THE "NOT SEEN" EFFECT OF INTERNATIONAL FINANCIAL CENTERS: INNOVATION IN THE GLOBAL FINANCIAL ECOSYSTEM

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ABSTRACT

International Financial Centers (IFCs) are hubs of legal and financial innovation, developing specialized frameworks that facilitate cross-border investment, enhance global capital mobility, and support economic growth. Through jurisdictional competition, professional clustering, and adaptive regulatory frameworks, IFCs have pioneered legal structures that enable enterprises of all sizes to participate in the global economy. Using case studies of the International Business Company, the Limited Liability Company, the Protected Cell Company, and advances in trust law and applying the theoretical frameworks of social scientist Richard Florida and psychologist Mihalyi Csikszentmihalyi, this article illustrates how IFCs serve as laboratories for financial experimentation, generating widely adopted legal solutions. Beyond creating new business structures, advanced IFCs contribute to the resilience of the global financial system by fostering professional networks, refining regulatory best practices, and enhancing legal certainty for international transactions. Although often mischaracterized as tax havens, IFCs play a far more significant role as centers of legal and financial creativity, shaping the modern global economy through innovation and institutional adaptation.

The global economy has transformed dramatically over the past century, with financial integration growing from less than 20% of worldwide GDP in 1965 to 120% in 2014, while trade integration increased from 20% to 60% in the same period.[1] Considering just assets outside the United States (U.S.), the world's largest economy, financial assets grew from $59 billion in 1964 to over $49 trillion in 2023.[2] A century ago, cross-border investment and commerce were largely the province of a relatively small number of large businesses and concentrated in a small number of economic sectors.[3] Revolutions in transportation and communications cost have dramatically changed that, with foreign markets increasingly important to smaller enterprises.[4] At the same time, the number of players in the global economy has also increased. The number of sovereign states, measured by UN membership, has grown from 55 members in 1946, to 193 in 2011.[5] We see the impact of this change in the increasing contribution of emerging economies to global growth, from an average of 30% between 1965 and 1974 (about half the average of the advanced

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[1] Trade integration is measured by the ratio of total imports and exports to global GDP. Financial integration is the ratio of total financial inflows and outflows (including bank loans, direct investment, bonds, and equities) to global GDP. Financial integration data are through 2011. Trade integration data for 2014 are forecasts. M. Ayhan Kose & Ezgi O. Ozturk, *A World of Change: Taking Stock of the Past Half Century*, Sept. 2014, INT'L MONETARY FUND, at 7.

[2] *Rest of the World; Total Financial Assets, Level*, FRED, https://fred.stlouisfed.org/series/ROWTASA027N (Sept. 12, 2024).

[3] As late as 1950, 93% of U.S. businesses foreign investment was held by just 442 companies. E. R. BARLOW & IRA T. WENDER, FOREIGN INVESTMENT AND TAXATION 20 (1955). In the early years of the 20th century, U.S. investment was primarily in natural resources, aside from manufacturing interests in Canada. *Id.* at 10–11. Roughly half of U.S. foreign investment in manufacturing in 1950 was in Canada. *Id.* at 47. Individual Americans did not invest outside the U.S. aside from in Canada for the most part in the early 20th century. *Id.* at 6. There was considerable use of U.S. capital markets by foreigners after World War I. *See id.* at 5 ("During the ten-year period, 1919-1929, foreign nations and corporations encouraged by investment bankers and the American public, floated billions of dollars worth of securities in the United States market"). More generally, foreign investment globally in the early twentieth century focused on investment in other industrialized countries and was less than foreign investment in natural resources. ROBERT FITZGERALD, THE RISE OF THE GLOBAL COMPANY: MULTINATIONALS AND THE MAKING OF THE MODERN WORLD 151 (2015).

[4] In a fifty-year retrospective reflection on the period between 1964 and 2014, M. Ayhan Kose, Director of the Development Prospects Group of the World Bank, and Ezgi O. Ozturk, Research Officer in the International Monetary Fund, noted the important impact on the world economy of the lowering of transportation and communication costs by opening overseas markets to smaller enterprises. "Advances in communication and transportation technologies coincided with and fostered accelerated globalization as countries became more interdependent through a rapid increase in cross-border movement of goods, services, capital, and labor—and led to much faster diffusion of ideas and cultural products." Kose & Ozturk, *supra* note 1, at 6.

[5] UNITED NATIONS, *Growth in United Nations Membership*, https://www.un.org/en/about-us/growth-in-un-membership. Some measures suggest there are 206 sovereign states today. *Sovereign Nations 2024*, WORLD POPULATION REV., https://worldpopulationreview.com/country-rankings/sovereign-nation.

economies) to more than 70% of global growth in the last decade (with advanced economies' share falling to about 17%).[6]

This period also saw an unprecedented level of productivity in the global economy with estimates that the "output per hour" of a worker "in the [U.S.] today is [ten] times as valuable as [the] output per hour" of a worker "[one hundred] years ago."[7] This is true on a global level as well: "we now produce more while working less."[8] Globally, inflation-adjusted economic output per person in 2017 was estimated at 4.4 times greater than in 1950.[9] The development of this global economy, however, has been uneven, with a "great divergence" as growth in advanced economies has outstripped in relative terms the gains in emerging and developing economies.[10]

The engine of all this economic growth is cooperation in creative activities that produce new products, new services, and new methods of production.[11] Legal entities provide the essential framework for enabling such cooperation. As Nobel laureate Paul Romer noted: "Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable."[12] The vehicle for doing this is often through collective economic activities, facilitated by legal business entities of one sort or another. By one estimate, there are more than 359 million corporate entities worldwide.[13] Most business entities are not large: more than 99% are classified as small and medium-sized enterprises (SMEs) with more than 202 million SMEs in Asia and 67 million SMEs in Africa.[14] While a listing of the world's 100 most valuable companies has a predominance of U.S. companies,[15] an often overlooked contributor to the organization of economic ventures around the world are the small jurisdictions broadly called International Financial Centers (IFCs) where tens of thousands of business entities doing business around the globe are organized. These provide important business organization forms for people organizing economic activities that cross borders. Over time, IFCs developed an ability to innovate specialized legal frameworks to meet the needs of enterprises that onshore jurisdictions lack. This has facilitated the entry of businesses into the global marketplace and fostered new capital generation to support the global economy.[16] IFCs' remarkable ability to innovate is the subject we explore in

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[6] Kose & Ozturk, *supra* note 1, at 8.

[7] Paul M. Romer, *Endogenous Technological Change*, 98 J. POL. ECON. S71, S71 (1990).

[8] Esteban Ortiz-Ospina, *The Importance of Social Networks for Innovation and Productivity*, OUR WORLD DATA (Nov. 7, 2019), https://ourworldindata.org/social-networks-innovation-and-productivity#article-citation.

[9] *Id.*

[10] Kose & Ozturk, *supra* note 1, at 9.

[11] Åke Andersson, one of the leading theorists on the social aspects of creativity, defines creativity as: "a process that gives rise to a flow of ideas from an individual or a group of individuals. For the process to be regarded as creative, relevant experts will – sooner or later – have to judge the flow of ideas as new and at least potentially useful for consumers, producers or other creators." Åke E. Andersson, *Creative People Need Creative Cities*, *in* HANDBOOK OF CREATIVE CITIES 14 (David Emanuel Anderson, Åke E. Andersson & Charlotta Mellander, eds., 2011).

[12] Paul M. Romer, *Economic Growth*, CONCISE ENCYCLOPEDIA OF ECON., https://www.econlib.org/library/Enc/EconomicGrowth.html.

[13] Einar H. Dyvik, *Estimated Number of Companies Worldwide From 2000 to 2023*, STATISTA (Aug. 6, 2024), https://www.statista.com/statistics/1260686/global-companies/.

[14] Einar H. Dyvik, *Estimated Number of Small and Medium Sized Enterprises (SMEs) Worldwide From 2000 to 2023, by Region*, STATISTA (Aug. 6, 2024), https://www.statista.com/statistics/1261598/global-smes-by-region/.

[15] Einar H. Dyvik, *The 100 Largest Companies in the World by Market Capitalization in 2023*, STATISTA (July 4, 2024), https://www.statista.com/statistics/263264/top-companies-in-the-world-by-market-capitalization/.

[16] Peter J. Buckley et al., *The Economic Geography of Offshore Incorporation in Tax Havens and Offshore Centres: The Case of Chinese MNEs*, 15 J. ECON. GEOGRAPHY 103, 113–14 (2015) (noting that using offshore jurisdictions

this article.

Globalization's shift toward capital mobility, particularly for smaller enterprises that previously lacked access to such resources, underscores the need for legal and financial structures to connect these enterprises to both capital and markets. Many structures have been created using IFCs' offerings of innovative solutions to organize and regulate capital flows efficiently. Without this robust legal infrastructure, economic activity would be hampered, as investors require a sound framework for structuring collective enterprises. Our account thus differs from those focused on the use of offshore jurisdictions for avoiding and evading taxes, which reflects an outdated and unduly narrow way to understand their role in the global economy.[17] The story of IFCs is one of legal innovation and its vital role in meeting the capital and structural needs of the modern global economy.[18] This is not just a matter of concern for giant multinationals like Apple and Amazon: given the size of the SME population in Asia and Africa, and the anticipated transition from control by individual founders or entrepreneurs to more complicated family or public corporate forms in the near term, the need for this segment of the world economy is clear, as IFCs will play a leading role in shaping the next stage of those developments.[19] For example, Africell, a leading telecommunications company in Africa, is a Jersey company.[20]

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enables Chinese firms to circumvent domestic limitations on the ability to raise capital); James McConvill, *Islands in the Financial Stream: Why Cyprus and the BVI Are Too Legit to Quit*, 31 J. TAX'N INV., Winter 2014, at 3, 17 (former BVI lawyer noting that he saw BVI companies used by Latin American businesses "as SPVs to raise equity finance in the U.S. market through a so-called 'Rule 144A offering.'" These involved private placements with "'qualified institutional buyers'"). The need to facilitate growth in capital in developing economies remains great. See, for example, the 2024 United Nations General Assembly address of the Prime Minister Mia Amor Mottley of Barbados noting that for countries like hers "[r]estricted access to capital, its disproportionately high cost, its inadequate scale and overwhelming burden of debt, are now combining to force governments in the world's poorest countries and frankly, across many vulnerable middle income countries, to devote more resources to debt service than to health, education, and infrastructure combined." *'We Need a Reset' Says Prime Minister of Barbados*, UNITED NATIONS AFFS. (Sept. 27, 2024), https://news.un.org/en/story/2024/09/1155046; Charlotte Ku & Andrew P. Morriss, *International Financial Centers as a Model: Facilitating Growth & Development by Connecting to International Legal Frameworks*, 14 L. & DEV. REV. 429 (2021).

[17] *See, e.g.*, Sébastien Laffitte, *The Market for Tax Havens*, HAL (EU Tax Observatory Working Paper No. 22, 2024), https://pse.hal.science/hal-04564084/document. Laffitte derives key dates in "the development of tax havens" from multiple editions of two French guides which "provide a detailed description of laws and regulations that allow a potential tax evader to move its assets and revenues to the territory." *Id.* at 12. In our opinion, this approach ignores the primary use of offshore business structures, which are no longer able to offer tax evasion opportunities to either individual or corporate entities due to the growth of information exchange. *See* Andrew P. Morriss & Charlotte Ku, *The Evolution of the Global Tax Information Exchange Network,* 35 JOURNAL OF TRANSNATIONAL LAW & POLICY (forthcoming 2026). It also ignores the types of innovations we describe here, incorrectly modeling the adoption of IBC reforms, for example, as a one-time event. Laffitte, *supra* note 17, at 35 ("The country leaves the sample once it has enacted the reform for the first time."). Adopting a statute is not enough, as we discuss below, as keeping the statute current with competitors' statutes and with changed demand for particular aspects is a key part of the competition among jurisdictions. Not taking into account the major shift in IBC statutes induced by the OECD's campaign against them as part of its "harmful tax competition" initiative would miss a crucial dimension to the competition.

[18] Andrew P. Morriss, *The Impact of International Financial Centers*, CATO INSTITUTE (Aug. 27, 2024), https://www.cato.org/publications/impact-international-financial-centers.

[19] JERSEY FINANCE, *Africa Round-Up: 2023 Review and 2024 Outlook*, (Apr. 3, 2024), https://www.jerseyfinance.je/our-work/africa-round-up-2023-review-and-2024-outlook/.

[20] *Africell Holding Completes Strategic Group Reorganization*, PR NEWSWIRE (Mar.16, 2020), https://www.prnewswire.com/news-releases/africell-holding-completes-strategic-group-reorganisation-301024943.html.

Understanding how small jurisdictions became centers of legal and financial innovation requires examining the conditions that foster creative development in specialized communities; they attract people with "the ability to come up with ideas that are new, surprising, and valuable."[21] Two complementary theoretical frameworks help explain why IFCs have been so successful. Urbanist Richard Florida's "creative class" theory[22] illuminates how IFCs develop and sustain innovation through the clustering of talented professionals, while psychologist Mihalyi Csikszentmihalyi's systems model of creativity[23] explains how these clusters enable the transformation of individual insights into institutional innovations.

Florida's work shows how economic growth stems from concentrations of creative professionals engaging in complex problem-solving.[24] His research demonstrates that regions thrive when they can attract and retain individuals who think creatively, whether they are artists, tech workers, or, as in IFCs, lawyers and financial experts. Florida's "3Ts" framework[25]—technology (innovation capacity), talent (skilled professionals), and tolerance (openness to new ideas and diverse populations)—helps explain why IFCs, despite their small size, have become powerful centers of innovation.[26] As Florida explains:

> When people—especially talented and creative ones—come together, ideas flow more freely, and as a result individual and aggregate talents increase exponentially: the end result amounts to much more than the sum of the parts.
>
> This clustering makes each of us more productive, which in turn makes the place we inhabit even more so—and our collective creativity and economic wealth grow accordingly. This in a nutshell is the clustering force.[27]

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[21] Charlie Karlsson, *Clusters, Networks and Creativity*, *in* HANDBOOK OF CREATIVE CITIES, *supra* note 11, at 87.

[22] *See* RICHARD FLORIDA, THE RISE OF THE CREATIVE CLASS, REVISITED (2012) [hereinafter, FLORIDA, RISE]; RICHARD FLORIDA, CHARLOTTA MELLANDER & PATRICK ADLER, *The Creative Class Paradigm*, *in* HANDBOOK, *supra* note 11 [hereinafter FLORIDA ET AL., *Paradigm*]; RICHARD FLORIDA, WHO'S YOUR CITY? (2008) [hereinafter, FLORIDA, CITY]; RICHARD FLORIDA, THE FLIGHT OF THE CREATIVE CLASS: THE NEW GLOBAL COMPETITION FOR TALENT (2007) [hereinafter, FLORIDA, FLIGHT].

[23] *See* MIHALY CSIKSZENTMIHALYI, THE SYSTEMS MODEL OF CREATIVITY: THE COLLECTED WORKS OF MIHALY CSIKSZENTMIHALYI VOL. 2 (2014) [hereinafter, CSIKSZENTMIHALYI, SYSTEMS MODEL]; MIHALY CSIKSZENTMIHALYI, GOOD BUSINESS: LEADERSHIP, FLOW, AND THE MAKING OF MEANING (2003) [hereinafter, CSIKSZENTMIHALYI, LEADERSHIP]; MIHALY CSIKSZENTMIHALYI, CREATIVITY: THE PSYCHOLOGY OF DISCOVERY AND INNOVATION (1996) [hereinafter, CSIKSZENTMIHALYI, CREATIVITY: PSYCHOLOGY]; MIHALY CSIKSZENTMIHALYI, FLOW: THE PSYCHOLOGY OF OPTIMAL EXPERIENCE (1990) [hereinafter, CSIKSZENTMIHALYI, FLOW].

[24] FLORIDA, RISE, *supra* note 22, at 226 ("This clustering of social-intelligence skill increases the quality of the combinations and recombinations that drive innovation and economic growth."); FLORIDA, CITY, *supra* note 22, at 9 ("In today's creative economy, the real source of economic growth comes from the clustering and concentration of talented and productive people."). His definition of the creative class includes "'creative professionals' who work in a wide range of knowledge-intensive industries, such as high-tech, financial services, the legal and health care professions, and business management. These people engage in creative problem solving, drawing on complex bodies of knowledge to solve specific problems." *Id.* at 39. *See also* Andersson, *supra* note 11, at 16 ("the importance of inherited accumulated knowledge and interactions with other knowledgeable people" is key).

[25] FLORIDA, FLIGHT, *supra* note 22, at 37.

[26] Florida allows for smaller clusters to be effective, as well as large ones. *See* FLORIDA, RISE, *supra* note 22, at 335 (noting it is not "crude" density that matters, but "Jane Jacobs density").

[27] FLORIDA, CITY, *supra* note 22, at 66.

The proximity of creative professionals to one another in these jurisdictions generates a multiplier effect, where the interactions among them intensifies innovation and productivity.[28] Florida's key insight is that the creativity which drives economic growth is less a matter of individual genius and more about the environment that brings people together.[29]

Csikszentmihalyi's systems model of creativity complements this understanding by explaining how individual creativity becomes institutional innovation. He shows that innovation emerges from the interaction of three elements: creative individuals, their domain of expertise (in IFCs, law and finance), and the field of experts who validate and implement new ideas.[30] For IFCs, the broader legal and financial communities around the globe, those in leading onshore financial centers like New York, London, and Tokyo are key. This framework is particularly relevant to understanding how IFCs transform individual insights into widely adopted legal and financial innovations. The small size and specialized focus of IFCs create ideal conditions for this process, allowing rapid movement from creative insight to institutional implementation. At the same time, their proven track record, connections with each other and with legal and financial communities in larger jurisdictions enable their innovations to be integrated into the global economy.

These frameworks help explain both how IFCs develop innovative capacity through the clustering of creative professionals and how they transform individual insights into influential innovations. As we will see, the evolution of IFCs from tax havens to centers of legal and financial innovation that are particularly important in developing areas[31] reflects both Florida's emphasis on creative clusters and Csikszentmihalyi's focus on the institutional processes that transform individual creativity into lasting innovation.

Finally, note that we do not repeat here the arguments we made elsewhere over the overall role of IFCs.[32] Critics of these jurisdictions generally focus alleged facilitation of tax evasion and avoidance (which they often conflate) and on the role of "secrecy" in these jurisdictions in hiding assets from authorities in other jurisdictions.[33] These issues are tangential to the argument we make in this Article so can be left to those other venues.

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[28] FLORIDA, CITY, *supra* note 22, at 96 ("The more smart people, and the denser the connections among them, the faster it all goes. It is the multiplier effect of the clustering force at work.").

[29] Richard Florida, Patrick Adler & Charlotta Meliander, *The City as Innovation Machine*, 51 REG'L STUD. 86, 87-88 (2016). There is considerable debate over many aspects of Florida's theory, particularly his definition of the creative class. *See* FLORIDA ET AL., *Paradigm*, *supra* note 22, at 64–68 (summarizing the debate). The aspects of Florida's analysis we rely on are more widely accepted.

[30] CSIKSZENTMIHALYI, CREATIVITY: PSYCHOLOGY, *supra* note 23, at 28 ("Creativity occurs when a person, using the symbols of a given domain such as music, engineering, business, or mathematics, has a new idea or sees a new pattern, and when this novelty is selected by the appropriate field for inclusion into the relevant domain.").

[31] Andrew P. Morriss & Charlotte Ku, *The Evolution of Offshore: From Tax Havens to IFCs*, IFC REV. (Jan. 2020), https://www.ifcreview.com/articles/2020/february/the-evolution-of-offshore-from-tax-havens-to-ifcs/.

[32] Andrew P. Morriss, *Forward Down the Road to Serfdom: International Tax Law as a Means of Central Planning*, 17.3 J. L., ECON., & POL'Y 454 (2022); Andrew P. Morriss, *IFCs: Providing the Rule of Law*, IFC REV. (Apr. 2, 2020), https://www.ifcreview.com/articles/2020/april/ifcs-providing-the-rule-of-law/; Andrew P. Morriss, *Tax Monopoly–A World without IFCs*, IFC Rev. (July 4, 2019), https://www.ifcreview.com/articles/2019/july/tax- monopoly-a-world-without-ifcs/.

[33] *See, e.g.*, TAX JUSTICE NETWORK, *What is a Secrecy Jurisdiction?*, https://taxjustice.net/faq/what-is-a-secrecy-jurisdiction/.

Part I begins by outlining the development of IFCs from their beginnings as 'walled gardens' that sheltered funds from outside high onshore tax rates through their climb up the value chain through legal and regulatory innovation. Using the framework of jurisdictional competition, in Part II we will examine four case studies of IFC innovation and the transmission of these innovations to other IFCs and to onshore jurisdictions. The examples are the International Business Corporation (IBC), the Limited Liability Company (LLC), the Protected Cell Company (PCC), and innovative advances in trust law. Part III draws lessons about how the understudied role played by the networks of professionals, judges, and regulators based in these jurisdictions in generating these innovations and their ecosystem of connections and interactions with associated knowledge and practice communities around the world. Part IV extends the discussion to the "unseen" system-wide contributions made by these communities, not only in diversifying business offerings and facilitating capital flows but also to maintaining the resilience of the global financial system. Part V concludes.

I. THE CREATION OF INTERNATIONAL FINANCIAL CENTERS

International Financial Centers (IFCs) are major developments in global finance over the past seven decades, emerging as crucial hubs of innovation that have fundamentally reshaped the international financial landscape.[34] These centers—which include independent nations such as The Bahamas, Liechtenstein, Malta, and Mauritius; British-affiliated territories such as Bermuda, the Cayman Islands, and Jersey; and jurisdictions such as the Cook Islands, which is in free association with New Zealand—have evolved into sophisticated laboratories for financial and legal innovation despite their geographical dispersion and relatively small physical size and populations.[35]

A. ORIGINS

The emergence of IFCs is rooted in the transformation of the global financial order following the two World Wars. The pre-WWI financial system, characterized by the gold standard and colonial empires, which internally were relatively free trading areas, was fundamentally altered by the economic upheavals of two global conflicts and the Great Depression.[36] The post-WWII Bretton Woods framework imposed by the victorious western Allies, coupled with the vast financial flows of the Marshall Plan and increased U.S. military spending abroad, created new patterns of global capital flows.[37] Extensive decolonization-related reverse migration from newly

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[34] Morriss & Ku, *supra* note 31.

[35] Just which jurisdictions "count" as IFCs, offshore financial centers, or tax havens depends heavily on who is doing the counting and the goals of the particular exercise. In this article, we focus primarily on the IFCs with the most developed legal systems, such as Bermuda, Cayman, Jersey, and Liechtenstein. For a relatively exhaustive list, *see* Andrew P. Morriss & Charlotte Ku, *IFCs: Pioneers in Transmission of Legal Innovation*, IFC REV. (Jan. 2021), https://www.ifcreview.com/articles/2021/january/ifcs-pioneers-in-transmission-of-legal-innovation/.

[36] Ron Martin & Jane Pollard, *The Geography of Money and Finance*, *in* HANDBOOK ON THE GEOGRAPHIES OF MONEY AND FINANCE 13–14 (Ron Martin & Jane Pollard eds., 2017).

[37] ALEX MAY, BRITAIN AND EUROPE SINCE 1945 13 (1999) (Marshall Plan "the major factor kick-starting the European economy"); BENN STEIL, THE MARSHALL PLAN – DAWN OF THE COLD WAR 341 (2018) ("Between 1947 and mid-1952, when Marshall aid officially ended, industrial output in the Marshall countries increased by 60 percent."); CATHERINE R. SCHENK, INTERNATIONAL ECONOMIC RELATIONS SINCE 1945 46 (2011) ("Once most currencies were convertible for trade purposes from the end of 1958, the international monetary system finally began to operate along the rules laid out at Bretton Woods: a pegged exchange rate system based the on stable rates to the US dollar.").

independent nations back to former colonial powers and increasing tax rates in developed economies created opportunities for jurisdictions that could offer innovative financial solutions outside large country regulatory and tax frameworks.[38] This demand grew again in the 1960s as the U.S. began efforts to restrain foreign access to U.S. capital markets, producing the Eurodollar market—based in the City of London and able to take advantage of connections to jurisdictions associated with the United Kingdom (UK), but outside the UK itself.[39]

This situation created opportunities for jurisdictions that had ties to major economies, but which had their own distinct legal systems. At this point, most nascent IFCs were simply jurisdictions that provided laws and regulations to govern individuals and businesses that operated outside the jurisdiction where the individuals and businesses lived and operated.[40] Much of the early business were companies, trusts, and banks established with the purpose of having legal ownership of assets located outside the UK, the U.S., or another high tax jurisdiction. For example, the Cayman Islands passed a trust statute in 1967 aimed at enabling British settlors to avoid UK tax law's efforts to prevent assets from being shifted overseas by deeming any asset in which someone in the UK held an enforceable interest to be a tax resident in the UK.[41] The statute shifted the enforcement rights of beneficiaries to the Cayman attorney general, thus (temporarily) thwarting the UK Inland Revenue's efforts to make offshore trusts with onshore beneficiaries taxable in the UK.[42] Unlike the later innovations we discuss below, such efforts did not develop new features of substantive law, but facilitated relatively passive regulatory arbitrage.

Most of the first IFCs were able to enter this business because they had rudimentary financial infrastructure in place to service industries such as tourism in The Bahamas, an airport built by the U.S. military during World War II in Bermuda, or the oil refining industry in Curaçao.[43] Among the jurisdictions that began to develop significant financial sectors were Gibraltar, the Isle of Man, Jersey, Liechtenstein, Luxembourg, and Switzerland in Europe; Hong Kong in Asia; Bermuda, The Bahamas, the Cayman Islands, the Netherlands Antilles, and Panama in the Americas; and Liberia in Africa.[44] For example, jurisdictions with sufficient degrees of autonomy not subject to the domestic banking reserve requirements that UK and U.S. banks faced at home developed banking industries focused on enabling developed country banks to access Eurodollar markets without having that access regulated by their home country regulator.[45] These jurisdictions coupled this with low or zero direct taxation, earning their revenue from flat fee structures and taxes connected to the growing financial industries that resulted.[46]

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[38] *See* Richard Gordon & Andrew P. Morriss, *Moving Money: International Financial Flows, Taxes, and Money Laundering*, 37 HASTINGS INT'L & COMP. L. J. 1, 8–33 (2014) (describing roles of IFCs).

[39] ANTHONY SAMPSON, THE MONEY LENDERS: THE PEOPLE AND POLITICS OF THE WORLD BANKING CRISIS 139 (1981).

[40] Morriss & Ku, *supra* note 31.

[41] Andrew P. Morriss, *Cultivating Trust Law: Four Phases of Offshore Trust Law's Development*, *in* OXFORD COMPANION TO COMPARATIVE TRUST LAW (forthcoming 2025); Trusts Act, 1967 (Law 6 of 1967) (Cayman Is.).

[42] *Id.*

[43] MICHAEL CRATON, A HISTORY OF THE BAHAMAS 264 (3d ed. 1986); Craig M. Boise & Andrew P. Morriss, *Change, Dependency, and Regime Plasticity in Offshore Financial Intermediation: The Saga of the Netherlands Antilles*, 45 TEX. INT'L L. J. 377, 389–91 (2009) (Curacao).

[44] All of these were included in the first edition of Milton Grundy's surveys of tax havens. TAX HAVENS: A WORLD SURVEY (Milton Grundy ed., 1969).

[45] Boise & Morriss, *supra* note 43, at 407–08; Tony Freyer & Andrew P. Morriss, *Creating Cayman as an Offshore Financial Center: Structure & Strategy Since 1960*, 45 AZ. ST. L. J. 1297, 1321–25 (2013).

[46] Boise & Morriss, *supra* note 43, at 379, n. 4; Freyer & Morriss, *supra* note 45, at 1315.

Initially, these jurisdictions leveraged their statuses and autonomy to create protective environments for capital, earning them the label of "tax havens."[47] Over time, they developed deeper complementary relationships with larger jurisdictions, and the sophistication of the legal entities they offered and the transactions they facilitated grew.[48] Today, the global impact of IFC innovation is substantial and at least partially quantifiable. Jersey alone channels approximately £0.5 trillion in inbound investment to the UK while the combined investment flows from the Cayman Islands, British Virgin Islands, and Jersey amount to trillions of dollars worldwide, including $3.1 trillion to the U.S. and Canada, $910 billion to Europe (excluding the UK), and $750 billion to China and Hong Kong.[49]

What makes IFCs of interest here is their evolution of innovation ecosystems that distinguishes them from larger financial hubs like Frankfurt, London, New York, Paris, and Tokyo. Their small physical size (ranging from less than 100 sq. km to 15,000 sq. km) and limited populations (well under 1 million in most and often far smaller) have led them to focus intensively on financial services development.[50] This concentration has produced remarkable results. The Cayman Islands transformed from a barter economy in 1960 into a modern economy that surpassed Britain in GDP per capita by 1980 through financial sector innovation.[51]

The innovation capacity of IFCs is enhanced by their governance structures.[52] These jurisdictions typically feature close collaboration between government, regulators, and financial industry professionals. Their small size reduces transaction costs in policy development, as key stakeholders operate in close physical proximity.[53] Moreover, the outsized importance of the financial sector to their economies—finance accounts for 40% of Jersey's economic activity and 70% of its revenue[54]—creates strong incentives for maintaining competitiveness through continuous innovation.[55]As British barrister Milton Grundy, who drafted statutes for various IFCs and wrote guidebooks on offshore jurisdictions for decades, observed in 2001, "the trend here is for governments—with the encouragement of the private sector, or, sometimes having suffered considerable pressure from the private sector—to enact legislation designed to attract more sophisticated offshore transactions to their jurisdiction."[56]

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[47] Morriss & Ku, *supra* note 31.

[48] *See* Juan Carlos Suarez Serrato, *Unintended Consequences of Eliminating Tax Havens* (Nat'l Bureau of Econ. Rsch., Working Paper No. 24850, 2019); Dhammika Dharmapala, *Do Multinational Firms Use Tax Havens to the Detriment of Other Countries?* (CESifo, Working Paper No. 8275, 2020); Mihir A. Desai et al., *Economic Effects of Regional Tax Havens* (Nat'l Bureau of Econ. Rsch., Working Paper No. 10806, 2004).

[49] CAYMAN FINANCE, *Appendix B: The Importance of IFCs in the Global Economy*, *in* THE CAYMAN ISLANDS: AN EXTENDER OF VALUE TO THE USA 17 (2019).

[50] IFCs that do not fit this profile include the U.S. and UK that function as IFCs with Ireland, the Netherlands, Liechtenstein, Switzerland, Malta, and Israel. *See* Monetary & Exch. Affs. Dep't, *Offshore Financial Centers IMF Background Paper*, INT'L MONETARY FUND (June 23, 2000), https://www.imf.org/external/np/mae/oshore/2000/eng/back.htm.

[51] Freyer & Morriss, *supra* note 45, at 1300.

[52] Charlotte Ku & Andrew P. Morriss, *IFC Regulatory Innovation: Vital to the Maintenance of a Healthy Global Financial Legal System*, IFC REV. (Jan. 12, 2022), https://www.ifcreview.com/articles/2022/january/ifc-regulatory-innovation-vital-to-the-maintenance-of-a-healthy-global-financial-ecosystem/.

[53] *Id.*

[54] *Policy Brief: Financial Services*, POL'Y CENTRE JERSEY, https://www.policy.je/papers/financial-services (last updated July 24, 2024).

[55] Morriss & Ku, *supra* note 31.

[56] MILTON GRUNDY, ESSAYS IN TAX PLANNING 53 (2001).

Given the importance of the finance sector to these jurisdictions, their governments are committed to maintaining the conditions that bring business to them.[57] Successful IFCs are politically stable and support effective legal and regulatory infrastructure and services.[58] IFCs' internal political governance is strong and mostly democratic (Dubai is the most prominent exception with respect to democratic legitimacy).[59] With few alternatives for economic development, successful IFCs are aggressive about maintaining their competitiveness in financial services.[60] This incentivizes innovation that is facilitated by collaboration between governments, independent regulators, and financial industry professionals (including, for non-independent British territories, close consultation with British regulators). For example, Bermuda developed local commercial laws "to cater directly to fund investors' requirements."[61] Their dependence on the financial sector creates a focused policymaking environment, which is less likely in onshore jurisdictions where business and social agendas may be pitted against each other for political capital and legislative attention.[62]

IFCs have also demonstrated particular prowess in regulatory innovation. Their ability to test and implement innovative financial products and regulatory frameworks often exceeds that of larger financial centers, thanks to their agility and focused expertise.[63] They were pioneers in developing licensing regimes for trust and corporate service providers and continue to lead in creating regulatory frameworks for new financial products, such as cryptocurrencies.[64] IFCs' small size allows them to innovate in the development of regulatory regimes to ensure the long- term soundness of the financial services and products they offer and to foster ongoing innovation.[65] The emphasis on legal infrastructure, supervisory practices, and regulation have provided IFCs important access to and involvement with major international regulatory bodies and standard setters.[66] They continue to innovate and to lead because they are embedded in a densely layered set of networks through which ideas about laws, regulations, best practices, and solutions are not only spread, but improved upon. This was recognized as early as in the 1998 Edwards Report on

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[57] Andrew P. Morriss & Charlotte Ku, *Ensuring Credible Commitments*, IFC REV. (May 5, 2022), https://www.ifcreview.com/articles/2022/may/ensuring-credible-commitments/.

[58] Andrew P. Morriss & Charlotte Ku, *IFCs' 'Secret Sauce': A Commitment to An Effective Legal Infrastructure*, IFC REV. (Jan 12, 2022), https://www.ifcreview.com/articles/2022/january/ifcs-secret-sauce-a-commitment-to-an-effective-legal-infrastructure/.

[59] *See* Alejandro Carballo, *The Law of the Dubai International Financial Centre: Common Law Oasis or Mirage within the UAE?*, 21 ARAB L. Q. 91, 104 (2007) ("The introduction of common-law-oriented laws, which will attract foreign investors, is backed by an independent judicial system, which will further reinforce the appearance of legislative independence.").

[60] *See* Morriss & Ku, *supra* note 58.

[61] KENNETH E.T. ROBINSON, PARTNERSHIP LAW AND CORPORATE COMMERCIAL PRACTICE IN BERMUDA: A PROFESSIONAL DEVELOPMENT PERSPECTIVE 64 (Ian R.C. Kawaley & Karen Skiffington eds., 2018).

[62] *See* Nico S. Hansen & Anke S. Kessler, *The Political Geography of Tax H(e)avens and Tax Hells*, 91 AM. ECON. REV. 1103 (2001) (model illustrating how small jurisdiction tax havens can sustain lower tax rates).

[63] Ku & Morriss, *supra* note 52.

[64] Ku & Morriss, *supra* note 52.

[65] ANDREW P. MORRISS, OFFSHORE FINANCIAL CENTERS AND REGULATORY COMPETITION 130–32 (Andrew P. Morriss, ed., 2010).

[66] See, for example, the role of Jersey States Economic Adviser Colin Powell as referenced in CHARLES GOODHART, THE BASEL COMMITTEE ON BANKING SUPERVISION: A HISTORY OF THE EARLY YEARS 1974–1977 (2011). See also the example of Jersey earning some of the highest scores in the Mutual Evaluation Report conducted by the Council of Europe (MoneyVal) in 2023 for compliance with international anti-money laundering and financing of terrorism requirements. *Jersey*, COUNCIL EUROPE, https://www.coe.int/en/web/moneyval/jurisdictions/jersey.

the Crown Dependencies, which found that they "have taken a leading role in seeing to promote high standards in the offshore [markets] generally."[67] More generally, leading IFCs regularly score highly on measures of regulatory success such as those of the Financial Action Task Force.[68]

Although IFCs are small jurisdictions and so their regulators are smaller in absolute size than larger jurisdictions, their regulators are proportionate to the size of their financial sectors in terms of staffing per regulated entity.[69] IFCs also invest in their regulatory bodies by recruiting internationally recognized experts to work as regulators and by deeply engaging with pan-jurisdictional bodies, such as the International Organization of Securities Commissions and the International Association of Insurance Supervisors.[70]

The evolution of IFCs parallels Richard Florida's observations about how creative centers develop. Florida argued that "creativity is a form of capital" and that successful regions require an environment that can "nurture, harness, mobilize, and invest in creativity across the board."[71] IFCs emerged by cultivating specialized creative talent in law and finance and, as we describe below in the case studies, providing an environment that nurtures innovation by that community. Like Florida's more general creative centers, IFCs developed by attracting professionals who engage in what he terms "expert thinking" and "complex communication."[72] In IFCs' case, this means the lawyers, accountants, and financial professionals who can navigate and innovate within complex global regulatory frameworks. These professionals, like Florida's more general creative class, are characterized by their ability to engage in "creative problem solving, drawing on complex bodies of knowledge to solve specific problems."[73] The transformation of places like the Cayman Islands from effectively a barter economy to become a sophisticated financial center demonstrates how the accumulation of creative capital can rapidly transform a jurisdiction's economic prospects.[74] The trajectories we describe below for the development of various new business entities and the overall trajectories of successful IFCs illustrates Florida's insight that growth comes when "skilled and productive people attract the presence of other skilled and productive people. As they team up to form firms, these creative organizational units begin to develop new ideas and products. And as those units grow, they attract other hard-working and productive agents."[75]

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[67] Andrew Edwards, *Review of Financial Regulation in the Crown Dependencies*, § 17.5, ¶ 201 (Nov. 19, 1998), https://www.gov.uk/government/publications/review-of-financial-regulation-in-the-crown-dependencies.

[68] For example, Bermuda, the Isle of Man, and Jersey scored in one of the top two (of four) categories in 39 of 40 measures of technical compliance in its 2020 evaluation, the Cayman Islands in 40 of 40, and Liechtenstein in 37 of 40. In contrast, the United States scored in the top two in only 32 of 40. FATF, *Consolidated Assessment Ratings*, https://www.fatf-gafi.org/en/publications/Mutualevaluations/Assessment-ratings.html (Jan. 28, 2025). Twenty-six of 159 IAIS members are IFCs. INT'L ASS'N INS. SUPERVISORS, *Members*, https://www.iais.org/about-the-iais/iais-members/.

[69] Andrew P. Morriss & Clifford C. Henson, *Regulatory Effectiveness & Offshore Financial Centers*, 53 VA. J. INT'L L. 417, 454 (2013).

[70] IOSCO includes among its "ordinary members" 24 financial regulators (out of 132) from IFCs; 4 of 34 "associate members" are IFCs; and 9 organizations out of 74 of the "affiliate" members are from IFCs. INT'L ORG. SECS. COMM'NS, *Ordinary Members of IOSCO*, https://www.iosco.org/v2/about/?subsection=membership&memid=1. *See also* Morriss & Henson, *supra* note 69.

[71] FLORIDA, FLIGHT, *supra* note 22, at 32, 33.

[72] FLORIDA, FLIGHT, *supra* note 22, at 30, 31.

[73] FLORIDA, RISE, *supra* note 22, at 39.

[74] Freyer & Morriss, *supra* note 45, at 1300.

[75] FLORIDA, CITY, *supra* note 22, at 71.

The emergence of IFCs also illustrates Csikszentmihalyi's insight that creativity flourishes at the intersection of different knowledge domains and cultures. Just as he observed that centers of creativity such as Renaissance Florence arose where different traditions could mingle,[76] IFCs developed at the intersection of multiple legal and financial traditions. Although most successful IFCs have a British common law heritage, English company and trust laws' statuses as *lingua francas* for global business have brought lawyers from Anglosphere jurisdictions around the globe to these jurisdictions.[77] They have also imported ideas from U.S. law (as described in our LLC case study below), civil law,[78] and, increasingly, jurisdictions where their customers reside.[79] These centers provided what Csikszentmihalyi identified as crucial conditions for innovation:

> (1) thorough knowledge of one or more symbolic domains; (2) thorough immersion in a field that practices the domain; (3) focus of attention on *a* problematic area of the domain; (4) ability to internalize information relevant to the problematic area; (5) ability to let the relevant information interact with information from other domains at a subconscious level where parallel processing takes place; (6) ability to recognize a new configuration emerging from this interaction that helps resolve the problematic situation; and (7) evaluation and elaboration of the insight in ways that are understandable and valuable to the field.[80]

B. IFCS AS LAW MARKET COMPETITORS

The escalating complexity of the modern global economy has driven unprecedented demand for diverse business structures,[81] reflected in today's remarkable total of over 358 million enterprises worldwide.[82] This expansion persisted steadily through recent decades, interrupted only by the 2008 financial crisis and the 2020 COVID-19 pandemic. IFCs have emerged as crucial architects of key ingredients in this growth by developing innovative legal frameworks that accomplish three vital functions: reducing the transaction costs of business collaboration, enabling novel forms of economic value creation, and maintaining stability in the global economic system.

