of PPPs' successes, as measured by their contribution to achieving development goals, conserving biodiversity, protecting SSF livelihoods, and increasing the supply of affordable and nutrient-dense food, found them to be more harmful than helpful."[109] For example, the grant of land to Northern-tier agribusiness entities leaves less land for Southern-tier SSFs, some of whom are displaced altogether because they have uncertain legal title to their farmland.[110]

Many of these programs also require the use of technology or pesticide-resistant seeds, which force SSFs to borrow to cover those costs. Without guaranteed purchasers, however, they are often left indebted because they must sell their export-oriented crops in a local market that does not want them.[111] The language of PPPs promotes a myth of economic development, environmental protection, and reduced poverty, but that myth masks how the structure of PPPs creates conflicts of interest and favors multinational agribusiness and wealthy entrepreneurs.[112] The power of myth resides in the fact that,

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105. *See, e.g.*, Atapattu, *supra* note 43, at 235–38 (discussing how some of the principles articulated in the Rio Declaration are referenced in treaties and the opinions of tribunals, enacted in practice by nations, and discussed by scholars).

106. *See* Don J. Kraemer, *Between Motion and Action: The Dialectical Role of Affective Identification in Kenneth Burke*, 16 ADVANCES HIST. RHETORIC 141, 160 (2013) (lamenting that by "imagining unions more perfectly fortified against ourselves, we obscure difference even as we revel in difference" and "deepen exclusion" though seeming to find "greater inclusiveness").

107. *See* Susan H. Bragdon & Carly Hayes, *Reconceiving Public-Private Partnerships To Eradicate Hunger: Recognizing Small-Scale Farmers and Agricultural Biological Diversity as the Foundation of Global Food Security*, 49 GEO. J. INT'L L. 1271, 1297–305 (2018).

108. *See id.*

109. Susan H. Bragdon, *Global Legal Constraints: How the International System Fails Small-Scale Farmers and Agricultural Biodiversity, Harming Human and Planetary Health, and What To Do About It*, 36 AM. U. INT'L L. REV. 1, 45–48 (2020).

110. *See* Bragdon & Hayes, *supra* note 107, at 1298–300.

111. *Id.* at 1300–01; *see* Alkon, *supra* note 21, at 190 (describing how formerly landless people take on loans to participate in Green Revolution projects, but then they drop out of these programs "because they could achieve neither subsistence nor profit" and so end up landless again but also "mired in debt").

112. Bragdon & Hayes, *supra* note 107, at 1303–05; Carmen G. Gonzalez, *Beyond Eco-Imperialism: An Environmental Justice Critique of Free Trade*, 78 DENV. U. L. REV. 979, 1008–09 (2001) (discussing the widely divergent views on environment and development between stakeholders in the global North versus South).

despite the recognition of these flaws, critics still continue to recommend PPPs in the hope that policymakers will adopt the types of structural changes that will disempower agribusiness so as to empower small farmers.[113]

Continuing with the theme of food production, scholarship that decries the effects of neoliberal trade agreements, increased technologies, and of International Monetary Fund and World Bank lending also demonstrates the power of environmental myth. These factors combine to the benefit of U.S. agribusiness MNCs and wealthy, global-South elites, and to the detriment of SSFs (including indigenous farmers) and the environment.[114] Heavily subsidized U.S.-grown crops can be sold in countries like Mexico tariff free, while nations of the global South borrow from the International Monetary Fund and World Bank, which condition loans on structural adjustments like reducing import restrictions and eliminating price controls, low-interest loans to SSFs, and subsidized seed and fertilizer.[115] SSFs are then pushed either to adapt to export-oriented monoculture that uses environmentally harmful chemical fertilizers and irrigation systems or to abandon their farms and seek wages as migrant laborers.[116] Two of the proposals to correct such environmental injustice are allowing nations of the global South to offer subsidies directly to SSFs (since Northern corporate farmers receive subsidies) and encouraging nations of the global North to provide food aid in cash rather than as commodities (so as not to compete with local farmers).[117] These proposals seem to balance the three pillars by contributing to economic development while preserving biodiversity and preventing environmental harm because SSFs can continue traditional agricultural practices. As every retelling reinforces this environmental myth, it keeps advocates from asking crucial questions that lie beneath the surface, like whether monetary subsidies have the same power in the hands of MNCs in the United States and

113. *See, e.g.*, Roland Bardy, *Can Foreign Direct Investment Contribute to Restoring Social Order?*, 12 U. ST. THOMAS L.J. 249, 267 (2016) (arguing that, for investment bank infrastructure projects in southern Africa, "what is socially responsible and environmentally sustainable has proved to also be financially and economically viable"); Bragdon, *supra* note 109, at 48 ("If PPPs are to be effective in achieving the SDGs and supporting the sustainable production of affordable and nutrient dense food, the private sector part of the partnership must focus on [small-scale farmers] as private actors, and not corporate agribusiness."); McCloskey, *supra* note 32, at 157 (calling sustainable development "a concept and a hope," but that "its reach is so broad and its hope is so great that it disintegrates when examined closely").

114. *See* Carmen G. Gonzalez, *An Environmental Justice Critique of Comparative Advantage: Indigenous Peoples, Trade Policy, and the Mexican Neoliberal Economic Reforms*, 32 U. PA. J. INT'L L. 723, 724–25, 740–55 (2011).

115. *See, e.g.*, Alkon, *supra* note 21, at 187–89; Ehrenreich & Lyon, *supra* note 4, at 5–6.

116. *See, e.g.*, Carmen G. Gonzalez, *Trade Liberalization, Food Security, and the Environment: The Neoliberal Threat to Sustainable Rural Development*, 14 TRANSNAT'L L. & CONTEMP. PROBS. 419, 422 (2004) ("Policies that depress agricultural prices . . . exacerbate hunger by rendering small farmers destitute, thereby depriving them of the income with which to purchase agricultural inputs, pay taxes, and purchase consumer goods and food not produced on the farm."); *id.* (claiming that "monocultural production techniques that maximize the production of a few crops degrade the natural resource base necessary for food production by eroding biological diversity, promoting pest and disease infestation, depleting soil fertility, and requiring massive application of harmful agrochemicals"); Ehrenreich & Lyon, *supra* note 4, at 17 (asserting that the "corporatization of subsistence crops . . . forcefully converts subsistence farmers, who must now buy their food with currency, into wage and migrant laborers to be exploited by corporate agriculture in their countries and abroad"); *id.* at 21–22 (discussing how the soil and water are damaged by increased use of chemical pesticides and fertilizers).

117. *See* Alkon, *supra* note 21, at 191.

SSFs in Latin America. As discussed more fully in Section II, laws about money likely make the answer "no."

The myth of sustainable development maintains weak identifications and constrains alternative ways of approaching economic, environmental, and equity issues. The first step toward a corrective is deconstructing the myth to reveal the role of law: the need for stronger implementation of existing laws and better design of future laws, for more vigorous engagement with the problems that the law seeks to address, and for the cultivation of a "healthy skepticism toward the legal solutions we adopt."[118] Because legal myths create and reinforce perceptions of reality, another corrective is a "drastic reconceptualization" of sustainable development that includes creating "new, more functional myths."[119] Sustainable development may be losing value as a driving force for change, so Professor Lin urges law- and policymakers to pursue alternative ways of thinking about the relationship between humanity and the environment.[120] Though such alternatives were beyond the scope of his article, the next Section of this one takes up that challenge with a survey of laws about money to show how they contribute to, and in fact perpetuate, unsustainable practices.

II. MONEY'S LEGAL ATTRIBUTES MAKE IT UNSUSTAINABLE (WITH HARMFUL CONSEQUENCES FOR THE ECONOMY, THE ENVIRONMENT, AND THE POOR)

Sustainable development has been criticized as a vague concept unmoored from law. As discussed in the previous Section, it allows harmful development to nevertheless claim a label of "sustainable," it is so all-encompassing that establishing and implementing priorities remain elusive, and it employs a familiar myth that reinforces points of agreement while veiling legitimate divisions and alternative solutions. These criticisms suggest that correctives lay in a focus on particular laws that are outside of the sustainable development myth. This Section therefore turns to a survey of several laws about money to lift the veil on these discursive problems.

Laws enacted alongside the roll-out of unsustainable, government-issued money are strategically calculated to drive people toward the exclusive use of that currency and to eradicate the precious metal monetary system. The reason for creating such laws is instantly obvious: monetary wealth adheres to those who control the unsustainable money's issuance or who are in close, familiar relations with those who do. But the country-club, printing-press mentality of modern money creation comes at the cost of untold economic harm to the poor and of enduring damage to the natural world.

Because money law has not been discussed in scholarship on sustainable development, each Part below opens by relating brief, relevant histories of the adoption of laws in the United States related to the U.S. dollar—as well as some foreign laws and currencies—to reinforce how these changes are global rather than isolated to the United States. The Parts then turn to a discussion (substantiated with economic theory) of why the adoption of these laws has resulted in economic, socioeconomic, and environmental harm.

118. Lin, *supra* note 4, at 86–87.

119. *Id.* at 71, 90; *see* Viñuales, *supra* note 5, at 7 (calling sustainable development "ill-suited to taking clear stances where there are tradeoffs between environmental, social and economic considerations").

120. Lin, *supra* note 4, at 90–91.

A. Gold and Silver Bans: The First Step Toward Unsustainable Money

The most longstanding Western conception of money is as a weight of raw, pure silver,[121] or in more exotic and wealthy instances, weights of gold.[122] This equating of money with silver and gold harkens back to the Sumerians and ancient Israelites,[123] continued through the Anglo-Saxon Middle Ages when monarchs claiming divine right issued silver coinage,[124] and was largely maintained in the United States up until the mid-nineteenth century.[125] However, beginning in 1816, when the U.K. Parliament demonetized silver, and in 1857, when the U.S. Congress passed a law forbidding the U.S. Treasury from accepting foreign silver or gold coins as adequate tariff and tax payments (thus upsetting epochal conceptions of silver and gold as being the only valid money),[126] traditional public attitudes toward what money "is" began to shift.