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[76] CSIKSZENTMIHALYI, CREATIVITY: PSYCHOLOGY, *supra* note 23, at 8–9.

[77] Andrew P. Morriss & Charlotte Ku, *English Company Law: Legal Architecture for a Global Law Market*, 31 IND. J. GLOB. LEGAL STUD. 61, 96 (2024).

[78] Andrew P. Morriss, *Importing Private Foundations into the Common Law*, IFC REV. (Sept. 29, 2021), https://www.ifcreview.com/articles/2021/september/importing-private-foundations-into-the-common-law/; Andrew P. Morriss, *Private Foundations in the Common Law Caribbean: Variations on a Theme*, IFC REV. (Sept. 8, 2021), https://www.ifcreview.com/articles/2021/september/private-foundations-in-the-common-law-caribbean-variations- on-a-theme/.

[79] BAH. FIN. SERVS. BD., *ICON: A Guide to the Bahamas Investment Condominium*, https://www.bfsb-bahamas.com/guides/files/icon-guide.pdf.

[80] Mihaly Csikszentmihalyi & Keith Sawyer, *Creative Insight: The Social Dimension of a Solitary Moment*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 96.

[81] PALMER'S LIMITED LIABILITY PARTNERSHIP LAW (Geoffrey Morse et al. eds., 2d ed. 2011); Joseph A. McCahery, *Introduction: Governance in Partnership and Close Corporation Law in Europe and the United States*, *in* THE GOVERNANCE OF CLOSE CORPORATIONS AND PARTNERSHIPS: US AND EUROPEAN PERSPECTIVES 2 (Joseph A. McCahery, Theo RA Aijmakers & Erik P. M. Vermeulen eds., 2004).

[82] Einar H. Dyvik, *Annual Growth in the Number of Companies Worldwide 2001 to 2023*, STATISTA (Aug. 6, 2024), https://www.statista.com/statistics/1261299/global-companies-growth/.

The evolution of IFCs as innovation centers began with increasingly sophisticated adaptation of existing legal frameworks. These jurisdictions initially distinguished themselves by taking established legal structures from major jurisdictions like the UK and modifying them to leverage their unique sovereign or semi-sovereign status. Early innovations attracted high-caliber professional talent, exemplified by the transformation of the Cayman Islands. From having no lawyers in 1960, the jurisdiction began attracting graduates from Cambridge in particular, who left prestigious London firms after the introduction of its companies law, banking law, and other statutes designed to lure outsiders to use Caymanian vehicles.[83] These professionals proved transformative in two ways: they directly strengthened local economies through spending and tax contributions, and perhaps more significantly, evolved into powerful advocates for maintaining competitive innovation. Jersey also illustrates this transformation, where financial and legal services are now almost a quarter of the labor force—about 14,000 individuals.[84]

Over time, the innovative impact of IFCs grew beyond tax optimization to reshape the fundamental architectures of business organization.[85] Their legal infrastructure innovations provide a wide array of entities that systematically reduce the transaction costs of collaboration among individuals and groups.[86] This success builds upon the well-established principle of jurisdictional choice in business formation—a concept with deep historical precedent.[87] For instance, in the nineteenth century, British firms' use of French business entities to obtain limited liability sparked a chain of innovations: first prompting Britain to adopt general limited liability in 1855, then inspiring both Britain and Belgium to surpass France in streamlining incorporation processes, which in turn catalyzed reforms in French company law.[88] Jurisdictions can compete for the organization of business entities by offering packages of laws, courts, lawyers, and service providers that induces those organizing businesses to incur the transaction costs of making use of

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[83] Freyer & Morriss, *supra* note 45, at 1333.

[84] POL'Y CENTRE JERSEY, *Knowledge Center: Jersey's Economy*, https://www.policy.je/papers/jerseys-economy (Oct. 4, 2024).

[85] *See, e.g.,* MILTON GRUNDY, GRUNDY'S TAX HAVENS: A WORLD SURVEY 28 (6th ed. 1993) (describing how Belize's IBC law, which he helped draft, "embodies model provisions which apply in the absence of anything to the contrary in the instrument itself; they have the virtue of shortening and simplifying the trust instrument (and perhaps even making it less expensive).")

[86] Morriss & Ku, *supra* note 77, at 70, 94. *See also* BARRY SPITZ, OFFSHORE STRATEGIES 15 (2001) ("Other products on the shelves of the offshore supermarkets are finance subsidiaries, captive banks, captive insurance companies, shipping and trans-shipment companies, licensing companies, headquarters companies, limited liability companies, foundations, management services companies, manufacturing and export bases, and tax shelters.").

[87] *See* Marco Ventoruzzo, *Cost-Based and Rules-Based Regulatory Competition: Markets for Corporate Charters in the U.S. and the E.U.*, 3 N.Y.U. J. L. & BUS. 91 (2007); William J. Moon, *Delaware's Global Competitiveness*, 106 IOWA L. REV. 1883, 1699 (2021) ("Today, a number of major jurisdictions around the world allow firms to shop for corporate law, including Brazil, Canada, China, India, Japan, the United Kingdom, and the United States.").

[88] United Kingdom, Board of Trade, MODERN COMPANY LAW FOR A COMPETITIVE ECONOMY 12 (1998)
(The final push to the granting of general limited liability in 1855, according to the speech of the Vice- President of the Board of Trade when moving the Bill, was that British businessmen were seeking to set up companies under French and American laws so as to give their shareholders limited liability when operating in this country. It seemed also that those doing this in France were somewhat unhappy with the costs involved. They clearly wanted a cheaper British option); CHARLES E. FREEDEMAN, THE TRIUMPH OF CORPORATE CAPITALISM IN FRANCE, 1867–1914, 49–50 (1993)
(In 1896, 60 companies were incorporated under Belgian law by foreigners to operate outside of Belgium, of which 20 were French; in 1897 there were 72 such companies, of which 30 were French. Costs for founding a company in England were less than one-half of those for France, and incorporation was even cheaper in Belgium. … The most important reasons French promoters went elsewhere were lower costs, the ability to issue 25 francs shares, and the immediate negotiability of shares representing non-pecuniary assets.)

a jurisdiction other than their own by offering benefits not available at home.

This modern "law market" in which jurisdictions compete for business, as comprehensively analyzed by Erin O'Hara O'Connor and Larry Ribstein, operates through a sophisticated interplay of mobility and competition.[89] It requires the ability of people, firms, and assets to move across jurisdictions, and the willingness of jurisdictions to compete for these mobile factors through innovative legal frameworks.[90] The resulting diversity of business entities across jurisdictions demonstrates the law market's success in meeting varied organizational needs. As Ribstein argued, this diversity is crucial because centralized planning cannot adequately address the varied needs of different firms or respond to evolving business requirements.[91]

The effectiveness of this innovation system relies on sophisticated mechanisms beyond simple regulatory arbitrage. IFCs respond to market demands through what O'Hara O'Connor and Ribstein identified as "exit-affected groups" —professionals whose economic success depends directly on their jurisdiction's continued attractiveness to business.[92] Lawyers in particular are often incentivized to work to develop a jurisdiction's legal system, paralleling the role of Delaware lawyers in driving U.S. corporate law innovation.[93] In IFCs, this group includes not only lawyers but also accountants, company managers, insurance managers, and trust companies, all of whom create a self-reinforcing cycle of innovation and improvement.

The sustainability of this innovation ecosystem is underpinned by both direct revenue streams (fees and taxes from business entities) and indirect benefits (earnings by service providers that are spent locally). The system's stability is reinforced by jurisdictions' deep commitment to maintaining attractive legal environments. As Prof. Roberta Romano explained regarding Delaware's success in domestic U.S. corporate law, a budget dependent on such revenue effectively commits the jurisdiction to maintaining business-friendly policies, as the stakes of corporate exodus are too high to risk adverse legal changes.[94]

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[89] ERIN O'HARA & LARRY RIBSTEIN, THE LAW MARKET 28 (2009). Between publication of the book and now, O'Hara O'Connor changed her name. We will refer to her by her current name in the text but cite the book by the name under which it was published.

[90] *Id.* at 65 (they define a law market as the ways that governing laws can be chosen by people and firms rather than mandated by states. This choice is created by the mobility of at least some people, firms, and assets and the incentives of at least some states to compete for people, firms, and their assets by creating desired laws.").

[91] Larry E. Ribstein, *The Evolving Partnership*, *in* THE GOVERNANCE OF CLOSE CORPORATIONS AND PARTNERSHIPS: US AND EUROPEAN PERSPECTIVES 154 (Joseph A. McCahery, Theo RA Aijmakers & Erik P. M. Vermeulen eds., 2004) ("A single set of business association rules issued by a central planner cannot meet the needs of various types of firms or respond to firms' changing business needs.").

[92] O'HARA & RIBSTEIN, *supra* note 89, at 74–75.

Because it is costly to be licensed in a particular state [in the United States], lawyers tend to be licensed only in the state where they reside and maybe one or two others. Lawyers therefore have an incentive to attract clients and cases to the states and the courts where they are licensed.

[93] O'HARA & RIBSTEIN, *supra* note 89, at 111.

[94] As Romano explained: a state budget largely dependent on franchise revenue is an asset that precommits the state to not welching on its corporate customers by radically revising its corporate law policy to the detriment of their interests, because there is so much at stake to the state if corporations do leave en masse. Roberta Romano, *Law as Product*, 1 J. L., ECON. & ORG. 225, 235 (1985). *See also* Leo E. Strine, Jr., *The Delaware Way: How We Do Corporate Law and Some of the New Challenges We (and Europe) Face*, 30 J. CORP. L. 673, 680 (2005) (on the economic importance of Delaware's leadership in corporation law accounting for thousands of jobs in the small state and nearly a quarter of the state's budget revenue).

IFCs have become indispensable to global commerce by offering legal innovations that address specific market needs unmet by traditional jurisdictions. Their role extends beyond mere competition—they serve as laboratories for legal innovation, developing and testing new organizational forms and regulatory approaches.[95] These innovations, once proven successful, often migrate to larger onshore jurisdictions, enriching the global repertoire of business organizational forms.[96] This pattern of innovation and diffusion demonstrates how IFCs serve as catalysts for legal and financial evolution in the global economy.

For IFCs, the ability to offer legal regimes that cater to specific needs has made them indispensable players in the global law market, so they attract business entities and financial activities that might otherwise be underserved by the existing business forms of onshore jurisdictions. We see these innovations—once settled and accepted—find their way into onshore jurisdictions thereby diversifying and enriching the repertory of offerings for business entities more generally. IFCs' success in fostering innovation stems from their ability to create a virtuous cycle: innovative legal frameworks attract sophisticated business activities, which in turn attract highly qualified professionals, which then drive further innovation. This cycle has transformed these competing jurisdictions from simple tax-advantaged locations into sophisticated centers of legal and financial innovation that contribute significantly to global economic development.

Here, Florida's insight that "real economic development is people-oriented, organic, and community-based"[97] provides a framework for understanding IFCs' success in law market competition. While Florida focused on large urban centers, his core observation that "creativity involves the ability to synthesize"[98] and that innovation emerges from "communities of practice" that "emphasize exploration and discovery"[99] applies equally to IFCs' specialized environments. These centers succeed by creating what Florida terms "thick labor markets"[100] for financial and legal talent, where professionals can find not just initial opportunities but long-term career development. The close physical proximity of professionals in IFCs creates what Florida calls "the clustering force"[101] —where talented individuals attract other talented individuals, creating a self-reinforcing cycle of innovation. This clustering is particularly powerful in IFCs because, as Florida notes, "ideal interactions occur among people whose roles are different enough to give them different perspectives, but who have enough common knowledge and common interest to know what would be mutually useful."[102] By bringing together sophisticated lawyers and other professionals from around the globe into physically small communities where they regularly interact, IFCs create such clusters.

Csikszentmihalyi's research on "flow" and optimal experience also helps explain IFCs'

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[95] Morriss & Ku, *supra* note *58*; Morriss & Ku, *supra* note 35; Ku & Morriss, *supra* note 52.
[96] Morriss & Ku, *supra* note 35.
[97] FLORIDA, FLIGHT, *supra* note 22, at 49.
[98] FLORIDA, RISE, *supra* note 22, at 18.
[99] *Id.* at 26–27.
[100] *Id.* at 287.
[101] FLORIDA, CITY, *supra* note 22, at 9.
[102] FLORIDA, RISE, *supra* note 22, at 109. This is also consistent with Csikszentmihalyi's view of the importance of social interaction in creativity. Csikszentmihalyi & Sawyer, *supra* note 80, at 95 ("At every stage, the process that comes before and after the insight is heavily dependent on social interaction. This takes the form, of face-to-face encounters and of immersion in the symbolic system of one or more domains.").

success in market competition. These jurisdictions create environments that enable what he terms "autotelic" experiences—where professionals can become deeply engaged in complex problem-solving for its own sake.[103] IFCs' small size facilitate the factors which Csikszentmihalyi identifies as crucial for creativity: clear goals, immediate feedback, and balance between challenges and skills.[104] As discussed below in the case studies, IFC innovations emerge from collaborative processes between practice communities, government regulators, and legislators.

IFCs exemplify Csikszentmihalyi's finding that creativity emerges best in settings that combine strong domain knowledge with opportunities for innovation and expert communities that can quickly evaluate and implement new ideas.[105]

C. IFC SUCCESS IN JURISDICTIONAL COMPETITION

The collapse of the Bretton Woods framework in 1971 catalyzed a new wave of innovation in IFCs.[106] This transformation was accelerated by Britain's dramatic reduction of the sterling area in 1972 and its elimination of capital and exchange controls in 1979, which created demand for ways to manage floating exchange rate risks and changed the markets for IFCs' services.[107] The period's financial instability, exemplified by the 1974 collapses of Germany's Herstatt Bank and the U.S. Franklin National Bank, further highlighted the need for innovation in cross-border financial management as well as spurring international cooperation in addressing cross-border activities, opening the door for IFCs to begin to play a role in these efforts.[108]

While international regulators focused on traditional concerns—cross-jurisdictional banking risks, consumer investment fund failures (like Bernard Cornfield's Investors Overseas

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[103] CSIKSZENTMIHALYI, FLOW, *supra* note 23, at 40 (describing a lawyer's experience of flow).

[104] CSIKSZENTMIHALYI, LEADERSHIP, *supra* note 23, at 96.

[105] Mihaly Csikszentmihalyi, *Creativity and Genius: A Systems Perspective*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 120. To make a creative contribution, a person must not only be able to produce a novelty in the domain, but must also be able to present the novelty in such a way that the field will accept it as an improvement over the *status quo*, and thus worth including in the canon of the domain. If this does not happen, the novelty is likely to disappear from the record without affecting human consciousness any further. This model implies the need for quick evaluation and acceptance.

[106] The collapse of the Bretton Woods agreement eroded capital controls. BARRY EICHENGREEN, GLOBALIZING CAPITAL: A HISTORY OF THE INTERNATIONAL MONETARY SYSTEM 136 (1998). This expanded opportunities to use IFCs. *See* William Vleck, *A Semi-Periphery to Global Capital: Global Governance and Lines of Flight for Caribbean Offshore Financial Centres*, *in* GLOBALIZATION AND THE 'NEW" SEMI PERIPHERIES 177 (Owen Worth & Phoebe Moore eds., 2009) ("A parallel re-configuration has occurred in global finance with the end of the Bretton Woods system and a decline in the use of capital controls. These events served to release capital to find new and innovative investment vehicles that in turn opened avenues for increased global financialization.").

[107] The contraction of the Sterling Area to the Crown Dependencies (and, a year later, Gibraltar) boosted business in those IFCs and forced others to find alternative markets. *See* COLIN POWELL, THE HISTORY OF JERSEY AS AN INTERNATIONAL FINANCIAL CENTRE 45 (2023) (discussing the "unexpected assistance from the UK" for Jersey's financial center when, in June 1972, it tightened its exchange control net and left the Channel Islands and the Isle of Man (and subsequently Gibraltar) as the only places available to those who wished to use or provide financial services within the Sterling Area and limit their exposure to UK taxation. The result was a flood of enquiries from banks wishing to set up in the Island.); Freyer & Morriss, *supra* note 45, at 1332.

[108] CATHERINE R. SCHENK, INTERNATIONAL ECONOMIC RELATIONS SINCE 1945 70 (2011) (describing how failures of Herstatt in Germany and Franklin in the US "exposed confusion over which jurisdiction was responsible for supervising and bailing out the increasingly global international banking market" and led to the establishment of the Basel Committee in 1975).

Service collapse), and the developing world debt crisis of the 1970s—IFCs emerged as laboratories for financial innovation. As Malcolm Knight, former CEO of the Bank of International Settlements, noted, a persistent challenge for regulators has been addressing activities that reshape financial systems and create "new risks that are not well understood by investors or the financial institutions that develop them, with the prospect that severe financial stresses may arise and not be managed effectively."[109] Well-regulated IFCs offered innovative solutions that help address these problems, in part because IFC regulators and professionals are "working at the coal face" of financial and legal innovation and so often have a clearer view of the types of transactions in which firms and individuals are engaged than their onshore counterparts.

The 1970s and 1980s marked a crucial evolution of these jurisdictions as IFCs leveraged their imported talent to move up the value chain, transforming from simple tax havens into sophisticated centers of legal and financial innovation. This transformation is particularly evident in several key developments:

- *Insurance Innovation*: Bermuda's journey exemplifies this evolution. Building on its 1930s foundation as an IFC, Bermuda became a pioneer in captive insurance when U.S. lawyer Fred Reiss chose it as his base in the early 1960s and joined forces with the Bank of Bermuda to build the industry.[110] The Cayman Islands followed suit, attracting Harvard's hospital system by developing innovative insurance laws and regulatory frameworks.[111] This pattern of innovation through legal infrastructure development became a model for other financial sectors.

- *Legislative Innovation*: The Bahamas demonstrated the scale of this transformation by enacting almost twenty major financial services statutes in the 1980s and 1990s.[112] These laws created sophisticated frameworks for banking, business entities, funds, insurance, and trusts, while building infrastructure for international law enforcement collaboration. Such comprehensive statutory innovation was common across IFCs.[113]

- *Regulatory Innovation*: IFCs pioneered new regulatory models, exemplified by Guernsey's creation of its independent Financial Services Commission in 1987.[114] These new regulatory bodies recruited international experts—for instance, the Cayman Islands Monetary Authority's first board included senior figures from the UK Financial Services Authority, Canadian banking supervisors, and KPMG's Peat Marwick.[115] This expertise enhanced credibility and facilitated innovation. IFCs also pioneered the licensing of company and trust service providers, giving regulators a powerful tool for monitoring

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[109] Malcolm D. Knight, *Reforming the Global Architecture of Financial Regulation: the G20, the IMF and the FSB*, CIGI 14 (Sept. 2014), https://eprints.lse.ac.uk/61213/1/SP-6%20CIGI.pdf.

[110] GORDON PHILLIPS, FIRST, ONE THOUSAND MILES … : BERMUDIAN ENTERPRISE AND THE BANK OF BERMUDA 146–47 (1992) ("Credit for the Island's primacy in this field [captives] belongs to Fred Reiss, who set up a captive insurance management company in 1962, but as one especially well-placed commentator remarked, 'without the assistance of Tucker, there would have been no Fred Reiss or anyone else.'").

[111] Freyer & Morriss, *supra* note 45, at 1344.

[112] Calculations by authors.

[113] Morriss & Ku, *supra* note 35.

[114] Financial Services Commission (Bailiwick of Guernsey) Law (1987).

[115] Freyer & Morriss, *supra* note 45, at 1380–81.

the industry.[116]

- *Product Innovation*: Over time, IFCs moved beyond regulatory arbitrage to create genuinely innovative financial products. Guernsey's 1997 introduction of the protected cell company structure for insurance, which quickly spread to other jurisdictions and the fund industry, exemplifies this trend.[117] Similarly, Jersey's 1984 Trust Law transformed English trust principles into a more certain and attractive framework for international clients.[118]

By the late 1990s, these innovations had established IFCs as important players in the global financial system, though this success drew pressure from onshore jurisdictions concerned about erosion of their own fiscal autonomy by IFCs' competition. For example, the OECD's Forum on Harmful Tax Practices, established in 1998, began reviewing offshore regimes with an eye to limiting competition.[119] A growing emphasis on information exchange also developed.[120] IFCs responded by expanding their regulatory capacity and legal frameworks for international cooperation.[121]

Florida's analysis of how regions gain competitive advantages through their "ability to absorb and harness human talent"[122] helps explain IFCs' success in jurisdictional competition. His observation that "low barriers to entry for talent"[123] and openness to new ideas are crucial for innovation applies particularly well to IFCs, which have successfully created what Florida would term "communities of practice" linked by "process and structure"[124] in financial and legal innovation. Just as Florida noted (quoting Eric Raymond) that "you cannot motivate the best people with money...the best people in any field are motivated by passion,"[125] IFCs have succeeded by creating environments where legal and financial professionals can pursue innovative solutions to complex problems (and be well compensated). IFC innovators like BVI's Lewis Hunte (who drafted the IBC Act), Fred Reiss (the driver in development of the captive industry), Jersey's Colin Powell (who helped steer the Island's strategy for its financial industry for almost 40 years), Guernsey's Steve Butterworth (who developed the protected cell company), were all intellectual entrepreneurs who brought considerable passion for problem solving to their efforts. These successful IFCs exemplify Florida's principle that successful regions need what he terms "jurisdictional advantage,"[126] the ability to be the optimal place for certain types of enterprises and talent. In IFCs, this advantage comes from creating what Florida describes as "sophisticated and aware organizations" that can balance process and practice in ways that lead to sustained creativity and long-term growth.

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[116] *See* Richard Grasby, *The Regulation of Trust and Corporate Service Providers*, IFC REV. (Feb. 8, 2023), https://www.ifcreview.com/articles/2023/february/the-regulation-of-trust-and-corporate-service-providers/.
[117] *See infra* Section II.C..
[118] Trusts (Jersey) Law (1984); Morriss, *Cultivating Trust Law*, *supra* note 41.
[119] OECD, *Harmful Tax Practices*, https://www.oecd.org/en/topics/sub-issues/harmful-tax-practices.html.
[120] Morriss & Ku, *supra* note 17.
[121] *Id.*
[122] FLORIDA, FLIGHT, *supra* note 22, at 72.
[123] *Id.* at 53.
[124] FLORIDA, RISE, *supra* note 22, at 26–27.
[125] *Id.* at 69.
[126] FLORIDA, FLIGHT, *supra* note 22, at 45.

IFCs' successes in jurisdictional competition also reflect Csikszentmihalyi's emphasis on the importance of expert communities in validating innovation. These centers have what he terms "fields" —networks of experts who can evaluate and implement innovations.[127] Their small size and focused expertise create what Csikszentmihalyi identified as key conditions for creativity: environments where individuals can internalize domain knowledge deeply enough to recognize valuable innovations, while maintaining a close connection to expert communities that can validate and implement them.[128] The success of IFC innovations like protected cell companies demonstrates his observation that creativity requires both individual insight and institutional capacity to recognize and implement valuable new ideas.

In the next section, we turn to discussing how this innovation ecosystem enabled four examples of the type of transformative developments that demonstrate IFCs' value to the global financial system. Each of these innovations addressed specific market gaps while building on growing expertise within IFCs, reinforcing the professional networks that would drive future innovations.

II. FOUR NOTABLE IFC INNOVATIONS

We draw on four examples of legal innovations to identify the factors that make jurisdictions successful:

(1) international business company (IBC) statutes;
(2) limited liability company (LLC) statutes;
(3) protected cell companies (PCC); and
(4) advances in trusts.[129]

We selected these four because they are both widely adopted and represent a range of types of innovations. Three originated in the common law offshore jurisdictions that dominate the IFC world (IBC, PCC, trusts) while one has a mixed legal heritage (LLC). One (IBC) thrived by simplifying existing law; the others added more complex legal rules. Two originated onshore (trusts, LLC) and migrated offshore, where they were transformed. Two originated offshore (PCC, IBC). All are now well established as legal entities and relationships that are in widespread use around the world, and innovations from offshore developments in all four have filtered back into some onshore jurisdictions.[130]

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[127] Mihaly Csikszentmihalyi, *Creativity and Genius: A Systems Perspective*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 103–04 ("Changes are not adopted unless they are sanctioned by some group entitled to designate an entire discipline or kind of endeavour. These gatekeepers are what we call here the field. The term 'field' is often used to designate an entire discipline or kind of endeavour. In the present context, however, I want to define the term in a more narrow sense, and use it to refer only to the social organization of the domain—to the teachers, critics, journal editors, museum curators, agency directors, and foundation officers who decide what belongs to a domain and what does not.").

[128] Csikszentmihalyi, *supra* note 127, at 121 (noting that the ability to recognize new ideas and discard bad ones "implies that one has a very strong internal representation of which ideas are 'good' and which are 'bad', a representation that matches closely the one accepted by the field.").

[129] We first explored these ideas in Morriss & Ku, *supra* note 31.

[130] *See* H. May Hen, *Gatekeepers for Global Wealth: Transnational Legal Orders of the Cayman Islands Offshore Financial Centre*, UNIV. CAMBRIDGE (2019), https://www.repository.cam.ac.uk/handle/1810/322017 (exploring ideas of recursivity in IFC innovations). An example of this is Vermont's creation of a protected cell company regime in

A. CRISIS, CREATIVITY, AND THE MAKING OF THE MODERN IBC

The International Business Company (IBC) emerged from early experiments in adapting traditional corporate structures for cross-border business. Starting with the solid foundation of English-derived companies' laws, many of the early IFCs created legal provisions allowing the formation of companies that would act only outside their jurisdictions of incorporation to receive tax exemptions or substantial discounts on local taxes.[131] These were generally simple structures, requiring little more than filing, recording, and fee-paying to create and additional fee-paying to continue entities.[132] Panama was an early entrant into this market, adopting in 1927 a corporation statute based on the then-current version of Delaware law, and had some success in attracting business.[133] Both ring-fenced tax regimes (via the US-Netherlands tax treaty through Curaçao and Aruba and the US-UK tax treaty through the British Virgin Islands) and "exempted company" structures quickly spread across the offshore world.[134]

Initial attempts in the 1960s and 1970s by Antigua, Barbados, Grenada, Jamaica, and St. Vincent and the Grenadines to create then called "IBCs" but were primarily ring-fenced tax regimes which failed to gain traction.[135] These first efforts at developing an IBC demonstrated what Csikszentmihalyi would identify as crucial: innovation requires not just new ideas, but also validation and acceptance by the relevant field of experts, which included U.S. legal and tax advisers for U.S. clients.[136]

The breakthrough came in 1984 when the British Virgin Islands (BVI) faced a crisis after the U.S. cancelled the U.S.-UK tax treaty's application to BVI, eliminating revenue equivalent to BVI's entire education budget.[137] This coincided with increasing problems in Panama, as the government of Manuel Noriega was increasingly corrupt and in conflict with the U.S. (ultimately

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1999 as it competed with offshore jurisdictions for captive insurance business. Alex Wright, *Cell Structures and Captive Insurance Innovation*, CAPTIVE.COM (June 20, 2024), https://www.captive.com/articles/cell- structures-and-captive-insurance-innovation; 8 V.S.A. § 6034.

[131] *See* GRUNDY, *supra* note 85, at 83 ("The long-established facility which Barbados offers is the International Business Company. The concept dates from the 1960s—and indeed it was the law of that epoch (along with the corresponding laws in Antigua, Grenada and Jamaica) which introduced the expression 'IBC' into the language.").

[132] Bruce Zagaris, *Barbados Develops as a Low-Tax Jurisdiction*, 15 INT'L L. 673, 676 (1981).

[133] MILTON GRUNDY, GRUNDY'S TAX HAVENS: A WORLD SURVEY 77 (5th ed. 1987); Law 32 of 1927 (Panama), https://kraemerlaw.com/wp-content/uploads/2020/12/L32_1927_s.pdf; English translation https://jurdefinans.com/d/panama_corporation_law.pdf.

[134] Boise & Morriss, *supra* note 43, at 419–20; Colin Riegels, *The BVI IBC Act and the Building of a Nation*, IFC REV. (March 1, 2014), https://www.ifcreview.com/articles/2014/march/the-bvi-ibc-act-and-the-building-of-a-nation/.

[135] GRUNDY, *supra* note 85, at 73 (noting that "little seems to have been heard of the St. Vincent IBC."). Distinguishing between these tax-based "IBCs" (which are a closer relative to the exempt company) and the IBC as created in BVI in 1984, which then spread around the world, is one reason that institutional details matter. Laffitte, for example, does not so distinguish, as he shows IBC adoptions pre-1984 as part of the same process as his post-1984 adoptions. Laffitte, *supra* note 16, at Figure 2. Unsurprisingly he notes a "break in the trend following the reform of 1984 in the British Virgin Islands." *Id.*

[136] MIHALY CSIKSZENTMIHALYI, *Introduction to the Volume*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at xxii ("In most human endeavors, the opinion of a small elite determines what's new, what's not; what is valuable and what is not, what belongs to the domain and what should be excluded from it. This elite is what we call the *field*.").

[137] Reginald Darius & Oral Williams, *Impact of Growth in International Business Companies on the British Virgin Islands Economy: Lessons for the ECCB Area*, 46 SOC. & ECON. STUD. 169, 172 (1997); LEWIS STEPHENSON HUNTE, MEMOIRS OF A CARIBBEAN LAWYER: THE AUTOBIOGRAPHY OF LEWIS STEPHENSON HUNTE, QC 180 (2018) (education budget).

leading to the U.S. invasion that overthrew Noriega in 1989)[138] and Hong Kong (where the prospect of the return of the jurisdiction to the People's Republic of China created anxiety over its future).[139] Increasing fees for entity formation and continuation in competitors such as the Isle of Man and Channel Islands created an opening for a new competitor.[140] A New York lawyer who had pioneered the use of earlier BVI vehicles in the 1970s approached the jurisdiction about creating new international business entity.[141] The combination of the fiscal crisis caused by the treaty cancellation and the opportunity provided a catalyst for creative innovation: the external pressures forcing a community to develop novel solutions. The IBC Act gained traction quickly: within ten years, there were more than 136,000 registered IBCs.[142] At least twenty-two other jurisdictions followed BVI with their own versions of the BVI statute, although few developed as successful a business as BVI did.[143]

The development process highlighted the importance of domain expertise combined with practical experience.[144] Although the New York law firm offered a draft statute which they suggested would bring BVI business, BVI Attorney General Lewis Hunte was determined to draft a statute from scratch instead.[145] Hunte took the crucial step of engaging with experienced company law practitioners to identify specific problems they encountered in practice.[146] As Hunte later explained, he needed to understand "what particular difficulties they experienced during the practice of company law" so he "could write a decent act."[147] He produced a law which offshore expert Milton Grundy (who was to base Belize's IBC act on Hunte's statute) termed "lucid and brief, but [which] confers enough statutory powers on a company to enable its memorandum and

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[138] Darius & Williams, *supra* note 137, at 177; Bill Maurer, *Writing Law, Making a "Nation": History, Modernity, and Paradoxes of Self Rule in the British Virgin Islands*, 29 L. & SOC'Y REV. 255, 277 (1995); GRUNDY, *supra* note 85, at 129 ("At the time of the United States invasion and the downfall of General Noriega, thousands of companies emigrated and company formation firms established offshoots in Tortola to sell BVI IBC's….").

[139] Darius & Williams, *supra* note 137, at 177.

[140] *Id.*

[141] Jeffrey Kirk, *30th Anniversary of the BVI International Business Companies Act 1984*, APPLEBY (Nov. 3, 2014), https://www.applebyglobal.com/publications/30th-anniversary-of-the-bvi-international-business-companies-act-1984/#:~:text=15%20August%202014%20marked%20the,British%20Virgin%20Islands%20(BVI).
Hunte's account adds an additional layer to the network. He describes the connection to the New York firm as originating with Curacao' CITCO Trust: There is a trust company named CITCO Trust, headquartered in Curacao, with a branch in the BVI. CITCO Trust had a business relationship with a lawyer in the U.S. by the name of Paul Butler, an experienced commercial lawyer who also had connections to a law firm in the BVI named Harney Westwood & Riegels. Both Harney Westwood & Riegels and CITCO had a number of U.S. clients who, like the government, were adversely affected by the abolition of the U.S. treaty. HUNTE, *supra* note 137, at 180–81.

[142] Darius & Williams, *supra* note 137, at 170.

[143] Morriss & Ku, *supra* note 35, Figure 3 (expansion of idea); *The BVI: The Premier Corporate Domicile*, IFC REV. (Mar. 1, 2015), https://www.ifcreview.com/articles/2015/march/the-bvi-the-premier-corporate-domicile/ ("no jurisdiction has succeeded in matching [the BVI IBC's] impact and attraction as the BVI did.").

[144] Csikszentmihalyi & Sawyer, *supra* note 80, at 70 ("To achieve such a synthesis, there most [sic] be: (a) thorough knowledge of one or more domains; (b) thorough immersion in a field that practices the domain; ….").

[145] HUNTE, *supra* note 137, at 181–82 ("The government of the day, led by Chief Minister H Lavity Stoutt, seized upon Mr. Butler's suggestion and so Mr. Butler went back to the U.S. to prepare the appropriate legislation for passage through the BVI Legislature."). Hunte's critique of the draft was that "It was full of inconsistencies, there was no definition section and the sentences were long and difficult to understand. Moreover, the terminology varied greatly throughout the draft." *Id.* at 182.

[146] HUNTE, *supra* note 137, at 183–84.

[147] Jason Smith, Interview, *Lewis Hunte*, BVI BEACON 10 (Sept. 20, 2012), http://micro.harneys.com/wp-content/uploads/2014/07/Lewis-Hunte-interview-BVI-beacon.pdf.

articles to be short."[148] This collaboration exemplifies Florida's concept of the "multiplier effect" in creative communities, where proximity enables rapid iteration between practitioners and policymakers.[149] Moreover, having lost the tax treaty cancelled in 1984, BVI had to make the IBC be more than a purely tax-driven structure to generate larger amounts of revenue than that produced by corporate registration fees alone.[150]

The resulting IBC Act—which the then-Chief Minister Cyril B. Romney called "the most important legislation of the decade" at the time of passage[151]—represented an innovative legal hybrid, combining Delaware corporate law's flexibility and an English-company-law-derived established framework, a particularly useful combination for the IBC given the initial target market in the U.S.[152] It also provided provisions recognizing "impending developments in global corporate law," including:

> enabling these companies to acquire their own shares and provide financial assistance to others in acquiring their shares; abolishing the requirement for all corporate actions to be solely for the corporate benefit of the company (thereby recognizing and enabling the development and use of the corporate group structure); removing the requirement for corporate capacity, ultra vires (thereby enabling these companies a great degree of flexibility in their operations and an ability to quickly adapt their operations to commercial developments); creating new mechanisms to achieve mergers, acquisitions and restructuring of these companies; and importantly creating an effective and efficient incorporation procedure allowing the quick establishment and commencement of operations of these vehicles.[153]

While "commonplace" today, these were "revolutionary" features in 1984.[154] As Hunte later described it:

> we devised and included a number of ground-breaking provisions never before found in company legislation anywhere. The UK, itself, had not yet dared to embark on such bold thinking as having a company without members. We were creating history by composing a piece of legislation that bore the stamp of originality in many respects.[155]

Moreover, the act was passed by a different government than the one under which Hunte had written it, a testament to the broad support the act enjoyed in BVI.[156]

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[148] MILTON GRUNDY, OFFSHORE BUSINESS CENTRES: A WORLD SURVEY 23, 30 (7th ed. 1997).
[149] FLORIDA, CITY, *supra* note 22, at 66.
[150] Smith, *supra* note 147, at 10.
[151] Claire Shefchik, *VI marks 35 years of incorporations*, BVI BEACON (Dec. 6, 2019), https://www.bvibeacon.com/vi-marks-35-years-of-incorporations/.
[152] *See* GRUNDY, *supra* note 133.
[153] Kirk, *supra* note 141.
[154] *Id.*
[155] HUNTE, *supra* note 137, at 185
[156] *Id.* at 158. In the Legislative Council meeting to consider the bill, which was introduced by the Chief Minister, an opposition member unexpectedly rose from the benches and seconded it, and then the bill was moved through all three

Two examples illustrate how Hunte crafted the BVI IBC Act using ideas from the Delaware General Corporate Law (DGCL) in place of the English Companies Act approach in some instances but relied on the English approach in others. First, BVI IBC section 56 handled conflicts of interest among directors (and liquidators) of IBCs. It set out that so long as the section is followed, "no agreement or transaction" between an IBC and "one or more of its directors or liquidators, or any person in which any director or liquidator has a financial interest or to whom any director or liquidator is related, including as a director or liquidator of that other person" will be "void or voidable for this reason only" or because the interested director or liquidator is present at meeting that approves the agreement or transaction or because the director or liquidator votes on the approval.[157] The required conditions are that (a) "the material facts" of the interest and relationship to the other party have been "disclosed in good faith or are known by the other directors or liquidators" and (b) the agreement or transaction is approved or ratified without counting the vote of the interested party or (c) is approved unanimously by the other directors or liquidators if their number is insufficient to approve a resolution.[158] Alternatively, if the material facts have been disclosed at a meeting of the members and it is approved or ratified by resolution of the members, the agreement or transaction is valid.[159] Although the language is not exactly identical, this is in essence what the DGCL provided in section 144 in the mid-1980s.[160] It is quite different, however, from the English Companies Act 1985 and its predecessor. Prof. Deborah DeMott contrasted the U.S. approach (based largely on Delaware law) with the English approach in a 1999 article and concluded that the U.S. approach gave disinterested directors a key role that English law did not.[161] Rather, English law "allocates authority to make discretionary decisions about questions implicated by directors' conflicts elsewhere [than to disinterested directors]—within the corporation to shareholders, and to decisionmakers external to the corporation itself."[162]

The second example goes in the other direction. As DeMott notes, Delaware law includes provisions specifying the maximum term for directors.[163] The English Companies Act 1985 and

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readings at once, another unusual move. *Id.* at 192–93. It passed unanimously, also a rare thing in BVI. *Id.* at 195. The Tax Justice Network points to BVI's quick adoption of the IBC Act ("in fact it went through the legislature in just one day") as evidence that BVI is a "captured state." Nick Shaxson, *China Leaks: How the BVI Became China's Foreign Tax Haven of Choice*, TAX JUST. NETWORK (Jan. 22, 2014), https://taxjustice.net/2014/01/22/china-leaks-bvi-became-chinas-tax-haven-choice/. This fundamentally misreads the events—the statute passed in a single day because it was a statute that both the government and opposition agreed should pass and it had been under consideration for an extended period already, with Hunte spending 2.5 hours a day, five days a week over four months creating an initial draft, and then two months more revising it. *Id.* at 184, 188. Shaxson also ignores the nearly eight months the bill spent under scrutiny in the UK after passage in the BVI. *Id.* at 195. With pride, Hunte related that "As I sat in the Legislative Council on the morning of the introduction of the bill, I wondered whether the British House of Commons, the model on which the local House is based, had ever achieved the distinction of passing a measure of that complexity so speedily, even in war time." *Id.*

[157] International Business Companies Act § 56(1) (Virgin Is.).

[158] *Id.* at § 56(2) (Virgin Is.). The interested director or liquidator can also be counted for purposes of determining whether the meeting is duly constituted. *Id.* at § 56(4) (Virgin Is.).

[159] *Id.* at §56(3) (Virgin Is.).

[160] DEL. CODE ANN. tit. 8, § 144. The section was amended twice after the 1980s, both times making minor changes in language (substituting the term "stockholders" for "shareholders" and "director's or officer's" for "his or their"). S.R. 311, 139th Gen. Assemb., §§ 15–17 (Del. 1998); H.R. 341, 145th Gen. Assemb., §§ 13–14 (Del. 2010).

[161] Deborah A. DeMott, *The Figure in the Landscape: A Comparative Sketch of Directors' Self-Interested Transaction*, 62 L. & CONT. PROB. 243, 245 (1999).

[162] *Id.*

[163] *Id.* at 249; DEL. CODE ANN. tit. 8, § 141(d).

its predecessor did not.[164] The IBC Ordinance explicitly granted the power to set the term to the members and allowed them to delegate that power in the memorandum or articles to the directors themselves.[165]

What united the BVI position in both examples was the need to serve the needs of the expected clientele for BVI IBCs: people and firms looking for holding vehicles in a tax-neutral jurisdiction. By understanding the market, BVI became the top offshore jurisdiction for joint ventures, because it offered "perhaps the greatest amount of flexibility for joint venture companies."[166] This fusion demonstrated what Csikszentmihalyi identifies as creative synthesis—combining existing domains in novel ways.[167] The Act drew heavily on Delaware law, taking advantage of that jurisdiction's extensive case law through its Court of Chancery while maintaining connections to English legal traditions.[168] Though some described it as "grating jurisprudence" due to mixing American terminology with common law concepts,[169] the combination proved remarkably effective in gaining customers.

The BVI IBC Act's innovations went beyond simple legal fusion. It streamlined procedures, enabled multiple corporate forms, including virtually any form of shares (voting, non-voting, more or less than one vote, able to vote only on particular matters, able to be voted only when held by people who meet specified conditions, permitting participation only with respect to specified assets, and more), provided for statutory mergers, and offered tools for restructuring and reorganization.[170] It combined all these features with the ability to be listed on "prominent stock exchanges in Hong Kong and the U.S., allowing the underlying firm to raise capital through the sale of equity shares."[171] BVI provides a court which "replicate[s] for Caribbean-registered IBCs the specialized court system available to Delaware-registered companies in the [U.S.]"[172] These features reflected the professionals' ability "to think on their own, apply or combine standard

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[164] DeMott, *supra* note 161, at 249.

[165] International Business Companies Act § 43(1) (Virgin Is.). This provision was added by a 1988 amendment.

[166] James McConvill, *Islands in the Financial Stream*, 31 J. TAX'N INV. 3, 15 (2014). Prof. Bill Mauer is critical of BVI's legislative independence, arguing that much of the legislation comes from outside sources (such as the three financial industry statutes, on insurance, bank and trust companies, and company management which were drafted as part of the Coopers & Lybrand review of BVI for the UK government in 1989) and the "rubberstamp" of the UK-US agreement on mutual legal assistance in 1990. Maurer, *supra* note 138, at 279–81. He terms this "a tragic abrogation of authority to another power: international finance capital." *Id.* at 282. Although Maurer accords the IBC Act "local" status. its primary movers were the Curacao firm CITCO and the New York law firm whose request sparked the effort to create it and Lewis Hunte, the attorney general, who was not from BVI. We think he misses the point that BVI is a market actor in a global law market, and that what he sees as an "abrogation of authority" is merely the positioning of the jurisdiction to deliver what its customers want, thus allowing it to reap the economic benefits of its success.

[167] Csikszentmihalyi & Sawyer, *supra* note 80, at 70 ("The most significant insights (e.g., those that lead to innovative new products or uses for new technology) are often characterized by a synthesis of information from multiple domains, which can be as far apart as chemistry is from social norms, or as close as neighboring branches of mathematics.").

[168] Riegels, *supra* note 134.

[169] Colin Riegels, *British Virgin Islands: A Tough Act to Follow*, LEGAL WK. (July 20, 2014), https://www.mondaq.com/Wealth-Management/327334/A-Tough-Act-To-Follow.

[170] International Business Companies Law 1984, cap. 291, §§ 9, 75–83 (mergers), 84–88 (continuation), 89–98 (winding up and dissolution). Creatively, BVI allowed company names in foreign characters under the successor statute to the IBC Act—an innovation that helped reinforce BVI's relationship with Chinese business. Business Companies Act 2004 § 20 (Virgin Is.).

[171] William Vleck, *Why 'Jurisdiction'? Determining Boundaries in Offshore Finance*, 1 SMALL STATES & TERRITORIES 169, 176 (2018).

[172] *Id.*

approaches in unique ways to fit different situations, exercise a great deal of judgment, and perhaps even try something radically new from time to time,"[173] combining existing elements in novel ways to meet emerging needs. The Delaware influence proved particularly valuable compared to English company law. Where English law historically dealt with all companies through a single entity, Delaware provided greater flexibility for privately held companies, family businesses, and holding companies.[174] This flexibility proved crucial for offshore businesses, which typically had more concentrated ownership patterns than large public companies common in England or the U.S., where corporate law focuses more on minority shareholder protection.

BVI's success stemmed from maintaining connections between practitioners, regulators, and lawmakers. Regular consultation between the financial community, legal community, and government officials—facilitated by BVI's small size—created an innovation ecosystem. This advantage became self-reinforcing: BVI's success attracted more top legal talent, with the jurisdiction now hosting offices of 15 top offshore law firms—more than any other jurisdiction.[175] While more than 20 jurisdictions adopted similar legislation between 1984 and 2000,[176] BVI maintained its leadership through continuous innovation and service quality. As Milton Grundy noted, practitioners with established BVI relationships saw little reason to move elsewhere, suggesting that success depended as much on cost and service quality as statutory language.[177] Although beyond the scope of this Article, BVI's later evolution from the original IBC to the 2004 Business Companies Act (responding to OECD and EU pressure) further demonstrates how creative communities adapt to changing conditions while maintaining their innovative capacity.

B. NETWORKS OF INNOVATION: THE LLC'S GLOBAL EVOLUTION

The Limited Liability Company (LLC) exemplifies how specialized professional communities transform legal concepts across jurisdictions.[178] Its origin demonstrates Csikszentmihalyi's systems model of creativity, where innovation emerges from the interaction between individuals, their domain of expertise, and the field that validates their contributions.[179]

The LLC's origins were offshore, although crucial steps occurred initially in the U.S. In the 1970s, lawyers for a U.S.-based international company, the Hamilton Brothers Oil Company, familiar with Panama's "*limitada*" entity via the company's international operations, sought to

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[173] FLORIDA, RISE, *supra* note 22, at 39.
[174] Morriss & Ku, *supra* note 77, at 102–05.
[175] Calculations by authors.
[176] *See* Morriss & Ku, *supra* note 35, Figure 3.
[177] GRUNDY, *supra* note 148, at vi, 119.
[178] The history of the LLC in the United States is thoroughly described in Susan Pace Hamill, *The Story of LLCs: Combining the Best Features of a Flawed Business Tax Structure*, *in* BUSINESS TAX STORIES (Steven A. Bank & Kirk J. Stark eds., 2005) [hereinafter Hammill, *Story*]. *See also* Susan Pace Hammill, *The Limited Liability Company: A Catalyst Exposing the Corporate Integration Question*, 95 MICH. L. REV. 393, 399–402 (1996).
[179] Mihaly Csikszentmihalyi, *Society, Culture, and Person: A Systems View of Creativity*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 47 [hereinafter Csikszentmihalyi, *Society, Culture, and Person*]. (what we call creative is never the result of individual action alone; it is the product of three main shaping forces: a set of social institutions, or *field,* that selects from the variations produced by individuals those that are worth preserving; a stable cultural *domain* that will preserve and transmit the selected new ideas or forms to the following generations; and finally the *individual,* who brings about some change in the domain, a change that the field, will consider to be creative.)

recreate its benefits—limited liability and pass-through taxation—within the U.S. legal system.[180] The development process illustrates how legal innovations require both creative insight and field validation.[181] After drafting their proposed statute, the company's lawyers first approached the Alaska legislature, where it failed in 1975 and 1976 "apparently for political reasons unrelated to the proposals."[182] Success came in Wyoming, but following Csikszentmihalyi's model, the innovation required validation from the broader field—in this case, the IRS's acceptance of pass-through tax status. Until this validation came in 1988, the structure saw minimal adoption, with only twenty-six LLCs established.[183]

The IRS's recognition sparked rapid adoption, driven by the LLC's powerful combination of corporate-level liability protection and pass-through taxation in a flexible format.[184] The American Bar Association's Tax and Business Sections exemplified what Florida would recognize as the "multiplier effect" of professional clustering, establishing committees to study the LLC, identify issues, share resources, and assist state legislative drafting committees.[185] These committees created what O'Hara O'Connor and Ribstein identified as exit-affected groups—professionals who could profit both from the new structure itself and from expertise in its application.[186]

IFCs demonstrated the Floridian creative capital of their professional communities in adapting this innovation.[187] Beginning with Anguilla and Dominica in 1994, the pattern of adoption reflected a different dynamic from the IBC experience. Eight jurisdictions adopted LLC legislation within three years, followed by a decade before another four jurisdictions, including established centers like Bermuda, Cayman, and Jersey, joined the movement.[188] This pattern illustrates Csikszentmihalyi's insight about how innovations require both domain expertise and field acceptance to spread.[189] One of us taught a law course for U.S. students in the Cayman Islands

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[180] Some accounts trace the limitada back to the German GmbH, filtered through the French S.A.R.L., and into Panama via within-the-family civilian law borrowings. William J. Carney, *Limited Liability Companies: Origins and Antecedents*, 66 U. COLO. L. REV. 855, 857 (1995); WILLIAM BAGLEY & PHILIP P. WHYNOTT, THE LIMITED LIABILITY COMPANY: THE BETTER ALTERNATIVE 1.451-1.452 (1993). Closing the loop, Panama adopted a revised statute in 2009 for its version of the LLC. Law 24 of 1996 (Pan.), English translation at: https://www.rcdwealth.com/rpw/protection/country/panama/laws/panama-limited-liability-companies-law.html.

[181] U.S. corporate law expert William Carney argues the true source for the LLC is the English unincorporated joint stock company and links the specific language in the original Wyoming statute to various existing Wyoming business entity statutes provisions. Carney, *supra* note 180, at 856. Our approach reconciles these accounts—the drafters made use of their domain knowledge, encapsulated in familiar provisions within the existing statutory language, to craft a new entity. That entity's acceptance by the field was enhanced by the familiar language and concepts, even as those were used in new way.

[182] Hammill, *Story*, *supra* note 178, at 299.

[183] Joseph P. Fonfara & Corey R. McCool, *The Wyoming Limited Liability Company: A Viable Alternative to the S Corporation and the Limited Partnership?*, 23 LAND & WATER L. REV. 523, 523 (1988).

[184] Hammill, *Story*, *supra* note 178, at 299–303.

[185] *Id.* at 300.

[186] O'HARA & RIBSTEIN, *supra* note 89, at 73–74. An extensive effort by the bar eventually prodded the IRS into issuing clear guidance on its tax status, which allowed the further development of the LLC beyond the relatively narrow initial Wyoming version. Hammill, *Story*, *supra* note 178, at 300.

[187] FLORIDA, FLIGHT, *supra* note 22, at 32.

[188] Morriss & Ku, *supra* note 35, Figure 4. A number of jurisdictions permit the use of "LLC" in company names but have not changed their underlying business entities laws to provide the features of the LLC. *See* Spitz, *supra* note 86, at 225 ("Frequently, the modern offshore LLC is merely a variant of the IBC.").

[189] Csikszentmihalyi, *Society, Culture, and Person*, *supra* note 179, at 47.

for over ten years, during the course of which he observed that the comments on LLCs by Caymanian attorneys speaking to the group evolved from "we don't have an LLC and we don't need one because we have something better," to "we probably need an LLC because U.S. clients keep asking for them," to "we have the best LLC in the world."

Unlike the IBC's focus on simplification, the LLC's flexibility and the need to ensure that an LLC formed in a new jurisdiction would benefit from pass-through taxation in the U.S. demanded concentrated pools of professional expertise, what Florida describes as "thick labor markets."[190] The structure's power lay in its flexibility—blending quasi-partnership governance with corporate-style limited liability—but this required sophisticated legal communities to implement effectively. Jersey's recent addition of an LLC statute, despite having a sophisticated limited liability partnership law, demonstrates how professional communities respond to market opportunities—in this case, attracting U.S. fund managers familiar with LLC structures.[191] At the same time, Jersey's deliberate variance of some aspects if its LLC from the U.S. model indicates the type of creativity Florida describes as the result of a creative class.[192] Providing differentiation allows Jersey to market its LLC not just as a familiar entity but also as a "better" entity.

Each jurisdiction's modification of the LLC concept based on local experience produced an array of options for potential clients. These variations reflected both local legal traditions and market demands. For example, Jersey's existing sophisticated limited liability partnership statute influenced its approach to LLC legislation, while still ensuring its version would appeal to U.S. fund managers and investors.[193] This diversity demonstrates the evolution of a domain through expert adaptation and refinement.[194]

The global spread of the LLC exemplifies how innovations develop through professional clustering and network effects. Each jurisdiction's legal community needed to develop expertise not just in drafting statutes but in identifying opportunities and crafting specific implementations. This parallel development resembled having many versions of Thomas Edison's famous laboratory working simultaneously on perfecting the concept of the light bulb.[195] The presence of sophisticated legal communities proved critical to maximizing the LLC's potential. While clients still wanted efficient service in registration, they needed higher levels of professional assistance to

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[190] FLORIDA, RISE, *supra* note 22, at 287.

[191] Jersey introduces LLC legislation in bid to attract US investment. *International Investment*, INV. WEEK (Sept. 13, 2018), https://www.internationalinvestment.net/internationalinvestment/news/3500346/jersey-introduces-llc-legislation-bid-attract-us-investment. *See also* JERSEY FIN., *The Jersey Limited Liability Company (LLC)*, (Feb. 3, 2023), https://www.jerseyfinance.je/our-work/the-jersey-limited-liability-company-llc/ (noting it is modeled on the Delaware and Cayman LLCs).

[192] *See* Mourant, *The Differences Between Jersey and Delaware LLCs*, (Feb. 2023), https://www.mourant.com/file-library/media---2023/matrix---the-differences-between-jersey-and-delaware-llcs.pdf; Nick Rogers, *Cayman LLCs vs Delaware LLCs vs Jersey LLCs – Points of Distinction*, OGIER (Feb. 14, 2023), https://www.ogier.com/news-and-insights/insights/cayman-llcs-vs-delaware-llcs-vs-jersey-llcs-points-of-distinction/.

[193] The Jersey Limited Liability Company: Podcast Series, *An Overview, Including Main Use Cases*, JERSEY FIN. (June 21, 2023), https://www.jerseyfinance.je/our-work/the-jersey-limited-liability-company-filmed-podcast-series/.

[194] Mihaly Csikszentmihalyi, *Solving a Problem is Not Finding a New One: A Reply to Herbert Simon*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 66 ("Whether an outcome will be creative or not does not depend on the process itself, but on the judgment of whoever has the power to legitimize new discoveries").

[195] *See* STEVEN JOHNSON, WHERE GOOD IDEAS COME FROM: THE NATURAL HISTORY OF INNOVATION 231 (2010) ("Folklore calls Edison the inventor of the lightbulb, but in truth the lightbulb came into being through a complex network of interaction between Edison and his rivals, each contributing key pieces to the puzzle along the way").

fully leverage the considerable power and freedom the LLC offers compared to simpler structures like the IBC. This demonstrates the importance of concentrated professional expertise in driving innovation.

The LLC's evolution from Panama's *limitada* through Wyoming to global adoption by IFCs also demonstrates the systemic nature of innovation, requiring interaction between creative individuals, domain knowledge, and expert communities. Each step required not just technical expertise but Floridian "creative capital" that includes the ability to recognize opportunities and implement novel solutions. The structure's continuing evolution across jurisdictions shows how professional communities build on each other's work while adapting to local conditions, needs, and opportunities.

This pattern of parallel development and adaptation pushed the LLC concept forward more rapidly and thoroughly than any single jurisdiction could have managed alone. The result has been a remarkable expansion of organizational options for businesses worldwide, demonstrating how IFCs' professional communities contribute to global legal evolution. The LLC story thus reveals both the power of what Florida terms "clustering" —the concentration of professional expertise— and Csikszentmihalyi's insight about how innovations spread through the interaction of creative individuals with expert communities and established knowledge domains.

C. FROM PODIATRISTS TO PROTECTED CELLS: ANATOMY OF AN INNOVATION

The cell company first appeared in complete form in Guernsey in 1997.[196] By 2009, nineteen jurisdictions had adopted similar legislation[197] and there were 3,000 cells and 300 cell companies worldwide plus 449 cell companies in Guernsey.[198] The development of the protected cell company[199] exemplifies Csikszentmihalyi's insight that significant innovations often begin with recognizing problems that others have overlooked.[200] Unlike the LLC's adaptation of an existing structure, this innovation emerged from "problem finding"—identifying an unmet need in the market.[201]

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[196] There were precursors scattered among various jurisdictions including Delaware's 1996 creation of the series LLC. 6 Del. Laws § 18-215. Delaware's series LLC had its own roots in the Delaware series investment trust. Jeffrey Simpson & Andrew Rennick, *The Series LLC and Captives – A Brief History*, CAPTIVE REV. (Mar. 2, 2017), https://captivereview.com/features/the-series-llc-and-captives-a-brief-history/. Delaware series LLCs were not authorized by the state for use by captive insurance, however, until 2005, and the first series LLC captive was not created until 2010. *Id.* Bermuda also provided an *ad hoc* cell company for insurance purposes through special incorporation by individual act of the legislature, with the first such statute in 1992. NIGEL FEETHAM & GRANT JONES, PROTECTED CELL COMPANIES: A GUIDE TO THEIR IMPLEMENTATION AND USE 6, n. 4. (2nd ed. 2010). Butterworth was unaware of the Bermuda private statutes. Steve Butterworth, *Foreword*, *in* FEETHAM & JONES, *supra*, at xvii.

[197] Morriss & Ku, *supra* note 35, Figure 5.

[198] FEETHAM & JONES, PROTECTED CELL COMPANIES, *supra* note 196, at 3; ORG. ECON. COOP. & DEV., GLOBAL FORUM ON TRANSPARENCY AND EXCHANGE OF INFORMATION FOR TAX PURPOSES, PEER REVIEW REPORT – PHASE 1: LEGAL AND REGULATORY FRAMEWORK, GUERNSEY 19 (2011).

[199] These go by many names in various jurisdictions. For simplicity's sake, we will call all of the unincorporated cell versions "cell companies" and the incorporated cell versions "incorporated cell companies."

[200] Csikszentmihalyi & Sawyer, *supra* note 80, at 70–71 (noting importance of "attention on a problematic area of the domain").

[201] FEETHAM & JONES, *supra* note 196, at 6 ("the 'protected cell company' legislation was undoubtedly first conceived specifically in response to the needs of the captive insurance market.").

A protected cell company enables limitation of creditors' rights to particular assets within a business entity, rather than giving creditors access to all of the assets, solving a problem that contractual arrangements alone could not address: binding third parties to asset segregation structures.[202] For example, in a group captive insurance company, multiple businesses in an industry share ownership of an insurance company. Because the group captive is a separate entity from the insureds, their premiums are deductible expenses. At the same time, because the insureds own the company, their premiums remain in the reserves if the company does not have to pay claims, and the details of coverage are determined by the insureds.[203] The risk remains, however, that claims against one group member will require use of funds contributed by other members. Without a means of asset segregation within the group captive and enforceable against third parties, this risk cannot be prevented. Protected cell companies solve this problem.[204]

The innovation's origin illustrates Csikszentmihalyi's emphasis on the importance of social interaction in creative processes.[205] Future Guernsey regulator Steven Butterworth conceived the idea during a conversation with podiatrists forming a group captive insurance company in Cayman.[206] As Butterworth recalled, the podiatrists " with better loss prevention methods were fearful that the losses of their lesser brethren would eat into their own profits."[207] Further, Butterworth knew the need to protect individual owners from the risks of others in group captives was increased by the U.S. Internal Revenue Service's insistence until 2001 that captives write coverage for insureds outside the "economic family"[208] if the premiums were to be deductible for U.S. tax purposes.

> It was just what an insurance regulator did not want to see, namely, a captive, which knew its parent risk inside out, starting to write 'other' ill-considered risks, purely driven by tax considerations at parent company level. There were some notable casualties, particularly amongst captives owned by some major companies, as unexpected and substantial claims soon started to materialize from the unrelated business.[209]

This inspired him to think of "a company that had separate parts, with statutory force, each protecting a block of assets from the liabilities of the other parts, whilst still being a single legal entity."[210] Such an entity would both provide the needed ring-fencing of assets and solve the U.S.

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[202] *Id.* at 13. For a general overview of how captives operate (on which this paragraph draws), *see* PETER J. STRAUSS, THE DEFINITIVE GUIDE TO CAPTIVE INSURANCE COMPANIES (2011).
[203] Strauss, *supra* note 202, at 24.
[204] *See, e.g.*, *Re CAI Master Allocation Fund, Ltd* [2011] Bda LR 57 at [17]-[18] (Kawaley J) (referring to the separation as "sacrosanct" and a "statutory Iron Curtain"); *BNY AIS Nominees & Gottex ABL (Cayman) Ltd v New Stream Capital Fund* [2010] Bda LR 34 at [93] and [130] (Kawaley J) (segregated account is a "company within a company" and its assets are protected by a "firewall").
[205] Csikszentmihalyi & Sawyer, *supra* note 80, at 95–96.
[206] Steve Butterworth, *Foreword*, *in* FEETHAM & JONES, PROTECTED CELL COMPANIES, *supra* note 196, at xvi.
[207] Butterworth, *supra* note 206, at xvi.
[208] *IRS Scraps 'Economic Family' Challenge to Captive Insurance Transactions*, TAX NOTES (June 4, 2001), https://www.taxnotes.com/research/federal/irs-guidance/revenue-rulings/irs-scraps-economic-family-challenge-to-captive-insurance-transactions/dl01.
[209] Butterworth, *supra* note 206, at xv.
[210] *Id.* at xvi.

tax problem.[211] This interaction exemplifies Florida's emphasis on interactions among creative people in spurring innovation.[212] Like most innovations, however, it was built from existing materials. Feetham and Jones note that "the basic mechanics by which they perform their function have been widely used by the banking, insurance and fund sectors over many years."[213]

The development process also demonstrates Florida's vision of how creative communities build on initial insights, drawing on Romer's analogy of mixing ingredients in a recipe.[214] When Butterworth moved to Guernsey, he collaborated with Advocate Nik van Leuven, who enhanced the concept by introducing new ideas like shares in cells.[215] This collaboration exemplifies Florida's multiplier effect of creative clusters—where professional interaction accelerates innovation as well as his insight that "ideal interactions occur among people whose roles are different enough to give them different perspectives, but who have enough common knowledge and common interest to know what would be mutually useful."[216] Butterworth himself noted how the concept expanded beyond its initial insurance focus once he "realized that the legislation was an extension of company law," enabling "myriads of opportunities, especially in the asset management sector."[217]

The rapid spread of the innovation—twenty IFC jurisdictions in under ten years, with ten adoptions in the first four years[218]—demonstrates Floridian "thick labor markets" at work.[219] Unlike the LLC's slower adoption among IFCs, the cell company concept quickly entered the global legal vocabulary. This rapid diffusion reflects Csikszentmihalyi's observation that innovations spread fastest when expert communities can readily recognize their value.[220] Unlike the LLC, which was competing with other legal products IFCs already had and whose initial value was the familiarity of the form to the American customer base, the PCC was an innovation whose only competition was the inferior contract-based asset segregation,[221] Butterworth's Caymanian

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[211] *Id.*

[212] FLORIDA, RISE, *supra* note 22, at 108.

[213] FEETHAM & JONES, *supra* note 196, at 5.

[214] FLORIDA, CITY, *supra* note 22, at 64–65.

[215] Butterworth, *supra* note 206, at xvi. (I had not envisaged that individual cells would be able to issue 'cell shares.' Was this consistent with the concept of the 'single legal entity'? I had always considered that the cell participants would receive their profits back by way of return premiums or even by way of loans, but I was thinking only of insurance operations and was persuaded that having the ability to have cell shares, and thus pay dividends, was the only way that the legislation would be acceptable to potential participants.) There had been an initial unsuccessful draft prepared by another lawyer. *Id.*

[216] FLORIDA, RISE, *supra* note 22, at 109.

[217] Butterworth, *supra* note 206, at xvi–xvii.

[218] *See* Morriss & Ku, *supra* note 35, Figure 5.

[219] Feetham notes that in Gibraltar, "[t]he Government of Gibraltar, prompted by local lawyers (of which the co-author of this book was at the forefront), followed the events in Guernsey with enormous interest. After a period of consultation and following legal advice, the Government of Gibraltar implemented PCC legislation of its own closely modelled on that of Guernsey. It was felt that it was unnecessary to re-engineer legislation of a successful model already existed elsewhere." FEETHAM & JONES, *supra* note 196, at 69. FLORIDA, RISE, *supra* note 22, at 287.

[220] Butterworth, *supra* note 206, at xvii ("It was also very encouraging to see certain States in the US introducing their own versions as this would help achieve international recognition we so much hoped for.").

[221] The contractual approach's weakness is that all the liabilities of the company (whether or not referable to particular assets or limited by contract) can, in principle, be sued for or executed upon against the company and its assets. Moreover, whilst the insurer is carrying on business, the contractual arrangements are in essence accounting provisions. However, on insolvency the mandatory *pari passu* distribution rule will take precedence and contractual provisions may not necessarily be respected. This may be particularly relevant where what the parties propose is for the rights of

clients had been attempting (which could not bind third parties) and the expensive and lengthy process of securing incorporation through a bespoke Bermuda statute.[222] The involvement of the expert community also improved the concept, with an amendment to the Guernsey statute made "after consultation with a leading UK [Queen's Counsel]" to enhance the chances of other jurisdictions enforcing the structure that made "clear that the provisions as to limitation of liability are, under the rules of international law, substantive and not merely procedural."[223]

Although Guernsey's initial PCC legislation was limited to insurance uses, the use of cell structures soon expanded to include asset securitization and investment funds, where the "basic mechanics" and "basic legal environment" of cell companies were similar to existing uses.[224] "So when PCC legislation was first introduced, their use to 'ring-fence' repackaging transactions was quickly spotted by investment banks."[225] Guernsey amended its law to allow non-insurance uses in 2008[226] and many of jurisdictions that followed Guernsey's adoption did not restrict its use to insurance. Introducing the PCC into other industries provided "an excellent opportunity to establish a more robust 'ring fence' than was available through traditional contractual and trust arrangements."[227]

A key question for PCCs was their acceptance in jurisdictions lacking PCC legislation. Feetham and Jones note this issue and argue that most jurisdictions have sufficiently similar legal mechanisms that a strong case could be made for acceptance of the PCC structure's validity.[228] For example, in the UK, they suggest the similarities to the Lloyd's market and the UK's general concern for its status as a leading insurance jurisdiction would lead to courts respecting PCC structures, while in France an analogy to a securitization vehicle, the *fonds communs de créances* (FCC), would allow "[a] practitioner arguing for acceptance of the cellular structure of a foreign PCC before a judge in France … [to] direct the court to 'equivalent' French legislation as a reason why it should be respected."[229]

A key innovation of the PCC was that a cell "is not a separate *de jure* legal identity but has all the *de facto* aspects of a legal identity."[230] This posed challenges not only to the question of

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the policyholders under individual insurance contacts not to be limited in value, but limited to specified assets. Once the insurer is subject to insolvency, of course, the focus is on the actual assets that are available to meet its liabilities as they are valued. FEETHAM & JONES, *supra* note 196, at 13.

[222] *See* FEETHAM & JONES, *supra* note 196, at 6 (describing Bermuda private act approach); *Bermuda Segregated Accounts Companies*, CONYERS 4 (2018), https://www.conyers.com/wp-content/uploads/2018/05/Bermuda_Segregated_Accounts_Companies-BDA-1.pdf ("While it is still possible for companies to petition the Bermuda Legislature for a Private Act, it has become uncommon given the ease and cost efficiency of registration under the SAC Act.").

[223] FEETHAM & JONES, *supra* note 196, at 2. That same UK lawyer then later advised the Gibraltar government on its PCC legislation. *Id.* at 2, n. 1.

[224] FEETHAM & JONES, *supra* note 196, at 17.

[225] *Id.*

[226] *Protected Cell Companies*, MOURANT (Jan. 2023), https://www.mourant.com/media---guides/mourant---protected-cell-companies.pdf.

[227] FEETHAM & JONES, *supra* note 196, at 26. *See also* Joe Truelove, *Twenty-five Years of Protected Cell Companies*, GUERNSEY FIN. (July 12, 2022), https://www.guernseyfinance.com/industry- resources/news/2022/twenty-five-years-of-protected-cell-companies/ (describing non-insurance uses in Guernsey).

[228] FEETHAM & JONES, PROTECTED CELL COMPANIES, *supra* note 196, at 319–20.

[229] *Id.* at 76–77, 115.

[230] *Id.* at 251.

outside recognition but to migration of cells from one PCC to another or to independent status, entering into contracts, and in the event of insolvency.[231] The concept's evolution continued with the incorporated cell company (ICC), developed to give cells their own legal personality, which allowed them to contract with one another as well as adding to the strength of the asset segregation.[232] This enhancement, first adopted by Jersey in 2006 and subsequently by seven other jurisdictions in the next fourteen years, demonstrates what Csikszentmihalyi identifies as domain evolution through expert refinement.[233] Notably, this more complex iteration spread primarily among larger IFCs with more developed legal infrastructure, illustrating Florida's observation about the importance of sophisticated professional communities in advancing innovation.[234]

The role of entrepreneurs like Butterworth and van Leuven exemplifies Floridian creative capital. As economist Joseph Schumpeter noted, entrepreneurship involves "doing new things or doing things that are already being done in a new way."[235] The success of IFCs depends on maintaining environments that nurture such entrepreneurial creativity—what Florida would recognize as the conditions that attract and retain creative professionals.[236] The market impact of these innovations demonstrates Csikszentmihalyi's observation about how creative solutions reshape their domains by including the innovative solution.[237] The cell structure enabled insurance managers to offer what we might analogize to "condos" instead of "single family homes," fundamentally changing how captive insurance and investment funds can be structured.[238] The later development of ICCs further developed the market, pushing some clients toward single parent captives and focusing the cell company market on risk segregation within single-owner captives.[239] This evolution exemplifies what Florida describes as the dynamic nature of creative clusters, where innovations continue to generate new opportunities and challenges.[240] Overall, this story reveals both Florida's emphasis on the importance of professional clusters and Csikszentmihalyi's insight about how domains evolve through the interaction of creative individuals, expert communities, and existing knowledge structures.[241]

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[231] *Id.* at 251–265.

[232] *Incorporated Cell Companies*, MOURANT (Mar. 2018), https://www.mourant.com/file-library/2018---media/2018---guides/incorporated-cell-companies-(apr-20).pdf.

[233] These are: Malta, Isle of Man, Guernsey, Cayman Islands, Dubai, Bermuda, and Barbados. Morriss & Ku, *supra* note 35, Figure 6; Carol A. Mockros & Mihaly Csikszentmihalyi, *The Social Construction of Creative Lives*, *in* CSIKSZENTMIHALYI, SYSTEMS MODEL, *supra* note 23, at 181 ("we know whether or not an original solution is worth implementing because of the evaluation of an expert field. … [C]reativity cannot be recognized except as it operates within a system of cultural rules, and it cannot bring forth anything new unless it can enlist the support of experts.").

[234] FLORIDA, RISE, *supra* note 22, at 26–27.

[235] Joseph A. Schumpeter, *The Creative Response in Economic History*, *in* ESSAYS ON ENTREPRENEURS, INNOVATIONS, BUSINESS CYCLES, AND THE EVOLUTION OF CAPITALISM 223 (Richard V. Clemence ed., 2008) (1947).

[236] FLORIDA, RISE, *supra* note 22, at 262–63.

[237] CSIKSZENTMIHALYI, CREATIVITY: PSYCHOLOGY, *supra* note 23, at 28 ("Creativity occurs when a person, using the symbols of a given domain such as music, engineering, business, or mathematics, has a new idea or sees a new pattern, and when this novelty is selected by the appropriate field for inclusion into the relevant domain.").

[238] *20:20 Vision – Looking Back at 20 Years of the Protected Cell Company*, LEXOLOGY (May 30, 2017), https://www.lexology.com/library/detail.aspx?g=ee00dfc7-94ce-4f8b-ac1c-64937ed66744.

[239] *See* James Gaudin, *Cell Companies in Jersey*, APPLEBY (June 22, 2021), https://www.applebyglobal.com/publications/cell-companies-in-jersey/; Antony Ireland, *Corporations Get Creative with Cells*, RISK & INS. (Aug. 3, 2016), https://riskandinsurance.com/corporations-get-creative-cells/.

[240] FLORIDA, RISE, *supra* note 22, at 226 ("not just the accumulation of knowledge or cognitive ability that drives the growth of cities, but the additional clustering of social-intelligence skill. This clustering of social-intelligence skill increases the quality of the combinations and recombinations that drive innovation and economic growth.").

[241] CSIKSZENTMIHALYI, PSYCHOLOGY, *supra* note 23, at 28; FLORIDA, RISE, *supra* note 22, at 226.

D. OFFSHORE TRUST LAW'S EVOLUTION: FROM INHERITANCE TO INNOVATION

The development of trust law in IFCs demonstrates how creativity emerges from the synthesis of existing knowledge with new insights. While many jurisdictions inherited English trust law through their British connections,[242] IFCs gradually developed distinctive approaches in a way that follows Csikszentmihalyi's systems model of interaction between individual creativity, domain knowledge, and field validation.[243]

The initial phase of offshore trust law focused on establishing domain expertise. Early offshore trust business centered on straightforward discretionary trusts suited primarily for tax avoidance.[244] By 1956, this mastery was producing results: the Bank of Bermuda's trust department had 1,000 active accounts, with a quarter from outside Bermuda.[245] In the Channel Islands, returning expatriates from decolonization found familiar British banks without subjecting their savings to Britain's staggering marginal tax rates.[246] This concentration of expertise created Floridian clustering effects, where proximity generates productivity gains.[247] Thus by the early 1970s, offering trusts governed by local law built on a foundation of English trust law was a well-established route for nascent IFCs to begin to develop.[248]

Three pivotal events in the 1970s accelerated development of IFC trust law. First, the shrinking of the sterling area in the early 1970s to the UK, the Crown Dependencies (CDs) and, a year later, Gibraltar boosted business in these jurisdictions by drawing clients who had previously used now-former sterling area jurisdictions (the Bank of Bermuda set up trust subsidiaries in both Channel Islands, for example).[249] It also pushed Bermuda and the Caribbean jurisdictions to focus on new markets, particularly the U.S.[250] Second, the departure of financial professionals from The Bahamas following independence and the "Bahamianization" initiative of post-independence Pindling government made expertise available to other centers.[251] Third, Britain's negotiation of fiscal autonomy for the CDs within the EEC during Britain's accession to the EEC created stable conditions for innovation.[252] These events facilitated Florida's clustering of talent while creating

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[242] Morriss, *supra* note 41.
[243] Csikszentmihalyi, *supra* note 136, at xxii.
[244] Anton Duckworth, *Trust Law in the New Millennium: Part I – Retrospective*, 7 TRS. & TRS. 12, 12 (2000); Phillips, *supra* note 110, at 187 (describing most 1970s Bermuda trusts as "created in standard form for North American residents").
[245] Phillips, *supra* note 110, at 130.
[246] Morriss, *supra* note 41.
[247] FLORIDA, RISE, *supra* note 22, at 193 ("Clustering makes each of us more productive—and our collective creativity and economic wealth grow accordingly.").
[248] Morriss, *supra* note 41.
[249] Phillips, *supra* note 110, at 187; Mike Bisson, *The UK's Favourable Attitude Has Meant Continued Growth*, JERSEY EVENING POST 5 (Nov. 25, 1974). Exchange control's demise under the Thatcher Government proved to be a further boost to these jurisdictions, as it removed hesitation by some sterling area customers over the impact of the jurisdictions' disclosures to the Bank of England. Philip Jeune, *Island Prepares to Reap Benefits of Decision to Scrap Exchange Controls*, JERSEY EVENING POST 1 (Oct. 24, 1979).
[250] Freyer & Morriss, *supra* note 45, at 1325.
[251] MILTON GRUNDY, THE WORLD OF INTERNATIONAL TAX PLANNING 62 (1984); Tony Doggart, *Tax Havens – The Landscape Changes*, *in* THE CARIBBEAN AND OFF-SHORE INVESTMENT CENTRES 543 (April 1972).
[252] *It Was the Jersey Formula Which the Other Islands, U.K. and the Six Agreed*, JERSEY EVENING POST 1, 10 (Dec. 2, 1971).

Csikszentmihalyi's conditions for domain evolution. IFCs initially responded with a series of small changes to their trust laws to enhance their competitive positions, such as extending perpetuities periods and allowing accumulation trusts.[253]

Innovation accelerated as offshore jurisdictions moved to put their trust laws on a firmer local legal footing. Jersey's Trust Law of 1984 (TLJ), the first comprehensive substantive trust statute, emerged from "a substantial degree of collaboration between Jersey's legislators, the professions and other interested parties, which is only possible in a community the size of Jersey."[254] This collaboration demonstrates Csikszentmihalyi's insight that creativity emerges from interaction between a person's thoughts and their sociocultural context.[255] The importance of the TLJ was its creation of a framework for ongoing innovation through amendments (seven through 2023),[256] making it "a model trust statute that is moving with the times."[257] Although not every IFC adopted as comprehensive a substantive trust statute as Jersey, many began amending their trust laws through an array of statutes, differentiating their laws from English law.[258]

The next major shift in IFC trust law came with the rise of regulation in the 1980s and 1990s, which transformed trustees from "the day of the enthusiastic amateur" to a professionalized field.[259] In addition to responding to onshore pressure campaigns, the licensing laws also were a response to the development of more esoteric trust investments.[260] This development, beginning

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[253] Morriss, *supra* note 41. *See also* GRUNDY, *supra* note 148, at 166. (In the field of trust law, there has been a downpour of new enactments—some dealing with trusts in general, some with purpose trusts, some with asset protection trusts, some providing schedules of standard trusts and powers on the Belize model, some providing for recognition of the Hague Convention, some abolishing the rule against perpetuities or permitting long and fixed perpetuity periods and others designed to defeat forced heirship claims. However, the bulk of the law relating to trusts in British and ex-British territories derives from English statutes and rules of equity, except that jurisdictions outside Great Britain (apart from Hong Kong) permit accumulation throughout the perpetuity period.)

[254] Edward Devenport & Simon Gould, *The Trusts (Jersey) Law, 1984: A Model Trust Statute that is Moving with the Times*, 2 TRS. & TRS. 6, 7 (1986).

[255] Csikszentmihalyi & Sawyer, *supra* note 80, at 77. (The evaluation and elaboration stage also implies a social dimension: How can an insight be evaluated unless the individual makes use of an internalized model of the domain … and without an intimate familiarity with experts in the field who help select and define what is worthwhile? How can an idea be elaborated if not within the context of a specific domain of endeavor and with an awareness of the social processes required to communicate the idea through the field?)

[256] The statute was amended by the Trusts (Amendment) (Jersey) Law 1989, Trusts (Amendment No. 2) (Jersey) Law 1991, Trusts (Amendment No. 3) (Jersey) 1996, Trusts (Amendment No. 4) (Jersey) Law 2006, Trusts (Amendment No. 5) (Jersey) Law 2012, Civil Partnership (Consequential Amendments) (Jersey) Regulations 2012, Civil Partnership (Consequential Amendments) (No. 2) (Jersey) Regulations 2012, Trusts (Amendment No. 6) (Jersey) Law 2018, Marriage and Civil Status (Amendment No. 4) (Jersey) Law 2018, Mental Health and Capacity (Consequential Amendment and Transition Provision) (Jersey) Regulations 2018, and the Limited Liability Companies (Amendment) (Jersey) Regulations 2023.

[257] Devenport & Gould, *supra* note 254, at 6.

[258] Morriss, *supra* note 41. Belize (1992), Guernsey (1989), Malta (1989), and the Turks & Caicos Islands (1990) adopted comprehensive statutes in the decade after Jersey. *Id.* Bermuda, Cayman, and the Isle of Man built their statutory trust laws through a more piecemeal approach but nonetheless developed a sophisticated statutory framework. *Id.* The impact of these statutes can be seen in shifts in the pattern of citations to core provisions in trust law in treatises on offshore trust law. For example, there was a significant shift toward citation of Jersey authority compared to UK authority in *The Jersey Law of Trusts* from its 1990 edition (just after the first amendment to the TLJ) and the 2013 edition. *Id.*

[259] Peter Stradling, *Common Pitfalls in Offshore Trust Administration*, *in* EURO-TRUSTS: THE NEW EUROPEAN DIMENSION FOR TRUSTS 59 (Barry McCutcheon & Patrick C. Soares eds.,1993).

[260] *Id.* at 61.

with Guernsey's establishment of its Financial Services Commission in 1988, exemplifies Florida's observation about how professional communities evolve through clustering.[261] Other jurisdictions soon followed in regulating trust service providers.[262]

IFCs also extended English law into new areas. IFCs adopted non-charitable purpose trusts, starting with Bermuda's Trusts (Special Purposes) Act 1989 and developed sophisticated statutory regimes governing these trusts, including Cayman's STAR trust and BVI's VISTA trust.[263] These new laws allow trusts to be used for business purposes for which English trusts could not be used.[264] They also developed the role of the trust protector beyond that in onshore law.[265]

Finally, we can see innovation continuing with IFCs' recent response to the UK Supreme Court's restriction of the Rule in *Re Hastings-Bass*, which shows how concentrated expertise enables rapid, sophisticated legal innovation.[266] The Rule evolved under English law from a 1974 judgment, in which the UK tax authorities sought to establish the power of judges to undo transactions which due to trustee error failed to accomplish their purpose.[267] The court in *Re Hastings-Bass* held it had the power, but declined to exercise it on the facts of that case.[268] The Rule slowly developed in English and offshore courts over the next four decades, allowing courts the discretion to resolve problems created where trustees had acted without considering something they should have or by considering something they should not have.[269] One of the main categories of cases to which the Rule was applied in reported decisions were mistakes that incurred substantial tax liabilities. For example, in *Green v. Cobham,* a trustee error concerning a complicated provision of UK tax law meant that a trustee's retirement from his law firm made a set of trusts tax resident in the UK and resulted in a £37m tax bill.[270] The court applied the Rule and undid the action that caused the tax liability.[271] Courts in several IFCs recognized the Rule in their jurisdictions, spreading it beyond trusts governed by English trust law.[272]

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[261] Regulatory bodies existed before this in a number of jurisdictions, even some with relatively broad remits (e.g., the Bermuda Monetary Authority). However, they were often not independent of the local administration and focused on particular sectors, rather than having broad authority over financial services generally.