During the Great Depression, President Franklin Roosevelt issued an executive order[127] requiring citizens to give up gold, gold certificates, or gold bonds to the federal government in exchange for paper dollars at the rate of $20.67:1.[128] "Hoarding" of gold or silver coin and bullion was made criminal.[129] Congress devalued the dollar from $20.67:1 to $35:1 relative to gold.[130] The Silver Purchase Act of 1934[131] and another executive order[132] by Roosevelt required the surrender of privately held silver in exchange for government-issued silver certificates.[133]

In addition to the restrictions on gold and silver trading and possession, Congress in 1933 passed a joint resolution nullifying public and private contract gold clauses (i.e.,

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121. *See* Guzelian, *Silver*, *supra* note 15, at 214–28.

122. JAMES RICKARDS, THE NEW CASE FOR GOLD 96 (2016).

123. Guzelian, *Silver*, *supra* note 15, at 227–31; *see also* YA'AKOV MESHORER, A TREASURY OF JEWISH COINS: FROM THE PERSIAN PERIOD TO BAR KOKHBA (2001).

124. *See* Christine Desan, *Decoding the Design of Money*, EURO. FIN. REV., Feb.–Mar. 2015, at 5–6, http://www.europeanfinancialreview.com/decoding-the-design-of-money/ [http://perma.cc/7SZF-EDHB].

125. *See* Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 64–67; *see also* WILLIAM L. SILBER, THE STORY OF SILVER: HOW THE WHITE METAL SHAPED AMERICA AND THE MODERN WORLD (2019) (recounting twentieth and twenty-first century American silver policy and trading history).

126. *Cf.* Davis H. Waite, *Are the Silver States Ruined?*, 158 N. AM. REV. 24, 25–26 (1894). Waite, then the Governor of Colorado, suggested that Great Britain facilitated the eradication of the general silver standard in the United States in 1857, replacing it with a U.S. fiat silver standard. Waite wrote:

> Great Britain, which demonetized silver in 1816, secretly procured, in the American Congress, the passage of an act, in 1857, providing that "No foreign gold or silver coins shall be a legal tender for the payment of debts." At this time there was no pretense that the foreign silver dollars were of depreciated value. In fact the bullion silver in these coins was then actually worth more than their coin value. The act of 1857 removed an ancient landmark, and reversed the policy of this government for eighty-one years—thirteen years under the Continental Congress, 1776 to 1789, and sixty-eight years under our present form of government, from 1789 to 1857.

Id.

127. Exec. Order No. 6102 (1933). Individuals were allowed to retain up to five troy ounces of gold bullion coins per household. *Id.*

128. 31 U.S.C. §§ 462–63.

129. Proclamation No. 2039, 48 Stat. 1689 (Mar. 6, 1933).

130. Gold Reserve Act of 1934, ch. 6, 48 Stat. 337 (1934).

131. Ch. 674, 48 Stat. 1178.

132. Exec. Order No. 6814 (1934).

133. *Id.*

contractual clauses that allow the creditor to expect and receive payment in gold).[134] At the time, about forty-three percent of outstanding debt in the United States was based on a gold clause, including "virtually all federal obligations, the bonds of the federal and joint stock land banks, most of the corporate funded debt, except that of certain real estate mortgage companies, and about one-half of the state and municipal debt."[135]

Legal challenges to this joint resolution came before the U.S. Supreme Court in three cases in 1935: *Perry v. United States*[136] (nullification of gold clauses in federal bonds), *Norman v. Baltimore and Ohio Railroad Co.*[137] (nullification of gold clauses in private contracts), and *Nortz v. United States*[138] (whether someone redeeming a gold certificate was entitled to the international market price or instead the newly devalued federal government price) (collectively, *Gold Clause Cases*). In three 5–4 decisions, all announced on the same day, the Justices accepted the government's position that nullification was a constitutional "necessity" in light of the Great Depression.[139]

The three aforementioned laws and the *Gold Clause Cases* had a joint effect of removing the country de facto from a gold currency standard[140] and instead put the United States on an inflationary[141] Federal Reserve note standard. It was not until 1964 when gold certificates could again be bought and sold by private investors (but were still not redeemable in Treasury gold),[142] and in 1974 citizens could again trade and own gold.[143] Up until the 1960s, the federal government permitted silver certificates and silver bills to be issued and required Treasury to have sufficient funds on hand to pay back

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134. Act of June 5, 1933, ch. 48, 48 Stat. 113.

135. Richard M. Boeckel, *Invalidation of the Gold Clause*, 1 ED. RSCH. REPS. (May 29, 1933), http://library.cqpress.com/cqresearcher/document.php?id=cqresrre1933052900 [http://perma.cc/QBE5-FP7Z].

136. 294 U.S. 330 (1935).

137. 294 U.S. 240 (1935).

138. 294 U.S. 317 (1935).

139. *See* Gerard N. Magliocca, *The Gold Clause Cases and Constitutional Necessity*, 64 FLA. L. REV. 1243, 1243 (2012).

140. As some economists note, "[e]ither a gold standard specifies the quantity of money in the economy, or a central bank does. A marriage of the two never lasts longer than an unhappy weekend." Mark Thornton, Richard H. Timberlake, Jr. & Thomas J. Thompson, *Gold Policy in the 1930s*, INDEP. INST. (May 1, 1999), http://www.independent.org/publications/article.asp?id=165 [http://perma.cc/4V47-5K8A].

141. As one Columbia University economist put the proposition,

> To put it in a word, therefore, the devaluation, currency inflation and "commodity dollar" measures have very largely failed to achieve, to date, the objectives at which they were aimed. In addition, I fear that they have created grave inflationary dangers for the future, for they will make it harder than ever to control those over-expansions in which depressions like the one we have just been experiencing always originate. I shall consider presently the possible defense for certain types of inflation, when inflation is regarded as a necessary means for financing the tremendous costs of the recovery and the New Deal programs. But even from this point of view, I think that the *currency* experiments cannot be justified. It would have been better on all counts if they had never been attempted.

James W. Angell, *Gold, Banks and the New Deal*, 49 POL. SCI. Q. 481, 494 (1934).

142. Act of Mar. 9, 1933, ch. 1, title I, § 3, 48 Stat. 2; 12 U.S.C. § 248(n).

143. Act of Aug. 14, 1974, Pub. L. No. 93-373, § 2, 88 Stat. 445 (repealing 31 U.S.C. § 443).

those bills at a rate of $1.292 per bill or less.[144] In 1963, Congress legislated that silver certificates were no longer to be backed by Treasury guarantees.[145]

While the *Gold Clause Cases* and seizures of gold and silver were justified as a national emergency, many found those governmental actions disastrously inflationary and outright immoral.[146] Yet by 1971, when President Richard Nixon officially took the United States off the silver and gold standards,[147] the dollar came to be understood not as a precious metal or guarantee of precious metal but rather as a paper note backed only by "the full faith and credit of the United States." In more modern variants, we now have digital money in the form of credit cards, wire transfers, and mobile phone apps, among others. The concept is still the same as paper money—the guarantee of value (whether the monetary unit is paper or electronic) is supplied by the U.S. government's assurance that these forms of the dollar, and not gold or silver, are, by *legally* backed definition, money.

In sum, a governmental ban on private possession and use of raw silver or gold as money can be a massive legal wedge calculated to introduce the government's alternative (unsustainable) currency swiftly and widely into society. Indeed, as discussed below, a ban on silver or gold, followed immediately by the introduction of government-mandated, credit-based money,[148] carries the risk of making economies and the extraction of natural resources unsustainable.[149] For that reason, bans on gold and silver are the first step toward "unsustainable money," which this Article defines as the erection of a monetary legal system that makes the economy, environment, and society unsustainable.

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144. *See* 31 U.S.C. § 405a-1.

145. Act of June 4, 1963, Pub. L. No. 88-36, 77 Stat. 54.

146. *See* Norman v. Baltimore & O.R. Co., 294 U.S. 240, 316 (1935) (McReynolds, J., dissenting) ("Loss of reputation for honorable dealing will bring us unending humiliation; the impending legal and moral chaos [from these Gold Clause decisions] is appalling."). Then-renowned Columbia University economics professor James W. Angell wrote shortly after the *Gold Clause Cases* were decided:

> What the Roosevelt program on gold, silver and paper money has thus far meant is hence roughly as follows. The gold dollar has been devalued to 59 per cent of its former gold worth; it has been tentatively stabilized, but only within maximum limits that are 20 per cent apart; it has been made, at least potentially, a bimetallic dollar of uncertain content and value, instead of merely a devalued gold dollar; gold and silver have been "nationalized"; very large silver purchases have been prescribed; and the issue of several kinds of paper money has been liberalized.
>
> These measures are all aimed, of course, at inflation, and at inflation of a particular kind: currency inflation. I have already indicated that I do not think the abandonment of the gold standard was technically necessary at the time it took place. In addition, I think that on a strict view the devaluation of the dollar and the abrogation of the gold clause were completely immoral.

Angell, *supra* note 141, at 492.

147. *See* Exec. Order No. 11,615, 3 C.F.R. § 602 (1971–1975).

148. *See infra* Part II.B.2.

149. *Cf.* JAMES RICKARDS, CURRENCY WARS: THE MAKING OF THE NEXT GLOBAL CRISIS 72 (2012) ("In a rapid sequence of moves, FDR had deftly confiscated private gold, banned its export abroad and captured the gold mining industry. As a result, Roosevelt greatly increased the U.S. hoard of official gold. Contemporary estimates were that citizens surrendered over five hundred metric tons of gold to the Treasury in 1933. The gold depository at Fort Knox was constructed in 1937 for the specific purpose of holding the gold that had been confiscated from U.S. citizens. There was no longer enough room in the basement of the Treasury.").