[262] Morriss, *supra* note 41.

[263] Antony Duckworth, *STAR Trusts*, 19 TRS. & TRS. 215, 216 (2013) ("By freeing the trust from the shackles of equitable ownership STAR makes the trust simpler and easier to understand. And it allows the trust to be used in new and different ways."); Raymond Davern, *Does the Virgin Islands Special Trusts Act Achieve Anything Special?*, 16 TRS. & TRS. 750, 758 (2010) ("suspension of the rights attaching to shares while the shares are held in trust can be achieved only by statute. That is what VISTA achieves and, though simple, may fairly be regarded as special.").

[264] Duckworth, *supra* note 244, at 13.

[265] MARK HUBBARD, PROTECTORS OF TRUSTS 1-2 (2013) ("In the main these cases [specifically concerning protectors] have been decided by the courts of jurisdictions where protectors are commonly appointed, such as the Cayman Islands, the Isle of Man, and Jersey").

[266] Andrew P. Morriss, *Competition in the Global Law Market: Offshore Development of the Statutory "Rule in* Hastings Bass*"*, 34 MINN. INT'L L. REV. 121, 192-93 (2025).

[267] Hastings-Bass (Deceased), Re [1975] Ch. 25 (CA (Civ Div)); [1974] STC 211.

[268] Hastings-Bass (Deceased), Re [1975] Ch. 25 (CA (Civ Div)); [1974] STC 211.

[269] Morriss, *supra* note 266.

[270] [2002] STC 820. *See* Morriss, *Hastings Bass*, *supra* note 266, for a summary of the case.

[271] [2002] STC 820.

[272] *In the matter of the Green GLG Trust*, 2002 JLR 571 (Jersey Royal Court); *A and Ors v Rothschild Trust Cayman Limited,* [2004-05] CILR 485, [2006] WTLR 1129 (Cayman Is.); *In the Matter of the representation of Mr Steven Bruce Friedman and Asiatrust Limited as trustees of the RAS I Trust* (unreported), (Jersey Royal Court), 12 December 2006 (applying law of the Cook Islands); *Re Ta-Ming Wang Trust* 2010 (1) CILR 541 (Cayman Is.); *Barclays Private Bank & Trust (Cayman) Limited v Chamberlain*, 9 ITELR 302 (2004) (Cayman Is., applying Virin Is. law); *Gresh v*

In 2013, the UK Supreme Court effectively gutted the rule, holding that the post-*Hastings Bass* jurisprudence had misinterpreted that decision.[273] Over the next several years, seven IFCs, led by Jersey, rejected the UK approach through legislation that preserved judicial discretion to remedy trustee errors.[274] Most took the opportunity to clarify their law governing trustee mistakes at the same time.[275] This illustrates Csikszentmihalyi's understanding of how domains evolve through expert communities that were then brought to market.

This evolution of offshore trusts from simple tax avoidance tools to sophisticated legal instruments demonstrates how concentrated professional expertise drives innovation. The transformation exhibits Csikszentmihalyi's systemic model of creativity while demonstrating Florida's insights about how clustering enables professional communities to develop and implement innovations.

III. INSIGHTS FROM THE SUCCESSFUL IFC INNOVATIONS

Business entities serve diverse needs beyond the familiar publicly traded corporation. The proliferation of forms—from companies limited by guarantee to segregated portfolio companies, from business trusts to private foundations—exemplifies the importance of both differentiation and integration to creativity, with differentiation enabling adaptation to varied needs.[276] As Jane Jacobs noted, "development is differentiation—new differentiation of what already existed. Practically every new thing that happens is a differentiation of a previous thing—from a new shoe sole to changes in legal codes—all of those things are differentiations."[277] Our case studies reveal how IFCs have become laboratories for such differentiation through four key characteristics that enable successful legal innovation:

A. HUMAN NETWORKS AND EXPERT COMMUNITIES

The development of sophisticated professional networks lies at the heart of IFC innovation. Networks do more than distribute information, they also help create information.[278] Each case study demonstrates Csikszentmihalyi's observation that creativity emerges through social interaction rather than isolated insight.[279] Butterworth's development of the protected cell company began with conversations with podiatrists about their insurance needs and evolved through

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RBC Trust Company (Guernsey) Ltd & HMRC [2009] RCG 25 (Guernsey).

[273] *Futter v Commissioners* [2013] UKSC 26.

[274] Morriss, *supra* note 266. The seven jurisdictions are the Bahamas, Bermuda, BVI, the Cayman Islands, the Dubai IFC, the Isle of Man, and Jersey.

[275] *Id.*

[276] Mihaly Csikszentmihalyi & Rustin Wolfe, *New Conceptions and Research Approaches to Creativity: Implications of a Systems Perspective for Creativity in Education*, *in* Csikszentmihalyi, SYSTEMS MODEL, *supra* note 23, at 177 ("both differentiation and integration are essential for complex learning. Creative problems often arise at the interface of disciplines, and thus excessive compartmentalization stifles genuinely new ideas.").

[277] Quoted in Bill Steigerwald, *City Views: Urban Studies Legend Jane Jacobs on Gentrification, the New Urbanism, and Her Legacy*, REASON (June 2001).

[278] Karlsson, *supra* note 21, at 93 ("networks using modern information and communication technologies facilitate rapid information transfer over any distance but they also help create information. These networks help in sharing and creating ideas. Both information and ideas are important inputs in creative processes.").

[279] Csikszentmihalyi & Sawyer, *supra* note 80, at 95.

collaboration with van Leuven, who enhanced the concept with innovations such as cell shares.[280] BVI Attorney General Hunte crafted the IBC Act by actively engaging experienced practitioners to understand "what particular difficulties they experienced during the practice of company law."[281] The LLC's global spread relied on networks of professionals who could adapt the concept to local conditions while maintaining its essential features.[282] Jersey's trust law innovations emerged from what participants described as "a substantial degree of collaboration between Jersey's legislators, the professions and other interested parties, which is only possible in a community the size of Jersey."[283]

These networks exemplify Florida's insight that clustering creates multiplicative effects in innovation.[284] The concentration of expertise in small jurisdictions enables rapid iteration between practitioners, regulators, and lawmakers.[285] In addition, small jurisdictions have an advantage in their small size because the networks within these jurisdictions are a form of "small-world" networks, in which links are highly clustered.[286] The development of the IBC demonstrates this dynamic: BVI's success attracted legal talent, creating Floridian thick labor markets for specialized expertise, which in turn enabled further innovation.

B. COMMON LANGUAGE AND LEGAL HERITAGE

Successful IFCs build on shared legal traditions while adapting them to new needs. The IBC demonstrated this by combining English company law's established framework with Delaware's flexible approach to corporate governance.[287] This fusion created an entity that could serve international business needs while maintaining predictability through connection to established legal principles. Similarly, the LLC translated civil law concepts through common law frameworks, while the protected cell company created new possibilities within traditional corporate structures.

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[280] *See supra* section II.C.

[281] Smith, *Interview*, *supra* note 147.

[282] *See supra* Section II.B.

[283] Edward Devenport & Simon Gould, *The Trusts (Jersey) Law, 1984: A Model Trust Statute that is Moving with the Times*, 2 TRS. & TRS. 6, 8 (1986).

[284] FLORIDA, CITY, *supra* note 22, at 30 ("Innovation, economic growth, and prosperity continue to occur in places that attract a critical mass of top creative talent.").

[285] *See* Karlsson, *supra* note 21, at 93. (personal networks play a critical role in the transfer of tacit knowledge, which is often a critical input in creative processes. The transfer of tacit knowledge often requires frequent face-to-face interaction over longer periods, which implies that local personal networks have strong advantages when it comes to the transfer of tacit knowledge.) We classify much of what lawyers' and other professionals in the financial industry know as a form of tacit knowledge. Knowing how to solve problems for particular types of clients is something these professionals acquire through actually solving problems.

[286] *See* Karlsson, *supra* note 21, at 93–94 ("it is natural to assume that small-world networks create unique performance benefits in activities such as creative processes. The reason is that many separate clusters enable the incubation of a diversity of specialized ideas, while short paths allow ideas and resources to mix into novel combinations."). Carol Marie Kiriakos' study of Finnish professionals in Silicon Valley found they pointed to the availability of information there that could not be found elsewhere and that being there allowed them to "make sense of what is relevant and what individual pieces of information mean." Carol Marie Kiriakos, *Why Being There Matters: Finnish Professionals in Silicon Valley*, *in* HANDBOOK, *supra* note 11, at 311. In our years of conversations with professionals in IFCs, we have observed a similar advantage to being present in an IFC.

[287] *See supra* Section II.A.

The evolution of trust law particularly exemplifies this pattern. The TLJ built on centuries of English trust principles while adding innovations that addressed international needs.[288] As Csikszentmihalyi observes, creativity often emerges at the intersection of different domains, and these innovations demonstrate how legal creativity flourishes when practitioners deeply versed in one tradition encounter solutions from another.[289]

C. QUALITY COMPETITION

IFCs compete through substantive innovation rather than merely on speed or cost. While some jurisdictions promise rapid incorporation—"in as little as 10 minutes" for Delaware filings[290]—successful IFCs focus on sophisticated legal development. The evolution from contractual measures to protected cell companies to incorporated cell companies demonstrates this commitment to qualitative improvement. Similarly, the regular updating of IBC legislation and trust law shows how IFCs invest in continuous refinement rather than static efficiency.

This approach reflects Csikszentmihalyi's insight that creativity requires both domain expertise and field validation. The LLC's development shows how quality competition works; jurisdictions did not simply copy Wyoming's statute but adapted it to local conditions while maintaining high standards. This created what Florida describes as the conditions for sustained innovation, where professional communities compete on sophistication rather than speed.

D. INSTITUTIONAL CAPACITY BUILDING

IFCs invest heavily in developing sophisticated legal and regulatory infrastructure. The transformation of trust practice from "the day of the enthusiastic amateur" to regulated professionalism exemplifies this commitment.[291] Similarly, BVI's development of expert courts and regulatory frameworks supported its IBC innovation, while Guernsey's creation of an independent Financial Services Commission set standards for regulatory evolution.

This institutional development enables what Csikszentmihalyi identifies as crucial for creativity: expert communities that can validate and implement innovations.[292] The success of the protected cell company depended not just on the initial concept, but on building regulatory and judicial capacity to handle sophisticated asset segregation. The LLC's global spread similarly required developing expertise in multiple jurisdictions.

These characteristics have enabled IFCs to expand the range of available entities more rapidly than onshore jurisdictions. While England's statutory company law evolves at a "glacial pace," IFCs are actively developing new forms.[293] This suggests that smaller creative centers can innovate more rapidly than larger ones, particularly when they develop strong professional

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[288] *See supra* Section II.D.

[289] Csikszentmihalyi & Sawyer, *supra* note 80, at 82 ("Revolutionary creative *insights* seem to be based on the random convergence of ideas from different domains, usually facilitated by interaction with individuals from different fields.").

[290] *Incorporate Online in Minutes – For Free*, SWYFT FILINGS, https://tinyurl.com/y4g3mow3 (last visited Apr. 8, 2024).

[291] Peter Stradling, *Common Pitfalls in Offshore Trust Administration*, in EURO-TRUSTS: THE NEW EUROPEAN DIMENSION FOR TRUSTS 59 (Barry McCutcheon & Patrick C. Soares eds., 1993).

[292] Csikszentmihalyi, *supra* note 127, at 120.

[293] Morriss & Ku, *supra* note 77, at 134.

communities and institutional frameworks.

The future success of IFCs depends on maintaining these characteristics while adapting to new challenges. As our case studies show, innovation emerges from the interaction between creative individuals, sophisticated professional communities, and strong institutions. IFCs' contributions to global legal evolution demonstrates the value of Floridian creative clusters and what Csikszentmihalyi identifies as the systemic nature of innovation, where individual creativity combines with domain expertise and field validation to produce lasting change.

IV. THE "NOT SEEN EFFECTS" OF IFC INNOVATION

The nineteenth century French economist Frederic Bastiat described what he called the "not seen":

> In the department of economy, an act, a habit, an institution gives birth not only to an effect, but to a series of effects. Of these effects, the first only is immediate; it manifests itself simultaneously with its cause—it is seen. The others unfold in succession—they are not seen.[294]

Our discussion above of IFC innovation focused on the seen effects. We now turn to the "not seen" effects of the networks of advanced business service professionals—bankers, lawyers, and accountants—who "act as boundary spanners between these culturally distinct spaces of finance and inherently link them with each other."[295] We examine the innovation building blocks created by IFCs that serve as precursors to further development. This is not unlike what economic historian Robert Allen calls general purpose technology—"a technology that can be applied to a variety of uses."[296] As he elaborated, "[i]t takes decades to develop the potential of GPTs, so their contribution to economic growth takes place long after their invention."[297] Similarly, the personal contacts and networks represented by IFC professionals (including regulators, government officials, and judges) result from decades of collaboration and interaction.

Networks not only enable innovation but add value to an innovation because "the utility that a user derives from the consumption of a good increases with the number of agents consuming the good."[298] We can see this in the adoption of innovations described above. We further know that innovations do not occur in isolation but are facilitated and encouraged by the numbers of connections and the spread of ideas: as Esteban Ortiz-Ospina observed, "social networks facilitate the diffusion of ideas across individuals and firms, and because of this, they play an important role in productivity growth."[299] Social connections may make it easier for ideas to travel; it may also make it easier to innovate, and the richer and more diverse the connections, the more productive

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[294] FREDERIC BASTIAT, THAT WHICH IS SEEN, AND THAT WHICH IS NOT SEEN (1850).
[295] Sabine Dorry, *Regulatory Spaces in Global Finance*, *in* HANDBOOK ON THE GEOGRAPHIES OF MONEY AND FINANCE 415, 423 (Ron Martin & Jane Pollard eds., 2017).
[296] ROBERT C. ALLEN, GLOBAL ECONOMIC HISTORY: A VERY SHORT INTRODUCTION 39 (2011).
[297] *Id.* at 39.
[298] Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 424 (1985).
[299] Ortiz-Ospina, *supra* note 8.

they are likely to be, creating positive productivity spillovers.[300] An important observation related to networks is that "the flow of information and knowledge through people is not only a function of 'connectedness' as measured by the number of links people have but also a function of the specific structures of the networks (e.g. the extent to which social ties are tightly clustered)."[301]

These networks link IFCs. Multijurisdictional law firms and other professional services firms, including banks, insurance managers, and trust companies, all help spread ideas. They also enable professionals to "plug in" to existing clusters of activity.[302] We can illustrate this for law firms using the periodical *The Lawyer's* various rankings between 2013 and 2018 of the "magic circle" of offshore firms.[303] Figure 1 shows the connections among jurisdictions by those included firms that had at least twenty lawyers and were in at least two jurisdictions (21 of the 30 firms).[304]

[300] *See* Ajay Agrawal, Devesh Kapur & John McHale, *How Do Spatial and Social Proximity Influence Knowledge Flows? Evidence from Patent Data*, 64 J. URB. ECON. 258, 268 (2008).
[301] Ortiz-Ospina, *supra* note 9.
[302] FLORIDA, CITY, *supra* note 22, at 119–20. (What makes it advantageous for people who do the same kind of work to live near each other … is not just that the industries and the companies are there. The companies are there in the first place because people can plug into the existing cluster, increase their | overall productivity, and make good money.)
[303] Joanne Harris, *The Top 30 Offshore Law Firms 2018: Troubles in Paradise*, THE LAW (Apr. 30, 2018), https://www.thelawyer.com/top-30-offshore-law-firms/; Natasha Bernal, *Revealed: The Offshore Top 30 2017*, THE LAW (Feb. 27, 2017), https://www.thelawyer.com/offshore-report-top-20/; Joanne Harris, *The Offshore Top 30 2016*, THE LAW 25 (Feb. 22, 2016); Joanne Harris, *The Offshore Top 30 2015: The Rankings*, THE LAW 1 (Feb. 23, 2015); Joanne Harris, *The Offshore Top 30, 2014: The Byteback Begins*, THE LAW (Feb. 24, 2014); Joanne Harris, *The Top 30 Offshore Firms*, THE LAW 42 (Feb. 25, 2013). The series appears to have been discontinued after 2018.
[304] Calculations by authors.

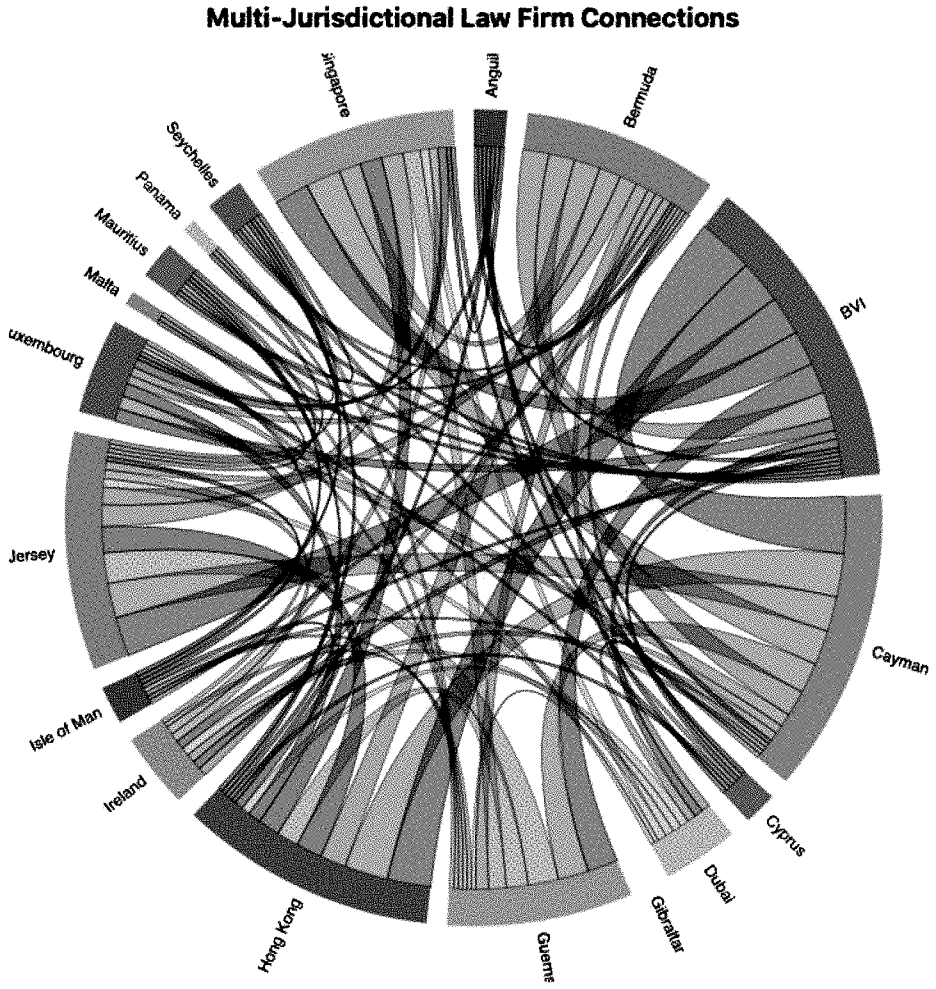

Figure 1

As Figure 1 illustrates, these networks are extensive. Two-thirds of the twenty-one firms had offices in at least three jurisdictions; the median number of IFC jurisdictions in which a multi-jurisdictional firm had a presence was five. When we examined the biographies of the partners in these firms, we found it was common for partners to have experience in multiple jurisdictions.[305] These inter-jurisdictional networks are a form of "network pipeline" through which ideas can flow.[306]

Another means of examining these networks is through professional associations. The Society of Trust and Estate Practitioners (STEP) is "a global professional body, with more than

[305] Calculations by authors. This fits with Florida's observation that "skills and skilled people are an incredibly mobile factor of production; they flow." FLORIDA, RISE, *supra* note 22, at 262.

[306] Karlsson, *supra* note 21, at 100 ("Creative people are embedded in social and professional networks, which are not geographically bounded, and ideas, information and knowledge can be acquired through partnerships and cooperation of inter-regional and international reach.").

21,000 members, comprising lawyers, accountants, trustees, and other practitioners that help families plan for their futures" and has 20,000+ members over 96 jurisdictions.[307] Joining STEP requires a combination of professional experience and certification through courses; it is not simply a matter of paying a fee. We compared the numbers of members listed in STEP's online directory by IFC and normalized the numbers by jurisdictions' total population and found high concentrations of STEP members in IFCs, an indication of a robust professional network tying IFCs together.[308] (Figure 2). IFC professionals also connect through IFC-specific organizations, such as the IFC Forum, which plays a critical role in helping to coordinate responses to international regulatory measures.[309]

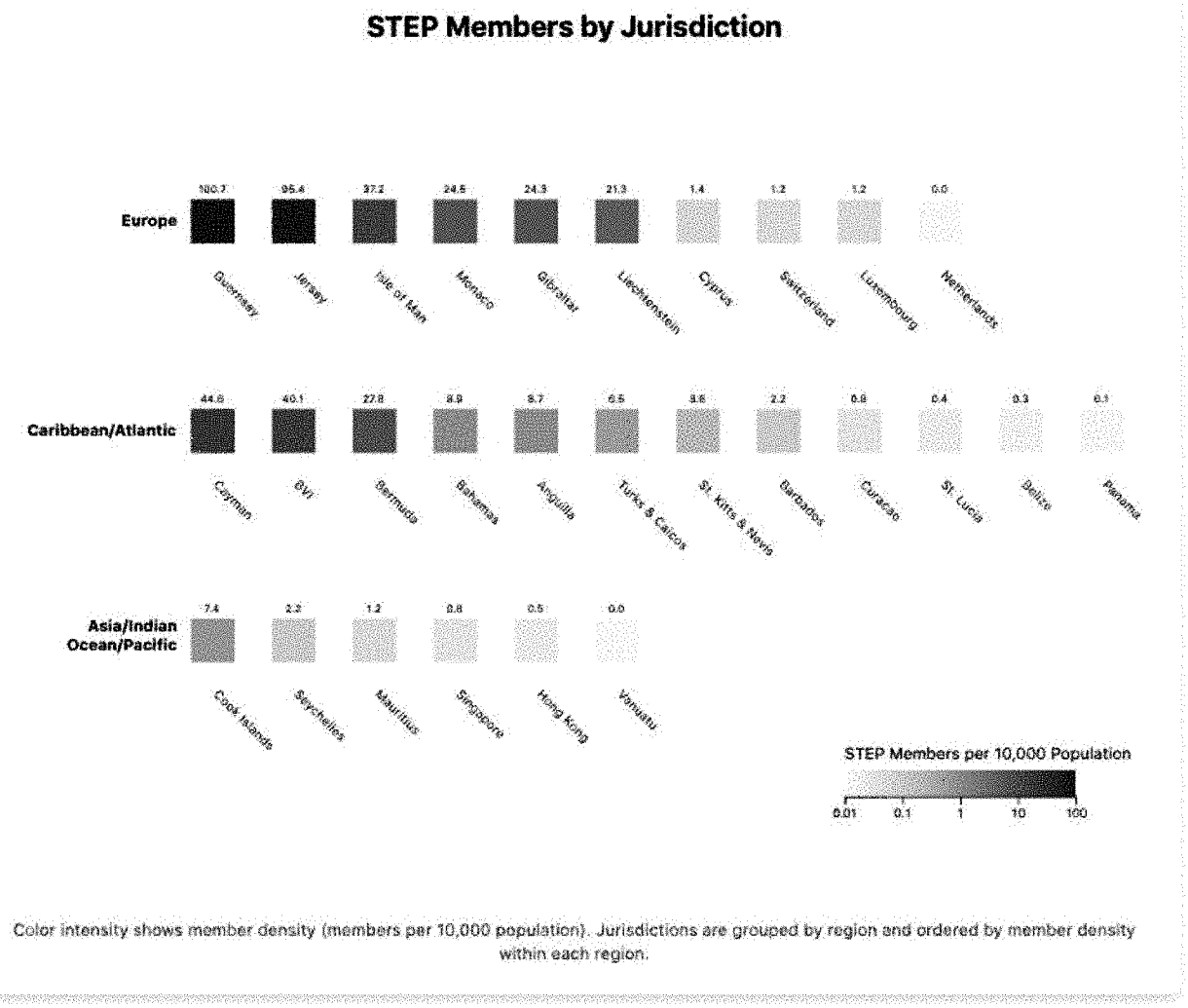

Figure 2

[307] *About Us*, STEP, https://www.step.org/about-step.
[308] There were a total of 5,758 STEP members in IFC jurisdictions, from a total membership of 11,981.
[309] *See generally* IFC F., https://www.ifcforum.org.

There are similar connections through professional service providers present in offshore jurisdictions. For example, Aon (an insurance manager) offers captive management services in fifteen IFC jurisdictions;[310] JTC, a trusts and corporate services provider, has offices in twelve;[311] Bermuda-based Butterfield Bank has offices in eight;[312] and accounting firm BDO has offices in fourteen.[313] Many of their competitors have similarly global networks.

IFC courts also exhibit significant multi-jurisdictional ties among their personnel. For example, Ian Kawaley, the former Chief Justice of Bermuda's Grand Court, sits as a judge in Cayman,[314] as does David Doyle, former Deemster of the Isle of Man.[315] Sir William Bailhache, formerly Bailiff in Jersey, sits on the Guernsey Court of Appeal,[316] and Sir Michael Birt, another former Bailiff in Jersey, sits on appeals courts in both Guernsey and Cayman.[317] Institutionally, a number of Kings Counsels (KC) from the UK, Guernsey, and the Isle of Man have sat on the Jersey Court of Appeal.[318] Many IFC courts have a similarly international flavor.

IFC regulators also have connections to other IFCs. For example, of the seven members of the Bermuda Monetary Authority executive team, two have significant experience in other IFCs, and three more have significant non-IFC overseas experience.[319] In our experience, many IFC regulators exhibit similar pan-jurisdictional experience. In addition, IFC regulatory agency staff and leadership work together on behalf of their jurisdictions in international meetings of regulators, such as IAIS and IOSCO, and participate in inspection teams as part of the assessment process for compliance with international anti-money laundering and other financial standards.

Beyond professional networks, IFCs are connected through formal international agreements. While many IFCs historically had little need for tax treaties due to their zero or low tax regimes, some do impose direct taxes.[320] More recently, even IFCs without direct taxation began entering into tax information exchange agreements (TIEAs), partly motivated by OECD requirements that jurisdictions sign at least twelve such agreements to avoid being blacklisted.[321] Our analysis of a complete list of tax treaties found that twenty of the forty-four jurisdictions with the most TIEAs were IFCs.[322] Figure 3 illustrates the IFC tax treaty network. The process of negotiating and maintaining these agreements creates additional channels of communication

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[310] *Locations*, AON, https://www.aon.com/en/location-selector.
[311] *Offices*, JTC GROUP, https://www.jtcgroup.com/offices/.
[312] *Our Locations*, BUTTERFIELD, https://www.butterfieldgroup.com/careers/our-locations.
[313] *Global Locations*, BDO GLOB., https://www.bdo.global/en-gb/global-locations.
[314] *Hon. Justice Ian Kawaley*, CAYMAN IS. L. CTS., https://judicial.ky/team/hon-justice-ian-kawaley/.
[315] *Hon. Justice David Charles Doyle CBE*, CAYMAN IS. L. CTS., https://judicial.ky/team/hon-justice-david-charles-doyle-cbe/.
[316] *Sir Philip Bailhache*, STATES ASSEMBLY: JERSEY'S ELECTED PARLIAMENT, https://statesassembly.je/members/philipbailhache.
[317] *The Hon Sir Michael Birt*, CAYMAN IS. L. CTS., https://judicial.ky/team/the-hon-sir-michael-birt/.
[318] *The Court of Appeal*, JERSEY CTS., https://www.courts.je/courts/court-of-appeal/court-of-appeal/.
[319] *Executives*, BERMUDA MONETARY AUTH., https://www.bma.bm/executives.
[320] For example, Curacao had a modest tax on international companies during its heyday as a tax haven, but because it had direct taxes, it had tax treaties, while places without direct taxes, such as the Cayman Islands, did not. This enabled the use of Curacao companies to take advantage of the tax treaties. *See* Boise & Morriss, *supra* note 43.
[321] Romy Afandi, *The Role and Work of the Global Forum on Transparency and Exchange of Information for Tax Purposes*, *in* EXCHANGE OF INFORMATION FOR TAX PURPOSES 38, 46 (Oliver-Christoph Gunther & Nicole Tuchler eds., 2013).
[322] Calculations by authors.

among IFC governments, further strengthening their international networks.[323]

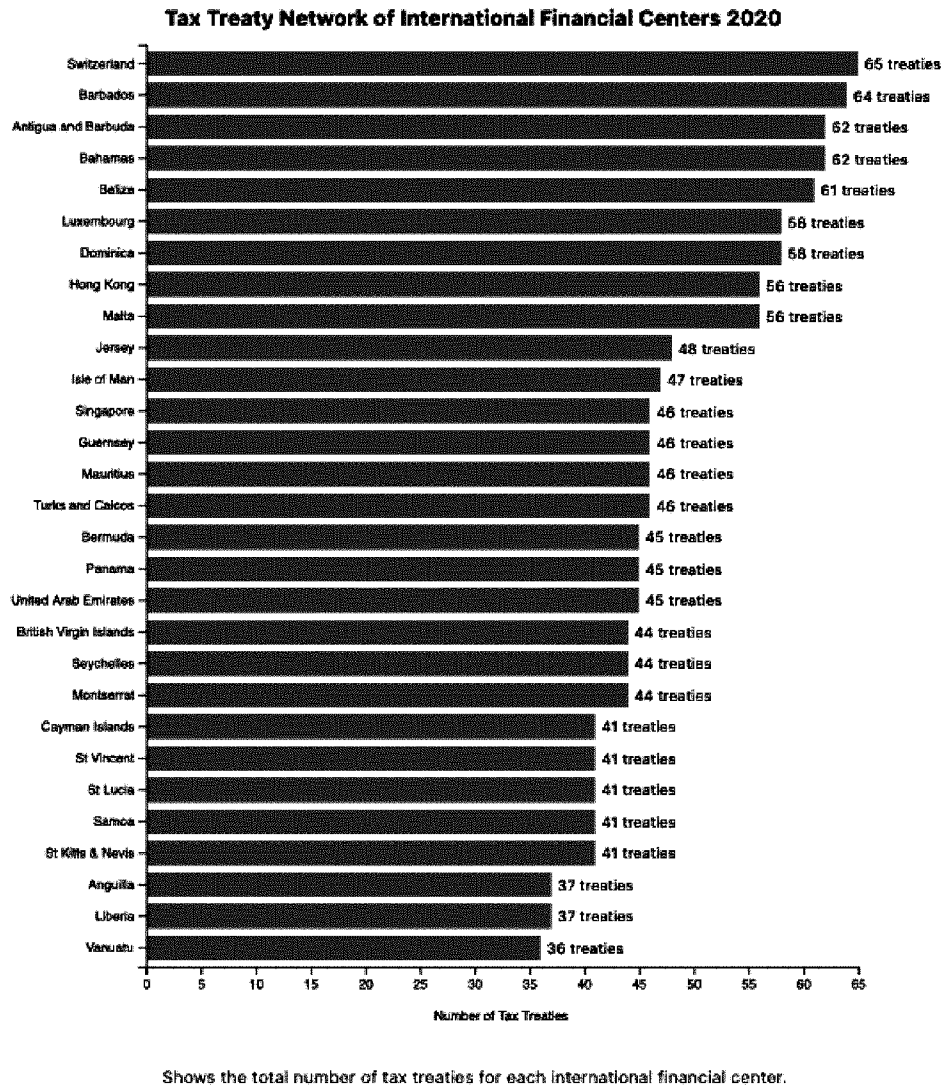

Figure 3

These various networks all provide channels by which legal innovations move among IFCs, enabling small population jurisdictions to harness the creativity and innovation of a group much larger than that which exists within their borders. This suggests a strategy for both developed and developing economies: build similar networks by recruiting regulators and judges from across jurisdictions, facilitate the development of cross-jurisdictional professional services firms by facilitating multi-jurisdictional practices, join pan-jurisdictional associations of regulators, and adapt regulatory regimes from peers rather than inventing them from whole cloth or mimicking the complexity of large economy regimes.

[323] Morriss & Ku, *supra* note 17.

We can gain further insight by looking to the ecological concept of homophily as key to the effective diffusion of information and ideas. "Homophily is the tendency of agents to associate with other agents with similar characteristics . . . . Social network research . . . shows that, in general, as homophily increases, the propensity for a diffusion to gain hold within a particular group rises."[324] We know from the examples of innovations described above that the policy (and norm) entrepreneurs designing and promoting those innovations were incentivized to pursue initiatives knowing that acceptance would be enhanced if they could use a *lingua franca* that fit into the architecture of a jurisdiction's legal system to accomplish their goals. English company law provides that common language, as seen by the incorporation of pioneering new business entities' statutory language into company laws. Cayman, Guernsey, and Jersey have all located or moved their versions of protected cell companies into their general company laws.[325] Selling new ideas outside of the jurisdiction also becomes easier when they are built on an architecture that is established, recognized, and understood.[326] Here, the early experience with brass plate companies smoothed the way for later, more complex entities because the potential clients' lawyers in London, New York, and elsewhere were already familiar with these jurisdictions.[327]

Beyond the networks that produce the innovations, we also observe in IFCs a readiness to transplant—adopt and adapt—new legal structures. The typology developed by Jonathan Miller to understand the legal transplant process provides useful framing. As he explains, "each type is tied to a different set of factors that can motivate a transplant." He further notes that "[m]any transplants are a mix of the four types, and one rarely encounters a type in pure form."[328] The four types are:

1. cost saving,
2. externally dictated,
3. entrepreneurial, and
4. legitimacy generating.[329]

We see evidence of this in the IFCs who drew on English company law which, together with its jurisprudence, gives any IFC innovation legitimacy and thereby allows for entrepreneurial activity as needed for external pressures (as was the case with the development of the IBC in BVI) and serves to lower transaction costs. By doing so, IFCs make business entity forms and capital available to clients who may not otherwise have had access. Through acceptance and use, we see IFCs climb the value chain with innovations that put them ahead of onshore jurisdictions, as we saw with the Jersey Trust Law displacing English trust law in Jersey practice and the increasing divergence of offshore trust law's substantive provisions from English trust law.[330]

Miller explains the dynamics of the four types:

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[324] Ortiz-Ospina, *supra* note 8.
[325] Companies Law (2021 Revision) Part XIV (Cayman Is.); Companies (Guernsey) Law, 2008, Part I.3-I.5; Companies (Jersey) Law 1991, 2021 Consolidation, Part 18D.
[326] Morriss & Ku, *supra* note 77, at 65.
[327] Morriss & Ku, *supra* note 31.
[328] Jonathan M. Miller, *A Typology of Legal Transplants: Using Sociology, Legal History and Argentine Examples to Explain the Transplant Process*, 51 AM. J. COMP. L. 839, 842 (2003).
[329] *Id.*
[330] Morriss, *supra* note 41.

> Determining the dominant typology involves some subjectivity, especially the individuals who are the focus of each typology may vary. In the case of the cost-saving transplant, the focus is primarily on those responsible for drafting norms and their advisors. The externally-directed transplant focuses on the incentives offered to those responsible for enacting legal norms—whatever their branch of government. The entrepreneurial transplant focuses both on individuals who work in government and those who work with or can lobby lawmakers, while the legitimacy-generating transplant focuses on those responsible for enacting legal norms, but with those officials taking into account likely responses by society at large. *What the four typologies share, however, is a focus on the persons responsible for bringing the transplant about.*[331]

Transplants may occur as "a chance encounter between a draftsperson or decisionmaker and a foreign academic" or involve "borrowing that first considers the extent to which the foreign approach deals with problems similar to one's own."[332]

The role of creative individuals in IFC development exemplifies Csikszentmihalyi's emphasis on how innovation emerges from the interaction between talented individuals and supportive institutions. We observe these dynamics in IFC developments that occur as the result of both private and public sector policy entrepreneurs. Jersey's transition from tax haven to IFC is due in significant part to Colin Powell, author of the 1971 report on Jersey's economy that outlined a strategy for developing the finance sector, who also served as States Economic Advisor for over forty years.[333] The Cayman Islands' development from mosquito-ridden "islands that time forgot" into a major IFC resulted from multiple collaborations, most notably between a group of English lawyers at law firms in Cayman, Sir Vassel Johnson (who served as Financial Secretary from 1965 to 1985), and members of the Legislative Assembly.[334] Bermuda's success as an IFC owes a great deal to a small group of bankers and lawyers as well as to the good fortune to have a banker's letter to the *Times* published in November 1956 which pointed out the value of registering oil tankers in Bermuda.[335] Its major role in reinsurance post-1994 stems from the efforts of the founders of the

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[331] Miller, *supra* note 328, at 872. [Emphasis added].

[332] *Id.* at 845. *See also* Alan Watson, *Aspects of Reception of Law*, 44 AM. J. COMP. L. 335, 339– 41 (1996) (on role of chance); ALAN WATSON, LEGAL TRANSPLANTS: AN APPROACH TO COMPARATIVE LAW 7 (Univ. of Ga. Press, 2d ed. 1993) ("in the Western world borrowing (with adaptation) has been the usual way of legal development.").

[333] Gov't Jersey, *Colin Powell CBE*, (May 13, 2019), https://www.gov.je/News/2019/pages/colinpowellcbe.aspx ("When Colin's report appeared in 1971 it was clear that he had delivered much more than the brief; not only a detailed examination of the Jersey economy, but a blueprint for its future development."); G. COLIN POWELL, ECONOMIC SURVEY OF JERSEY (St. Helier (Jersey, C.I.), States of Jersey, 1971).

[334] MICHAEL CRATON, FOUNDED UPON THE SEAS: A HISTORY OF THE CAYMAN ISLANDS AND THEIR PEOPLE 253 (Ian Randle Publishers Inc., 2003); Freyer & Morriss, *supra* note 45, at 1306.

[335] PHILLIPS, *supra* note 110, at 128. (A letter in *The Times* appeared in November 1956, complaining that under present restrictions British shipping was unable to compete in the oil tanker field with American and Greek ship owners using Panamanian and Liberian flags of convenience. David Graham's letter pointed out that Bermuda was 'British' and had at the ready Bermudian companies to provide for the competitive spirit of English owners. A flood of enquiries and a direct approach to the Treasury by Graham brought Pat Fitzpatrick over to London on behalf of the Bermuda Government. Bill Kempe and Graham were in attendance to provide a legal fine-tuning to an agreement whereby a form of shipping different to that carried in the United Kingdom would be considered as new business abroad and not a transfer of existing shipping, something at which the Treasury balked.) With respect to captives, Fred Reis was a key figure. Phillips, *supra* note 110, at 146 ("Credit for the Island's primacy in this field [captives] belongs to Fred Reiss, who set up a captive insurance management company in 1962 . . . ."). Reiss initially came to Bermuda as part

"Class of 1992" specialty reinsurers.[336] Fred Reiss pioneered the captive insurance industry in Bermuda in the 1960s. The BVI IBC Act owes its origins to Lewis Hunte, who was then BVI's attorney general, and his work with both BVI and foreign business lawyers to learn what their clients needed.[337] Jersey's groundbreaking TLJ emerged from collaboration between the bar, government, and regulators.[338] Guernsey's protected cell company innovation stemmed from the creative partnership of Butterworth and van Leuven, while Cayman's STAR Trust and BVI's VISTA trust resulted from private sector innovators identifying new market opportunities.[339] In each case, successful innovation required what Florida identifies as "creative capital" combined with what Csikszentmihalyi terms "field validation"—the acceptance and implementation of new ideas by expert communities.