B. Government-Mandated Money as Credit (with Interest) Destabilizes the Three Pillars

With the use of gold and silver as money having been long outlawed, most people now conceive of "money" only in the sense of its government-mandated replacements. This money myth functions like the myth of sustainable development in creating blinders to the insidious and harmful effects of fiat money—money made legal by a centralized government. Issued at the whim of government and for the benefit of the well-connected, fiat money is in essence a form of credit—and subject to interest. This myth likewise needs its veil lifted with a counternarrative, in this instance one that complements the miracle of the coin in the fish's mouth: Wendell Berry's discussion of money as a "no product" that puts a price on the priceless natural world, thus reversing what the economy should prioritize and leading to environmental and social harm.[150]

1. The Contemporary (Mis)understanding of Money

At the heart of a sesquicentennial shift in the United States away from precious metals toward a centralized government, legal money is a conflict between two very different conceptions of money. One understanding of money is what some might call "spontaneously evolved" money.[151] Spontaneously evolved—or "free market" money—is money that arises out of a momentary gathering of collective consensus that some *thing* should be recognized and harvested or gathered as money—be it silver, gold, or other historically recognized forms of money, such as salt (Roman Empire), rice (Japan), cigarettes (prisoner of war camps), change of ownership of large unmovable stones (Yap), or major grain crops (many societies).[152]

An opposing understanding of money is that money occurs best by intentional, calculated, centralized human *design* of some "marker" that the government declares to be legal (fiat) money.[153] As Professor Christine Desan explains,

> [C]ollective engineering rather than spontaneous emergence constructs the units we use to measure, store, and circulate value. There is a design to money. . . . It is created when a stakeholder, acting for the group, uses its singular position to specify and entail value in a way that no individual or bargaining pair of individuals can do. The stakeholder gives a marker to people who contribute resources earlier to the group than they are due and takes the marker back, like a receipt, from those people at a time of reckoning.[154]

Even if money means a centralized design of a "marker," there are variants on what "centralized" entails. The most obvious is a singular monarch or sovereign with exclusive control, but Desan goes back to 1694 and the Bank of England for a bargain struck

150. *See infra* Part II.C.1.

151. FRIEDRICH HAYEK, DENATIONALISATION OF MONEY: THE ARGUMENT REFINED 37 (2d ed. 1978).

152. James Tobin, *Money*, *in* 5 THE NEW PALGRAVE DICTIONARY OF ECONOMICS 725, 725–26 (Steven N. Durlauf & Lawrence E. Blume eds., 2d ed. 2008).

153. *See* Desan, *supra* note 124, at 2; *see also* CHRISTINE DESAN, MAKING MONEY: COIN, CURRENCY, AND THE COMING OF CAPITALISM 32 (2015).

154. Desan, *supra* note 124, at 2.

between the monarchy and private wealth holders.[155] The wealth holders loaned their precious metals to the Crown in the form of paper promises drawn by the Crown against those metals, which the Crown then issued as "money" to society.[156] Thus, the U.K. government "shared its authority to make money with entrepreneurs," "paid for the privilege of sharing its monopoly," and thereby allowed for the creation of "a group of creditors motivated to see that the government taxed sufficiently to make payment."[157] The power of the Bank of England's design of money was not the medieval method in which the "sovereign had charged people for money creation," but rather that "commercial bank production of money [became] the new method of selling money to people for private use. That form of money creation now accounts for about 95% of money production."[158]

Whether there is a "correct" singular meaning of money, or instead a diversity of possible "correct" meanings, is debatable. Nobel Prize–winning economist James Tobin equated money to language, suggesting that money has meaning just as words do: where there is shared understanding that a word means something, there is language.[159] Where there is shared understanding that something is money, it becomes such.[160] Whatever the answer to that question, it is clear that, in modern times, the diversity of money's meanings has waned. In almost all circumstances, the Bank of England model has become the singular, winner-take-all meaning of money.[161] Money is now only *credit*, issued at the pleasure of exceptionally wealthy individuals, families, banks, and conglomerates to governments, who in turn issue the "currency" to citizens who are legally compelled to use it in place of other potential forms of money.

2. The Implications of Money as Credit

The implications of money's being exclusively credit are significant for borrowing entrepreneurs. Logically, for any indebted entrepreneurial (small) firm, this means that to stay financially solvent, it is not a question of profitability (although profitability certainly matters) nor good stewardship of environmental resources (which should in theory also matter immensely)[162] but rather merely whether the entrepreneur stays in the good graces of the creditor(s). This could mean repaying debts promptly (i.e., using profitability to achieve a paydown of accrued debt). It could, but typically does not, mean good practices in environmental stewardship. Most commonly, it simply means intangible deference to the creditors' subjective whims. This includes practices such as adopting the creditors' politics, ignoring misconduct by creditors, producing products or services considered "acceptable" to the creditor (which is not necessarily or even commonly the same thing as profitability or sustainability), or even engaging in unethical or illegal behavior to offset a lack of profitability and sustainability.

155. *See id.* at 5–6; *see also* DESAN, *supra* note 153, at 29.

156. *See* Desan, *supra* note 124, at 5.

157. *Id.* at 6.

158. *Id.*

159. Tobin, *supra* note 152, at 725–26.

160. *Id.*

161. *See id.* at 727.

162. *See* BERRY, *supra* note 14.

In sum, the historical path by which the centralized design of money evolved has made money synonymous with credit. If money is credit, then indebted entrepreneurs are strongly tempted to conform their social values to the expectations of the creditors, regardless of their level of profitability or quality of environmental stewardship.[163] In this sense, if money is credit, then "accountability" means "accountable to one's creditors." And if the centralized creditors seek unethical or wasteful accountability from debtors, then the indebted entrepreneur can either comply with that creditor's wish and suffer a bad conscience (and perhaps governmental sanction) or can refuse and risk financial insolvency as the creditor cuts off funds.[164]

It is for this reason that some economists reject the concept that money should be credit.[165] They say money should be freely and spontaneously selected by entrepreneurs acting in the economy and not centrally designed or controlled.[166] Some "free evolution" monetary theorists go further and argue that only silver is valid money.[167] Silver exhibits qualities of monetary freedom for individuals (anyone who digs in the ground can get it) and, at the same time, global acceptance (it is still universally recognized as a form of monetary value).[168] Silver therefore simultaneously satisfies the individual penchant for monetary liberty and the collective need to use a single standard of money to make transactions more efficient.[169] More importantly, it does so without resorting to centralized design, which gives rise to classes of indebted entrepreneurs, with the attendant problematic consequences mentioned above.

3. A Narrative of the "No Product" of Money: How Usury, Inflation, and Financial Instruments Untethered from the Corporeal Drive Unsustainable Practices

Creating a government-mandated (fiat) credit money with interest—rather than allowing for the spontaneous emergence of unadorned silver or gold currency in synchrony with the economic development in natural resource settings, as the ancients did—carries risks of making both the economy and environment more unsustainable with attendant harms to society, particularly for those closest to the land. In a stark and insightful series of essays, farmer-poet Wendell Berry explains that credit money and its

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163. Peter Dietsche, Money Creation, Debt, and Justice, speech presented at Money as a Democratic Medium conference at Harvard Law School, Cambridge, MA (2018).

164. *See* Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 58 n.5.

165. HAYEK, *supra* note 151, at 44.

166. *Id.*

167. *See, e.g.*, Guzelian, *Silver*, *supra* note 15, at 234; Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 59 n.6.

168. Guzelian, *Dollar's Deadly Laws*, *supra*, note 22 at 98. Guzelian states the following:

> For the longest period of human civilization, gold and silver served as the most widespread forms of money. These precious metals do *not* have national character, but rather *international* character. The metals have flowed freely in trade from region to region, from people group to people group, and from nation to nation. Simultaneously, silver and gold as money retain a private and individualistic aspect outside of the control of governments that is desirable to the many in society who view centralization and government fiat control of all aspects of money as problematic . . . .

Id. (emphasis added).

169. *See id.* at 98–99.

attendant legal attributes, mandated by government and lent with interest, leads to mass poverty, food insecurity, and severe environmental degradation.[170]

First, consider what an economy should designate as "priceless": things that have "absolute value" like "fertile land, clean water and air, ecological health, and the capacity of nature to renew itself in the economic landscapes."[171] In our consumption-based economy (a criticism matched by commentators on sustainable development), these "priceless" features have a price, and that "price is made endlessly variable by an economy without a stable relation to necessity or real goods . . . and so is implicitly eligible to be ruined."[172] Such ruin results from our economy's "typical enterprise" of the "no product" of money.[173] Berry explains:

> The best-known or longest infamous example of a no-product financial system is the practice of usury, which is to say the lending of money at exorbitant interest or (some have said) at any interest.
>
> . . . .
>
> Among its other wrongs, usury destabilizes the relation of money to goods. So does inflation. So does the speculative trading in mortgages, "futures," and "commercial paper," which gives a monetary value to commodities that have no present existence or no existence at all. To inflate or obscure the value of money in relation to goods is in effect to steal both from those who spend and from those who save. It is to subordinate real value to a value that is false.
>
> *By destabilizing the relation of money to goods, a financial system usurps an economy. Then, instead of the exchange of money for goods or goods for money, we have the conversion of goods into money, in the process often destroying the goods. Money, instead of a token signifying the value of goods, becomes a good in itself, which the wealthy can easily manipulate in their own favor.* This is sometimes justified (by the favored) as freedom, as in "free trade" or "the free market," but such a freedom is calculated to reduce substantially the number of the free. The tendency of this freedom necessarily is toward monopoly. The undisguised aim of Monsanto, for example, is to control absolutely the economy of food. It would do so by setting its own price on its products sold to dependent purchasers who can set a price neither on what they buy nor on what they sell.[174]

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170. *See* Berry, *supra* note 16, at 481. *See generally* BERRY, *supra* note 14, *passim* (discussing generally the twin harms of poverty and environmental harm caused by the financial system).

171. Berry, *supra* note 16, at 476 ("A proper economy . . . would designate certain things as priceless. This would not be, as now, the 'pricelessness' of things that are extremely rare or expensive, but would refer to things of absolute value, above and beyond any price that could be set upon them by any market. The things of absolute value would be fertile land, clean water and air, ecological health, and the capacity of nature to renew itself in the economic landscapes.").

172. *Id.* at 476, 478 ("This economy is based upon consumption, which ultimately serves not the ordinary consumers but a tiny class of excessively wealthy people for whose further enrichment the economy is understood (by them) to exist.").

173. *Id.* at 481 ("This strange economy, then, produces in the ordinary course of business products that are destructive or fraudulent or unnecessary or useless, or all four at once. But another of its typical enterprises is remarkable for the production of what I suppose we will have to call no-product, or no product (to the extent that this works) but money.").

174. *Id.* at 481–82 (emphasis added).

Berry demonstrates this negative effect through agriculture, which has largely been displaced by agribusiness.[175] His wording tracks the three pillars in explaining how modern money causes negative consequences, such as "economic injustice, characteristic of industrialism, to the people who do the work: ranchers, farmers, and farm workers," as well as the other cost that "is first agricultural and then ecological: under the rule of industrialism the land is forced to produce but is not maintained; the fertility cycle is broken; soil nutrients become water pollutants; toxic chemicals and fossil energy replace human work."[176] This "fundamental disconnection between money and food" leads to "the assumption, by ignorant leaders who apparently believe it, that if we have money we will have food, an assumption that is destructive of charity, agriculture, and food."[177]

In reality, "the rule of an economy perverted by industrial and financial presumptions" leads to the destruction of "both the land and the human means of using the land and caring for it."[178] Without using the word "unsustainable," Berry describes the results in a way worth quoting at length:

> We are destroying the land by exposing it to erosion, by infusing it year after year with toxic chemicals (which incidentally poison the water), by surface mining, and by so-called development. We are destroying the cultures and the communities of land use and land husbandry by deliberately slanting the economy of the food system against the primary producers.
>
> We are losing and degrading our agricultural soils because we no longer have enough competent people available to use them properly and take proper care of them. And we will not produce capable and stewardly farmers, ranchers, and foresters by what we are calling "job creation." The fate of the land is finally not separable from the fate of the people of the land (and the fate of country people is finally not different from the fate of city people). Industrial technology does not and cannot adequately replace human affection and care. Industrial and financial procedures cannot replace stable rural communities and their cultures of husbandry. One farmer, if that name applies, cannot farm thousands of acres of corn and soybeans in the Midwest without production costs that include erosion and toxicity, which is to say damages that are either long-term or permanent.[179]

Berry furthermore provides concrete examples, invoking tobacco farming, to demonstrate how the promulgation of interest-bearing, inflationary fiat money destroys the tangible value of real natural resources like topsoil.[180] As Professor Christopher P. Guzelian has summarized Berry:

> [Farmer] Wendell Berry (2010) cautions that unless we sustain the Great Economy (Earth), the Little Economy (human commerce) will not survive. Berry gives an example from his own experience: tobacco farming. Common farming wisdom is that because tobacco is an exceptional nitrogen-robbing

175. *See id.* at 482–83.

176. *Id.*

177. *See id.* ("Apparently it takes a lot of money, a lot of power, and even a lot of education, to obscure the knowledge that food comes from the land and from the human ability to cause the land to produce.").

178. *Id.*

179. *Id.*

180. Guzelian, *Silver*, *supra* note 15, at 223–24.

> plant, if one plants tobacco in year one, then the topsoil should be restored via beans or other cover crops in year two (i.e., tobacco can only be grown in alternate years). One can push it, and plant tobacco on the same ground in consecutive year two and still get a good yield, in defiance of good practices, but then the ground is nitrogen-poor for seven years. If one plants three years consecutively (which results in declining yields in year three), then the ground is dead for all farming purposes for twenty-five years.
>
> Berry's point is that if many farmers feel compelled by immediate economic necessitude [of repaying compounding interest on farming loans (particularly high interest loans)] to plant rapidly over the short term in defiance of good practices[.] [He contends] the incalculable long-term environmental harm is being ignored because of desire for short-term profitability. Particularly if land is monetarily cheap, one might be able to just buy or relocate to other acreage once the original ground has been pushed beyond its recoverable limits. But this results in a global race-to-the-bottom of topsoil destruction. This same concept plays out for many other renewable resources, for example overfishing, clear-cutting of forests, or aquifer collapse due to over-extraction of water. In this fashion, many resources that would be renewable if used sustainably become extinct when taken in an unsustainable way with a focus upon immediate profitability.
>
> . . . [S]uch troubling environmental degradation spawned by unreasonable toil . . . occurs even for so-called "renewable" resources. We have spoken nothing of the acquisition of "non-renewable" resources that sometimes causes irreversible pollution, such as fossil fuels and mining (e.g. precious metals, uranium, etc). In particular, energy demand has proved so bottomless that the phase-in of a newer, environmentally cleaner source (e.g. oil) over an older, more greatly polluting source (e.g. coal) has not at all slowed production of the latter.[181]

C. *Inflationary Money: Perpetuating a Need for Itself at the Expense of the Poor and the Environment*

Inflation, just like excessive interest, can cause untold economic, environmental, and social harm. This Part explains how legal seigniorage, fractional-reserve banking, and legal tender laws combine to make money inflationary. The poor therefore need to acquire more and more money just to keep up, with consequences for the natural environment that is taxed beyond its capacity in this never-ending race.

1. Inequitable Legal Seigniorage Pushes the Poor Toward Overextraction Just To Live

The capability of the government to inflate the U.S. dollar has skyrocketed since the abandonment of precious metal standards.[182] By substituting fiat money for raw

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181. Guzelian, *Silver*, *supra* note 15, at 223–24 (citing BERRY, *supra* note 14; Daniel Yergin, *The Power Revolutions*, WALL ST. J. (Aug. 21, 2015, 11:56 AM), http://www.wsj.com/articles/the-power-revolutions-1440172598 [http://perma.cc/4CVL-FQ4X]).

182. A dollar today buys only 4.52% of what it could purchase in 1800. Ian Webster & Alioth Finance, *$1 in 1800 Is Worth $22.13 Today*, CPI INFLATION CALCULATOR,

silver, a government is able to establish a "legal seigniorage" for fiat money, with seigniorage being the change in the relative worth of the government's new money for the old money.[183] Said differently, a "gram of government-issued money"[184] is not the same weight as a "gram of raw silver"[185] (assuming the weight of a silver gram was set by natural consensus and spontaneous emergence of a standard).[186] The government has created a new benchmark weight for society's new fiat money solely because of the force of law.[187]

To understand why a government might allow a new fiat currency to appreciate relative to a silver standard, it is vitally important to understand who benefits financially from inflation: (1) the government that has created the fiat money, and (2) those who are first in line to receive that fiat money from the government. Any form of fiat money is traded through society *preferentially*—meaning that it takes a *path* from the hands of the government through society. It is always the case that some trading parties receive fiat money from the government before others do.[188] Those first to receive it are often those

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http://www.officialdata.org/us/inflation/1800?amount=1 [http://perma.cc/G967-TJ9L] (last visited Apr. 1, 2022).

183. *Cf.* Perry v. United States, 294 U.S. 330, 350 (1935) ("[I]f the terms of the Government[] . . . as to the standard of payment can be repudiated, it inevitably follows that the obligation as to the amount to be paid may also be repudiated.").

184. Obviously modern fiat currencies are not typically measured in weights, but even metaphorically the principle of "relative currency weight" can be understood.

185. *See* EDWIN ROBERT ANDERSON SELIGMAN, PRINCIPLES OF ECONOMICS: WITH SPECIAL REFERENCE TO AMERICAN CONDITIONS 512 (1905) ("Fiat money is almost always, but not necessarily, paper money. The silver rupee in India, for instance, was fiat money from 1893 to 1899, because the government assigned to it a higher value . . . .").

186. Or by God's biblical decree. *See* Guzelian, *Silver*, *supra* note 15, *passim*.

187. *Compare* Juilliard v. Greenman, 110 U.S. 421, 449 (1884) ("[C]ongress may (as it did with regard to gold by the act of June 28, 1834, [ch.] 95, and with regard to silver by the act of February 28, 1878, [ch.] 20) issue coins of the same denominations as those already current by law, but of less intrinsic value than those, by reason of containing a less weight of the precious metals, and thereby enable debtors to discharge their debts by the payment of coins of the less real value."), *with id.* at 465–66 (Field, J., dissenting). Justice Field wrote:

> Undoubtedly [C]ongress has power to alter the value of coins issued, either by increasing or diminishing the alloy they contain; so it may alter, at its pleasure, their denominations; it may hereafter call a dollar an eagle, and it may call an eagle a dollar. But if it be intended to assert that [C]ongress can make the coins changed the equivalent of those having a greater value in their previous condition, and compel parties contracting for the latter to receive coins with diminished value, ... [a]ny such declaration on its part would be not only utterly inoperative in fact, but a shameful disregard of its constitutional duty. . . . Arbitrary and profligate governments have often resorted to this miserable scheme of robbery, which Mill designates as a shallow and impudent artifice, the "least covert of all modes of knavery, which consists in calling a shilling a pound, that a debt of one hundred pounds may be canceled by the payment of one hundred shillings."

Id. at 465–66.