Examining regulatory networks, Kal Raustiala points out that they "are often a conduit for the diffusion of regulatory ideas, rules, and practices."[340] They further "socialize regulators from new jurisdictions. Most importantly, networks increase the gains for states to engage in capacity-building efforts."[341] IFC regulators have an important, though perhaps undervalued, role to play with their networks functioning as regulatory sandboxes and "boundary spanners."[342] This is important in the increasingly complicated regulatory environment created both by innovation and added public policy objectives. Malcolm Knight highlighted the need to manage a financial system that is "constantly innovating" due to the low cost of "creating a new product and introducing it in the marketplace" with "regulatory arbitrage" as added incentive for new product development.[343] What was of greatest danger was a failure to recognize the cumulative effect of innovations that might alter the structure of the financial system. IFC regulators can reduce this risk by providing timely regulatory responses to financial innovations crafted by people who understand them. Diversity in a regulatory ecosystem should be encouraged so that it regularly expands the toolkit available to all regulators, which enables them to address potential crises when stress to the system is first experienced, and before that stress turns into a catastrophic rupture triggering a more costly system-wide response.[344]

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of his efforts to secure insurance for a Youngstown, Ohio manufacturing client. He had approached Lloyd's of London about an insurance policy; Lloyd's said it would only deal with an insurer. After finding creating an insurance company in the U.S. too difficult, he set one up in Bermuda to serve as a captive to reinsure with Lloyd's. Warren Cabral, Neil Horner & Maryssa Gabriel, *Insurance Law*, *in* OFFSHORE COMMERCIAL LAW IN BERMUDA 97–98 (Ian R.C. Kawaley ed., 2d ed. 2018).

[336] Gavin Souter, *Andrew Made Bermuda a Global Center for Property Reinsurance*, BUS. INS. (July 12, 2022), https://www.businessinsurance.com/hurricane-andrew-made-bermuda-a-global-center-for-property-reinsurance-florida/.

[337] Riegels, *supra* note 134.

[338] *See* Paul Matthams, *A Question of Trust: Jersey and Guernsey Trust Law Evolves*, IFC REV. (June 1, 2013), https://www.ifcreview.com/articles/2013/june/a-question-of-trust-jersey-and-guernsey-trust-law-evolves/ ("When first enacted Jersey's principal trust legislation, the Trusts (Jersey) Law 1984, was considered to be innovative and far reaching and it formed the model for similar statutes in a number of other jurisdictions . . . ."); Morriss, *supra* note 266.

[339] *See* Anton Duckworth, *STAR Trusts*, 19 TRS. & TRS. 215 (2013).

[340] Kal Raustiala, *The Architecture of International Cooperation: Transgovernmental Networks and the Future of International Law*, 43 VA. J. INT'L. 1 (2002).

[341] *Id.* at 52.

[342] Dorry, *supra* note 295, at 423.

[343] Knight, *supra* note 109, at 20; *see also* Beth Simmons, *The International Politics of Harmonization: The Case of Capital Market Regulation*, 55 INT'L ORG. 589, 592 (2001).

[344] Ku & Morriss, *supra* note 52.

IFCs demonstrate what Csikszentmihalyi identifies as domain evolution through their development of sophisticated regulatory frameworks. From the relatively unstructured environment of the 1960s and early 1970s, these jurisdictions have built comprehensive regulatory regimes, established independent regulators, and developed substantial regulatory capacity. When measured on a per-entity basis, their regulatory resources generally match those of larger jurisdictions.[345] This evolution illustrates Florida's insight about how specialized clusters develop increasingly sophisticated capabilities over time. IFCs have created—and regularly update—specific regulatory frameworks across multiple sectors including banking, business entities, insurance, investment funds, and securities. Their role as innovation laboratories continues with the development of regulatory sandboxes for emerging technologies like cryptocurrencies. These centers demonstrate what Florida terms the multiplier effect of expertise by transferring regulatory knowledge across sectors—for example, applying expertise from e-gaming regulation to cryptocurrency oversight, particularly in verifying computer code functionality.[346] This pattern shows how creative clusters can adapt specialized knowledge to new challenges while maintaining high standards.

IFC regulatory approaches differ fundamentally from the "Dodd-Frank approach"[347] of complex statutes adopted by larger jurisdictions. While larger jurisdictions rely on elaborate formal rules, IFC regulators provide ongoing guidance through informal guidance and regular conversations with regulated professionals.[348] This creates a more dynamic regulatory environment that can adapt quickly to new developments. The contrast with larger jurisdictions is striking. Their regulators often resist legislative intervention not from opposition to oversight but due to the reactive, "heads will roll" nature of post-crisis reforms.[349] This leads to vulnerability to special interests as regulators often lack understanding of system-wide interconnections. As Patrick MacLaughlin observes, large regulatory acts create two key problems: they can overwhelm quality control processes and lead to multiple agencies creating rules in "relative ignorance of their potential interactions."[350]

The goal of any regulatory system should be robustness, the ability to absorb unanticipated shocks without damaging the global economy, which can be undermined by multiple layers of regulations.[351] What Nassim Taleb calls "antifragility" is crucial: the capacity to grow stronger rather than weaker under stress.[352] An antifragile regulatory system incorporates additional

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[345] *See* Morriss & Henson, *supra* note 69, at 454 ("[O]nshore and mature offshore jurisdictions appear to be devoting roughly comparable levels of inputs into regulating their financial sectors.").
[346] Ku & Morriss, *supra* note 52; Simmons, *supra* note 343, at 592.
[347] The 2008 U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act passed in response to the 2008 financial crisis. This massive legislation was 848 pages in length and mandated dozens of new regulations that led to 27,000 restrictions on financial actions. *See* Patrick MacLaughlin et al., Is Dodd-Frank the Biggest Law Ever? (June 2020) (unpublished working paper) (Mercatus Center, George Mason University).
[348] Simmons, *supra* note 343, at 592.
[349] *See* DAVID ANDREW SINGER, REGULATING CAPITAL: SETTING STANDARDS FOR THE INTERNATIONAL FINANCIAL SYSTEM 21–25 (2007).
[350] MacLaughlin et al., *supra* note 347.
[351] See, for example, reports of anticipated regulatory changes in Geoff Cook & Sarah Huelin, *Eyes Up from the Dashboard – Is Your Regulated Business Future-proofed?*, MOURANT, https://www.mourant.com/news-and-views/updates/updates-2021/eyes-up-from-the-dashboard---is-your-regulated-business-future-proofed-.aspx (last visited Apr. 4, 2025).
[352] NASSIM NICHOLAS TALEB, ANTIFRAGILE: THINGS THAT GAIN FROM DISORDER (2014).

capacity to solve problems when stressed rather than weakening or becoming more rigid and brittle. IFCs demonstrate this quality through their ability to adapt and innovate while maintaining stability, exemplifying what Florida identifies as the creative capacity of specialized professional communities. Although seemingly counterintuitive to suggest smaller jurisdictions can be better regulators—our intuition is initially that big jurisdiction regulators' larger staffs and resources would lead to deeper expertise—the apparent contradiction is resolved by IFCs' greater "skin in the game" and ability to leverage their participation in dense networks of regulators, service providers, and multinational institutions.[353]

The apparent contradiction is resolved because IFC regulators differ from their larger counterparts in three crucial ways. First, they typically have more private sector experience, providing deeper insight into how transactions actually work and where vulnerabilities lie. Second, they work more collaboratively with regulated entities, enabled by the regulated professionals' stake in the jurisdiction's continued success. Third, they operate with fewer formal constraints, allowing quicker responses to challenges. In small jurisdictions, informal constraints often work more effectively than complex procedures.

The IFC network deepens connections among economies in ways that facilitate experimentation and learning. Their practical expertise provides a means of addressing problems that both enhances investment value and contributes to regulatory resilience. This contrasts with larger jurisdictions' move toward formal rules and theoretical analysis, which has distanced regulators from personal experience with what they regulate.[354] As Taleb notes, "at no point in history have so many non-risk-takers, that is, those with no personal exposure, exerted so much control."[355] While concerns about regulatory capture are legitimate, this highlights the importance of maintaining alternative regulatory models that can experiment more freely and quickly without sacrificing quality.[356]

This is particularly important given the dynamic character of the global financial system where robust systems can suddenly be overwhelmed as occurred with the stresses in major Canadian banks[357] or the failure by experts to understand the risk posed by credit derivatives during the 2008 financial crisis.[358] Just as natural ecosystems are not static and react to major events like a firestorm, earthquake or drought that changes the environment, so too the environment in which regulators operate are subject to unanticipated events that stress the system. Diversity in regulators, as with diversity in species in a natural ecosystem, strengthens the overall system. It does so by providing greater opportunities for different combinations of resources and more iterations of trial and error to find an effective response to new challenges. As we especially need financial regulators to find the balance between managing risk and facilitating growth, we need a diversity of approaches. Too much emphasis on growth can put the financial system at risk of a major

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[353] Charlotte Ku & Andrew P. Morriss, *IFCs Act as Regulatory Capacity Builders*, IFC REV. (Aug. 11, 2020), https://www.ifcreview.com/articles/2020/august/ifcs-act-as-regulatory-capacity-builders/.

[354] NASSIM NICHOLAS TALEB, SKIN IN THE GAME: HIDDEN ASYMMETRIES IN DAILY LIFE (2018).

[355] TALEB, *supra* note 352, at 6.

[356] Ku & Morriss, *supra* note 52.

[357] Knight, *supra* note 109, at 20.

[358] Ian Goldin, *Rethinking Global Resilience*, IMF FIN. & DEV. MAG., Sept. 2020, https://www.imf.org/en/Publications/fandd/issues/2020/09/rethinking-global-resilience-ian-goldin.

meltdown while too much focus on controlling risks leads to economic stagnation.[359] Regulatory "[r]esilience can be improved by decentralization, so that individuals, businesses, and countries are empowered to make their own decisions."[360]

To understand fully the impacts of what we have described above, it may be useful to think of the global financial system as an ecosystem. At its most basic, an ecosystem is simply units interacting with each other and their environment, which ultimately maintains the stability and functioning of the ecosystem as a whole without conscious effort. The distinguishing characteristic is that of units—large and small, dominant and recessive, strong and weak— interacting with each other and, in the process, affecting the entire system. These effects can maintain a resilient system or weaken it. A diversity of units and even ecosystems working towards the overall sustainment of the system is the sign of a healthy ecosystem. This takes place within a dynamic environment of constantly changing circumstances generated by the cumulation of interactions within the system and occurrences from outside the system. The more units in a system, the more complex the interactions that may generate more capacity, but also such a system may require more resources to operate and to sustain. The ideal is for each unit to be productive in its interactions for its own sustainment as well as contributing to the overall resiliency of the ecosystem within which it lives.

Attention generally moves towards the largest units within an ecosystem. Yet, we know that small units can play significant, if not crucial, roles. Think of the role played by burrowing animals like worms, clams, and shrimps as "ecosystem engineers" that "stir[] and churn[]" marine sediments to maintain nutrient cycling and ecosystem health in the ocean. These important seafloor processes are often overlooked in marine protection efforts that focus on more readily visible phenomena.[361] Similarly, it would be a mistake to ignore the work of IFCs as trivial or to see the work of IFCs as disruptive or destabilizing to the international financial system when they, in fact, provide essential know-how and capacity to maintain a healthy and resilient financial ecosystem. The regulators' challenge today is that innovation and ideas might come from anywhere. Indeed, this is one of the great strengths of the more open global environment. The goal for managing to maintain a sound and productive system is to harness as well as to control.

We have seen that IFC innovations provide products, build and strengthen networks, efficiently generate new ideas, effectively test and market them, and then cycle back to improve and to innovate again. People and their networks are at the heart of this.[362] Change happens because "of intentional actions taken by people who respond to market incentives."[363] But changes add both to the knowledge and the know-how of the community that leads to the next change. As

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[359] Charlotte Ku & Andrew P. Morriss, *IFC Regulatory Innovation: Vital to the Maintenance of a Healthy Global Financial Ecosystem*, IFC REV. (Jan. 12, 2022), https://www.ifcreview.com/articles/2022/january/ifc-regulatory-innovation-vital-to-the-maintenance-of-a-healthy-global-financial-ecosystem/.

[360] Goldin, *supra* note 358, at 7.

[361] Shana Hutchins, *Texas A&M-Led Team Creates First Global Map Of Seafloor Biodiversity Activity*, Texas A&M Stories, May 28, 2024.

[362] IFCs not only create networks of professionals, they also provide places where their globally dispersed client base can find expertise. As economist Randall Holcombe notes, "Cultivating the creative class is not about making more people creative – everyone is creative – it is about encouraging people to market their creativity (supply) and making it attractive for people to purchase the creative output of others (demand)." Randall G. Holcombe, *Cultivating Creativity: Market Creation of Agglomeration Economies*, *in* HANDBOOK, *supra* note 11, at 388.

[363] Romer, *supra* note 7, at S72.

Romer noted: "Once the cost of creating a new set of instructions has been incurred, the instructions can be used over and over again at no additional cost. Developing new and better instructions is equivalent to incurring a fixed cost."[364] Perhaps because the cost of this knowledge becomes fixed, it is also part of the "not seen" that may undervalue IFC contributions. However, the existence of technologies created by prior innovation is key to further invention and innovation.

Labeled "combinatorial innovation," innovations that build on prior innovations have enabled separate transformational breakthroughs. Consider, for example, the printing press: "Each of the key elements that made it such a transformational machine—the movable type, the ink, the paper, and the press (inspired by the wine press known since the eruption of Mt. Vesuvius in 79 CE) itself—had been developed separately well before Gutenberg printed his first Bible" in 1455.[365] Without existing technologies, new inventions such as the printing press or the automobile would have taken much longer to develop if each key component part had to be developed separately and then combined. The automobile is another product of combinatorial innovation: "Steam powered automobiles were invented in 1768 from several existing technologies. Wheels were nothing new, the first practical steam engine came around 1700 and steel had been around forever. Cugnot's 1768 steam powered automobile was a piece of new technology built from the ground up of existing technologies."[366] However, the French steam engine was too large and bulky for effective performance and the automobile had to wait for the development of the internal combustion engine more than one hundred years later by Gottlieb Daimler in Germany before it became practical to drive.[367]

Romer explains this process further: "The raw materials that we use have not changed, but as a result of trial and error, experimentation, refinement, and scientific investigation, the instructions that we follow for combining raw materials (or technologies or laws) have become vastly more sophisticated."[368] A dramatic example of deploying existing technology to meet a specific need was the groundbreaking development of a Covid-19 vaccine using mRNA technology: "Though many people first became aware of mRNA technology because of COVID-19 vaccines, it is not new to the scientific community. For decades, scientists have studied mRNA, looking for ways to unlock its potential to prevent and treat disease."[369] Prompted by the Covid pandemic, with large investments by governments, an effective vaccine using available technology was developed in record time. Alternatively, consider the powerful example of combining platforms that produced the World Wide Web:

> Tim Berners Lee was able to single-handedly design a new medium because he could freely build on top of the open protocols of the internet platform. He didn't have to engineer an entire system for communicating between computers spread

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[364] *Id.*

[365] JOHNSON, *supra* note 195, at 152.

[366] Jeromy Patriquin, *Innovative Creations: New Technologies and Inventions Are Really a Combination of Old Ideas that Have Been Repackaged*, LOC. COMPUT. WIZ (Feb. 9, 2016), https://www.localcomputerwiz.com/2016/02/09/innovative-creations-new-technologies-and-inventions-are-really-a-combination-of-old-ideas-that-have-been-repackaged/.

[367] Nick Dellis, *1769 Cugnot Steam Tractor*, SUPER CARS.NET, https://www.supercars.net/blog/1769-cugnot-steam-tractor/.

[368] Romer, *supra* note 7, at S72.

[369] *Harnessing the Potential of mRNA*, PFIZER, https://www.pfizer.com/science/innovation/mrna-technology.

> across the planet, that problem had been solved decades before. All he had to do was build a standard framework for describing hypertext pages (TML) and sharing them via existing internet channels (HTTP).[370]

IFC legal innovation similarly demonstrates how specialized expertise creates value for the global financial system by building on existing structures. Drawing on deep domain knowledge, entrepreneurs in these jurisdictions develop and refine legal structures that fill market gaps, testing and improving them through practical experience. The success of these innovations depends on what Csikszentmihalyi identified as expert communities—focused groups of professionals who can develop, implement, and regulate sophisticated financial products. Expertise deepens as new entrants are exposed to role models within the jurisdiction.[371] Captive insurance exemplifies this dynamic: creating effective alternative risk management tools, from basic captives to catastrophe bonds that protect developing economies from natural disasters,[372] requires a sophisticated regulatory regime staffed by experienced personnel who can both evaluate complex business plans and maintain efficient processes while screening out problematic actors.[373]

These innovations generate broader economic benefits. Captive insurance structures produce data that help target risks, refine coverage, and control costs. This can lead to concrete benefits for individuals and institutions: lower medical costs, improved pension returns, reduced insurance premiums, decreased transportation costs, enhanced university research funding, and expanded risk transfer options.[374] The value of these innovations extends beyond IFC borders through regulatory recognition. For example, the U.S. and UK both permit offshore-licensed captives to insure domestic risks. This "outsourcing" of complex regulation to IFCs can particularly benefit developing countries that might struggle to implement developed-country regulatory systems directly.[375] Over time, this expertise can spread, as demonstrated by U.S. states like Vermont, South Carolina, and Tennessee, which actively compete with offshore jurisdictions in the captive insurance market.[376]

The combination of thoughtful innovation rooted in the experience and know-how of an expert community, as seen in IFC innovation, we believe will be an important mode both of legal development and regulation to come. Its agility, though firmly based in existing practice and

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[370] JOHNSON, *supra* note 195, at 189.
[371] FLORIDA, RISE, *supra* note 22, at 201.
[372] *See* Andy Polacek, *Catastrophe Bonds: A Primer and Retrospective*, FED. RSRV. BANK CHI. (2018), https://www.chicagofed.org/publications/chicago-fed-letter/2018/405 (describing catastrophe bonds); Karin Strohecker & Marc Jones, *World Bank Eyes First 'Drought' Bond in Next 12-18 Months*, REUTERS (July 17, 2024), https://www.reuters.com/sustainability/sustainable-finance-reporting/world-bank-eyes-first-drought-bond-next-12- 18-months-2024-07-17/ (noting use of catastrophe bonds for emerging economies for over 10 years).
[373] This process of testing and consultation is not unlike what Apple calls "concurrent or parallel production" on bringing new product ideas to market: "All the groups—design, manufacturing, engineering, sales—meet continuously through the product development cycle, brainstorming, trading ideas and solutions, strategizing over the most pressing issues, and generally keeping the conversation open to a diverse group of perspectives." For Apple, this has allowed it to avoid the "chronic problem of good ideas being hollowed out as they progress through the development chain" or taking long periods of time to go through testing and review. JOHNSON, *supra* note 195, at 171.
[374] Morriss, *supra* note 18.
[375] *See* YONG-SHIK LEE, LAW AND DEVELOPMENT: THEORY AND PRACTICE 26–28 (2nd ed. 2019).
[376] *How the United States Became Home to More Captives than Any Other Country*, CAPTIVE.COM (May 29, 2019), https://www.captive.com/articles/how-the-united-states-became-home-to-more-captives-than-any-other-country.

regulation, together with robust modes of testing marketability, efficiency, and effectiveness (formally through professional networks and informally by multi-sector consultations) would seem to meet the faster paced and more multi-faceted challenges that the international financial system faces today.[377] As an analyst noted for the International Monetary Fund, "the next crisis will not conform to our old mental maps; establishing partnerships with those who understand the new landscape is vital to prepare for it."[378] As such, the unseen contributions that IFCs make through know-how investment—including in technical expertise[379] and focus on maintaining a thriving and sound global financial ecosystem—are worth recognizing. As Florida notes, "innovation, economic growth, and prosperity continue to occur in places that attract a critical mass of top creative talent."[380] These places are "not just the containers where innovation and entrepreneurship happen, they are the key mechanisms which enable them."[381] Just as importantly, as economist Randall Holcolmbe puts it, "creativity is contagious."[382] IFCs are those places for business entities and, with more than a half-century of innovation and a track record for value added and regulatory strength, IFCs can continue to make important contributions to the global economy. At a time of increased stress on established institutions and ways of doing things, it seems wise to recognize what is already available to meet the moment in today's global financial ecosystem.

V. CONCLUSION

International Financial Centers have played a crucial yet often underappreciated role in shaping the global financial system. As we have demonstrated, their success is not merely a function of tax competition or regulatory arbitrage, but rather a product of sustained legal and financial innovation driven by specialized professional networks. Over the past several decades, IFCs have evolved from passive tax havens into dynamic laboratories of legal and financial creativity, fostering business entity innovations that have enhanced global economic activity.

The remarkable productivity gains of the past century, as noted in the introduction, are not solely attributable to technological advancement or capital accumulation, but also to the development of sophisticated legal and financial structures that greatly facilitate cooperation in creative economic activities. IFCs have been instrumental in this process, providing essential frameworks that enable cross-border investment, capital formation, and business structuring for enterprises of all sizes, including the vast and growing number of small and medium-sized enterprises in emerging economies.

Through their innovative legal structures—such as the International Business Company, the Limited Liability Company, the Protected Cell Company, and trust law advancements—IFCs have demonstrated their ability to respond dynamically to market needs, shaping the global financial landscape in ways that extend well beyond their small geographical footprints. The rapid adoption of these structures and their subsequent diffusion into larger onshore jurisdictions illustrate how legal creativity, like technological innovation, spreads through networks of

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[377] *See* Mariana Mazzucato, *Policy with a Purpose*, IMF FIN. & DEV. MAG. 40–43 (Sept. 2024), https://www.imf.org/en/Publications/fandd/issues/2024/09/policy-with-a-purpose-mazzucato.

[378] Goldin, *supra* note 358, at 9.

[379] *See* Goldin, *supra* note 358, at 8.

[380] FLORIDA, CITY, *supra* note 22, at 30.

[381] FLORIDA ET AL., *supra* note 29, at 16.

[382] Holcombe, *supra* note 362, at 388.

professionals and institutions.

Moreover, the unseen contributions of IFCs lie in their ability to function as knowledge hubs where legal and financial professionals cluster, exchange expertise, and refine regulatory frameworks. These jurisdictions offer a compelling example of how small, well-networked economies can drive significant global developments through expertise, specialization, and institutional agility. Their engagement in regulatory best practices, international cooperation, and continuous refinement of legal structures has contributed to the overall resilience of the global financial system.

Far from being mere facilitators of tax avoidance, IFCs are integral to the infrastructure that supports globalization's shift toward capital mobility, especially for businesses that previously lacked access to efficient international financial structuring. The economic benefits of IFC-driven innovations extend across industries, from insurance and investment funds to international trade and entrepreneurship.

As the global economy continues to evolve in response to technological advances, regulatory shifts, and economic uncertainty, the ability of IFCs to adapt and innovate will be a valuable asset. Their role in legal and financial experimentation, combined with their ability to refine and disseminate best practices, positions them as key contributors to the ongoing development of the global financial ecosystem. Recognizing their contributions allows for a more accurate and balanced understanding of their place in international finance—not as mere facilitators of secrecy, but as engines of legal and economic progress.

EVOLUTIVE REGIME ASSERTION FOR THE INTERNATIONAL MILITARY LAWS OF OUTER SPACE: U.S. LEGAL PROBLEMS AND SOLUTIONS RELATING TO THE INTERNATIONAL LAW OF SPACE WARFARE

*By Matthew Lively**

ABSTRACT

This article has three interrelated purposes. It 1) makes several novel contributions to and unite problematically disparate pieces of space law scholarship, 2) illustrates a disconnection between U.S. strategic space policies and the U.S. practice of military operations in outer space, 3) offers a new framework for international military space law, Evolutive Regime Assertion, that could remedy that connection and advance U.S. strategic interests while enhancing the safety of space operations for all the world. Evolutive Regime Assertion is mostly a prescriptive framework, but some of its elements are descriptive as well. In advancing the utility of the framework, this article illustrates two significant and one minor problem the U.S. has in squaring its space military operations and international law under the Outer Space Treaty of 1967 (OST): the jus ad bellum, the jus in bello, and the "peaceful purposes" clause of OST Article IV. This article discusses the following aspects of Evolutive Regime Assertion: theory, elements, justifications (including how aspects of Evolutive Regime Assertion have already been implemented), and methods of implementation of the framework. The article relatedly recommends changes to U.S. space policy to ameliorate the U.S.'s international military-legal problems in outer space, including the introduction of another novel space law concept: inverse proportionality.

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A. INTRODUCTION

To many, the Outer Space Treaty of 1967 (OST) seemed a magnificent accomplishment.[1] Amidst the tension of the Cold War, it represented a substantial commitment by two rival superpowers about how to view and treat space.[2] That view was more peaceful and ambitious than much of human history would have one expect for such a fundamental multilateral treaty.[3] Much of space was effectively placed off-limits for several activities that take place on Earth, such as national appropriation of territory, permanent establishment of military bases, and stationing or use of weapons of mass destruction.[4] There were trade-offs. Critics contend that the OST stymied the development of the commercial space industry for decades,[5] lengthening the amount of time humanity has had to harness space resources for use against existential challenges.[6]

The purpose of the OST, that space be "the province of all mankind,"[7] seems naïve to many who are aware of how humanity uses space now.[8] Space is increasingly congested by satellites that perform fundamental military functions, and several states classify space as a warfighting domain.[9] The United States (U.S.), the most prominent player in outer space,[10] created its first new military branch since 1947 through the National Defense Authorization Act for Fiscal Year 2020 (2020

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[1] *See* Francis Lyall & Paul B. Larsen, Space Law: A Treatise 50–52 (3d ed. 2024); Ricky J. Lee, Law and Regulation of Commercial Mining of Minerals in Outer Space 99–103 (2012).

[2] *See* LYALL & LARSEN, *supra* note 1, at 52–53.

[3] For the extensive prevalence of warfare among sovereigns throughout history, *see* Niccolò Machiavelli, Art of War 44 (Christopher Lynch trans., ed., 2005); Oona A. Hathaway & Scott J. Shapiro, The Internationalists: How a Radical Plan to Outlaw War Remade the World 311–14 (2018); James Q. Whitman, The Verdict of Battle: The Law of Victory and the Making of Modern War 27 (2012). For the multilateral nature of the Outer Space Treaty, *see* Lee, *supra* note 1.

[4] Treaty of Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, arts. II, IV, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter OST].

[5] *See* Fabio Tronchetti, The Exploitation of Natural Resources of the Moon and Other Celestial Bodies: A Proposal for a Legal Regime 214 (2009).

[6] *See* Ram S. Jakhu, Joseph N. Pelton, & Yaw Otu Mankata Nyampong, Space Mining and Its Regulation 11–12 (2017).

[7] OST, *supra* note 4, art. I.

[8] *See* Jackson Nyamuya Maogoto & Steven Freeland, *The Final Frontier: The Laws of Armed Conflict and Space Warfare*, 23 CONN. J. INT'L L. 165, 170–71, 181 (2007). *See also* Exec. Order No. 13914, 85 Fed. Reg. 20381 (Apr. 6, 2020) (from President Trump's 2020 executive order on space operations: "Outer space is a legally and physically unique domain of human activity, and the United States does not view it as a global commons").

[9] For satellite congestion, see Michael B. Runnels, Protecting Earth and Space Industries from Orbital Debris: Implementing the Outer Space Treaty to Fill the Regulatory Vacuum in the FCC's Orbital Debris Guidelines, 60 AM. BUS. L.J. 175, 185 (2023). For military functions performed by satellites, see John Yoo, Rules for the Heavens: The Coming Revolution in Space and the Laws of War, 2020 U. ILL. L. REV. 123, 134 (2020). For countries' consideration of space as a military domain, see Francesca Giannoni-Crystal, Cyberattacks on Lunar (and other Non-Earth Orbiting) Satellites: Legal Issues, 57 CREIGHTON L. REV. 663, 725 (2024); Bret Austin White, Reordering the Law for a China World Order: China's Legal Warfare Strategy in Outer Space and Cyberspace, 11 J. NAT'L SEC. L. & POL'Y 435, 454–55 (2021); Dep't of Defense, Defense Space Strategy Summary, 1 (2020).

[10] See Yoo, supra note 9, at 131; Cort S. Thompson, Avoiding Pyrrhic Victories in Orbit: A Need for Kinetic Anti-Satellite Arms Control in the Twenty-First Century, 85 J. AIR L. & COM. 105, 157 (2020); Jesse Oppenheim, Danger at 700,000 Feet: Why the United States Needs to Develop a Kinetic Anti-Satellite Missile Technology Test-Ban Treaty, 38 BROOK. J. INT'L L. 761, 789 (2013).

NDAA): the U.S. Space Force.[11] Some criticized the action as violating the OST.[12] These critics assert a misleading paradigm for how to think about modern space law.

The OST probably always allowed military activity in outer space,[13] but the OST plainly strove to establish the universal principle that space should be an inclusive environment instead of a repeat of the tragedy of the commons that has plagued so many of humanity's endeavors.[14] The actions and laws of the U.S. and other major spacefaring states are now placing the OST's purpose under strain and may be destabilizing the space law regime.[15] While there have been no formal kinetic attacks between states in space as of today, experts believe such action might occur soon.[16]

The likeliest form of early conflict to occur in outer space would be the targeting and destruction of satellite infrastructure. Significant problems would arise from anti-satellite (ASAT) conflict. Satellites enable much of modern life, including essential military operations,[17] everyday financial transactions,[18] cellular communications,[19] emergency services,[20] and more.[21] Destruction or incapacitation of even military satellites, as most military satellites are dual-use in that they share military and civilian functionality or even ownership,[22] could grind modern life to a halt and

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[11] 10 U.S.C. § 9081.

[12] *See* Lauren Hauck, *The Rogue One: Trump's Space Force and the Threat of a New Cold War*, 42 U. HAW. L. REV. 119, 142–47 (2020); Rachel Harp, *The Force Awakens: The Legality of the U.S. Space Force*, U. CIN. L. REV. BLOG (2021), https://uclawreview.org/2021/05/19/the-force-awakens-the-legality-of-the-u-s-space-force/; James Fukazawa, *Does the U.S. Space Force Violate the Outer Space Treaty?*, DENV. J. INT'L L. & POL'Y (2020), https://djilp.org/does-the-u-s-space-force-violate-the-outer-space-treaty/.

[13] See Aylia Licor, Satellite Remote Sensing: Commercialization of Remote Sensing. Is the Use of Satellite Derived Information for Military Purposes in Violation of the Peaceful Purposes Provision of the Outer Space Treaty?, 14 ILSA J. INT'L & COMP. L. 207, 214–15 (2007); Jeremy J. Grunert, Grounding the Humā: The Legality of Space Denial and (Potential) American Interference in the Iranian Space Program, 81 A.F. L. REV. 75, 101–02 (2020); Chase Hamilton, Space and Existential Risk: The Need for Global Coordination and Caution in Space Development, 21 DUKE L. & TECH. REV. 1, 9 (2022).

[14] *See* OST, *supra* note 4, art. I.

[15] *See* Hauck, *supra* note 12, at 137–47.

[16] See David A. Koplow, ASAT-isfaction: Customary International Law and the Regulation of Anti-Satellite Weapons, 30 MICH. J. INT'L L. 1187, 1200–01, 1241–42 (2009); Robert David Onley, Death From Above? The Weaponization of Space and the Threat to International Humanitarian Law, 78 J. AIR L. & COM. 739, 743–45 (2013).

[17] *See* Caitlyn Georgeson & Matthew Stubbs, *Targeting in Outer Space: An Exploration of Regime Interactions in the Final Frontier*, 85 J. AIR L. & COM. 609, 609–10 (2020); Oppenheim, *supra* note 10; Yoo, *supra* note 9, at 145.

[18] See Duncan Blake & Joseph S. Imburgia, "Bloodless Weapons"? The Need to Conduct Legal Reviews of Certain Capabilities and the Implications of Defining them as "Weapons", 66 A.F. L. REV. 157, 161 (2010); Georgeson & Stubbs, supra note 17, at 609; Jameson Rohrer, Deciphering and Defending the European Union's Non-Binding Code of Conduct for Outer Space Activities, 23 DUKE J. COMP. & INT'L L. 187, 189 (2012).

[19] *See* Onley, *supra* note 16, at 755; Oppenheim, *supra* note 10.

[20] *See* Blake & Imburgia, *supra* note 18; Onley, *supra* note 16, at 759; Rohrer, *supra* note 18, at 192.

[21] *See* Georgeson & Stubbs, *supra* note 17; Maogoto & Freeland, *supra* note 8, at 183–84.

[22] *See* Bonny Birkeland, *Space: The ~~Final~~ Next Frontier*, 104 MINN. L. REV. 2061, 2080–81 (2020); Georgeson & Stubbs, *supra* note 17, at 617, 620; Abdul Rehman Khan, *Space Wars: Dual-Use Satellites*, 14 RUTGERS J. L. & PUB. POL'Y 314, 320–21 (2017); Maogoto & Freeland, *supra* note 8, at 183–84; Rohrer, *supra* note 18, at 200; Sarah M. Mountin, *The Legality and Implications of Intentional Interference with Commercial Communication Satellite Signals*, 90 INT'L L. STUD. 101, 105 (2014); White, *supra* note 9, at 463.

cause significant terrestrial destruction, including death.[23] Kinetic ASAT attacks, as opposed to non-kinetic means like laser weaponry or targeted hacking, are particularly problematic. Kinetic destruction of a satellite would produce large amounts of space debris, bringing the risk of starting a chain of debris collisions that could make space inaccessible for centuries.[24]

The prospect of satellite warfare is not unrealistic. U.S. adversaries have explicitly identified the U.S.'s satellite infrastructure as its primary weakness and have developed both technology and strategy to strike at that weakness in the event of conflict.[25] The integration of strategy and law to win in conflict is called "lawfare."[26] U.S. and Chinese lawfare includes attempts to mold international law and opinion through military operations in space, which both countries acknowledge is a warfighting domain.[27]

International space law is developing amidst this backdrop of increasing military tensions between the major camps of spacefaring states. It is broadly characterized by ambiguity and uncertainty, likely increasing the possibility of armed conflict in outer space,[28] which could be a calamitous affair.[29]

In confronting increasing political, legal, and military challenges in outer space, the U.S. has planted two flags of policy on the proverbial moon. The first is the maintenance, reification, and assertion of the current international legal system,[30] and with it, the OST.[31] The second is the doctrine of space dominance, or global military control over operations in space. Space dominance is rhetorically captured in militaristic and unilateral tones and diction,[32] but often is justified as a tool of defense of the international legal system. Yet, such rhetoric[33] sometimes undermines the international legal system.

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[23] See Georgeson & Stubbs, supra note 17, at 610; Joshua La Bella, Star Wars: Attack of the Anti-Satellite Weapons in Anticipatory Self-Defense, 52 U. PAC. L. REV. 733, 751 (2021); Jeffrey A. Murphy, The Cold Vacuum of Arms Control in Outer Space: Can Existing Law Make Some Anti-Satellite Weapons Illegal?, 68 CLEV. ST. L. REV. 125, 135–36 (2019); Oppenheim, supra note 10.

[24] *See* Bill Boothby, *Space Weapons and the Law*, 93 INT'L L. STUD. 179, 187–88, 208 (2017); MICHAEL BYERS & AARON BOLEY, WHO OWNS OUTER SPACE? 300–05 (2023); Georgeson & Stubbs, *supra* note 17; Sophie Kaineg, *The Growing Problem of Space Debris*, 26 HASTINGS ENVTL. L.J. 277, 281 (2020); Koplow, *supra* note 16, at 1202–08; Paul B. Larsen, *Minimum International Norms for Managing Space Traffic, Space Debris, and Near Earth Object Impacts*, 83 J. AIR L. & COM. 739, 750 (2018); Connor Mallon, *Anti-Satellite Weapons & the Law of Armed Conflict*, 50 SYRACUSE J. INT'L. L. & COM. 317, 321–23 (2023); Maogoto & Freeland, *supra* note 8, at 188; Murphy, *supra* note 23; Onley, *supra* note 16, at 748; Runnels, *supra* note 9, at 192; Thompson, *supra* note 10, at 114–20.

[25] *See* La Bella, *supra* note 23, at 737; Thompson, *supra* note 10, at 161–62; Paul B. Larsen, *Outer Space: How Shall the World's Governments Establish Order Among Competing Interests?*, 29 WASH. INT'L L.J. 1, 34–35 (2019); White, *supra* note 9, at 453.

[26] *See* White, *supra* note 9, at 443.

[27] *See* Mallon, *supra* note 24, at 318.

[28] See Jackson Nyamuya Maogoto & Steven Freeland, Space Weaponization and the United Nations Charter Regime on Force: A Thick Legal Fog or a Receding Mist?, 41 INT'L L. 1091, 1094 (2007).

[29] *See* sources cited *supra* note 23.

[30] U.S. DEP'T OF DEF., *infra* note 88; OFF. OF SPACE COM., *infra* note 83.

[31] *See supra* note 30.

[32] *See* Hauck, *supra* note 12, at 154-59; Dep't of Defense, *supra* note 9, at 1, 6, 7; OFF. OF SPACE COM., *infra* note 84, Trump, *infra* note 102; 116th Cong., *infra* note 207; sources cited *supra* note 12.

[33] *See* sources cited *supra* note 32.

This article takes the normative stance that maintenance of the international rules-based order, a professed objective of the U.S. government,[34] is a good thing. But the U.S. itself is somewhat endangering the international legal system, and modifications to U.S. space policy and the assertion of a new legal-military framework for outer space could reify and defend the international legal system.

Two significant problems for U.S. space policy are the current state of *jus ad bellum* and *jus in bello* in outer space.[35] The former is almost totally unclear, imbuing potential conflict in space with fundamental reactivity and more danger than if its rules were delineated proactively.[36] The latter is slightly clearer, but current U.S. satellite policy undermines the space *jus in bello* regime,[37] which may contribute to the global decay of the legitimacy of international law,[38] running counter to the U.S.'s strategic goals in space.[39]

Another related problem area is criticism of the U.S. space policy's grounding in broad readings of the "peaceful purposes" clause of the OST.[40] Critics who advocate for such a reading typically characterize the U.S. as advancing an imperialistic vision for space,[41] and some even deem the creation of the Space Force illegal under international law.[42] This is a less urgent problem than the *jus ad bellum* and *jus in bello* in space, but it still likely contributes to attacks on the legitimacy of international law, harming American interests.[43]

This article makes two recommendations. The first recommendation is a change to U.S. space policy regarding the *jus in bello* in outer space. The second recommendation is adoption of the Evolutive Regime Assertion, a partially descriptive and partially prescriptive novel framework for international space law. Evolutive Regime Assertion would facilitate effective solutions to the *jus ad bellum*, *jus in bello*, and peaceful purposes problems for the U.S., which are relatedly recommended. The argument proceeds as follows. Part B first discusses the background of the U.S. military-legal issues in outer space, including the OST and U.S. space law and policies, which will contextualize the remainder of the article. It then describes the specific problems facing the U.S.: the *jus ad bellum* and *jus in bello* in space and the peaceful purposes principle of the OST. Part C describes the theory of Evolutive Regime Assertion, a diffuse and incentive-oriented framework for the rapid development of international law relating to military operations in space. It would facilitate this development with the following elements: shortened time for rule formation, diffused formative authority, a rebuttable presumption of reconciliation among persistent objectors, laxer evidentiary standards, and temporal (sunsetting) and geographic limitations. It is also justified as preferable to the status quo based on five factors of the legal space environment: the small number of capable players in space, assertions of non-spacefaring states, rapid

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[34] *See* U.S. DEP'T OF DEF., *infra* note 88; OFF. OF SPACE COM., *infra* note 83.
[35] *See* U.S. DEP'T OF DEF., *infra* note 88; OFF. OF SPACE COM., *infra* note 83; *infra* notes 111, 176–80, 184–85.
[36] *See* sources cited *infra* note 111.
[37] *See* sources cited *infra* notes 176–80, 188–89.
[38] *See* sources cited *infra* notes 172–73, 176, 181–83.
[39] *See* U.S. DEP'T OF DEF., *infra* note 88; OFF. OF SPACE COM., *infra* note 83.
[40] OST, *supra* note 4. See sources cited *supra* note 12; Yoo, *supra* note 9, at 140.
[41] *See* Hauck, *supra* note 12, at 122, 147–56.
[42] *See* sources cited *supra* note 12.
[43] *See* sources cited *supra* note 12; Yoo, *supra* note 9, at 140.

technological change, space's unique physical characteristics, and the current existence and operation of some aspects of the Evolutive Regime Assertion framework. Part D demonstrates potential application of Evolutive Regime Assertion to the three political, legal, and strategic problems facing the U.S. in space, described above. Part E describes the several international legal mechanisms the U.S. could use to advance Evolutive Regime Assertion. Part F concludes.

B. BACKGROUND: U.S. MILITARY-LEGAL ISSUES IN SPACE

The OST was a contingent assertion of power by the major spacefaring states of that time that both enshrined the world's aspirations for space[44] and laid down restrictions for the safe and beneficial development of the space domain for the decades to come. Certain provisions' ambiguity, perhaps hoped to be a tool for future generations to advance the OST's purpose commensurately with the development of new technologies,[45] are problematically intermingling with multipolar power struggles that are increasing the probability of armed conflict in space.[46] U.S. space policy is not helping the situation.[47] Three current problem areas are clear: *jus ad bellum*, *jus in bello*, and the peaceful purposes clause of the OST.

1. SPACE LAW

Like space itself,[48] space law is vast and expanding. It is comprised of international law, including treaties and customary international law (CIL), national statutes, and state space policies.[49] This part will discuss this background in the focused context of the problems presented above. This section will describe the OST and its relevant provisions, relevant U.S. space law and policies, and trends in space law.

i. The Outer Space Treaty of 1967

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[44] Those aspirations were unequally shaped by the U.S. and U.S.S.R. *See* David Everett Marko, *A Kinder, Gentler Moon Treaty: A Critical Review of the Current Moon Treaty and a Proposed Alternative*, 8 J. NAT. RES. & ENV'T L. 293, 298 (1993); Andrew Tingkang, *These Aren't the Asteroids You Are Looking for: Classifying Asteroids in Space As Chattels, Not Land*, 35 SEATTLE UNIV. L. REV. 559, 559–60 (2012).

[45] See P.J. Blount & Christian J. Robison, One Small Step: The Impact of the U.S. Commercial Space Launch Competitiveness Act of 2015 on the Exploitation of Resources in Outer Space, 18 N.C. J. L. & TECH. 160, 165–66 (2016); Jefferson H. Weaver, Illusion or Reality? State Sovereignty in Outer Space, 10 B.U. INT'L L. J. 203, 227 (1992).

[46] Jack Beard et al. (Eds.), The Woomera Manual on the International Law of Military Space Activities and Operations 273 (Kindle ed. 2024) [hereinafter Woomera Manual]; John W. Bellflower, *The Influence of Law on Command of Space*, 65 A.F. L. Rev. 107, 133 (2010); Giannoni-Crystal, *supra* note 9, at 724–26; David A. Koplow, *Deterrence as the MacGuffin: The Case for Arms Control in Outer Space*, 10 J. Nat'l Sec. L. & Pol'y 293, 305 (2019); La Bella, *supra* note 23, at 736; Larsen, *supra* note 25; Lyall & Larsen, *supra* note 1, at 194; Thompson, *supra* note 25; White, *supra* note 25.

[47] *See supra* note 12; sources cited *infra* notes 176–79, 188–89.

[48] *See* Sarah Scoles, *Will the Universe Ever Stop Expanding?*, SCIENTIFIC AMERICAN (Aug. 2023), https://www.scientificamerican.com/article/will-the-universe-ever-stop-expanding1/.

[49] *See* LYALL & LARSEN, *supra* note 1, at 2, 26, 49, 64–74; Justin Rostoff, *"Asteroids for Sale": Private Property Rights in Outer Space, and the Space Act of 2015*, 51 NEW ENG. L. REV. 373, 375–77 (2017).

The OST is the foundation of international space law and the most important document in the legal regime of outer space.[50] It has 117 parties and 22 signatories.[51] Many of its principles have also been established as CIL.[52]

The most important OST articles for consideration of the *jus ad bellum*, *jus in bello*, and peaceful purposes in space are Article I (establishing the OST's principles), Article III (extending international law to outer space), and Article IV (establishing the peaceful purposes principle and prohibiting certain military uses of space). Multiple other articles apply to present problems as well,[53] but their discussion and application is outside the scope of this article.[54]

a. Article I

The first article of the OST states that its purpose is "[t]he exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."[55] All subsequent articles of the OST should be read in accordance with Article I, and national space laws and policy should be grounded in its principles.[56]

b. Article III

Article III states that "States Parties to the Treaty shall carry on activities in [space] . . . in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security, and promoting international cooperation and understanding."[57]

The extent to which Article III extends existing international legal regimes into space has been the subject of debate.[58] Clarity is needed as humanity's use of space increases exponentially.[59] Whether the law of armed conflict (LOAC)[60] applies in space is a particularly complex and important problem. Many scholars argue that the LOAC applies in space, while some question the

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[50] *See* Melissa J. Durkee, *Interstitial Space Law*, 97 WASH. UNIV. L. REV. 423, 427, 460 (2019).
[51] OST, *supra* note 4, signatory pages.
[52] *See* Durkee, *supra* note 50, at 436–37, 441–45; LYALL & LARSEN, *supra* note 1, at 63–74.
[53] See Runnels, supra note 9. See generally Larsen, supra note 24; Dale Stephens, The International Legal Implications of Military Space Operations: Examining the Interplay Between International Humanitarian Law and the Outer Space Legal Regime, 94 INT'L L. STUD. 75 (2018).
[54] One exception: OST Article VI's attribution principle will be discussed within the context of Evolutive Regime Assertion later in this article. *See infra* Part C (2)(ii).
[55] OST, *supra* note 4, at art. I.
[56] As will be discussed below, U.S. militarization of space has been characterized by divergences from Article I. Military theorist Major John Bellflower has stated that, for U.S. space militarization to comply with international space law, it must be grounded in "the principle of freedom of use outlined in Article 1 . . . rather than any high ground theory." Bellflower, *supra* note 46, at 124.
[57] OST, *supra* note 4, at art. III.
[58] *See* Blair Stephenson Kuplic, *The Weaponization of Outer Space: Preventing an Extraterrestrial Arms Race*, 39 N.C. J. INT'L L. 1123, 1129–30 (2014); Stephens, *supra* note 53, at 90.
[59] See ASHLEE VANCE, WHEN THE HEAVENS WENT ON SALE 127–29 (2023). See also Gerardo Inzunza Higuera, What Got Us Here, Won't Get Us There: Why U.S. Commercial Space Policy Must Lie in an Independent Regulatory Agency, 73 HASTINGS L.J. 105, 127 (2022).
[60] This article will use the terms LOAC and *jus in bello* synonymously.

wisdom of exporting a terrestrial legal regime to warfare in a non-terrestrial domain.[61] The stakes are high, as many depend on space infrastructure for normal day-to-day living and, sometimes, survival.[62]

c. Article IV

In addition to prohibiting "nuclear weapons or any other kinds of weapons of mass destruction" from being placed in space, Article IV states that "[t]he Moon and other celestial bodies shall be used by all States Parties of the Treaty exclusively for peaceful purposes."[63] Furthermore, "[t]he establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvers [sic] on celestial bodies shall be forbidden."[64] However, military personnel may be sent to space for "scientific research or for any other peaceful purposes[.]"[65]

Article IV is the source to which critics point in claiming that the creation of the U.S. Space Force breached international law. Scholars have debated the breadth of peaceful purposes and how the restriction applies in space for decades.[66] Most now agree that peaceful purposes means "non-aggressive" rather than "non-military."[67] Some criticize U.S. space policy as breaching the peaceful purposes principle, adopting a non-military reading of Article IV.[68]

ii. U.S. Space Law and Policies

U.S. domestic law relating to the use of space has emphasized national benefit and control of space over unfettered international access.[69] U.S. policy relating to space has grown more commercial, more militaristic, and, some say, more imperialistic.[70] These laws and policies, while perhaps not breaching international law,[71] have caused friction with some states.[72] In policy

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[61] For an argument for "LOAC applies in space", *see generally* Birkeland, *supra* note 22. For an argument against, *see* Yoo, *supra* note 9, at 180–82.

[62] *See* Koplow, *supra* note 16, at 1245; La Bella, *supra* note 23, at 751; Onley, *supra* note 16, at 743–44, 755, 759; Oppenheim, *supra* note 10; Rohrer, *supra* note 18, at 200; Georgeson & Stubbs, *supra* note 17.

[63] OST, *supra* note 4, art. IV.

[64] Id.

[65] Id.

[66] *See* Hamilton, *supra* note 13, at 8–9; La Bella, *supra* note 23, at 738–39; Maogoto & Freeland, *supra* note 8, at 180–81; Mountin, *supra* note 22, at 151–52; White, *supra* note 9, at 461.

[67] See Yang Liu, Earth's First Line of Defense: Establishing Celestial Body-Based Planetary Defense Systems, 100 INT'L L. STUD. 708, 723 (2023); Matthew G. Looper, International Space Law: How Russia and the U.S. are at Odds in the Final Frontier, 18 S.C. J. INT'L L. & BUS. 111, 113 (2022); Christopher M. Petras, "Space Force Alpha" Military Use of the International Space Station and the Concept of "Peaceful Purposes", 53 A.F. L. REV. 135, 171 (2002); Stephens, supra note 53, at 81, 89.

[68] *See* sources cited *supra* note 12.

[69] *See* U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704 [hereinafter CSLCA].

[70] *See* Hauck, *supra* note 12, at 154–59.

[71] For an argument that these policies do not violate international law, *see* Yoo, *supra* note 9, at 144–45, 151–55, 180–81. For an argument that they do, *see* Hauck, *supra* note 12.

[72] *See* Looper, *supra* note 67, at 120–21; Ed Browne, *China Accuses U.S. of Turning Outer Space Into 'a Weapon and a Battlefield'*, NEWSWEEK (Jul. 20, 2022, 6:05 AM), https://www.newsweek.com/china-us-space-military-zhao-lijian-1726231; Kevin Kusumoto, *China Accuses United States of Being Largest Proliferator of Space Militarization*, U.S. ARMY FOREIGN MIL. STUD. OFF. (June 20, 2024), https://fmso.tradoc.army.mil/2024/china-accuses-united-states-of-being-largest-proliferator-of-space-militarization/.

documents, the U.S. has taken care to buttress its military rhetoric with dedications to international security and peace.[73] A key piece of U.S. space legislation and several U.S. space policy documents reflect these trends.

a. The CSLCA

The U.S. Commercial Space Launch Competitiveness Act (CSLCA) was passed in 2015 with the intention of facilitating the American commercialization of space.[74] While not military in nature, the CSLCA demonstrates the decidedly pro-commercial (contrary to many other countries)[75] interpretation that the U.S. has of the OST. Property rights are dealt with in 51 U.S.C. § 51303 thusly:

> A United States citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.[76]

Section 403 includes the disclaimer that "[i]t is the sense of Congress that by the enactment of this Act, the United States does not thereby assert sovereignty or sovereign or exclusive rights or jurisdiction over, or the ownership of, any celestial body."[77] Scholars are split over whether the CSLCA is in breach of the OST, as Article II prohibits national appropriation of resources in space but is silent on the question of private appropriation.[78]

The U.S. also has views on the OST's application to military space operations. The militaristic tones of the U.S.'s view of space echo in its policy documents, as does a policy of military-commercial integration. Recent national security documents reflect a growing assertion of these trends.

b. The Defense Space Strategy Summary

The 2020 Defense Space Strategy Summary, a Department of Defense (DoD) policy document, describes "the most significant transformation in the history of the U.S. national

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[73] *See* Off. of Space Com., National Space Policy of the United States of America, *infra* note 83.

[74] See William M. Callif, Be Wary of the Trojan Horse: A Commercial-Friendly Reading of the Outer Space Treaty as the Key to De-escalating the Emerging Space Race Between the United States and China, 45 SUFFOLK TRANSNAT'L L. REV. 277, 309 (2022).

[75] *See* BYERS & BOLEY, *supra* note 24, at 137–38, 178.

[76] CSLCA, *supra* note 69.

[77] Id.

[78] *Id.* For an argument that the CSLCA is noncompliant with the OST, *see* Rostoff, *supra* note 49, at 374 (2017). For an argument that the CSLCA is compliant with the OST, *see* Callif, *supra* note 74, at 320, 326. For the broader arguments that contextualize the debates of the CSLCA's international legality, *see* Rory Bennett, *Property Rights in a Vacuum: A Moon Anarchist's Guide to Prospecting*, 63 ARIZ. L. REV. 229, 229 (2012); Blount & Robison, *supra* note 45, at 180–81; Frans G. von der Dunk, *Surreal estate: addressing the issue of 'Immovable Property Rights on the Moon'*, INT'L SPACE L. 639, 642 (2018); DE MAN, *infra* note 111, at xxxiii, 140, 158; Matthew P. Hytrek, *Property Rights in Current Space Law: A Hindrance to Space Exploration*, 39 WHITTIER L. REV. 90, 104 (2018); LYALL & LARSEN, *supra* note 1, at 391; ODUNTAN, *infra* note 267, at 8, 55, 180–81; Taylor, *infra* note 308, at 656–57.

security space program."[79] It declares that "[s]pace is now a distinct warfighting domain,"[80] and calls for the building of "a comprehensive military advantage in space," including integration of "space warfighting operations, intelligence, capabilities, and personnel[.]"[81] It refers to the National Security Strategy (NSS) and National Defense Strategy (NDS) as "[s]trategic guidance" for such statements.[82]

c. The National Space Policy

While espousing internationalist principles more aligned with the OST,[83] the 2020 National Space Policy also contains a more unilateral, militaristic space policy.[84] The national security section states that the position of the government is to "[c]ompel and impose costs on adversaries to cease behaviors that threaten the peaceful use of space by the United States, its allies, and partners."[85]

d. The National Security Strategy

The NSS is a document "sent from the President to Congress in order to communicate the executive branch's national security vision[.]"[86] The NSS "include[s] a discussion of the United States' international interests, commitments, objectives, and policies, along with defense capabilities necessary to deter threats and implement U.S. security plans."[87]

The 2022 NSS, as well as the 2022 NDS and 2024 Space Force Commercial Space Strategy (SFCSS), reflects a continuance of the increasing militarism of U.S. space policy across presidential administrations of opposing political parties. The 2022 NSS uses more couched language than the Trump administration, calling for "enhanc[ing] the resilience of U.S. space systems that we rely on for critical national and homeland security functions" to "protect U.S. interests in space" and to "responsibly steward the space environment."[88]

e. The National Defense Strategy

The NDS "focuses on the Department of Defense's role in implementing the President's [NSS,] . . . outlines how the Department of Defense will contribute to achieving NSS objectives," and "is required to discuss the global strategic environment, force posture, and role of the U.S. in global security."[89] The 2022 NDS emphasizes strategic competition with China[90] and describes the space security environment as "likely to increase [in] opacity during a crisis or conflict,

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[79] Dep't of Defense, *supra* note 9, at 1.
[80] Id.
[81] *Id.* at 1, 6, 7, 8.
[82] *Id,* at 4.
[83] *See* Off. of Space Com., National Space Policy of the United States of America 1, 12–14 (2020).
[84] *See id.* at 27–29.
[85] *Id.* at 27.
[86] *National Security Strategy*, OFF. OF THE SEC'Y OF DEF., https://history.defense.gov/Historical-Sources/National-Security-Strategy/.
[87] See id.
[88] U.S. Dep't of Def., National Security Strategy 45 (2022).
[89] Off. of the Sec'y of Def., *supra* note 86.
[90] U.S. DEP'T OF DEF., National Defense Strategy 4–5 (2022).

threatening strategic stability."[91] It also calls for a "fortification" of the defense ecosystem, including space.[92]

f. The U.S. Space Force Commercial Space Strategy

The 2024 SFCSS calls for the Space Force to "seize the opportunity to capitalize on significant innovative commercial space solutions" to accomplish security objectives based on the NDS.[93] It calls for commercial-military integration in the areas of surveillance, tracking, reconnaissance, and other intelligence operations, as well as environmental monitoring, communications, space logistics, cyberspace operations, and targeting.[94] The SFCSS reflects a growing trend of commercial-military integration in space that some criticize as a potential breach of international humanitarian law (IHL, synonymous for this article's purposes with LOAC and the *jus in bello*).[95] The trend can also be observed in China's space policies.[96]

iii. The U.S. Space Force

In February 2019, President Donald Trump issued Space Policy Directive 4, which directed the DoD to centralize space capabilities "and to develop a legislative proposal to establish a United States Space Force as a sixth branch of the United States Armed Forces. . . ."[97] The DoD accordingly assembled a legislative proposal for the Space Force within the 2020 NDAA, which became law on December 20, 2019.[98]

The annual NDAA funds "and provides authorities for the U.S. military and other critical defense priorities. . . ."[99] The 2020 NDAA provided for the creation of the Space Force in the United States Space Force Act (USSA).[100] The USSA, as the authority for the Space Force, is mostly a list of technical and organizational rules.[101] However, much of the language surrounding the creation of the Space Force was more militaristic. When Trump presented the Space Force flag, he explained of the Space Force (or of space policy or space itself; the noun he was referencing is unclear) that "it's so important from a defense standpoint, from an offensive standpoint, from every standpoint there is . . . " and that "[w]e're building, right now, incredible military equipment at a level that nobody has ever seen before."[102]

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[91] *See id.* at 10.
[92] *Id.* at 20.
[93] U.S. DEP'T OF DEF., U.S. Space Force Commercial Space Strategy 1 (2024).
[94] *See id.* at 5.
[95] *See* David A. Koplow, *Reverse Distinction: A U.S. Violation of the Law of Armed Conflict in Space*, 13 HARV. NAT'L SEC. J. 25, 68–79, 99–104 (2022). The integration of commercial and military space assets also raises accountability concerns. A citizenry that does not agree with a president's space defense policy cannot vote away a private party's satellite ownership rights.
[96] *See* White, *supra* note 9, at 454, 463.
[97] President Donald J. Trump, Presidential Memoradrum, Space Policy Directive 4 (Feb. 19, 2019).
[98] *See* Grunert, *supra* note 13, at 115.
[99] S. COMM. ON ARMED SERV., 118TH CONG., NAT'L DEF. AUTHORIZATION ACT EXEC. SUMMARY, FISCAL YEAR 2025.
[100] 10 U.S.C. § 101.
[101] See id.
[102] President Donald J. Trump, Remarks by President Trump at Presentation of the United States Space Force Flag and Signing of an Armed Forces Day Proclamation (May 15, 2020).

"The Space Force[] . . . organize[s], train[s] and equip[s] [personnel] in order to protect [U.S.] . . . and allied interests in space[,]" and utilizes DoD and commercial satellite infrastructure for "continuous global coverage[;] . . . autonomous operations[;] . . . in-theater secure communications; weather and navigation for ground, air and fleet operations; and threat warning."[103] The Space Force also tracks space debris and "[m]aintain[s] space superiority . . . to protect U.S. space assets from hostile attacks."[104] Some say the military dialogue around and in the Space Force sometimes has a more outwardly aggressive tone, with some going so far as to say that the purpose of the branch is to export imperialism.[105]

iv. Space Law Trends

The U.S.'s space laws and policies, unlike space, do not exist in a vacuum. They are developing in the context of increasingly multipolar, geopolitical competition.[106] U.S. adversaries have explicitly declared that space is a warfighting domain, and several nations are rushing to militarize space in an effort to match or exceed the U.S. The U.S. remains the dominant player in outer space.[107] National space policies in other spacefaring countries reflect the same trends as the U.S.,[108] marking international divergence from some of the core principles of the OST.

In addition to these destabilizing space policies, China and Russia are attempting to create their own international "bloc of spacefaring" countries to challenge the U.S.[109] It is unlikely that a Chinese and Russian space order would result in a more stable and useful space law regime. Both states have shown little restraint in polluting outer space, to the detriment of the world.[110] This emerging challenge to the current space regime could be met by a U.S. effort to entrench the international legal order in space through adherence, in text and spirit, to the OST. However, the U.S. has instead mostly relied on military solutions to meet these threats, threatening the utility and future of the OST regime.

2. *Jus ad Bellum*: Pressing Uncertainty

The rising uncertainty surrounding military conflict in space is augmented by the uncertainty of how the *jus ad bellum* applies extraterrestrially.[111] If states think they can get away

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[103] U.S. Space Force, *infra* note 172.

[104] Id.

[105] *See* Hauck, *supra* note 12, at 154–59.

[106] *See* Melissa J. Durkee, *Space Law as Twenty-First Century International Law*, 6 J. L. & INNOVATION 12, 13–15 (2023); Braden Leach, *Lawfare for the Future*, 1 UNIV. ILL. J.L. TECH. & POL'Y 51, 61–65 (2023); JIM SCIUTTO, THE RETURN OF GREAT POWERS: RUSSIA, CHINA, AND THE NEXT WORLD WAR xi, 214–15, 225–37, 284–86 (2024).

[107] See Garret S. Bowman, Securing the Precipitous Heights: U.S. Lawfare as a Means to Confront China at Sea, in Space, and Cyberspace; 34 PACE INT'L L. REV. 81, 93 (2021); White, supra note 9, at 438; sources cited supra note 10.

[108] *See* Koplow, *supra* note 95, at 65, 112; White, *supra* note 9, at 453–466; sources cited *infra* note 110.

[109] BYERS & BOLEY, *supra* note 24, at 173. *See* BYERS & BOLEY, *supra* note 24, at 274–76; Looper, *supra* note 67, at 124.

[110] *See* BYERS & BOLEY, *supra* note 24, at 266, 270–74; Giannoni-Crystal, *supra* note 9, at 724.

[111] *See* Matthew T. King & Laurie R. Blank, *International Law and Security in Outer Space: Now and Tomorrow*, 113 AJIL UNBOUND 125, 127–29 (2019); Maogoto & Freeland, *supra* note 28. "For example, does the targeting of a satellite constitute a use of force or an attack for the purposes of the law of targeting when it merely disrupts the satellite system? Does it matter if the disruption is not permanent, even though the terrestrial impact of signal interruption is often more severe and long-lasting than the duration of interference with the satellite itself? When

with military operations in a legal grey area of space military operations, they likely will if it serves their strategic interests. One can imagine successive operations, increasing in scale and destruction inch by inch, with each overstep being met with disavowals of impropriety. The party in breach would proclaim that their actions were not forbidden under established law. They could further argue that their actions were actually creating international law.[112]

Traditional interpretive methods of the *jus ad bellum* are incomplete or nonexistent in outer space, given the absence of state practice.[113] More state practice could clarify the matter, but is not preferable. A different more proactive determination of the *jus ad bellum* is required, given the increasing constraints on traditional, formal methods of international law creation.[114]

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multiple payloads are hosted on the satellite for servicing different States and private businesses, which State is considered as a victim State injured by the use of force or a belligerent party involved in an international armed conflict? And does international law afford any protection to the rights and interests of third parties affected as a result?" Hitoshi Nasu, *Targeting a Satellite: Contrasting Considerations Between the Jus ad Bellum and the Jus in Bello*, 99 INT'L L. STUD. 142, 154 (2022). Forceful answers to some *jus ad bellum* questions have been asserted by some experts despite the absence of definitive evidence. "In accordance with Article III of the OST, a State retains its inherent right to self-defence under the UN Charter with respect to activities in space, as well as the corresponding right to possess the instruments and weapons necessary to exercise that right of self-defence . . . there is authority for this inherent right of self-defence to supersede an otherwise applicable treaty provision incompatible with that right. Such a proposition is expressly accepted by the ILC in the draft Articles on the Effects of Armed Conflicts on Treaties and follows from normal canons of interpretation, especially in view of the likely jus cogens nature of the inherent right of self-defence. . . ." WOOMERA MANUAL, *supra* note 46, at 68.
The WOOMERA MANUAL's purpose and contribution to resolution of urgent military problems in space is admirable and appreciated. *See infra* Part B, Section 3 (ii)(a). And it is understandable that the WOOMERA MANUAL treats the OST as subordinate to the U.N. Charter, which exerts its content on the use of force (and the accompanying CIL equivalents and offshoots) in space. Article III of the OST explicitly mandates that space activities must be in accordance with the Charter and CIL, and other scholars have drawn similar conclusions of applicability of these regimes to space. OST, *supra* note 4, at art. III; *see* Frans G. von der Dunk, *Armed Conflicts in Outer Space: Which Law Applies?*, 97 INT'L L. STUD. 188, 206 (2021); Nasu, *supra* note 111, at 149–51, 153–55; Maogoto & Freeland, *supra* note 28, at 1099. And yet the Woomera Manual ventures further than the oppositional evidence allows. *See* WOOMERA MANUAL, *supra* note 46. The U.N. Charter was grounded in a security environment characterized by aspirations to solidify and defend territorial sovereignty, a fundamental principle which is specifically excluded from outer space under the OST. OST, *supra note* 4, at art. II; *see* P.J. Blount, *Outer Space and International Geography: Article II and the Shape of Global Order*, 52 NEW ENG. L. REV. 95, 103–05 (2018); Blount & Robison, *supra* note 45, at 165–66; PHILIP DE MAN, EXCLUSIVE USE IN AN INCLUSIVE ENVIRONMENT: THE MEANING OF THE NON-APPROPRIATION PRINCIPLE FOR SPACE RESOURCE EXPLOITATION 158–59 (2016); von der Dunk, *supra* note 111, at 220; Henry R. Hertzfeld & Frans G. von der Dunk, *Bringing Space Law into the Commercial World: Property Rights without Sovereignty*, *in* INTERNATIONAL SPACE LAW 660, 675 (Frans G. von der Dunk ed., 2018); Mohamed S. Helal, *Justifying War and the Limits of Humanitarianism*, 37 FORDHAM INT'L L.J. 551, 584 (2014); Weaver, *supra* note 45, at 207. This means that interpretive tools for the U.N. Charter and the OST necessarily involve an analytical paradox of prioritization unresolvable with traditional international law prioritization tools. *See* von der Dunk, *supra* note 111, at 220, 213–19; Stephens, *supra* note 53, at 83–84; White, *supra* note 9, at 456–57; Yoo, *supra* note 9, at 154–55, 180–81. As for customary international law, there has been no state practice in space, and any regime dependent solely on *opinio juris* seems a fickle construction. Frans G. von der Dunk characterizes this problem as so fundamental as to render any proactive resolution potentially impossible. *See* von der Dunk, *supra* note 111, at 230. But international rule construction continues to be a viable option, especially under Evolutive Regime Assertion.

[112] "Justifications for the resort to war . . . are routinely cloaked in the language of international law and universal morality." Helal, *supra* note 111, at 593.

[113] *See* WOOMERA MANUAL, *supra* note 46, at 76, 234; Stephens, *supra* note 53, at 88.

[114] *See* Durkee, *supra* note 106, at 14; Durkee, *supra* note 50, at 438; Leach, *supra* note 106, at 61; SCIUTTO, *supra* note 106, at 214–15.

The rules of space *jus ad bellum* should be determined and put in place fast. That could happen more easily under creative, space-specific application of what Monica Hakimi calls the "Regulatory Form" of *jus ad bellum*.[115]

i. Traditional Form

The *jus ad bellum* prohibits the use of force across state borders unless one of the following is present: the consent of the territorial state, the authorization by the U.N. Security Council, or the assertion of individual or collective self-defense.[116] This binary scheme of allowance or prohibition can be called the "traditional form" of the *jus ad bellum*.[117] Whether aversion of humanitarian crises serves as an additional circumstance allowing the exertion of international force under the traditional approach is hotly debated.[118]

The standards of *jus ad bellum* under the traditional scheme often depart from the reality of state practice.[119] Instances of that departure are characterized by many as breaches of the *jus ad bellum*.[120] And yet they are so frequent as to undermine the *jus ad bellum* itself. If many disobey the prohibition, we might ask if there is some different, unwritten rule at work.[121] Enter the *jus ad bellum's* regulatory form.

ii. Regulatory Form

Informal regulation along the contours of the *jus ad bellum* is "best understood as a feature of, not somehow external or opposed to, the *jus ad bellum*. It shapes how the law is defined or applied in concrete settings. And it has that effect by trading on the Security Council's authority. . . . Such regulation can be analogized . . . to common law decisions in equity or by jury nullification."[122]

This regulatory form can look like states asking for retroactive Security Council approval[123] or even just getting Security Council discussion,[124] ideally with a lot of support for the state's position.[125] It draws on the institutional, political-legal authority of the Security Council rather than binary institutional mechanisms and is thus placeable on a scale of legitimacy as pronounced and shaped primarily by the Security Council.[126]

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[115] Monica Hakimi, *The Jus Ad Bellum's Regulatory Form*, 112 AM. J. INT'L L. 151 (2018).
[116] See id.
[117] *Id.* at 152.
[118] See id. at 151–52; Michel Bourbonniè & Ricky J. Lee, Legality of the Deployment of Conventional Weapons in Earth Orbit: Balancing Space Law and the Law of Armed Conflict, 18 EUR. J. INT'L L. 873, 887 (2007); Helal, supra note 111, at 557–58, 611.
[119] *See* Hakimi, *supra* note 115, at 153–54.
[120] *See id.* at 154.
[121] *See id.* at 151–55.
[122] *Id.* at 155.
[123] *See* Hakimi, *supra* note 115, at 155, 176.
[124] *See id.* at 180.
[125] See id.
[126] *See* sources cited *supra* notes 122–25.

This regulatory form directly relates to and can take place under Evolutive Regime Assertion. The problem with the *jus ad bellum* in space is that no one agrees on what it looks like.[127] The more legitimacy is given to the conception of its regulatory form, the easier, in a sense, it will be to establish that agreement, an urgent[128] and difficult (under orthodox, explicit consent mechanisms of international law formation)[129] challenge. This article will not go so far as to sketch what an ideal *jus ad bellum* regime looks like for space, but rather merely urges clarification, which would be easier through the conceptual combination of the regulatory form of *jus ad bellum* and Evolutive Regime Assertion.

3. *Jus in Bello*: The Danger of Illegitimacy

It is necessary to first describe the *jus in bello* or LOAC and then determine if the LOAC applies in space at all. It likely does, but some assert that it may not.[130] This section will next discuss the uncertainty and associated danger of the status quo of *jus in bello* in outer space, including partial decay of the rules-based order from current U.S. satellite policy.

i. The Law of Armed Conflict

The LOAC is comprised of a series of overlapping humanitarian principles that are mandated under international law.[131] They are the *jus in bello*, or rules that regulate conduct during conflict.[132] There are four dominant principles of the LOAC: military necessity, distinction, proportionality, and unnecessary suffering or humanity.[133] This article will briefly mention military necessity and unnecessary suffering, but analysis of their application in space is less technically complex and outside the scope of this study. This article is primarily concerned with distinction and proportionality. An alternative theory of the LOAC's application, advanced by Dakota S. Rudesill, is also offered, and will be highly relevant to the later articulation of Inverse Proportionality (a recommended, novel framework for proportionality analyses under the *jus in bello*). Rudesill argues that "relativity" should be considered in the LOAC.[134]

a. Military Necessity

Military necessity mandates that commanders must be able to "show the connection between the attack . . . and the suppression of the enemy's military capability."[135] The principle of

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[127] *See* WOOMERA MANUAL, *supra* note 46, at 232–33 ("An important issue on which there is insufficient State practice to give a definitive, comprehensive answer is the nature of the legal connection that is required between a space object and a State in order for an action against that space object to amount to a use of force or armed attack against that State."). Conversely, Hitoshi Nasu asserts that the military targeting of a satellite would likely constitute a *jus ad bellum* violation. *See* Nasu, *supra* note 111, at 153–54, 178. Michel Bourbonniè and Ricky J. Lee assert that the "peaceful purposes" principle of the OST asserts *jus ad bellum* norms in outer space. *See* Bourbonniè & Lee, *supra* note 118, at 881. Alternatively, Abdul Rehman Khan argues that the traditional *jus ad bellum* applies in space through OST Article III. *See* Khan, *supra* note 22, at 328–29.

[128] *See* sources cited *supra* note 111.

[129] *See* sources cited *supra* note 114.

[130] *See* Yoo, *supra* note 9, at 154–55, 158, 180–82.

[131] See Robert A. Ramey, Armed Conflict on the Final Frontier: The Law of War in Space, 48 A.F. L. REV. 1, 34–35 (2000).

[132] As opposed to *jus ad bellum*, the rules that regulate resort to armed conflict, discussed above. Some argue that the "law of war" is better conceived as a combination of *jus ad bellum* and *jus in bello*. *See id.* at 33.

[133] *See* Gary D. Solis, The Law of Armed Conflict: International Humanitarian Law in War 209–10 (3d ed. 2022); *infra* note 149 and accompanying text.

[134] Rudesill, *infra* note 151, at 518–20, 531–32, 544.

[135] Ramey, *supra* note 131, at 35.

military necessity is to be balanced against the other three principles of the LOAC.[136] It is a limiting principle within the already-begun conflict, not a principle authorizing or disallowing conflict.[137]

b. Distinction

Distinction requires that commanders distinguish between civilian and military targets.[138] Article 52(2) of the Geneva Convention Additional Protocol I (AP I) requires a commander to be satisfied that the target's "nature, location, purpose, or use" definitively and effectively contributes to the enemy's military action.[139] This definition of distinction constitutes CIL.[140]

c. Proportionality

Proportionality requires that a commander balance the direct military value of an attack against the resultant harm to civilians.[141] Military force that creates more collateral damage to civilians or property that is disproportionate to the military benefit gained is prohibited.[142] Proportionality assessments are prone to subjectivity[143] and are particularly complicated in space,[144] even more so if the force in question involves the kinetic destruction of a satellite, which generates more debris.[145]

An open debate exists over the proper scope of consideration of collateral damage.[146] Consideration of direct damage is a given, but some insist that indirect, or "reverberating" damage, should also be considered, such as the loss of life resulting from an attack on a power grid knocking the power offline at a hospital.[147] Resolution of this scope is key to proportionality analyses in space. Consideration of strictly direct damages from a satellite attack would likely meet the proportionality standard, while the reverberating damage could be terrestrially catastrophic.[148]

d. Unnecessary Suffering or Humanity

Humanity in the LOAC has been an important principle for the prohibition of the use of weapons deemed to cause unnecessary suffering and the execution of enemies who are rendered

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[136] *See id.* at 35–36; SOLIS, *supra* note 133, at 219.
[137] *See supra* note 132 and accompanying text.
[138] *See* Mallon, *supra* note 24, at 327.
[139] Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, art. 52(2), June 8, 1977, 1125 U.N.T.S. 17512 (hereinafter AP I). *See id.*
[140] See id.
[141] *See id.* at 329; SOLIS, *supra* note 133, at 228.
[142] *See* Ramey, *supra* note 131, at 39.
[143] *See id.* at 40.
[144] See WOOMERA MANUAL, supra note 46, at 345; Elizabeth Seebode Waldrop, Integration of Military and Civilian Space Assets: Legal and National Security Implications, 55 A.F. L. REV. 157, 227 (2004).
[145] *See* sources cited *supra* note 24.
[146] *See* Mallon, *supra* note 24, at 329.
[147] Id.
[148] *See* sources cited *supra* note 23; Khan, *supra* note 22, at 334–35, 337–38, 344.

"out of combat."[149] Other taxonomies of the LOAC substitute or supplement humanity or unnecessary suffering with the principle of honor.[150]

e. Relativity

A key feature of the LOAC, and indeed international law generally, is that it binds all parties equally. Some, like Dakota Rudesill, have advanced an alternative theory for LOAC: that it should hold militaries with higher operational standards to higher legal standards,[151] given their increased technological and organizational capacity for compliance not just with LOAC, but its guiding principles.[152] Relativity is concerned both with the reduction of civilian collateral damage and the maintenance of the legitimacy of international law, especially through the actions of militarily dominant powers.[153] A selection from Rudesill's article summarizes and defends the theory better than alternative articulations can:

> In light of . . . LOAC's alignment with our national security interest in avoiding collateral damage, LOAC's deeper significance as a reflection of the moral values and commitments of civilized nations even in the desperate hour of war, and therefore the ultimate "link between the conduct of the forces . . . and the perceived continued legitimacy of the action itself," it is worth considering carefully calls for the United States and other nations with advanced militaries to adhere to a higher standard in complying with LOAC.
>
> As I have explained, there is a duty of care inherent in the law of war, one discernable even in contentious international command responsibility jurisprudence. The roots of negligence-based duty in treaty sources and national practice are clear. Responsibility for the effects of attacks logically varies with control over them, and consequently the scope of unintended effects a reasonable combatant may legally inflict on those whom the law of war protects varies with technological capacity and other circumstances.[154]

Rudesill's argument thus indicates that actors with disproportionately higher wartime capabilities should bear commensurately higher wartime responsibilities. His framework can map

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[149] Ramey, *supra* note 131, at 40–42. This element of the LOAC is not relevant to the present analysis and discussion of Evolutive Regime Assertion, and so is not further discussed. For extended treatment of "unnecessary suffering," *see* SOLIS, *supra* note 133, at 225–28.

[150] *See* General Counsel of the Dep't of Defense, Memorandum for the Heads of the DoD Components (Aug. 6, 2020), https://ogc.osd.mil/Portals/99/Law%20of%20War/Practice%20Documents/DoD%20GC%20Ney%20Aug%206%202020%20memo%20-%20brief%20overview%20of%20the%20law%20of%20war.pdf?ver=Yz2LvulUoSfw6bdcFHOVkA%3D%3D#:~:text=Protecting%20combatants%2C%20noncombatants%2C%20and%20civilians,%E2%80%A2.

[151] See Dakota S. Rudesill, Precision War and Responsibility: Transformational Military Technology and the Duty of Care under the Laws of War, 32 YALE J. INT'L L. 517, 518–19 (2007).

[152] *See id.* at 531–32.

[153] *See id.* at 536–37, 544.

[154] *Id.* at 544 (citations omitted).

cleanly onto the realm of satellite warfare, wherein the U.S. has many more space assets and much more space capabilities than any other country.[155]

ii. Whether the LOAC Applies in Space

The U.S. and most experts conclude the LOAC applies in space.[156] However, the OST does not mention the LOAC specifically.[157] Some argue the LOAC does not apply in space, pointing to the terrestrial origin of the LOAC and practical problems with its application in the space environment.[158] Clarification is urgent. Conflict in space is becoming a more realistic prospect by the day, and both the terrestrial and orbital debris fallout from attacks on satellites could be worse if the rules governing space conflict are left ambiguous.[159]

a. Why the LOAC Probably Applies in Space

The U.S. Department of Defense and most scholars assert that the LOAC applies in space.[160] The Woomera Manual on the International Law of Military Space Operations (Woomera Manual) is the most authoritative source on the subject. The Woomera Manual is:

> the result of a multi-year effort by a group of dedicated participants from across the globe who brought together their expertise in the law and technology related to military space activities and operations. Their objective was to identify, clarify, and succinctly articulate the extant rules of international law that apply to military space activities and operations, to explain the basis for those rules, and to delineate the areas of legal uncertainty that remain.[161]

The Woomera Manual is not binding law but a thorough restatement of the international military laws of space. It states that:

> [s]ince the law of armed conflict is indisputably part of international law, its applicability to outer space can be confirmed by Article III of the Outer Space Treaty (OST), which requires that all activities in the exploration and use of outer space be conducted in accordance with international law. Furthermore, the International Court of Justice has observed that the established principles and rules of the law of armed conflict apply 'to all forms of warfare and to all kinds of weapons, those of the past, those of the present and those of the future'. In addition, the four Geneva Conventions of 1949 explicitly state that they apply 'to all cases

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[155] *2024 Annual Estimate of the Strategic Security Environment: The Space Domain*, U.S. ARMY WAR COLL. (July 24, 2024), https://publications.armywarcollege.edu/News/Display/Article/3849725/2024-annual-estimate-of-the-strategic-security-environment/#:~:text=Since%202018%2C%20China%20has%20more,quest%20to%20conquer%20outer%20space.; Connor Brighton, *Countries by Number of Military Satellites*, WORLDATLAS (Sept. 26, 2024), https://www.worldatlas.com/space/countries-by-number-of-military-satellites.html.

[156] *See* WOOMERA MANUAL, *supra* note 46, at 273; Stephens, *supra* note 53.

[157] *See* OST, *supra* note 4, at art. I.

[158] *See* Yoo, *supra* note 9, at 180–81.

[159] *See* White, *supra* note 9, at 456–57.

[160] *See* WOOMERA MANUAL, *supra* note 46, at 273; Stephens, *supra* note 53.

[161] WOOMERA MANUAL, *supra* note 46, at 1. The WOOMERA MANUAL is a fantastic resource in the field of space law, but it is not without its problems. *See* sources cited *supra* note 111.