188. *See* MURRAY N. ROTHBARD, THE CASE AGAINST THE FED (2007). Rothbard refers to any government who issues fiat money as a legal "counterfeiter" and describes as follows how this "counterfeit" money (i.e., fiat money) follows a damaging path through the economy:

> [F]irst the counterfeiters, then the retailers, etc., have new money and monetary income which they use to bid up goods and services, increasing their demand and raising the prices of the goods that they purchase. But as prices of goods begin to rise in response to the higher quantity of money, those who haven't yet received the new money find the prices of the goods they buy have gone up, while their own selling prices or incomes have not risen. In short, the early receivers of the new

in positions of high political influence. The government, via fiat, creates a *legal* seigniorage. For example, if a government requires silver to be minted into coins with the government's image in order to be used (call it "fiat silver"), then it might be the case that 0.75 grams fiat silver coinage equals 1.00 gram raw silver, *by governmental legal decree*.[189] And the merchants *must* receive the fiat silver rather than raw silver in a trade because of legal tender (it settles the debt, by proclamation of the government),[190] functional currency requirements (the merchants need fiat silver to pay the government's subsequent taxes),[191] and bans on precious metals (they are prohibited from using raw silver as money henceforth except in acquiring fiat silver from the government).[192]

> money in this market chain of events gain at the expense of those who receive the money toward the end of the chain, and still worse losers are the people (e.g., those on fixed incomes such as annuities, interest, or pensions) who never receive the new money at all. Monetary inflation, then, acts as a hidden "tax" by which the early receivers expropriate (i.e., gain at the expense of) the late receivers. And of course since the very earliest receiver of the new money is the counterfeiter, the counterfeiter's gain is the greatest. This tax is particularly insidious because it is hidden, because few people understand the processes of money and banking, and because it is all too easy to blame the rising prices, or "price inflation," caused by the monetary inflation on greedy capitalists, speculators, wild-spending consumers, or whatever social group is the easiest to denigrate. Obviously, too, it is to the interest of the counterfeiters to distract attention from their own crucial role by denouncing any and all other groups and institutions as responsible for the price inflation.
>
> . . . .
>
> The big error of all quantity theorists, from the British classicists to Milton Freidman, is to assume that money is only a "veil," and that increases in the quantity of money only have influence on the price level, or on the purchasing power of the money unit. On the contrary, it is one of the notable contributions of "Austrian School" economists and their predecessors, such as the early-eighteenth-century Irish-French economist Richard Cantillon, that, in addition to this quantitative, aggregative effect, an increase in the money supply also changes the distribution of income and wealth. The ripple effect also alters the structure of relative prices, and therefore of the kinds and quantities of goods that will be produced, since the counterfeiters and other early receivers will have different preferences and spending patterns from the late receivers who are "taxed" by the earlier receivers. Furthermore, these changes of income distribution, spending, relative prices, and production will be permanent and will not simply disappear, as the quantity theorists blithely assume, when the effects of the increase in the money supply will have worked themselves out.
>
> In sum, the Austrian insight holds that counterfeiting will have far more unfortunate consequences for the economy than simple inflation of the price level. There will be other, and permanent, distortions of the economy away from the free market pattern that responds to consumers and property-rights holders in the free economy. This brings us to an important aspect of counterfeiting which should not be overlooked. In addition to its more narrowly economic distortion and unfortunate consequences, counterfeiting gravely cripples the moral and property rights foundation that lies at the base of any free-market economy.

Id. at 24–26.

189. *Cf.* Legal Tender Cases, 79 U.S. (12 Wall.) 457, 548–49 (1870) ("No one ever doubted that a debt of one thousand dollars, contracted before 1834, could be paid by one hundred eagles coined after that year, though they contained no more gold than ninety-four eagles such as were coined when the contract was made, and this, not because of the intrinsic value of the coin, but because of its legal value.").

190. See *infra* Part II.C.3 for a discussion of how legal tender benefits the powerful and contributes to inflation.

191. *See infra* Part II.D.

192. *See supra* Part II.A.

The key point is that this path of spending a particular item of fiat money starting out in the hands of the government eventually must reach an end.[193] Some final person or group in society suffers the full weight of multiple rounds of inflation being created by the government's issuance of a round of fiat money.[194] The consequences of inflation affect all three pillars: those who receive the money last must toil much harder to maintain their existing standard of living, and in their excessive toiling, those who suffer the full weight of inflation will be compelled to over extract natural resources in order to live.[195] Inflationary fiat money also tends to displace occupations closest to food production. In the United States, the number of farmers since 1920 declined from 30.2% of the population (when many people were subsistence farmers)[196] to less than 1.0% in the latest 2017 census of agriculture.[197] Farmer suicides are linked to the farmers' economic prospects and the corresponding rate now averages one and a half to two times higher than the U.S. average—the highest of any occupation.[198]

2. Fractional-Reserve Banking Enhances Inflation

Since the Parliament of the United Kingdom passed the 1844 Peel Act,[199] the world's commercial banking systems have migrated almost universally to fractional-reserve banking.[200] As Nobel Laureate Friedrich Hayek described this term, a bank is maintaining fractional reserves if it "grant[s] . . . credit to an amount exceeding this [amount] in deposits,"[201] or in other words, "re-lend[s] several times the amount deposited."[202] By contrast, the loan-making of a full-reserve (i.e., 100%-reserve) bank never exceeds the actual deposits held by the bank.

The concern with fractional-reserve banking—particularly when coordinated by central banks—is that a period of rapid price inflation sets in, and prices, employment, and output all become subject to more dramatic booms and busts. There are slightly

193. *See* ROTHBARD, *supra* note 188, at 55.

194. The government can create arbitrary scarcity or surplusage of fiat currency by unilaterally deciding how much to issue. *Id.* at 7.

195. See *supra* note 181 and accompanying text for a discussion of examples that demonstrate the detrimental effects of inflation fiat money.

196. J.Z. Kalbacher & D. Deare, *Farm Population of the United States, 1985*, 59 CURR. POPUL. REP. POPUL. CHARACT. 1, 1 (1986).

197. *See* U.S. DEP'T OF AGRIC., 2017 CENSUS OF AGRICULTURE 7 (2019), http://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_US/usv1.pdf [http://perma.cc/6DVS-HVL7].

198. *See* Debbie Weingarten, *Why Are America's Farmers Killing Themselves?*, GUARDIAN (Dec. 11, 2018, 12:51 PM), http://www.theguardian.com/us-news/2017/dec/06/why-are-americas-farmers-killing-themselves-in-record-numbers#:~:text=The%20CDC%20report%20suggested%20possible,and%20access%20to%20lethal%20means%E2%80%9D [http://perma.cc/TG6P-BSQX] (reporting American farmers' suicide rate is the highest of any occupation and that farmers' "rate of self-imposed death rises and falls in accordance with their economic well-being").

199. Bank Charter Act 1844, 7 & 8 Vict. c. 32 (Eng.).

200. *See* Jesús Huerta de Soto, *Economic Recessions, Banking Reform and the Future of Capitalism*, 31 ECON. AFFS. 76, 77 (2011); LUDWIG VON MISES, HUMAN ACTION: A TREATISE ON ECONOMICS 569 (1998).

201. FRIEDRICH A. HAYEK, PRICES AND PRODUCTION AND OTHER WORKS 82 (2008).

202. *Id.* at 86.

different theoretical accounts of how this occurs,[203] but Professor Jesús Huerta de Soto offers a particularly concise and clear exposition.[204] He notes that the first step in the economic cycle caused by fractional-reserve banking is an inflationary expansion ("boom"), accompanied by a general, dramatic price increase in consumer commodities:

> The money created through [fractional-reserve] credit expansions is used by entrepreneurs to demand factors of production, which they employ mainly in capital goods industries more distant from consumption. As the process has not been triggered by an increase in savings, no productive resources are liberated from consumer industries, and the prices of commodities, factors of production, capital goods and the securities that represent them in stock markets tend to grow substantially and create a market bubble. Everyone is happy, especially because it appears it would be possible to increase one's wealth very easily without any sacrifice in the form of prior saving and honest hard individual work.[205]

Professor Huerta de Soto contends that at some point, the boom reverses into an economic contraction ("bust"): a deflationary collapse in commodity, capital, and consumer goods prices artificially inflated by the fractional-reserve expansion, along with a reallocation of resources from the grossly overinflated capital (advanced technology) sectors to consumer goods (immediate consumption) sectors.[206]

What is important to grasp in commenting on fractional-reserve banking is twofold. First, the practice is nearly universal among commercial banks, entirely legal, and endorsed by the Federal Reserve.[207] Second, the vast majority of loanable U.S. dollars on demand deposit with commercial banks have been loaned out numerous times over, resulting in double-counting accounting of the dollars as both savings as well as loans.[208] Therefore, as Professor Huerta de Soto notes, the inflation that ordinary citizens experience from the issuance of the fiat currency is substantially greater than it would otherwise be were the government to require a 100% reserve. And because inflation has both economically and environmentally severe consequences,[209] the lawfulness of fractional-reserve banking practices contributes to the U.S. dollar's current unsustainability.

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203. An explanation of the microeconomic mechanisms by which this happens is provided elsewhere and need not be restated here. *See* JESÚS HUERTA DE SOTO, MONEY, BANK CREDIT, AND ECONOMIC CYCLES *passim* (4th ed. 2020).

204. Huerta de Soto, *supra* note 200, at 78–79.

205. *Id*. at 78.

206. *Id.* at 79.

207. *See* HUERTA DE SOTO, *supra* note 203, at 115–19.

208. *See* ROTHBARD, *supra* note 188, at 40 ("[T]he new fake receipts will, like the old genuine ones, circulate on the market as if they were money. Functioning as money, or money-surrogates, they will thereby add to the stock of money in the society, inflate prices, and bring about a redistribution of wealth and income from the late to the early receivers of the new 'money.'").

209. See *supra* note 188 and accompanying text for a discussion on how the issuance of fiat money effectively turns a government to a legal "counterfeiter."