> of declared war or any other armed conflict which may arise between two or more of the High Contracting Parties'. Various military manuals and policy statements of States further confirm this broad application of the law of armed conflict to outer space, although some states disagree.[162]

While Article III of the OST, the International Court of Justice, and the Geneva Convention provide strong support for the LOAC's applicability in space,[163] the Woomera Manual carefully notes that "applications of some obligations under the law of armed conflict may be precluded in space when they are specific to a particular domain other than space."[164] Some critics build their argument around a parallel conception: that the terrestrial rules of the LOAC are ill-fitted for space.[165]

b. Why the LOAC Might Not Apply in Space

John Yoo argues that IHL should not apply in space.[166] He notes that the LOAC was made for the terrestrial domain, and that simple exporting of these rules to space makes little sense.[167] Yoo insists that an outer space unhindered by military restrictions would serve to reduce the cost of dispute resolution.[168] Ironically,[169] Yoo's idea has company with the People's Republic of China, which asserts that IHL does not apply in space.[170] China's position advances its lawfare strategy by influencing OST interpretation and CIL to align with its technological capabilities and plans for outer space.[171]

iii. The Asymmetric Problems of Distinction and Proportionality in Space

The U.S. has the most to lose from the continuance of the unclear status quo of the LOAC in space. It professes to uphold the international legal order[172] and benefits from it.[173] The U.S. is the most prominent and powerful actor in space.[174] Clarity about the LOAC would augment the legitimacy of the laws themselves as well as the international, rules-based system, which is an alleged strategic goal of the U.S. and its military.[175] Conversely, a disconnect between the articulation of LOAC and American military practice could harm the legitimacy of international

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[162] WOOMERA MANUAL, *supra* note 46, at 273.
[163] See id.
[164] *Id.* at 275.
[165] *See* Yoo, *supra* note 9.
[166] See id.
[167] *See id.* at 180. For example, while terrestrial attacks can risk immediate civilian collateral damage, direct loss of civilian life will not result from the destruction of satellites since no one occupies them.
[168] *See id.* at 181.
[169] Yoo is a prominent "space hawk," a scholar that advocates for more aggressive militarization of space. *See generally* Yoo, *supra* note 9. Yoo insists the U.S. should not agree to space arms control treaties so that it can better handle Chinese challenges to American space hegemony. *See id.* at 127, 131, 137–38, 158.
[170] Brian Weeden, Testimony before the U.S.-China Economic and Security Review Commission: Hearing on China's Increasingly Global Legal Reach 13 (May 4, 2023).
[171] *See id.*; White, *supra* note 9, at 437–38, 445, 458–66.
[172] *See* U.S. DEP'T OF DEF., *supra* note 88; OFF. OF SPACE COM., *supra* note 83; U.S. Space Force, *Space Force 101*, https://www.spaceforce.mil/About-Us/About-Space.
[173] *See* Bellflower, *supra* note 46, at 110, 116–18, 130; Bowman, *supra* note 107, at 85; Clementine G. Starling et al., *The Future of Security in Space: A Thirty-Year US Strategy*, ATLANTIC COUNCIL STRATEGY PAPERS 45–47 (2021).
[174] *See* Oppenheim, *supra* note 10, at 789; Thompson, *supra* note 10, at 157; Yoo, *supra* note 9, at 131.
[175] *See* sources cited *supra* notes 172–73.

law, especially as the U.S. enjoys its status as the dominant space power, effectively handing lawfare ammunition to the U.S.'s adversaries.[176] The status quo in space tilts the LOAC principles of distinction and proportionality in the U.S.'s favor, discrediting the international legal order and acting against the U.S.'s strategic goals.[177]

a. (Reverse) Distinction

U.S. military policy in space prioritizes military and commercial integration of satellite assets.[178] Dual-use satellites, or those that combine military and civilian functions or ownership (or both), abound in space.[179] This intermingling is problematic. Like parking military jets next to precious archaeological sites or using human shields, such a practice might violate the LOAC principle of distinction.[180]

b. (Dis)Proportionality

The Global Positioning System (GPS) is the most used satellite navigation system in the world.[181] The U.S. Department of Defense operates it.[182] GPS has accounted for the generation of roughly $1.4 trillion since it became publicly available in the 1980s.[183] GPS illustrates how the current space warfighting domain is tilted, making LOAC disproportionately benefit the U.S., which interacts with U.S. satellite policy to harm its strategic objectives.[184] Consider a situation where a GPS satellite is being used for both civilian and military purposes.[185] Such is likely to be the case for the U.S., as its commercial and military space infrastructure is intertwined.[186] Destruction of the dual-use satellite is likely to cause reverberating terrestrial damage, much more so than if a purely military satellite were destroyed.[187] Lurking problems of reverse distinction beget a tilted application of proportionality; as proportionality analyses will usually favor states that intermingle their military and civilian infrastructure, especially if that civilian infrastructure is widely relied upon by multiple parties.[188]

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[176] *See* Bowman, *supra* note 107, at 85; White, *supra* note 9, at 452.
[177] *See* sources cited *supra* notes 172–73, 176.
[178] *See* U.S. DEP'T OF DEF., *supra* notes 93–94.
[179] "[T]he U.S. military . . . relies on dual-use satellites for 80 to 90 percent of its satellite communications needs." Mountin, *supra* note 22, at 105. *See also* Birkeland, *supra* note 22; Georgeson & Stubbs, *supra* note 22; Khan, *supra* note 22, at 321; Maogoto & Freeland, *supra* note 21; Rohrer, *supra* note 22. China also employs dual-use satellites. *See* White, *supra* note 22.
[180] *See* Koplow, *supra* note 95, at 47–49. Dep't of Def. policy on reverse distinction is notable. "[T]he U.S. Department of Defense ("DoD") Law of War Manual states that parties to an armed conflict are obligated 'to take feasible measures to separate physically their own military objectives from the civilian population and other protected persons and objects' . . . but it does not contain an unqualified or categorical prohibition on that type of intermingling." *Id.* at 34–35. This mandate of avoidance is somewhat at odds with the Space Force's official strategy of commercial-military integration (at least if one considers potential reverberating damage to civilians). *See* U.S. Space Force, *supra* notes 93–94.
[181] *See* LYALL & LARSEN, *supra* note 1, at 313–14.
[182] *Id.* at 314.
[183] A. C. O'Connor et al., *Economic Benefits of The Global Positioning System (GPS)*, RTI INTERNATIONAL (June 2019), https://www.rti.org/publication/economic-benefits-global-positioning-system-gps
[184] *See* sources cited *supra* notes 172–73, 176, 181–82.
[185] *See* Khan, *supra* note 22; Maogoto & Freeland, *supra* note 21.
[186] *See* U.S. DEP'T OF DEF., *supra* notes 93–94.
[187] *See* sources cited *supra* notes 19, 23.
[188] *See* Khan, *supra* note 22, at 321.

Application of the LOAC which produces a consistent advantage for the dominant spacefaring state probably will not increase global confidence in international law. It may do the opposite. Such a result would be harmful to the U.S.'s strategic interests and goals, the future of space, and humanity's space operations.[189]

iv. Recommendation for an Operational Change for Distinction to Strengthen International Law and Improve U.S. Relations with Other Countries in Space

a. Distinction

The U.S. could disentangle its commercial and military satellite infrastructure. The problem with this solution is the significant reliance cost already built into a heavily integrated, multi-actor, and multi-sector space architecture, particularly in the U.S. Space Force.[190] But just because something is costly does not mean it is the wrong course of action.[191] When compared with the international legal system that the U.S. depends upon for global security, strategic disentanglement of military and civilian assets should seem cheap.[192] The U.S. could support the international legal system by disentangling these functionalities in its satellite infrastructure.[193] Furthermore, with the world's largest space economy,[194] the U.S. would be poised to outpace its opponents in undertaking such a conversion.

Yet, the separation of commercial and military assets might be infeasible. It could be significantly costly,[195] and the U.S. does not view the responsibility of separating military and civilian objectives as absolute.[196] Alternatively, the U.S. might simply articulate a new standard for distinction in space that allows for significant mixture of military and commercial space assets. The U.S. could increase its international legitimacy here by explicitly endorsing a more limited version of the principle for satellites.[197] It could save face by explicitly endorsing some form of mandate of reverse distinction, urged by some,[198] and by strictly adhering to that standard.

4. Peaceful Purposes: Criticism of the U.S. Space Force's Legality

Critics have assailed both the purpose[199] and international legality of the Space Force,[200] grounding their objections in the "peaceful purposes" clause of OST Article IV. These criticisms are ill-founded, but they are rooted in increasing skepticism of an increasingly militaristic and unilateral U.S. space policy.

i. Why the "Peaceful Purposes" Principle Might Make the Space Force Illegal

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[189] *See* sources cited *supra* notes 172–73, 176, 181–82.
[190] *See* U.S. DEP'T OF DEF., *supra* notes 93–94.
[191] *See* Koplow, *supra* note 95, at 107–08.
[192] See id.
[193] *See* sources cited *supra* notes 170–71.
[194] *See generally* VANCE, *supra* note 59.
[195] *See* Koplow, *supra* note 95, at 28, 70, 75, 85–86, 112.
[196] *See id.* at 34-35.
[197] *See* Koplow, *supra* note 95, at 65, 112. This will be discussed in further detail later in the article. *See infra* Part D (2)(i).
[198] *See generally* Koplow, *supra* note 95, at 65, 112
[199] *See* sources cited *supra* note 12; Yoo, *supra* note 9, at 140.
[200] *See* Hauck, *supra* note 12.

Debate over the meaning of "peaceful purposes" in Article IV of the OST has generally focused on two competing interpretations. Most experts agree that the term allows for military purposes that are not aggressive in character, which has led to extensive military activity in space.[201] State practice also indicates that the OST allows for the military use of space, provided it is "peaceful." [202] However, some assert that peaceful purposes should be interpreted to mean "non-military." This was the early position of the U.S.S.R.[203] and is the current position of some "space dove"[204] scholars.

Legislative history could be interpreted against the Space Force's legality. The initial version of the legislation that proposed the creation of the Space Force indicated that the new branch would maintain an offensive as well as defensive presence in space.[205] Such an official stance would be at odds with the OST's peaceful purposes clause.[206] Additionally, in an April 2019 Senate Committee on Armed Services hearing, Chairman Jim Inhofe opened by stating that "[w]e must restore our margin of dominance in space[.]"[207] The framing of the creation of the Space Force in such aggressive terms could violate a non-military, and one could even argue a "non-aggressive," interpretation of peaceful purposes in the OST.[208]

The Space Force's problematic commingling of civilian and military space infrastructure is another major issue.[209] Such a practice may violate IHL if such laws apply in space.[210]

ii. Why the "Peaceful Purposes" Principle Very Likely Does Not Make the Space Force Illegal

A large amount of evidence suggests that the non-aggressive interpretation of peaceful purposes is more correct than the non-military interpretation. Since the ratification of the OST, the U.S. has insisted that peaceful should be interpreted as non-aggressive instead of non-military.[211] The U.S. drew support for this position from the U.N. Charter's definition of "peace," which permitted lawful military action so long as it was non-aggressive under Article 2(4).[212] While the U.S.S.R. initially asserted a non-military interpretation of peaceful purposes, its "official line eventually softened as its military satellite programs came into their own, such that it can be said that the Soviets, at least, acquiesced to the United States interpretation."[213]

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[201] *See* sources cited *supra* note 67.
[202] *See* sources cited *supra* note 67.
[203] *See* Petras, *supra* note 67.
[204] "Space doves" here refers to scholars who insist that a function of international space law is or should be prevention of militarization. Ram S. Jakhu is one example, *see generally* Ram S. Jakhu et al., *Threats to Peaceful Purposes of Outer Space: Politics and Law*, 18:1 ASTROPOLITICS 22–50 (2020). John Yoo and others (especially military theorists) comprise the opposite camp of "space hawks," who insist that space militarization is inevitable, necessary, or even preferable. *See generally* Yoo, *supra* note 169 and accompanying text.
[205] *See* Hauck, *supra* note 12, at 144.
[206] OST, *supra* note 4, at art. IV.
[207] Hearing to Receive Testimony on the Proposal to Establish a United States Space Force Before the S. Comm. On Armed Serv., 116th Cong. (2019) (statement of James M. Inhofe, Chairman, S. Comm. On Armed Serv.).
[208] OST, *supra* note 4, at art. IV.
[209] *See* sources cited *supra* notes 93–95.
[210] A reminder: the U.S. DoD insists that the LOAC applies in space. *See* Stephens, *supra* note 53, at 90.
[211] *See* Petras, *supra* note 67, at 169.
[212] *See* Petras, *supra* note 67, at 170.
[213] *Id.* at 171.

No state has ever formally challenged any other state over interpretations of peaceful purposes in space.[214] Some parties to the OST maintained a military presence in space before and after ratification, indicating understanding that military activity in space would not be prohibited.[215] The overwhelming state practice of maintaining a military presence in space also indicates that spacefaring states interpret peaceful purposes as meaning non-aggressive rather than non-military.[216]

With this heap of evidence arrayed against the non-military interpretation of peaceful purposes, critiques of the legality of the creation of the Space Force that are grounded in that clause ring hollow.[217] Yet critics are right to point out that increasing militarism and unilateral destabilizing action in space is inconsistent with the principles of the OST.[218] In this way, the U.S. might be pushing against the boundaries of international space law.

iii. U.S. Space Policy is Diverging from the Purpose of the OST

U.S. space policy is increasingly unilateral and militaristic.[219] While the Space Force may not violate international law, its creation is symbolic of a trend in those directions. The OST was drafted to prevent conflict in outer space.[220] Increasingly, the U.S., as the global leader in space, is veering away from that principle.[221] Commingling military and civilian infrastructure in potential violation of the LOAC is an instance of this behavior.[222] So is the CSLCA and an array of strategic policy documents that explicitly state such views.[223]

The U.S.'s divergence between its national space policies and the purpose of the OST is a problem. Space is open for business,[224] and it is not clear what law will govern it, especially in conflict.[225] The stakes of the problem are immense. Failing to clarify space law could result in

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[214] See id.
[215] *See* Stephens, *supra* note 53, at 81.
[216] *See* Bellflower, *supra* note 46, at 129; Giannoni-Crystal, *supra* note 9, at 711; Mountin, *supra* note 22, at 151; Stephens, *supra* note 53, at 89; White, *supra* note 9, at 461.
[217] *See* sources cited *supra* notes 211–13.
[218] *See* Hauck, *supra* note 12, at 146–47.
[219] *See* Hauck, *supra* note 12, at 154–59; Dep't of Def., *supra* notes 79–81; Trump, *supra* note 102; 116th Cong., *supra* note 207; sources cited *supra* note 12.
[220] *See* sources cited *supra* notes 1–2.
[221] *See* sources cited *supra* notes 107, 219.
[222] *See* sources cited *supra* notes 93–95.
[223] *See* sources cited *supra* note 219.
[224] Experts predict that the commercial space industry will be a trillion-dollar economy in a few decades. *See* Callif, *supra* note 74, at 296; Durkee, *supra* note 50, at 425; Steven Wood, *Some Forward Thinking Foundations Underpinning the Promethean Task of Planning Strategic Best Practices for Ownership, Licensing, and Enforcement of Patents in Outer Space, Launch, and Re-Entry*, 59 LES NOUVELLES 35, 35 (2024).
[225] *See generally* Scott J. Shackelford, *Governing the Final Frontier: A Polycentric Approach to Managing Space Weaponization and Debris*, 51 AM. BUS. L.J. 429 (2014). A polycentric regime complex, in transition away from a "global commons" regime, is a useful lens for understanding the complicated landscape of current space law as a "multilevel, multipurpose, multitype, and multisectoral" overlay of rules that sometimes conflict with each other specifically and/or normatively. *See id.* at 432–34. Shackelford's articulation of the polycentric regime complex shares similarities with Evolutive Regime Assertion, or the rules that could form under it.

significant amounts of suffering and death[226] or losing opportunities to resolve existential problems like climate change or terrestrial asteroid collisions.[227] Legal or not, the U.S. Space Force could come to represent either an increasingly unilateral and militaristic U.S. policy in space in defiance of international law or a force for the defense and improvement of an international legal system that prioritizes the well-being of all humanity. The former potentiality is rendered more likely through current U.S. space policies relating to satellite infrastructure under the *jus in bello*, and the uncertain and dangerous geopolitical context in which the U.S. formulated these policies is reified by continued uncertainty in the *jus ad bellum* for conflict in space.

The U.S. can implement new policies and changes to strengthen international law, and one operational recommendation has been made for the *jus in bello* distinction principle. However, the U.S. could take an alternative or supplemental approach that would address all three problem areas as well as the fundamental nature of the space law regime from which the problems emerged in the first place. The U.S. could posit a vision for a legal-military regime for outer space that is better suited for that domain for a host of reasons, which accommodates disparate goals, interests, and incentives for a wide variety of space actors, and which allows easier implementation of novel, effective solutions to major legal problems in space. Such a vision has already been partially realized; it may just need an extra push to achieve liftoff.

C. EVOLUTIVE REGIME ASSERTION: THEORY, ELEMENTS, AND JUSTIFICATIONS

Evolutive Regime Assertion is a market-driven approach to the establishment, development, and temporary maintenance of international law relating to military activities in outer space. It draws on space law scholarship that recognizes that the unique environment and problems of space operations require institutional innovation within a framework of swift idea generation and testing, and organic incentive structures, or both.[228] Emergent rules will, at times, overlap and conflict, but perhaps less so than is already occurring in space.[229] Evolutive Regime

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[226] "Any sort of coordinated [anti-satellite] attack on cellular communications satellites would likely shut down emergency services . . . and lead to a loss of life." Onley, *supra* note 16, at 759. "[E]mergency services—without the access to GPS—may arrive late to a time sensitive life-or-death situation and result in an individual's death." La Bella, *supra* note 23, at 751 (brackets in original). *See* Koplow, *supra* note 16, at 1245; Oppenheim, *supra* note 10.

[227] A typical one-kilometer-sized asteroid could contain around ten million tons of cobalt. TRONCHETTI, *supra* note 5, at 211. Cobalt is crucial for electric car batteries, which are needed for a transition away from fossil fuel reliance. *See* Shriya Yarlagadda, *Economics of the Stars: The Future of Asteroid Mining and the Global Economy*, HARV. INT'L REV. (2022). Planetary defense infrastructure to preempt potential asteroid collisions with Earth also requires further development. *See generally* Liu, *supra* note 67.

[228] This scholarship has mostly focused on property rights in space and OST Articles I and II. This article argues that the problems of ambiguity for the laws of military operations in space (a legal domain in its infancy) are so similar to the ones faced in the property context that using similar methodological constructions is appropriate. *See generally* Tyler Burdon, *The Final Frontier: A Look at Private Mining Rights in Space*, 24 HOUS. BUS. & TAX L. J. 167 (2024); Alexander William Salter, *Ordering the Cosmos: Private Law and Celestial Property Rights*, 82 J. AIR L. & COM. 311 (2017); Shackelford, *supra* note 225; Leslie I. Tennen, *Enterprise Rights and the Legal Regime for Exploitation of Outer Space Resources*, 47 U. PAC. L. REV. 281 (2016); Elliot T. Tracz, *Markets, Regulation, and Inevitability: The Case for Property Rights in Outer Space*, 30 U. MIA. INT'L & COMP. L. REV. 42 (2023).

[229] *See* Shackelford, *supra* note 225, at 432–34.

Assertion incentivizes the emergence of mechanisms that allow for more optimal development of the international structure of the military law of outer space.[230]

Evolutive Regime Assertion both departs from some aspects and synthesizes other aspects of the work of similarly minded scholars in its elements, particularly in its theoretical foundation of market efficiency.[231] It incorporates the normative position that it should be implemented under and in support of the OST, not as a replacement to it.[232] Evolutive Regime Assertion modifies the traditional rule-formation mechanisms of CIL *in toto* and treaty law as one valid consideration of general interpretation, with an eye to the OST.[233]

The elements of Evolutive Regime Assertion are (1) lowered time required for international law formation, (2) diffused authority of rulemaking parties, (3) a rebuttable reconciliation of disparate legal assertions of parties, (4) lowered evidentiary standards for the formation of international law, (5) set to expire at some point in the future, and (6) geographic restriction to outer space.

Five justifications for the framework will be proffered. They are grounded in (1) the relatively small amount of current space-capable parties, (2) the assertions of non-space-capable parties, (3) the rapid evolution of technology that characterizes the military space domain, (4) the unique physical characteristics and stakes of space, and (5) the fact that international law in space already somewhat resembles Evolutive Regime Assertion.

1. Theory

Theories of international law span multiple foundations. Positivist international law scholars emphasize law as explicit agreement, including treaties, customs, and consent.[234] Realists

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[230] *See* Michael Abramowicz, *The Law-and-Markets Movement*, 49 AM. U. L. REV. 327, 329–30, 333–34 (1999); Burdon, *supra* note 228, at 182–83; Brett Frischmann, *A Dynamic Institutional Theory of International Law*, 51 BUFF. L. REV. 679, 683 (2003); Tennen, *supra* note 228, at 299.

[231] *See* sources cited *supra* note 228; *see also* sources cited *supra* note 230.

[232] An international instrument that kept the peace in space for almost six decades is, in this case, worthy of maintenance. *See* OST, *supra* note 4; Aganaba, *infra* note 337, at 433; Durkee, *supra* note 50, at 452; Jeremy Grunert, *The "Peaceful Use" of Outer Space?*, WAR ON THE ROCKS (June 22, 2021), https://warontherocks.com/2021/06/outer-space-the-peaceful-use-of-a-warfighting-domain/ [https://perma.cc/H4K8-5E8C].

[233] Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331, Article 31 (3)(b) [hereinafter VCLT]. (3)(b) suggests that the validity of consideration of subsequent practice for treaty meaning requires that it reflect agreement between the parties to the treaty. Many, but certainly not all, parties to the OST essentially follow the U.S.'s interpretations, especially regarding the commercialization of space. *See* NASA, The Artemis Accords: Principles for Cooperation in The Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes, National Aeronautics and Space Agency (Oct. 13, 2020), https://www.nasa.gov/wp-content/uploads/2022/11/Artemis-Accords-signed-13Oct2020.pdf?emrc=681963c0e21a0; Morgan M. DePagter, *"Who Dares, Wins:" How Property Rights in Space Could be Dictated by the Countries Willing to Make the First Move*, 1 CHI. J. INT'L. L. ONLINE, no. 2, 2022, at 116, 118; Durkee, *supra* note 50, at 460–63; Durkee, *supra* note 106, at 17–20.

[234] See generally Devika Hovell, The Elements of International Legal Positivism, 75 CURRENT LEGAL PROBS. 71 (2022); Hee Eun Lee & Seokwoo Lee, Positivism in International Law: State Sovereignty, Self-Determination, and Alternate Perspectives, 16 ASIAN Y.B. OF INT'L L. 1 (2010). See Blount, supra note 111, at 107.

focus on power dynamics and self-interest over normative values.[235] Constructivists advance a vision of law as fundamentally comprised of shared norms, values, and social constructs.[236] Law-and-economics acolytes cleave to cost-benefit-analyses methods of analysis and are concerned with international law's facilitation or obstruction of efficiency and "optimal" economic outcomes.[237]

I leave the categorization of Evolutive Regime Assertion to the reader, but my thoughts on its grounding veer into realist and law-and-economics frameworks. The idea is that the regime would facilitate more rapid development of rules for military operations in space and thus establish certainty and safety faster than the traditional international law paradigm. The rules would emerge from the parties closest to the information[238] in a physically unique domain, totally unlike all other areas of human activity.[239] It places weight on the tendency of states to act in their self-interest, which[240] may tend to favor the U.S. given its dominant position in space, though this need not necessarily be the case.

Evolutive Regime Assertion would apply from the ground up, underpinning the fundamental standards for international law formation, evolution, and maintenance of international military rules in outer space. When the regimes come into conflict, it could be seen as *lex specialis*, the international legal floor for outer space, only overriding the broader *lex generalis*, such as conflicting treaty practice or non-*jus cogens*[241] customary international law.[242] Evolutive Regime Assertion would apply both to the development of CIL as well as the general interpretation of treaties under the Vienna Convention on the Law of Treaties.[243]

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[235] *See generally* Oliver Jütersonke, *Realist Approaches to International Law* in ANNE ORFORD & FLORIAN HOFFMANN (EDS.), THE OXFORD HANDBOOK OF THE THEORY OF INTERNATIONAL LAW 327 (2016); Stephen D. Krasner, *Realist Views of International Law*, 96 PROC. OF THE ANN. MEETING 265 (2002).

[236] *See generally* Jutta Brunnée & Stephen J. Toope, *Constructivism and International Law*, *in* INTERDISCIPLINARY PERSPECTIVES ON INTERNATIONAL LAW AND INTERNATIONAL RELATIONS: THE STATE OF THE ART 119–145 (Jeffrey L. Dunoff & Mark A. Pollack eds., 2013).

[237] Andrew Guzman & Alan O'Neil Sykes, *Economics of International Law*, *in* THE OXFORD HANDBOOK OF LAW AND ECONOMICS: VOLUME 3: PUBLIC LAW AND LEGAL INSTITUTIONS 439 (Frabcesco Parisi ed., 2017).

[238] *See* Burdon, *supra* note 228, at 182.

[239] *See* Tennen, *supra* note 228, at 281–82.

[240] *See* Bowman, *supra* note 107; Hauck, *supra* note 12, at 146; Shackelford, *supra* note 225, at 511; White, *supra* note 9, at 438; Sources cited *supra* note 10.

[241] "A *jus cogens* rule of international law is a peremptory norm from which no derogation is possible." CURTIS DOEBBLER, DICTIONARY OF PUBLIC INTERNATIONAL LAW 344 (2018).

[242] *See* Shackelford, *supra* note 229.

[243] *See* sources cited *supra* note 233.

2. Elements

Opinio juris and state practice determine CIL.[244] Treaty meaning can, under certain circumstances, be influenced by the subsequent behavior of states.[245] The elements of Evolutive Regime Assertion would lower the bar for rule formation to occur under these mechanisms. Law would form with less of any of them, less time for rule formation, fewer examples of state practice and *opinio juris*, less breadth of practice amongst actors, and inclusion and elevation of non-state party action. In this way, certain rules can emerge faster and hopefully with increased clarity,[246] which is an urgent need in space.[247]

The "lowering of the bar" for rule formation encompasses at least four mechanisms: (1) the time required for rule crystallization, (2) the relative, formative weights of actor interpretations of the rule based on their classification as a state and/or their capabilities for action, (3) persistent objectors, and (4) the substance or aggregate meaning of the rule, as gleaned from the quality and quantity of evidence of practice. The final two elements are restrictions on Evolutive Regime Assertion that mark its boundaries: (5) set to expire at a set time in the future and (6) geographically limited to outer space.

i. Shortened Time for Rule Formation

The first element of Evolutive Regime Assertion is the reduction of time required for the crystallization of new international law. It is important to note that some version of this might already exist in international law in the form of "instant" or accelerated custom. Rapid development of custom has historically characterized much of the international law of outer space.[248]

The shortened time for rule formation would accelerate the development of the international military law of outer space, a field in dire need of clarity.

ii. Diffused Formative Authority

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[244] The elements of *opinio juris* "are expressly stated in article 38, paragraph 1, subparagraph b, of the Statute of the International Court of Justice and have been widely accepted by international bodies . . . Evidence of *opinio juris* might include diplomatic pronouncements, votes, or other such expression of views by states…It is important that the expression of *opinio juris* be directed toward an act and concern a sense of legal obligation for it to contribute to forming customary international law." DOEBBLER, *supra* note 241, at 405–06 (bold emphases omitted).
State practice is constituted by "the actual actions or omissions of states. Article 38, paragraph 1, subparagraph b, of the Statute of the International Court of Justice states that the practice relevant to establishing customary international law is that which is general and accepted as law…the word 'general' [ ] is of importance. It indicates that general, or widespread, practice—not isolated practice—is important. Determining what constitutes state practice usually requires examining historical records that indicate how states act . . . State practice should be uniform, although this does not mean that no state can act otherwise." *Id.* at 494–95. *See also* Durkee, *supra* note 50, at 435–36.

[245] *See* WOOMERA MANUAL, *supra* note 46, at 54; Giannoni-Crystal, *supra* note 9, at 712–13. The U.S. has sought to utilize this mechanism through the Artemis Accords, with which it intends to create subsequent practice for the legitimacy of private property rights in outer space resources under Article II of the OST. *See* BYERS & BOLEY, *supra* note 24, at 131–32, 138, 150.

[246] "Clarity" here is as opposed to the messiness of a polycentric regime complex, which would, however, resemble the early phases of Evolutive Regime Assertion. *See* Shackelford, *supra* note 229.

[247] *See* sources cited *supra* note 111 and text accompanying (only the first paragraph).

[248] *See* SHARF, *infra* note 259, at 127–38.

This element would give equal weight to all actors in the formation of international rules. This would apply both internally and externally for states. States with less capacity and power, but with enough to act in space, would be vested with equal formative power to those with higher capacity for action in space. This could address some of the concerns of minor space powers or non-spacefaring powers who see the current space law regime as inherently unequal, shaped just by the U.S. and other major space players. However, it would also give the rulemaking authority to those capable of conducting space operations already, perhaps tilting the playing field even more towards those major players.

Private parties would also benefit from Evolutive Regime Assertion and could enjoy similar weights as their governments under the element of diffused formative authority with the important caveat that this would happen through attribution of state conduct under Article VI of the OST.[249]

In the traditional international legal order, states are the primary agents vested with rulemaking authority.[250] Actors subordinate to states can shape international law too, but in limited ways, and through the state apparatus.[251] This concept is called "attribution."[252] Attribution normally requires that the "act or omission" be "carried out or ordered by a person representing a state."[253] Private entity action can sometimes be attributed to the state for the purposes of international law if the government authorized the action.[254] Article VI of the OST modifies this baseline significantly, stating that "States Parties to the Treaty shall bear international responsibility for national activities in outer space…whether such activities are carried on by governmental agencies or by non-governmental entities[.]"[255]

This element of Evolutive Regime Assertion would advance the same principle, already present in and binding under the OST: private entities get a say, too, as long as their respective governments do not rebuke them. This would put rule development into the hands of those closest to the relevant information, allowing for swift emergence of circumstantially tailored rules.[256] While the vesting of such military-legal power in corporations could be seen as highly problematic,[257] the principle of private attributed lawmaking addresses the phenomenon already

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[249] *See* OST, *supra* note 4, at art. VI; Durkee, *supra* note 50, at 449–50; Philip De Man, *Interpreting the UN Space Treaties as the Basis for a Sustainable Regime of Space Resource Exploitation*, *in* THE SPACE TREATIES AT CROSSROADS 23 (George D. Kyriakopoulos & Maria Manoli eds., 2019).

[250] *See* Helal, *supra* note 111, at 561–63.

[251] *See* DOEBBLER, *supra* note 241, at 94.

[252] "Attribution refers to a situation where an act committed by an entity can be considered the action of the state under international law." DOEBBLER, *supra* note 241, at 93 (emphasis omitted).

[253] DOEBBLER, *supra* note 241, at 94.

[254] See id.

[255] OST, *supra* note 4, at art. VI.

[256] *See* F.A. Hayek, *The Use of Knowledge in Society*, 1 N.Y.U. J.L. & LIBERTY 5, 5–16 (2005). *See also* Abramowicz, *supra* note 230, at 329–30; Salter, *supra* note 228, at 322–24, 327–30; Whittemore, *infra* note 334, at 612.

[257] For example, corporate power to influence law raises serious questions of democratic legitimacy and sovereignty. Melissa Durkee elaborates: "Business contributions to international custom formation suggest that custom formation could suffer even greater legitimacy deficits than the standard critiques of custom recognize. In the case of attributed state practice, custom may potentially only derivatively reflect the intentions of nation-states,

reflected in the reality of space operations: private actors are integrated into the whole spectrum of military operations in space.[258] Diffused formative authority would allow clearer rules to emerge faster, ameliorating some problems associated with this commercial-military integration.

iii. Rebuttable Assumption of Reconciliation Among Persistent Objectors

The strength of traditional CIL can be inhibited by persistent objectors, or states that consistently object to the principles crystallizing into international law.[259] The element of rebuttable assumption of reconciliation would counsel that such objections be read as closely as possible to facilitate a relevant rule's formation and binding status upon those parties. It would also lower the bar for acquiescence. This would make it harder for those without capacity of action to resist the development of rules, which would not directly affect them anyway, for the sake of international legal clarity.[260]

However, a clear objection to a forming international rule, characterized as such by any reasonable person, would still place the objecting state in the traditional category of persistent objector. The objecting state would thus not be bound by the rule unless it ceased its objection. This is the "rebuttable" component of the rebuttable presumption of reconciliation and would serve to demarcate the boundaries of sovereign consent within Evolutive Regime Assertion and temper the framework's otherwise overriding force.

iv. Laxer Evidentiary Standard for Determining a Rule's Substance

Evolutive Regime Assertion would function as an accelerator for the development and crystallization of international military space law. In concert with the preceding elements, a laxer evidentiary standard for determining an international law would let the regime fulfill its function. Simply put, this element means that the quality, quantity, and type of evidence requirements for the development of international law would be lessened.

This element would make Evolutive Regime Assertion an overarching determinant of international military law in space, lowering the standards for the formation of rules under both CIL and treaty law. Ambiguous provisions of the OST could be vested with binding meaning faster, and CIL could emerge faster to fill holes not covered under the OST or another treaty. For CIL, this would mean the lowering of evidentiary certainty for both *opinio juris* and state practice, both as described by the Statute of the International Court of Justice.[261] For treaty law, this would

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and instead elevate private legal interpretations to the status of law. This may be particularly worrisome to those who fear that the structurally amoral nature of corporate governance may result in corporate behavior that sacrifices public goods for the sake of profit margins." Durkee, *supra* note 50, at 477–78. *See also id.*, at 476–78.

[258] *See* sources cited *supra* note 17.

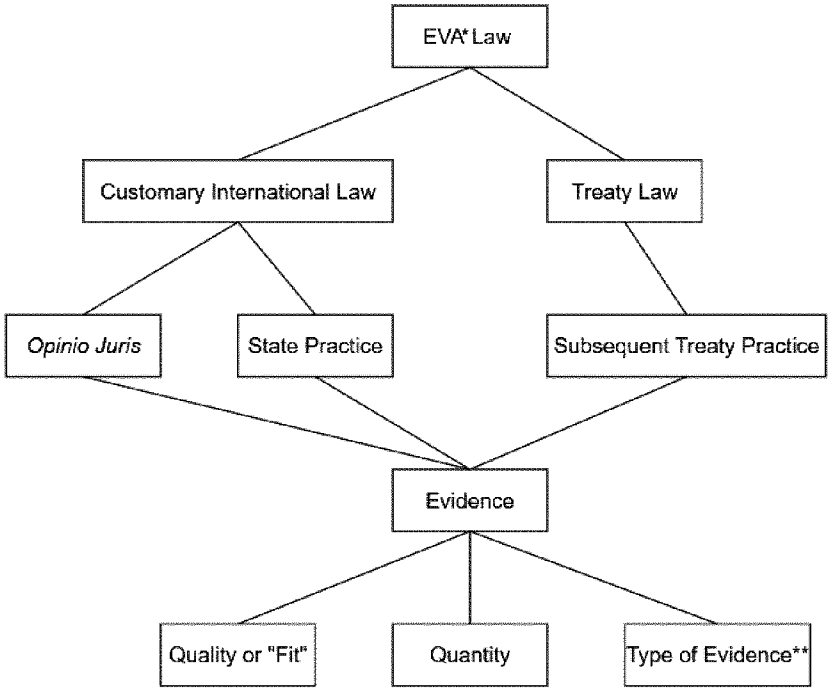
[259] *See* Michael P. Sharf, Customary International Law in Times of Fundamental Change: Recognizing Grotian Moments 30 (2013).

[260] Normative critiques of this principle are certain to emerge. Those critiques would likely echo contemporary critiques that highlight the inequity amongst states associated regarding the development of international space law. *See* Haris A. Durrani, *Interpreting 'Space Resources Obtained': Historical and Postcolonial Interventions in the Law of Commercial Space Mining*, 57 COLUM. J. TRANSNAT'L L. 403, 443–50, 456–59 (2019); Hauck, *supra* note 12, at 146–47; ODUNTAN, *infra* note 267, at 34–35, 184–85, 318. For historical inequitable space rulemaking authority among states, *see* SHARF, *supra* note 259, at 128, 134–35.

[261] *See* DOEBBLER, *supra* note 244.

mean the lowering of evidentiary certainty for the "subsequent practice" element of general treaty interpretation under the Vienna Convention on the Law of Treaties.[262]

The weight of the evidence for rule formation under both mechanisms, of CIL and treaty law, can be analyzed based on three categories: (1) the quality or "fit" of the evidence, (2) the quantity of the evidence, and (3) the type of evidence. These are the standards that this element of Evolutive Regime Assertion would alter. Please refer to Figure 1 below for an illustration of this element of Evolutive Regime Assertion as needed.



* = Evolutive Regime Assertion
** = The type of evidence determines whether it is considered as constitutive of *opinio juris* or state practice under article 38, paragraph 1, subparagraph b of the Statute of the International Court of Justice or as subsequent treaty practice under article 31 (3) (a) of the Vienna Convention on the Law of Treaties.

Figure 1: Evolutive Regime Assertion Element Four, Illustration of the Evidentiary Standard for Determining a Rule's Substance

Quality or "Fit": for an illustration of this variable, consider a hypothetical international military space law: A State may not combine commercial and military functions in a single orbital satellite. A piece of evidence for the formation of that rule could be a U.S. law. It could read: In accordance with our obligations under international law, no single U.S. orbital satellite may combine both commercial and military functions. As evidence of the international law, this statute would have high quality or fit. It is nearly a restatement of the rule.

[262] *See* sources cited *supra* note 233.

An example of evidence with lower quality or fit could be a Chinese statute reading: It is not the policy of the People's Republic of China to commingle commercial and military space assets. Military satellite operators are to endeavor to separate these functions to a reasonable extent. This statute does not fit nearly as neatly and seems to reserve some discretion relating to the entanglement of commercial and military satellite operations. Under the evidentiary standard modification of this element of Evolutive Regime Assertion, this second statute would also serve to form a rule of commercial-military satellite distinction.[263]

Quantity: this variable is much simpler than quality. A single military memorandum stating a position might not bear much weight for the formation of an international law. A statute, executive proclamations, mountains of official memoranda, and consistent state practice would probably have great weight. The lowered evidentiary requirement element of Evolutive Regime Assertion would counsel us to check our instinct regarding the amount of evidence, requiring less for rule formation to occur. Drawing a precise line here would be tricky but possible with continued practice of Evolutive Regime Assertion.[264]

Type: the type of evidence is perhaps the trickiest variable to assert a lower evidentiary standard for. The type of evidence already considerable as evidence of *opinio juris*, state practice, or treaty practice is already somewhat broad, particularly for the two CIL elements.[265] Wherever the line of appropriate evidence "types" is,[266] it would move toward laxity. Maybe an informal conversation between military officers, stating their stances on legal obligations relating to satellite warfare, could count as evidence worthy of consideration for rule formation under this lowered evidentiary standard. The contours would be worked out through practice.

v. Temporally Bounded / Sunsetting

The Evolutive Regime Assertion framework in its entirety would have an expiration date. Sensitive to the possibility of increasing dominance by powerful actors, the regime should function as a law-creation accelerator, not a tool for entrenchment of the powers that be. Definitive articulation of the length of time for expiration and reversion to the traditional paradigm of international law formation requires extensive consideration and is beyond the scope of the present article, which just means to offer Evolutive Regime Assertion in theory. My intuition suggests that the proper temporal bounds of the regime would be a matter of decades, rather than years or centuries.

vi. Geographic Limitation to Outer Space

It is crucial that Evolutive Regime Assertion be firmly restricted to the space domain and not be allowed to apply terrestrially in any sense. The actual lines here might be tricky to draw,

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[263] Which way would the rule trend, towards the U.S. interpretation or the Chinese one? This uncertainty would be worked out under the first and second elements of Evolutive Regime Assertion. The first country's interpretation might have greater weight by occurring earlier in the rule-forming process, depending on how much time had passed between the enactment of the two states' statutes. Either state interpretation might have greater weight through the support of more actors reifying or reiterating them through their own statements or actions in space.

[264] *See* Shackelford, *supra* note 225, at 503–05.

[265] *See* DOEBBLER, *supra* note 241, at 406, 495.

[266] See id.

both in terms of demarcation[267] and substance, but such limitation is necessary for the feasibility of the regime. I highly doubt that any state, besides the most powerful one(s), would agree to anything remotely close to Evolutive Regime Assertion if it bled into application on Earth, given realist concerns that the element of diffused formative authority would fall out, yielding to external pressures as the hegemon pursued international legal dominance.[268]

3. Justifications

Evolutive Regime Assertion changes the traditional rules of international law formation for CIL and for the supplemental interpretation of treaties when their terms are ambiguous. Such a large alteration of the status quo international law paradigm requires strong justifications, as the cost of overcoming path dependence[269] may be substantial. Additionally, there are normative concerns and piggybacking realist concerns associated with a departure from basic rules of international law. The modern international legal order treats all states equally (in theory);[270] sovereignty means you get a seat at the table.[271] While Evolutive Regime Assertion theoretically reifies and enhances this principle through diffused rulemaking authority, it would also functionally give certain parties more say, even if only temporarily, in order to overcome the free-rider problems hindering current space law development.[272] This unequally distributive mechanism might mean an upset of the (somewhat) agreed-upon post-WWII structure of international law, which could threaten the integrity of the system in the eyes of potentially newly disadvantaged actors.[273]

Both criticisms, of path dependence costs and structural challenges, are best answered by focusing on the elements that weigh in favor of Evolutive Regime Assertion. These are 1) the small number of current space-capable actors, 2) the assertions of non-space-capable actors, 3) the rapid technological change that characterizes the military domain of space, 4) the unique physical characteristics and stakes of space, and 5) the fact that something like Evolutive Regime Assertion is already occurring.

i. Small Number of Space-capable Actors

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[267] There is no widely agreed upon line of demarcation between terrestrial airspace and outer space as a matter of law. *See* LYALL & LARSEN, *supra* note 1, at 147; A. GBENGA ODUNTAN, SOVEREIGNTY AND JURISDICTION IN THE AIRSPACE AND OUTER SPACE: LEGAL CRITERIA FOR SPATIAL DELIMITATION 19–20, 283 (2012); Dean N. Reinhardt, *The Vertical Limit of State Sovereignty*, 72 J. AIR L. & COM. 65, 66 (2007).