3. Legal Tender Benefits the Powerful While Causing Secondary Inflation

The question of whether a government by law may force creditors to accept payment by debtors in a currency designated by the government as such (i.e., "legal tender") is as old as America. In 1702, the Massachusetts Colony issued bills of credit to finance its debts. Other colonies followed suit throughout the 1700s.[210] "Continentals"—national paper currency issued to finance the Revolutionary War—

> were not made legal tenders at first, but in January, 1777, the Congress passed resolutions declaring that they ought to pass current in all payments, and be deemed in value equal to the same nominal sums in Spanish dollars, and that any one refusing so to receive them ought to be deemed an enemy to the liberties of the United States.[211]

However, "the [paper money] scheme failed and the bills became, during 1780, of so little value that they ceased to circulate and 'quietly died' . . . 'in the hands of their possessors.'"[212]

Many commentators have speculated as to what the Founding Fathers intended with respect to federal legal tender laws.[213] The 1789 Constitutional Convention, by a vote of more than four to one, refused to grant the U.S. Congress the power "to emit bills on the credit of the United States."[214] In interpreting this event, James Madison recorded: "Striking out the words cut off the pretext for a paper currency, and particularly

210. GEORGE BANCROFT, A PLEA FOR THE CONSTITUTION OF THE U.S. OF AMERICA WOUNDED IN THE HOUSE OF ITS GUARDIANS 10–11 (1886).

211. Legal Tender Cases, 79 U.S. (12 Wall.) 457, 558 (1871) (Bradley, J., concurring) (citing 3 JOURNALS OF CONGRESS 19–20 (1775)).

212. *Id.* at 646 (Field, J., dissenting) (citing 2 PITKIN'S HISTORY 157).

213. *Cf.* Sturges v. Crowninshield, 17 U.S. (4 Wheat.) 122, 206 (1819) ("The attention of the [Constitutional] [C]onvention, therefore, was particularly directed to paper money, and to acts which enable[] the debtor to discharge his debt, otherwise than was stipulated in the contract. . . . The [C]onvention appears to have intended to establish a great principle, that contracts should be inviolable."). Constitutional originalist Natelson concludes that:

> According to the original understanding, the Constitution's Coinage Clause granted to Congress the express power to coin money and bestow legal tender quality upon that money. A similar power of lesser, but still broad, scope was also created by the Commerce Clause, for part of the eighteenth-century definition of "regulating commerce" was the issuance and regulation of the media of exchange.
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> In addition, the money thus "coined" did not need to be metallic. Paper or any other material that Congress selected would suffice.

Robert G. Natelson, *Paper Money and the Original Understanding of the Coinage Clause*, 31 HARV. J. L. & PUB. POL'Y 1017, 1079 (2008). *Compare* 6 DANIEL WEBSTER, THE WORKS OF DANIEL WEBSTER (8th ed. 1854) *and* Juilliard v. Greenman, 110 U.S. 421, 451 (1884) (Field, J., dissenting) ("If there be anything in the history of the constitution which can be established with moral certainty, it is that the framers of that instrument intended to prohibit the issue of legal-tender notes both by the general government and by the states, and thus prevent interference with the contracts of private parties."), *with Juilliard*, 110 U.S. at 443–45, 447–48, 450 (concluding that the U.S. Constitution does not prohibit federal legal tender, that there is a "danger in giving too much weight, upon such a question to the debates and the votes in the [Constitutional] convention," and that whether it is "wise and expedient to resort to [legal tender] is a political question, to be determined by congress when the question of exigency arises, and not a judicial question, to be afterwards passed upon by the courts").

214. BANCROFT, *supra* note 210, at 45 (internal quotation marks omitted).

for making the bills a tender either for public or private debts."[215] And in 1792, Congress established *by law* that the U.S. dollar would be 371¼ grains of fine Spanish-milled silver, not a paper currency.[216]

The first half of the nineteenth century saw little development of legal tender laws in the United States. In 1819, the U.S. Supreme Court proclaimed in the landmark case *McCulloch v. Maryland*[217] that not only was a national bank constitutional, but states could not tax the federal government notes issued by that bank. Further, states were not permitted to issue their own notes much longer after *McCulloch*. In the 1830 case *Craig v. Missouri*,[218] Chief Justice John Marshall wrote that states could not issue their own bills of credit to debt-burdened farmers because the certificates were unconstitutional under Article I, Section 10 of the Constitution, which dictates that states can only make gold or silver legal tender.[219] Thus, it remained somewhat of an unanswered question as to whether a national currency could be legal tender, but state currencies were specifically excluded.

By 1869, the federal government was permitted to tax state-issued notes, thus ensuring the demise of state banks.[220] As a nineteenth-century legal commentator concluded, Article I, Section 10 "in effect took from the states all power over the subjects, both of making money and declaring legal tender."[221]

But the Union's insolvency during the American Civil War radically shifted perceptions of the nation's need for a legal tender. In a desperate measure to keep the Union solvent, President Abraham Lincoln directed the issuance of millions of so-called greenbacks—paper money supposedly redeemable in precious metals.[222] In 1871, the U.S. Supreme Court held in the *Legal Tender Cases*[223] that the public *had* to accept these

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215. *Id.* at 45 (internal quotation marks omitted). A discounting view of Madison's contrary comment was given by a nineteenth-century legal commentator, who stated:

> [Madison] does not give us the course of argument by which he arrived at this [conclusion]. Nor does he give us any clue as to whether the other members of the convention agreed with him. In a word, it is a purely private opinion of Mr. Madison which events have proved to be wrong. This is not the first time that an individual, in drawing a public document, thinking that he had included and excluded certain things, found out afterwards, when the instrument came up for adjudication, that he had made a mistake.

Edmund J. James, *Some Considerations on the Legal-Tender Decisions*, 3 PUBL'N AM. ECON. ASS'N 49, 66 (1888).

216. *See* CRAIG K. ELWELL, CONG. RSCH. SERV., BRIEF HISTORY OF THE GOLD STANDARD IN THE UNITED STATES 2 (2011), http://fas.org/sgp/crs/misc/R41887.pdf [http://perma.cc/T5ZM-HXLY].

217. 17 U.S. 316 (1819).

218. 29 U.S. 410 (1830).

219. *Craig*, 29 U.S. at 411, 417–18.

220. *See* Veazie Bank v. Fenno, 75 U.S. 533, 556 (1869) (Nelson, J., dissenting) ("[T]he burden of the tax . . . has proved fatal to those [banks] of the States; and, if we are at liberty to judge of the purpose of an act, from the consequences that have followed, it is not, perhaps, going too far to say, that these consequences were intended.").

221. Isaac F. Redfield, *Legal Tender Notes Before the Supreme Court.*, 17 U. PA. L. REV. 193, 200 (1869).

222. Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 65. This was not the first time that the United States had issued a paper money—indeed, during the very founding of the Republic, the colonial U.S. government issued "Continentals" to finance the Revolutionary War, but those paper bills became rapidly worthless in the aftermath of the war. *See id.* at 61–62.

223. 79 U.S. (12 Wall.) 457 (1871).

greenbacks in lieu of precious metals as a settlement of public or private debts.[224] Gold and silver maintained legal tender status for only two years thereafter (until 1873).[225] In a series of cases after the 1871 *Legal Tender Cases*, until 1884, the Court held that it was constitutionally proper for Congress to issue legal tender paper money, not only in wartime emergencies[226] but also in peacetimes.[227]

Today, *only* Federal Reserve notes, and circulating notes of Federal Reserve banks and national banks, not gold and silver, are decreed as legal tender.[228] Thus, the displacement has come full circle: originally, only gold and silver were legal tender; now, the opposite—that only paper dollars are legal tender—is true.

Making a credit money—rather than unadorned silver or gold—legal tender enhances the already existing risks of making money unsustainable. Imagine a government enacts a legal tender law. This law requires any creditor to accept the credit money in place of raw silver or any other resource when the debtor wishes to pay with such. Merchants *must* receive the credit money rather than raw silver in a trade because of legal tender (it settles the debt by proclamation of the government). When legal tender status is bestowed on credit money and not gold or silver, it creates a seigniorage incentive for debtors to pay with (inflationary) fiat credit money over raw silver.[229] Thus, legal tender laws tend to drive out raw silver as the currency and substitute fiat money in its place.[230] More specifically, rather than being a seigniorage taken in *by the*

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224. *Legal Tender Cases*, 79 U.S. (12 Wall.) at 457.

225. Gold and silver were legal tender from 1793 until 1873:

> From 1792 to 1873 both the gold and silver dollar were standard and legal tender, coinage was free and unlimited. Persistent efforts were made to keep both in circulation. Because the prescribed relation between them got out of harmony with exchange values, the gold coin disappeared, and did not in fact freely circulate in this country for 30 years prior to 1834. During that time business transactions were based on silver. In 1834, desiring to restore parity and bring gold back into circulation, Congress reduced somewhat (6 per cent.) the weight of the gold coin and thus equalized the coinage and the exchange values. The silver dollar was not changed. The purpose was to restore the use of gold as currency—not to force up prices or destroy obligations.

Norman v. Baltimore & O.R. Co., 294 U.S. 240, 316 (1935) (McReynolds, J., dissenting).

226. Robert Natelson documents the seminal Supreme Court cases between 1871 and 1884:

> Knox v. Lee and Parker v. Davis, 79 U.S. (12 Wall.) 457 (1871) (companion cases that together are known as the *Legal Tender* cases) (overruling Hepburn and holding, 5–4, that Congress could make Civil War paper money legal tender for debts arising both before and after the legal tender enactment); Dooley v. Smith, 80 U.S. 604 (1871) (upholding, 6–3, a tender law covering paper money, relying on the Legal Tender Cases); Railroad Co. v. Johnson, 82 U.S. 195 (1872) (upholding a legal tender law, 6–3); Maryland v. Railroad Co., 89 U.S. 105 (1874) (holding, 7–2, that to sustain a contractual requirement that a debt be paid only in gold there must be a specific term in the contract to that effect); Juilliard v. Greenman, 110 U.S. 421 (1884) (holding, 8–1, that Congress had authority to enact peacetime tender law covering reissued greenbacks).

Natelson, *supra* note 213, at 1019 n.3.

227. Juilliard v. Greenman, 110 U.S. 421, 450 (1884).

228. 31 U.S.C. § 5103.

229. *See* Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 72–101 (explaining the seigniorage incentive to pay with inflationary fiat credit money rather than raw silver).

230. That fiat money is likely to become relatively more attractive to hold than the raw silver by way of legal tender has been an argument made in the favor of invoking legal tender for fiat money. But Justice Field took exception with this position, stating that it exceeds the proper limits of the government's authority. He noted:

government—as is commonly understood by seigniorage—legal tender is a form of economic rent enjoyed *by the monopoly or oligopoly holders* of the inflationary fiat credit money who preferentially received it from the government before others did.[231] In other words, bestowing legal tender status on fiat money causes secondary inflation—above and beyond that inflation that the very issuance of fiat money causes.[232] And, as has been made clear throughout Part II.C, any money that is inflationary—and fiat money with legal tender status is doubly so—causes both economies and natural resources to become unsustainable.[233]

D. *Functional Currency Requirements and Monopoly Money: The Miracle of the Coin in the Fish's Mouth Reconsidered*

Functional currency is any money or asset that a government, in its sole discretion, may establish as a suitable form of tax payment or rebate.[234] For instance, at various

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> The argument presented by the advocates of legal tender is, in substance, this: The object of borrowing is to raise funds, the addition of the quality of legal tender to the notes of the government will induce parties to take them, and funds will thereby be more readily loaned. But the same thing may be said of the addition of any other quality which would give to the holder of the notes some advantage over the property of others, as, for instance, that the notes should serve as a pass on the public conveyances of the country, or as a ticket to places of amusement, or should exempt his property from state and municipal taxation, or entitle him to the free use of the telegraph lines, or to a percentage from the revenues of private corporations. The same consequence—a ready acceptance of the notes—would follow; and yet no one would pretend that the addition of privileges of this kind with respect to the property of others, over which the borrower has no control, would be in any sense an appropriate measure to the execution of the power to borrow. . . . The government, in substance, says to parties with whom it deals: Lend us your money, or furnish us with your products or your labor, and we will ultimately pay you, and as evidence of it we will give you our notes, in such form and amount as may suit your convenience, and enable you to transfer them; we will also receive them for certain demands due to us. In all this matter there is only a dealing between the government and the individuals who trust it. The transaction concerns no others. The power which authorizes it is a very different one from a power to deal between parties to private contracts in which the government is not interested, and to compel the receipt of these promises to pay in place of the money for which the contracts stipulated. This latter power is not an incident to the former; it is a distinct and far greater power. There is no legal connection between the two—between the power to borrow from those willing to lend and the power to interfere with the independent contracts of others. The possession of this latter power would justify the interference of the government with any rights of property of other parties, under the pretense that its allowance to the holders of the notes would lead to their more ready acceptance, and thus furnish the needed means.

Juilliard, 110 U.S. at 461–62 (Field, J., dissenting).

231. *Id.*; *accord* Hepburn v. Griswold, 75 U.S. 603, 621 (1869) ("[I]t may be said that the depreciation will be less to him who takes [fiat currency] from the government, if the government will pledge to him its power to compel his creditors to receive them at par in payments.").

232. *See supra* note 188 and accompanying text.

233. *See supra* note 188 and accompanying text.

234. *See* INTERNAL REVENUE SERV., LB&I VIRTUAL LIBRARY: CONCEPT UNIT 6 (2017), http://www.irs.gov/pub/int_practice_units/fcu_c_18_03_02_0.pdf [http://perma.cc/S3BZ-WQX5] ("The term functional currency means the dollar, or in the case of a qualified business unit, the currency of the economic environment in which a significant part of the unit's activities are conducted and in which is used by the unit in keeping its books and records.").

historical times, ancient Israelites,[235] Chinese,[236] and Arab Sasanians[237] were obligated to pay taxes and tributes only in silver. Today, under U.S. law, the U.S. Federal Reserve Note Dollar is the exclusive functional currency unit of U.S. Treasury tax collection.[238] After President Nixon removed the U.S. dollar from its last remaining vestiges of the international gold standard in 1971, a large number of cases were brought in the 1970s and 1980s challenging Federal Reserve fiat paper dollars as unconstitutional forms of functional currency.[239] Other lawsuits during the same era sought holdings that state and municipal governments could only accept tax payments in gold or silver.[240] Neither set

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235. *See Exodus* 30:13.

236. NING MA, THE AGE OF SILVER: THE RISE OF THE NOVEL EAST AND WEST 58 (2016).

237. *See* Jonathan Karam Skaff, *Sasanian and Arab-Sasanian Silver Coins from Turfan: Their Relationship to International Trade and the Local Economy*, 11 ASIA MAJOR 67, 77 (1998).

238. *See Foreign Currency and Currency Exchange Rates*, INTERNAL REVENUE SERV., http://www.irs.gov/individuals/international-taxpayers/foreign-currency-and-currency-exchange-rates [http://perma.cc/9NLK-CF67] (last updated June 8, 2021). The regulations state:

> Payments of U.S. tax must be remitted to the U.S. Internal Revenue Service (IRS) in U.S. dollars.
>
> . . . The U.S. dollar is the functional currency for all taxpayers except some qualified business units (QBUs). . . .
>
> Even if you have a QBU, your functional currency is the dollar if any of the following apply.
>
> - You conduct the business in dollars.
> - The principal place of business is located in the United States.
> - You choose to or are required to use the dollar as your functional currency.
> - The business books and records are not kept in the currency of the economic environment in which a significant part of the business activities is conducted.

Id.

239. *E.g.*, United States v. Whitesel, 543 F.2d 1176 (6th Cir. 1976), *cert. denied*, 431 U.S. 967 (1977); United States v. Moon, 616 F.2d 1043 (8th Cir. 1980); United States v. Rifen, 577 F.2d 1111 (8th Cir. 1978); United States v. Daly, 481 F.2d 28 (8th Cir. 1973), *cert. denied*, 414 U.S. 1064 (1973); United States v. Hurd, 549 F.2d 118 (9th Cir. 1976); United States v. Schmitz, 542 F.2d 782 (9th Cir.1976), *cert. denied*, 429 U.S. 1105 (1977); United States v. Wangrud, 533 F.2d 495 (9th Cir. 1976) *cert. denied*, 429 U.S. 818 (1976); United States v. Gardiner, 531 F.2d 953 (9th Cir. 1976), *cert. denied*, 429 U.S. 853 (1976); Milam v. United States, 524 F.2d 629 (9th Cir. 1974); United States v. Rickman, 638 F.2d 182 (10th Cir. 1980); United States v. Ware, 608 F.2d 400 (10th Cir. 1979); Herald v. State, 691 P.2d 1255 (Idaho Ct. App. 1984); Rush v. Casco Bank & Trust Co., 348 A.2d 237 (Me.1975); Allnutt v. State, 478 A.2d 321 (Md. Ct. Spec. App. 1984); Chermack v. Bjornson, 223 N.W.2d 659 (Me. 1975), *cert. denied*, 421 U.S. 915 (1975); Middlebrook v. Miss. State Tax Comm'n, 387 So.2d 726 (Miss. 1980); State v. Gasser, 306 N.W.2d 205 (N.D. 1981); Dorgan v. Kouba, 274 N.W.2d 167 (N.D. 1978); First Nat'l Bank of Black Hills v. Treadway, 339 N.W.2d 119 (S.D. 1983); City of Colton v. Corbly, 323 N.W.2d 138 (S.D. 1982); Leitch v. State Dep't of Revenue, 519 P.2d 1045 (Or. Ct. App. 1974); Rothacker v. Rockwall Cnty. Cent. Appraisal Dist., 703 S.W.2d 235 (Tex. Ct. App. 1985); Kauffman v. Citizens State Bank of Loyal, 307 N.W.2d 325 (Wis. Ct. App. 1981).

240. *E.g.*, Radue v. Zanaty, 308 So.2d 242 (Ala. 1975) (tax check payment had memo line demanding government redemption in gold or silver); Spurgeon v. Franchise Tax Bd., 160 Cal. App. 3d 524 (1984) (attempt to reclaim purported overpayment of taxes based on declining purchasing power of U.S. fiat dollar); Cohn v. Tucson Elec. Power Co., 673 P.2d 334 (Ariz. Ct. App. 1983) (public utility terminated electrical service to customer who refused to pay tax portion of bill in anything other than gold or silver); People v. Lawrence, 333 N.W.2d 525 (Mich. Ct. App. 1983) (attempt to pay traffic fine in gold or silver); Richardson v. Richardson, 332 N.W.2d 524 (Mich. Ct. App. 1983) (attempt to pay state-compelled child support in gold or silver); Trohimovich v. Dir. of Dep't of Lab. & Indus., 584 P.2d 467 (Wash. Ct. App. 1978) (attempt to pay government industrial insurance premia via a formula differentiating the values between "statutory dollars" computed from the daily

of lawsuits was successful. Similarly, attempts to pay taxes or other government fees by "public office money certificates," which are "promise[s] to pay when an official determination is made as to what type of currency has been authorized as a substitution for gold and silver,"[241] were deemed "frivolous."[242] Thus, modern American case law concludes that Federal Reserve dollars are functional currency, and gold and silver are not.

Making a credit money, rather than unadorned silver or gold, the exclusive functional currency of a civilization carries risks of making the money more unsustainable. When the government enacts a "functional currency" requirement that henceforth all tax payments must be made in credit money rather than, say, raw silver, this mandate has the effect of guaranteeing a universal demand for the government's monopoly product (fiat credit money), because all denizens must acquire at least enough of it to pay the government their owed tributes.[243]

The harmful economic and environmental effects of government (fiat) credit money when combined with functional currency requirements were known to the ancients. In the Gospel of Matthew in the New Testament Bible, Jesus's Miracle of the Coin in the Fish's Mouth relates exactly this problem of the "subsistence poor."[244] Saint Peter was an illiterate, primitive hunter-gatherer who subsisted on his fishing catches and had little need for money. Confronted by Israelite tax authorities to pay them the Tyrian Shekel (the government-issued silver coin of the Temple Treasury that was demanded in an annual head tax on all adult male Israelites), Peter, who had even abandoned his limited subsistence toil to follow Jesus, was likely flat broke with no money (or fish) to his name. Yet his economic citizenship demanded of him to annually pay the Temple a Tyrian Shekel or else he would be imprisoned or worse.

Peter could have set about frantically fishing (his only discernible economic skill) to try to create enough value to trade for a Tyrian Shekel. That would have required far more (unsustainable) fishing on his part than would have been the case in an economy without a government-generated demand for Tyrian Shekels.[245] Or he could have taken on unrepayable loans. Or he could have pled for the king's mercy and sought menial work in the Temple court, abandoning a career of fishing. Or he could have stolen a Tyrian Shekel. Or he could have committed suicide. Or he could have fled and become a refugee. Or Peter needed a miracle.

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gold price on the London exchange and "paper dollars" as issued by the Federal Reserve); Allen v. Craig, 564 P.2d 552 (Kan. Ct. App. 1977) (attempt to pay taxes in silver dollars).

241. Parsons v. State, 745 P.2d 300, 306 n.1 (Idaho Ct. App. 1987).

242. *Id.* at 307; *see also* Pyne v. Meese, 172 Cal. App. 3d 392 (1985); Becker v. Dep't of Registration & Educ., 513 N.E.2d 5 (Ill. App. Ct. 1987); Dack v. State, 457 N.E.2d 600 (Ind. Ct. App. 1983); Niles v. Trawick, 512 A.2d 808 (Pa. Commw. Ct. 1986).

243. *See* Paul Krugman, *Transaction Costs and Tethers: Why I'm a Crypto Skeptic*, N.Y. TIMES (July 31, 2018), http://www.nytimes.com/2018/07/31/opinion/transaction-costs-and-tethers-why-im-a-crypto-skeptic.html [http://perma.cc/QDM2-DTSD] ("[T]he value of a dollar doesn't come entirely from self-fulfilling expectations: ultimately, it's backstopped by the fact that the U.S. government will accept dollars as payment of tax liabilities — liabilities it's able to enforce because it's a government.").

244. *Matthew* 17:24–27.

245. See *supra* Part II.B.3 for a discussion on unsustainable financial practices.

Jesus gave him one—he told Peter to go fish, and to look in the mouth of the first fish Peter caught. There, Peter found a "stater," a silver coin that was either the Tyrian Shekel or possibly an Athenian Tetradrachm, which would have been likewise accepted as full payment of the functional currency tax. Seldom do humans find valuable silver coins in the mouths of living fish. It is an unnatural phenomenon. It means that one's labor (fishing) yields *two* normally unpaired resources and eliminates the need for trade to get one or the other.

In the Miracle story, Peter faced a paradox. He had to eat to live. *Simultaneously*, he had to have government money—a Tyrian Shekel—to live (or else he would be imprisoned, beaten, and probably killed by a coercive government). According to a subjective theory of value, in the circumstances in which Peter found himself, any self-preserving person should place equally vast importance on simultaneously having both a Tyrian Shekel and a fish.[246] Peter had neither, and indeed, the fiat money and functional currency system guaranteed that he, a subsistence poor, would eventually reach a point where he would have neither.[247] It is no accident that this seminal historical account of the two equally and infinitely valued goods at issue for subsistence-poor Saint Peter involved fiat money and subsistence food.[248] The Miracle of the Coin provides much the same caution about money as Wendell Berry's, as noted earlier in this Article: when notional money becomes so disjointed from real agricultural and natural resources as to require a miracle of God to restore that equilibrium, the pursuit of money and profits threatens to overwhelm the economy, environment, and society alike.[249]

CONCLUSION AND RECOMMENDATIONS FOR FURTHER STUDY

To lift the veil on the mythic aspects of sustainable development that limit its potential, this Article draws upon new narratives to reveal the importance of sustainable money and the corollary that money made unsustainable by current laws causes harm to the economy, the environment, and the poor. Because this Article is the first to make this connection, it was necessarily limited to a survey of laws and their general effect. Additional study is needed, such as to explicate specific laws regulating or related to money in more detail. This includes looking at other nations[250] as well as treaties or

246. *See* Robert P. Murphy, *Subjective-Value Theory*, MISES DAILY ARTICLES (May 30, 2011, 12:00 AM), http://mises.org/library/subjective-value-theory [http://perma.cc/9J8N-J7UM] (providing instructional overview of subjective value theory).

247. *See* ROTHBARD, *supra* note 188, *passim*.

248. See *supra* notes 196–198 and accompanying text for a discussion of the effects of a fiat money system. In any economy with fiat money (and as the Coin story shows, the world has long had such economies), it cannot be the case that value is entirely in the hands of men to decide. God, who has an invisible hand on the entire economy when selecting raw silver as money, will inject value as He sees fit, even by supernaturally fulfilling the need of the "subsistence poor" for resources to exchange while still remaining within the laws and economic activity of society. The godless fiat system, by contrast, substitutes finite, top-down, human judgment for God's omniscient judgment, with problematic results.

249. See *supra* Part II.B.3 for a discussion of unsustainable financial practices.

250. *See, e.g.*, Matthew C. Turk, *The Banking-Sovereign Nexus: Law, Economics & Policy*, 55 COLUM. J. TRANSNAT'L L. 592, 627 (2017) (characterizing the "1990s financial crises in Mexico and East Asia" as the "quintessential twin crises" of "when a government's need to extend credit to distressed financial institutions on favorable terms is in conflict with an equally pressing need to support the value of its currency with high

treaty-based organizations like the World Bank and International Monetary Fund.[251] Another approach is to focus on the adverse effect of money laws on particular issues like food production[252] or climate change,[253] both of which are addressed by Berry.[254]

Identifying problems is only part of the task because critics of sustainable development's discursive shortcomings hope to find solutions, in particular legal solutions. For example, given the interdisciplinary nature of sustainable development,[255] additional theoretical perspectives can provide concrete support, whether that be from the humanities to uncover new understandings that can lead to concrete action[256] or from economics and the hard sciences to develop specific metrics for money and sustainable development.[257]

In addition, one simple solution is repealing all laws discussed in Section II. That solution is also simplistic (and unrealistic). Even if nations and international bodies had the political will to do so, the modern economic system and the role of money within it are so complex that a sudden large-scale overhaul of money laws would result in chaos.[258] Future researchers should therefore explore the feasibility of changing specific

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domestic interest rates," so "high fiscal costs from private financial sector disarray played a central role in the collapse of currency regimes").

251. *See, e.g.*, Michael S. Barr, *Who's in Charge of Global Finance?*, 45 GEO. J. INT'L L. 971, 972–75 (2014) (writing that the "Bretton Woods institutions (the International Monetary Fund, World Bank, and World Trade Organization) were never really equipped to deal with the growing complexity, breadth, and size of the global financial system," so even with regulatory reforms in the 2010s, the "next misunderstood financial innovation, asset boom, increase in leverage, or explosion in hot money may find the world still globally mis-coordinated and unprepared").

252. *See, e.g.*, Drew L. Kershen, *The Contested Vision for Agriculture's Future: Sustainable Intensive Agriculture and Agroecology*, 46 CREIGHTON L. REV. 591, 593 (2013) (discussing the tension between competing views of sustainable agriculture).

253. *See, e.g.*, Kate Davidson, *Yellen Is Creating a New Senior Treasury Post for Climate Czar*, WALL ST. J. (Feb. 12, 2021), http://www.wsj.com/articles/yellen-is-creating-a-new-senior-treasury-post-for-climate-czar-11613138479 [http://perma.cc/ER8S-UH5X] (describing in initiative by the U.S. Department of Treasury to "review financial stability risks and tax policy incentives related to climate change").

254. See *supra* Part II.B.3 for a discussion of farmer-poet Wendell Berry's essays explaining that credit money mandated by government and lent with interest leads to mass poverty, food insecurity, and severe environmental degradation.

255. French, *supra* note 23, at 130 (calling the interdisciplinary nature of sustainable development "inevitable" and writing that "issues range across the entire disciplinary spectrum").

256. *See, e.g.*, ANNE MARIE TODD, COMMUNICATING ENVIRONMENTAL PATRIOTISM: A RHETORICAL HISTORY OF THE AMERICAN ENVIRONMENTAL MOVEMENT 5 (2013) ("Thinking rhetorically about environmental issues means thinking pragmatically about how to educate and mobilize action on the environment as well as thinking constitutively: acknowledging that representations of nature and environmental problems shape our understanding of our world and ourselves.").

257. For example, one study concludes that "[f]or every million dollars spent, the coal industry provides 68 jobs, while solar and wind power create fewer than 30." Sha Hua, *China Hints at a Shift on Climate*, WALL ST. J. (Feb. 12, 2021, 5:30 AM), http://www.wsj.com/articles/china-hints-at-a-shift-on-climate-11613125804 [http://perma.cc/7DCR-XV5T]. In light of the questions raised in this Article about what "money" is, additional research might reconsider this conclusion in light of potential changes to money law.

258. *See, e.g.*, Barr, *supra* note 251, *passim* (discussing the intersection of numerous international bodies with domestic and private governance regimes). We acknowledge that Guzelian, *Dollar's Deadly Laws*, *supra* note 22, at 102–08, specifically calls for recission of modern monetary laws (such as those alleged in this present Article) that contribute to unsustainability. We are not retracting those expectations for monetary legal reform.

laws and the potential beneficial impacts of such targeted changes. In line with Professor Ellis's call for an incremental approach,[259] continuous and systematic study can be the stepping-stones for a path forward.

Rather, the more nuanced point we are making is that *abrupt* legal changes may result in wild volatility in the global economy and be counterproductive. Intelligent planning and foresight about legal reform, along with a gradual transition to sustainable money, means there may be fewer avoidable and undesirable economic and environmental side effects.

259. Ellis, *supra* note 1, at 72.