[268] *See* ODUNTAN, *supra* note 267, at 184–85.

[269] "Path dependence is the dependence of economic outcomes on the path of previous outcomes, rather than simply on current conditions…Choices made on the basis of transitory conditions can persist long after those conditions change." Douglas Puffert, *Path Dependence*, in *EH.Net Encyclopedia*, ECON. HIST. ASS'N. (Robert Whaples ed., Feb. 10, 2008), https://eh.net/encyclopedia/path-dependence/.

[270] *See generally* Benedict Kingsbury, *Sovereignty and Inequality*, 9 EUR. J. INT'L L. 599 (1998).

[271] *See* Helal, *supra* note 250.

[272] Evolutive Regime Assertion should be temporary to minimize the dangers of over-centralization of rulemaking authority. *See supra* Part C, Section 2(v).

[273] *See generally* Kingsbury, *supra* note 270.

The number of spacefaring states is increasing,[273] as are the ASAT military capabilities of spacefaring nations.[274] Yet the legal-military domain of outer space remains overwhelmingly dominated by the major spacefaring powers,[275] particularly the U.S.[276] "Space capable" here means those states that have the ability to rapidly develop broad military uses of space, a label that clearly at least applies to the U.S. but may also apply to China and Russia.[277]

These states likely perceive themselves as vulnerable in the space environment, which may be part of why diplomacy about space policy has been so effective,[278] even when diplomatic communications with countries in other areas come under strain or cease.[279] Modern militaries rely upon space for basic functionalities such as intelligence, reconnaissance, and communications.[280] The urgent need for clear international military laws in outer space is thus overwhelmingly felt by these space-capable states.

Conversely, non-space-capable states have less stake in the development of such rules, though may be concerned about some externalities such as space debris generation. But that cannot be a reason to abandon the pursuit of clear international military space law. Conflict in space would worsen life for all modern society, perhaps irrevocably.[281] Evolutive Regime Assertion would grant disproportionate rulemaking authority to spacefaring actors precisely because the problem and solutions lie with them, since they are currently operating in and reliant upon space.

ii. Non-space-capable Stakeholder Assertions

Evolutive Regime Assertion would let those who are playing the game make the rules, which does give more power to those playing the game but addresses the concerns of non-players by incentivizing them to begin playing. The power players, or space-capable states, being the ones most affected by the rules and most affected by losing the game, are incentivized to clarify the rules in a way that prevents the loss, which is a shared objective.[282] The non-players, or non-space-capable states, would have a clear path forward if rulemaking is important to them: develop space capabilities.

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[273] See Philip De Man, State Practice, Domestic Legislation And The Interpretation of Fundamental Principles of International Space Law, 42 SPACE POL'Y 92, 92 (2017); LYALL & LARSEN, supra note 1, at 172; White, supra note 9, at 453. See generally European Space Policy Institute, ESPI REPORT 79 – EMERGING SPACEFARING NATIONS – EXECUTIVE SUMMARY (2021).

[274] *See* Koplow, *supra* note 16, at 1200–01; Koplow, *supra* note 46; Thompson, *supra* note 10, at 161–62; Rohrer, *supra* note 18, at 193–94.

[275] *See* BYERS & BOLEY, *supra* note 24, at 156; LYALL & LARSEN, *supra* note 1, at 172, 194–95, 426; Larsen, *supra* note 25, at 34–35, 37–38; W. Spencer Haywood, *Commercial Space Mining within the Framework of the Outer Space Treaty: Vexing Issue or Simple Solution?*, 62 U. LOUISVILLE L. REV. 813 (2024); White, *supra* note 9, at 436–37; sources cited *infra* note 277.

[276] *See* Bowman, *supra* note 107; Callif, *supra* note 74, at 340–43; Oppenheim, *supra* note 10; Thompson, *supra* note 10; White, *supra* note 9, at 438; VANCE, *supra* note 59, at 129; Yoo, *supra* note 9, at 131.

[277] *See supra* notes 276–77.

[278] *See* BYERS & BOLEY, *supra* note 24, at 138, 185.

[279] *See id.* at 185.

[280] *See* sources cited *supra* note 17.

[281] *See* sources cited *supra* notes 23–24.

[282] For example, all spacefaring states share an incentive to resolve the space debris crisis. Without addressing the global problem, all states could lose access to space. *See* sources cited *supra* note 24.

In the realm of commercial space development, but arguably scientific and even military development too, the OST has long stymied progress.[283] This has perhaps been the price of hitching humanity's space policies to the ideals of the peaceful pursuit of space and the OST's foundational tenet that space and its bounties be "the province of all mankind."[284]

But modern problems, particularly of geopolitical tension and its export to space, require the overcoming of the OST's restraints that are grounded in the protestations of non-spacefaring states. Such protest purposefully frustrates the development of international space law to maintain non-spacefaring states' relative benefits in the broader incentive structure.[285] Furthermore, the temporal and geographic limitations of Evolutive Regime Assertion and the relative lack of repercussions for new international military space law of non-spacefaring states could overcome the accompanying power imbalance.

iii. Rapid Technological Change

In the 1980s, President Ronald Reagan's Star Wars program, which professed to develop and deploy space lasers via satellite with the capability of destroying launched ICBMs, seemed like science fiction to many.[286] Space lasers exist now.[287]

Military satellite capabilities are an active subject of research and development in states with modern militaries.[288] Kinetic, energy-based, and cyber-capable attack functions are among these capabilities.[289] This research and development is occurring against a backdrop of an exponentially increasing number of satellites being launched into orbit, a trend that has taken off within the past decade.[290] New rules are needed, fast, to prevent the same travesty that occurred in airspace during the 20th century: where increasing economic reliance and military capability in the domain was met with commensurate military conflict. In space, such conflict would be disastrous.[291]

Though it is an increasingly difficult prospect, law should try to keep up with technological development. Evolutive Regime Assertion can be partially justified by this need. As the rate of

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[283] See DE MAN, supra note 111, at xxv; TRONCHETTI, supra note 5; Alan Wasser & Douglas Jobes, Space Settlements, Property Rights, and International Law: Could a Lunar Settlement Claim the Lunar Real Estate it Needs to Survive?, 73 J. AIR L. & COM. 37, 63–64 (2008).

[284] OST, *supra* note 4, at art. I.

[285] See Andrew R. Brehm, Private Property in Outer Space: Establishing a Foundation for Future Lunar Exploration, 33 WIS. INT'L L.J. 353, 371–72 (2015); De Man, supra note 274, at 101–02; John Myers, Extraterrestrial Property Rights: Utilizing the Resources of the Final Frontier, 18 SAN DIEGO INT'L L.J. 77, 93–94 (2016).

[286] *See* Gregg Herken, *The earthly origins of Star Wars*, 43 BULL. ATOMIC SCIENTISTS 20, 25–28 (1987); Jerome Grossman, *The Politics of "Star Wars"*, 15 J. LEGIS. 93, 93–94, 99–100 (1989).

[287] Annie Handmer & Steven Freeland, *The Use of Law to Address Spacedebris Mitigation and Remediation: Looking Through a Science and Technology Lens*, 87 J. AIR L. & COM. 375, 401–02 (2022); Onley, *supra* note 16, at 748–50; Giannoni-Crystal, *supra* note 9, at 724.

[288] *See* King & Blank, *supra* note 11, at 127; Onley, *supra* note 16, at 741; Thompson, *supra* note 25.

[289] *See* U.S. DEP'T OF DEF., *supra* note 90, at 5; Giannoni-Crystal, *supra* note 9, at 675, 689; King & Blank, *supra* note 11, at 126, 129; Mountin, *supra* note 22, at 165–66; Onley, *supra* note 16, at 741; Rohrer, *supra* note 18, at 193–94.

[290] *See* VANCE, *supra* note 59.

[291] *See* sources cited *supra* notes 23–24.

development of space capabilities increases, international law should also, lest the tools that enable new functions be ungoverned and potentially wielded irresponsibly.

Quickened international rule formation accompanying rapid technological change may already exist. It is called "instant custom,"[292] or, by international law scholar Michael P. Sharf, a "Grotian moment."[293] Instant custom is an exception to the rule of CIL development. One notable historical instance was during the space race, where rapid technological change that accompanied the increase in space activity necessitated the swift emergence of new rules.[294] International law has thus previously made room for quickened rulemaking because of rapid technological change. Evolutive Regime Assertion just urges making the exception clearer.

iv. The Unique Domain of Space

Space is relatively unique among the warfighting domains as incredibly costly to operate in. It costs the U.S. almost $200,000 to launch an anti-tank missile from a shoulder-carried Javelin system.[295] Launching a Standard Missile-2 (SM-2) from an aircraft carrier costs over $2 million.[296] It costs tens of millions of dollars to launch a satellite,[297] and this is a mere microcosm of the economics of military space development that does not even consider costs like research and development. Space capabilities are paradigmatic for modern militaries but require immense economic investment.[298]

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[292] Under the first comprehensive scholarly articulation of instant custom formation, "states can advance a new customary international law, either in concert with other states or unilaterally, simply by evincing a new *opinio juris*. If other states do not object, and in fact follow suit, they will share the same *opinio juris,* thus forming a new rule of customary international law." Benjamin Langille, *It's "Instant Custom": How the Bush Doctrine Became Law After the Terrorist Attacks of September 11, 2001*, 26 B.C. INT'L & COMP. L. REV. 145, 150 (2003). This articulation of instant custom "may be considered an extreme version of the notion that customary international law can form rapidly." *Id.* at 151. *See also id.* at 149; Michael P. Sharf, *Accelerated Formation of Customary International Law*, 20 ILSA J. INT'L & COMP. L. 305, 339–40 (2014).

[293] SHARF, *supra* note 259, at 4–5. Sharf argues that his formulation of "Grotian moments" are distinguishable "from the controversial notion of instant custom[,]" as "Grotian Moments represent instances of rapid, as opposed to instantaneous, formation of customary international law." Sharf, *supra* note 293, at 340. It seems to me that the "Grotian moment" is a form of instant custom and is only distinguishable from articulations of instant custom that describe instantaneous, rather than just accelerated, rule formation. *See supra* note 293.

[294] *See* SHARF, *supra* note 259,. at 123, 137.

[295] DEP'T OF THE ARMY, DEP'T OF DEF., JUSTIFICATION BOOK OF MISSILE PROCUREMENT, FISCAL YEAR 2023, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2023/Base%20Budget/Procurement/MSLS_ARMY.pdf.

[296] Missile Defense Advocacy Alliance, Missile Interceptors by Cost, February 2024, https://missiledefenseadvocacy.org/missile-defense-systems-2/missile-defense-systems/missile-interceptors-by-cost/.

[297] Pierre Lionnet, *SpaceX And The Categorical Imperative to Achieve Low Launch Cost*, SPACENEWS (June 7, 2024), https://spacenews.com/spacex-and-the-categorical-imperative-to-achieve-low-launch-cost/. Of course, most satellites provide functionality over a much longer time period than a missile. But this could increase, rather than decrease, their relative cost metrics to missiles, since many military satellites need to be monitored, maintained, and operated.

[298] "The U.S. Space Force's $30 billion budget request for Fiscal Year 2024 is about $3.9 billion over what was enacted for the service in FY2023. More than 60% of the Space Force budget, about $19.2 billion worth, is aimed at research, development, testing and evaluation." C. Todd Lopez, *Space Force Focuses on Partnerships, Spirit, Combat Readiness*, DOD NEWS (March 15, 2023), https://www.defense.gov/News/News-Stories/Article/Article/3330161/space-force-focuses-on-partnerships-spirit-combat-

Like costs, the stakes of space conflict are immense compared to other warfighting domains (with the notable exception of land or air warfare involving weapons of mass destruction). Destruction of a satellite could not only yield massive reverberating damage to civilians on Earth[299] but also pollute Earth's orbit with space debris that could trigger the runaway destruction of satellites and even the blockage of orbit further space operations for centuries.[300] The rapid development and clarification of international military space law could help in preventing such destruction.

v. Some Form of Evolutive Legal Regime for Space is Already being Asserted

Reliance costs of the international legal status quo in space might be lower, and thus a much smaller obstacle to overcome with Evolutive Regime Assertion than other domains. Some form of Evolutive Regime Assertion is already built into the status quo of international space law. The first two elements of the framework, shortened time for rulemaking and diffuse rulemaking authority among spacefaring states, have historically characterized space law. In this way, these two elements of Evolutive Regime Assertion are as descriptive as they are prescriptive and seek only to reify and clarify space law. Furthermore, the evolution of space law is contemplated or even encouraged by the OST, and thus Evolutive Regime Assertion might better represent a step forward for the existing international space law regime rather than a break or replacement.[301]

The length of time required for CIL formation in outer space is likely already shorter than in other domains.[302] This legal mechanism was present historically and may be present today in the case of international military law. The Evolutive Regime Assertion element of a shortened time requirement for rule crystallization thus may be a clarification, rather than a modification, of the existing space law status quo.

Diffuse formative authority, for both spacefaring states and private entities, has characterized international space law from the beginning: the OST, the basis for international space law for nearly six decades, was drafted and signed by over 100 countries.[303] This aspect of space law has become clearer as more states have ventured into space, yet it would be demonstrably false to claim that states with less or no space capability have enjoyed rulemaking parity with the major spacefaring states.[304] This is an issue that Evolutive Regime Assertion addresses, and rulemaking authority has been diffused internally in at least one major spacefaring power, the U.S. Article VI of the OST grants private actors the ability to shape space law through their state's acquiescence,

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readiness/#:~:text=The%20U.S.%20Space%20Force's%20%2430,%2C%20development%2C%20testing%20and%20evaluation. *See also* sources cited *supra* notes 17, 289–90, 298

[299] *See* sources cited *supra* note 23.

[300] *See* sources cited *supra* note 24.

[301] Blount & Robison describe an analogous process for space resource extraction and use under the U.S. Commercial Space Launch and Competitiveness Act of 2015. *See* Blount & Robison, *supra* note 45, at 177–78, 182–85; CSLCA, *supra* note 76.

[302] *See* SHARF, *supra* note 295.

[303] *See* Blount, *supra* note 111, at 101; Center for Arms Control and Non-Proliferation, *Outer Space Treaty* (Nov. 16, 2022), https://armscontrolcenter.org/outer-space-treaty/.

[304] *See* sources cited *supra* note 260.

a much more direct form of participation in international rule formation than prescribed by the International Court of Justice statute.[305]

The OST, the primary document governing international space law, has many ambiguous provisions. Article I's "province of mankind," Article II's non-appropriation principle, and the treaty's restrictions on military activities in space have been fiercely debated for decades.[306] Given the stakes of conflict in space (well known to the OST's framers), it is likely that many such ambiguities were intentional, and that not all of them were necessarily resultant from the development of new technologies that were impossible to predict in 1967.[307] Some scholars have suggested that the OST's meaning was meant to evolve over time.[308] If in furtherance of the OST's "province of all mankind" principle in Article I, such evolution could be interpreted as fulfillment of the treaty and its purpose.[309]

The geographic limitation of these variances from the terrestrial international law status quo to space is a given. The OST governs outer space and its activities. Its application is limited to space except for certain terrestrial activities that directly relate to the transition into the space environment, like launching or space object registration.[310] The limitation of Evolutive Regime Assertion thus could serve more as a clarification or statement of circumstance rather than a substantive alteration to current international space law.

D. EVOLUTIVE REGIME ASSERTION: APPLICATION

Evolutive Regime Assertion would ideally allow actors with the highest capacity to use space to efficiently use it. As the nation with the largest "new space"[311] economy and the dominant military operator in space,[312] the U.S. would likely have outsized influence. That influence would render the problems of *jus ad bellum, jus in bello,* and interpretative agreement of the peaceful purposes principle easier to solve from a U.S. perspective. Innovative mechanisms could be asserted: a regulatory framework for the development and interpretation of the *jus ad bellum,*

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[305] *See* sources cited *supra* note 244.

[306] See Brian Abrams, First Contact: Establishing Jurisdiction Over Activities in Outer Space, 42 GA. J. INT'L & COMP. L. 797, 803 (2014); Stephen DiMaria, Starships and Enterprise: Private Spaceflight Companies' Property Rights and the U.S. Commercial Space Launch Competitiveness Act, 90 ST. JOHN'S L. REV. 415, 423 (2016); Melissa J. Durkee, Interpretive Entrepreneurs, 107 VA. L. REV. 431, 465–66 (2021); Francesca Giannoni-Crystal, Jurisdictional Choice for Space Resource Utilization Projects: Current Space Resource Utilization Laws, 22 SANTA CLARA J. INT'L L. 1, 11–12 (2024); Hamilton, supra note 13, at 8–9; Hertzfeld & von der Dunk, supra note 111, at 651; Higuera, supra note 59, at 123–24; La Bella, supra note 23, at 738–39; Leach, supra note 106, at 63; LYALL & LARSEN, supra note 1, at 184–85; Maogoto & Freeland, supra note 8, at 180–81; Mountin, supra note 22, at 151–52; Weaver, supra note 45, at 226; White, supra note 9, at 461.

[307] *See* Blount & Robison, *supra* note 45, at 162; Haywood, *supra* note 276, at 818; Weaver, *supra* note 45, at 218. *See also* Kurt Taylor, *Fictions of the Final Frontier: Why the United States SPACE Act of 2015 is Illegal*, 33 EMORY INT'L L. REV. 653, 670–71 (2019).

[308] *See* Blount & Robison, *supra* note 45, at 162.

[309] OST, *supra* note 4, at art. I.

[310] *See* OST, *supra* note 4, at arts. VII, VIII.

[311] "New space" refers to the commercial space sector that has emerged in the past twenty or so years as the costs of accessing space have dropped and the commercial opportunities of space operations have grown. Akshaya Kamalnath & Hitoishi Sarkar, *Regulation of Corporate Activity in the Space Sector*, 62 SANTA CLARA L. REV. 375, 376–77; LYALL & LARSEN, *supra* note 1, at 152; VANCE, *supra* note 59, at 129, 185.

[312] *See* Bowman, *supra* note 107, at 98.

adoption of the reverse distinction principle, reverberating damage under proportionality analyses, and the novel analytical framework called inverse proportionality. As for the peaceful purposes principle, to the extent that there is a current problem, asserting a solution in creating binding rules of interpretation would be largely cost-free and generally more effective under Evolutive Regime Assertion than the traditional international legal paradigm.

1. *Jus ad bellum*: Clarification and Regulatory Form

The lack of clarity surrounding the *jus ad bellum* in outer space is an important problem and likely contributes to the possibility of future conflict in the space domain. Here, what rules to establish for the *jus ad bellum* in space is less important than whether they are established at all, and if so, how quickly. However, so as to show the value of the idea, one could posit the framework seemingly assumed by many scholars. The U.N. Charter and CIL principles take the form of *lex generalis,* applying in space unless they substantively conflict with the OST. The OST takes the form of *lex specialis,* operating over and prioritized above the *lex generalis* of public international law.[313]

The U.S. could formally embrace the *jus ad bellum's* regulatory form, commencing proceedings for declarations from the Security Council or undertaking unilateral action with accompanying Security Council appeals.[314] That action should not be the commencement of armed attack, and hopefully would not be the commencement of self-defense, though such a situation seems increasingly likely.[315]

Rather, the unilateral action in question could be mere assertion of the U.S. stance on the *jus ad bellum* and a call for its recognition from other states. Legitimacy here would be multi-nodal; if more parties adopt the conceptual regulatory form of *jus ad bellum,* then there will be more legitimate assertions of *jus ad bellum* interpretations through its channels.[316] U.S. leveraging of the *jus ad bellum's* regulatory form could provide a workaround for the lack of state practice and clarity in the area.[317] It would do this by assisting the world with increasing legal certainty in space operations and international military-legal standards in space.

While this may seem inchoate, it can be clarified through Evolutive Regime Assertion. The market-based, creation-fostering framework of Evolutive Regime Assertion would lend greater credibility and flexibility to all legitimate assertions of *jus ad bellum* interpretations in space. Fundamental[318] (and contentious)[319] as the principle of *jus ad bellum* is in the global security architecture, it would likely take the force of more favorable paradigm shift to be realized at any significant scale without the occurrence of armed conflict. Evolutive Regime Assertion could be the solution, or at least a part of it.

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[313] *See* von der Dunk, *supra* note 111, at 214.
[314] *See* Hakimi, *supra* note 115, at 155.
[315] *See* Giannoni-Crystal, *supra* note 9, at 711–12; Onley, *supra* note 16, at 744; WOOMERA MANUAL, *supra* note 46, at 68–69; Hakimi, *supra* note 115, at 161–62, 186.
[316] *See* Hovell, *supra* note 234.
[317] *See* sources cited *supra* note 111 and text accompanying, near the end of the second paragraph.
[318] *See* Helal, *supra* note 111, at 584.
[319] *See* Bourbonniè & Lee, *supra* note 118, at 887; Helal, *supra* note 111, at 561.

2. *Jus in bello*: Reverse Distinction and Inverse Proportionality

The U.S. can advance a version of the LOAC in space that fits the unique nature of the domain and ameliorates its asymmetric legitimacy problems. It can advance modified versions of the principles of distinction and proportionality that increase, rather than decrease, the perceived legitimacy of international law. The U.S. could do so with much greater effectiveness under Evolutive Regime Assertion, wherein rules could crystallize faster, and novel approaches could emerge more frequently.

i. Reverse Distinction

Distinction in space could bar the integration of military and civilian satellite assets.[320] The U.S. could assert this view as a mandate for all states. Alternative solutions exist. The U.S. could establish a new form of distinction which has yet to be proposed.[321] Or it could advance the position that all space assets are valid targets in wartime.[322]

A lowered standard for reverse distinction could tolerate military and commercial integration of space assets as long as some threshold for the separation of civilian-critical functions is established.[323] Depending on how deep the military-commercial functionality runs, this could still be significantly costly.[324] However, it is hard to put a price on international legitimacy. It is difficult to draw the line as to how much, or to what kind of functionalities need to be separated, or to what extent. But for now, to demonstrate the functionality of Evolutive Regime Assertion, it is enough to say that this could be a useful way to approach the problem. And while it would be difficult or impossible to convince adversaries to such a rule under a traditional international framework, Evolutive Regime Assertion might be able to get it done.[325]

As another alternative, the U.S. could declare that its dual-use satellites can be considered distinctly military targets in wartime.[326] However, this policy might invite more unrestrained conflict and serve to increase, rather than ameliorate, human suffering at the cost of *possibly* increasing perceptions of U.S. compliance with international law.

The best option is to affirm the principle of reverse distinction or some modified version of it under the LOAC principle of distinction in space. The U.S., as the economic and military leader in space,[327] is in a unique and powerful position to do this and would be in an even stronger position under Evolutive Regime Assertion. Such an effort would have its credibility buttressed if the U.S. simultaneously advocated for the consideration of reverberating damages and a unique-to-space proportionality calculation, both under the LOAC element of proportionality.

ii. Proportionality: Reverberating Damage and Inverse Proportionality

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[320] *See* Koplow, *supra* note 95, at 107–08.
[321] *Id.* at 109.
[322] *Id.* at 109–10.
[323] *Id.* at 109.
[324] *Id.* at 107–08; *see also* U.S. DEP'T OF DEF., *supra* note 93.
[325] *See* Durkee, *supra* note 114, at 25.
[326] *See* Koplow, *supra* note 95, at 109–110.
[327] *See* Lionnet, *supra* note 298; Lopez, *supra* note 299; Bowman, *supra* note 107; Kamalnath & Sarkar, *supra* note 312; sources cited *infra* note 337. *See generally* VANCE, *supra* note 59.

Proportionality analyses in space should consider reverberating civilian damage.[328] Indeed, critics note that otherwise there would effectively be no consideration of civilian damage in ASAT warfare.[329] It seems both counterintuitive and reprehensible that the LOAC in space should not consider effects that could dwarf attacks on any terrestrial infrastructure, and which cause untold death and suffering[330] and potentially block humanity's access to space for centuries.[331] Furthermore, consideration of reverberating damage should make proportionality analyses much simpler to perform. If the damage is usually highly excessive, commanders should start their analyses with that notion and would have a ballpark estimate of the magnitude of resultant fallout in their minds.

However, the U.S. still needs to acknowledge how much traditional proportionality analyses work in its favor in space and the damage that could result to perceptions of the legitimacy of the LOAC in space.[332] Detangling military and civilian satellite assets in compliance with the principle of reverse distinction should help by reducing reverberating damage to U.S.-civilian-satellite users, but more should be done.

One novel solution is to scale proportionality concerns in satellite attacks inversely with the number of satellites the target sovereign controls: a sort of inverse proportionality test that accounts for and fixes drastically different scales of proportionality analysis between sovereigns with unequal capabilities engaged in satellite warfare. This solution is entirely novel in the field of space affairs[333] but has been recommended in the context of modern warfare generally, given the

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[328] *See* Mallon, *supra* note 24, at 329.
[329] *See* Yoo, *supra* note 9, at 180.
[330] *See* Murphy, *supra* note 23.
[331] *See* sources cited *supra* note 24.
[332] *See* Bellflower, *supra* note 46, at 110, 120–21, 130, 144; Rohrer, *supra* note 18, at 215.
[333] For a survey of works of or relating to the *jus in bello* element of proportionality in space, *see generally* David Akerson, *Applying the Jus in Bello Proportionality to Drone Warfare*, 16 OR. REV. INT'L L. 173 (2014); Birkeland, *supra* note 22 (asserting that "the complex nature of dual-use satellites and exceptional physical characteristics of outer space will necessitate a different proportionality consideration than a terrestrially-based attack," Birkeland, *supra* note 22, at 2065, and recommending a new proportionality framework focused around the generation of space debris, *see* Birkeland, *supra* note 22, at 2074–75, 2091–94); King & Blank, *supra* note 111; Boothby, *supra* note 24; Eric Boylan, *Applying the Law of Proportionality to Cyber Conflict: Suggestions for Practitioners*, 50 VAND. J. TRANSNAT'L L. 217 (2017); Ross Brown, *Conflict on the Final Frontier: Deficiencies in the Law of Space Conflict Below Armed Attack, and How to Remedy Them*, 51 GEO. J. INT'L L. 11 (2019); Giannoni-Crystal, *supra* note 9; Joshua Handelman, *Considerations on the Targeting of Satellites*, 20 WASH. UNIV. GLOB. STUD. L. REV. 469 (2021); Khan, *supra* note 22; Koplow, *supra* note 16; Koplow, *supra* note 95; Maogoto & Freeland, *supra* note 8, at 184 ("[G]iven the unique nature of outer space, the principles under the *jus in bello*, developed as they were largely to regulate terrestrial warfare and armed conflict, are probably neither sufficiently specific nor entirely appropriate to military action in outer space."); La Bella, *supra* note 23; Mallon, *supra* note 24; Mountin, *supra* note 22; Murphy, *supra* note 23; Nasu, *supra* note 111; Onley, *supra* note 16; Petras, *supra* note 67; Michael N. Schmitt, *Bellum Americanum: The U.S. View of Twenty-First Century War and its Possible Implications for the Law of Armed Conflict*, 19 MICH. J. INT'L L. 1051 (1998) (Schmitt comes the closest to articulating something like Inverse Proportionality in his section on Normative Relativism, stating that "[a]s the gap between the military 'haves' and 'have nots' widens, there will be subtle stressors that encourage an interpretation of the law of armed conflict relative to the state to which it is applied," *id.* at 1082–83, "Some may even argue that if a wealthy state has the economic wherewithal to arm its forces with precision weapons, it should be obligated to do so." *id.* at 1088); Georgeson & Stubbs, *supra* note 17; Thompson, *supra* note 10; Ramey, *supra* note 131; Rohrer, *supra* note 18; Rudesill, *supra* note 151; Luke A. Whittemore, *Proportionality Decision Making in Targeting:*

emerged phenomenon of dominant professional militaries with much higher-than-average capacity and capability of compliance with LOAC and its guiding principles.[334]

While the inverse proportionality principle seems appropriate, it has at least three problems. Proportionality analyses are already complex, and this would add yet another variable for commanders to consider. The inverse proportionality standard might rely on unavailable data on the target sovereign. And the principle may be so detrimental to the U.S. that it decides the tradeoff of gaining international legitimacy is not worth its employment. Inverse proportionality is a theoretical solution to a real proportionality problem, a problem that may be solvable as a downstream effect of U.S. compliance with the principle of reverse distinction. More research is required; there might be some surprising room for inverse proportionality to fit, in some form, into the Evolutive Regime Assertion framework.

In modifying and advancing its interpretation of proportionality, as is the case with distinction, the U.S. should keep its status as the world's preeminent space power in mind.[335] It is in a disproportionately powerful position to shape the development of CIL in space.[336] Asserting these principles would be easier under Evolutive Regime Assertion which the U.S. can advance and vest with binding meaning and construct new international law through application and declaration.

Implementation of both modified LOAC principles should not be thought of as overly restrictive; they govern and limit methods of warfare once it starts which, while hopefully deterring the start of conflict, should not limit the U.S.'s strategic capabilities in space as *jus ad bellum* principles might. Overall, Evolutive Regime Assertion should grant enough freedom of operation and evolution to far outweigh these restrictions.[337]

There is also another, even more feasible action the U.S. can take to ameliorate proportionality issues in space. It can call for a ban on tests of kinetic ASAT weapons.[338] Such tests generate massive amounts of space debris, and it would be better for the world if no one

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Heuristics, Cognitive Biases, and the Law, 7 HARV. NAT'L SEC. J. 577 (2016); David L. Willson, *An Army View of Neutrality in Space: Legal Options for Space Negation*, 50 A.F. L. REV. 175 (2001); Joshua J. Wolff, *Space Law: What It Is and Why It Matters*, THE ARMY LAWYER, no. 5, 2020, at 66; Yoo, *supra* note 9.

[334] *See* Rudesill, *supra* note 151, at 154.

[335] *See generally* White, *supra* note 9; Yoo, *supra* note 9; Thompson, *supra* note 10; Oppenheim, *supra* note 10; Bowman, *supra* note 107.

[336] See supra note 336; Timiebi Aganaba, Deriving Meaning Through Treaty Interpretation or is it Time for New Innovative Space Governance Instruments for Space Resources?, 85 ALB. L. REV. 409, 433 (2022). Aganaba's conclusion that the U.S. is in a unique position to shape customary international law relates to property rights and mining in space, but the same logic applies to the LOAC, see id.; Burdon, Salter, Tennon & Tracz, supra note 228.

[337] They may be illusory restrictions, beneficial restrictions, or both. Every choice restricts other possible choices, and these actions that restrict the U.S. would likely advance its strategic interests.

[338] On April 18, 2022, Vice President Kamala Harris declared that the U.S. would not conduct "destructive direct ascent anti-satellite missile testing." She called for all other nations to join in the pledge. BYERS & BOLEY, *supra* note 24, at 335–37. The declaration seems like the proffering of an international kinetic ASAT test ban. Several scholars have also advocated for such action, *see* Bellflower, *supra* note 46, at 143–44; Bowman, *supra* note 173; Oppenheim, *supra* note 10. John Yoo has argued against bans on antisatellite weaponry, *see* Yoo, *supra* note 9, at 187–89. Michael Byers and Aaron Boley suggest that such a ban is currently forming under customary international law. *See* BYERS & BOLEY, *supra* note 24, at 303–04.

conducted them.[339] While some note that we may already have CIL that forbids wanton and significant generation of space debris,[340] putting a formal ban on it could contribute to the broader CIL of LOAC by placing the behavior beyond the ambit of acceptability. Having debris as the central concern of the ban could also help to establish the principle of reverberating damage in proportionality analyses, since that type of damage would be what the ban is concerned with preventing.

These modified LOAC principles of distinction and proportionality in space would make the world safer and advance U.S. attainment of strategic goals. They may be costly and difficult to implement but would be more feasible under Evolutive Regime Assertion. The status quo would likely be more costly and more difficult for the whole world in the long run if these changes, or something like them, are not implemented.[341]

3. Peaceful Purposes: Rhetorical Care

The problem of the peaceful purposes principle and the existence of the Space Force, if the U.S. deems it worth addressing, has a simple solution under Evolutive Regime Assertion. Disavow unilateralist and militarist rhetoric[342] and employ more neutral rhetoric in policy documents and pronouncements that represent the international legal system the U.S. has allegedly sought to uphold in space.[343]

It has been previously established that non-aggressive is the more authoritative interpretation of the OST's peaceful purposes principle,[344] and yet normative critiques of the U.S. are still levied based on a non-military interpretation.[345] The occurrence of these critiques may be of minor significance, but they do, even if only slightly, undermine the legitimacy of the international legal system, or at least the U.S.'s position in it.[346] These critiques may not be unreasonable when presented against a backdrop of increasing U.S. militarism and unilateralism

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[339] See BYERS & BOLEY, supra note 24, at 303–04; John S. Goehring, Can We Address Orbital Debris with the International Law we Already Have? An Examination of Treaty Interpretation and the Due Regard Principle, 85 J. AIR L. & COM. 309, 318 (2020); Oppenheim, supra note 10, at 762; Astina T. Shakilyan, International Trash Pick-Up: The Need for a Neutral Orbital Debris Removal Organization, 27 SW. J. INT'L L. 410, 425 (2021); Boothby, supra note 24; BYERS & BOLEY, supra note 24; Georgeson & Stubbs, supra note 17, at 610; Kaineg, supra note 24; Koplow, supra note 16 at 1208–10; Larsen, supra note 24; Mallon, supra note 24; Magoto & Freeland, supra note 8, at 188; Murphy, supra note 23; Onley, supra note 16, at 748; Runnels, supra note 9, at 192; Thompson, supra note 10, at 114-20. See generally Richard L. Hermer-Fried, Kessler Syndrome: A United States' Statutory Solution for Satellite Debris Removal and the Mitigation of Orbital Collisions, 18 J. INT'L BUS. & L. 259 (2019); Rihl II, infra note 362.

[340] *See* BYERS & BOLEY, *supra* note 24, at 303–04.

[341] See Bowman, supra note 107, at 89; Jameson W. Crockett, Space Warfare in the Here and Now: The Rules of Engagement for U.S. Weaponized Satellites in the Current Legal Space Regime, 77 J. AIR L. & COM. 671, 699–700; Hamilton, supra note 13, at 8–9.

[342] *See* Hauck, *supra* note 12 at 142–47, 154–59; OFF. OF SPACE COM., *supra* note 83, at 27–29; Trump, *supra* note 102; Dep't of Def., *supra* note 9, at 1, 6, 7; 116th Cong., *supra* note 207; Harp, *supra* note 12; Fukazawa, *supra* note 12.

[343] *See* Biden, *supra* note 88; Trump, *supra* note 83.

[344] *See* sources cited *supra* note 67.

[345] *See* Hauck, *supra* note 12; Yoo, *supra* note 9, at 140.

[346] *See* sources cited *supra* note 12; Yoo, *supra* note 9, at 140.

in space policy.[347] The U.S. should be mindful of this backdrop and retreat from it by employing rhetorical care rather than brazenness in its space policy pronouncements and actions.

Evolutive Regime Assertion would amplify the power of the U.S.'s assertions of a non-aggressive interpretation of the peaceful purposes clause of the OST.[348] Minor as it may be, these assertions would be almost cost-free, with the weight of authority already landing on the U.S.'s side. The problem area is included here, under Evolutive Regime Assertion, both as a minor potential pothole to fill and to illustrate how this framework could help with U.S. international legal-military problems in space.

E. EVOLUTIVE REGIME ASSERTION: METHODS OF IMPLEMENTATION

Evolutive Regime Assertion could occur under traditional international lawmaking mechanisms, such as treaties, CIL, and informal agreements, and could also occur under what Melissa Durkee terms "attributed lawmaking."[349] Critics may contend that there is a certain absurdity in altering the framework in which these mechanisms exist in through the very same mechanisms. Such criticisms would need to overcome the fact that the OST has long done exactly that for international space law.

Evolutive Regime Assertion could occur via treaty, CIL, attributed lawmaking, or more informal methods. Higher formality methods of treaty ratification or CIL are preferred given the paradigmatic nature of the framework and its accompanying need of legitimacy. However, it may be that the lower formality methods, such as attributed lawmaking or informal agreements and/or norm-asserting-conduct, are the only options for advancing such a distinct departure from the traditional international law paradigm, though their binding force may be limited.

1. Treaty

Treaties are a primary source of international law. Binding on state parties, they can enter into legal effect as soon as the contracting parties have agreed. There is also precedent for a treaty altering the fundamentals of the international legal paradigm in the U.N. Charter, which supersedes many treaties it conflicts with.[350] Employing this method for Evolutive Regime Assertion would also not be all that dissimilar from the creation of the OST itself.[351]

It is also possible for parties to the OST to shape its meaning through treaty practice. The Vienna Convention on the Law of Treaties allows for later development of treaty meaning,[352] and the OST may contemplate its own evolution.[353] Evolutive Regime Assertion could occur under any of these mechanisms, ideally in support of the OST rather than its displacement.[354]

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[347] *See* Hauck, *supra* note 70; OFF. OF SPACE COM., *supra* note 84; Trump, *supra* note 102; Dep't of Def., *supra* notes 79–81; 116th Cong. *supra* note 207; sources cited *supra* note 12.
[348] *See* sources cited *supra* note 67.
[349] *See* Durkee, *supra* note 50, at 443, 449–50.
[350] *See* U.N. Charter, https://www.un.org/en/about-us/un-charter.
[351] *See* OST, *supra* note 4, at art. II, (prohibiting appropriation by sovereignty in outer space).
[352] *See* sources cited *supra* notes 228, 230.
[353] *See* Blount & Robison, *supra* note 45, at 162.
[354] *See* sources cited *supra* note 232.

2. Customary International Law

CIL is just as binding and valid as treaty law and is formed through significant accumulation of state practice and *opinio juris*. Many of the OST's principles have been so widely followed and not objected to so as to crystallize into CIL.

An evolutive process can thus occur under the OST as distinct from other international instruments. As its treaty meaning is shaped and complied with, so too might CIL shape around those developments.[355] This is not just theoretical and in fact is part of why the peaceful purposes interpretation problem for the U.S. is not so major: state practice and *opinio juris* have coalesced around the "non-aggressive" interpretation.[356]

3. Private Attributed Lawmaking

OST Article VI attributes the conduct of a state's national actors to the state itself.[357] If a private national, natural or artificial, for example, SpaceX, acts in outer space, its conduct, if acquiesced to, contributes to the constitution of its parent state's interpretation of the OST.[358] While this may raise concerns of democratic legitimacy, it is plainly instituted by the text of the OST.[359]

Evolutive Regime Assertion could occur under the OST's attributed lawmaking mechanism both because it has a lower cost of employment for states (who could theoretically delegate their treaty-shaping function to an independent, non-governmental entity) and because the entities that would most benefit from the paradigm would likely be these same actors.

4. Soft Law

Actors in space could informally agree to Evolutive Regime Assertion more informally. While this method might not vest the system with high legitimacy, it could help it accrete into binding CIL and take practical effect in space beyond the confines of formal law, which may, in the end, shape behavior less than shared norms in outer space.

F. CONCLUSION

Uncertainty characterizes the legal regime of outer space, and though the OST has been largely successful in keeping the peace, space has seen underdevelopment in its wake.[360] Human activity in space is rapidly increasing and is diffused among an increasing number of actors.[361] The laws surrounding warfare are arguably the most important, and their articulation and enforcement is a principal enterprise of modern international law. In proffering Evolutive Regime Assertion, this article advocates for the continuance of the development of space and the keeping of peace

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[355] *See* Durkee, *supra* note 50, at 443.
[356] *See* sources cited *supra* note 67.
[357] OST, *supra* note 4, at art. VI.
[358] *See id.*; Durkee, *supra* note 50, at 443, 449–50.
[359] *See* OST, *supra* note 4, at art. VI.
[360] *See* TRONCHETTI, *supra* note 5.
[361] *See* D. Perry Rihl II, *Cleaning Up the Mess: Incentivizing the Salvage of Orbital Debris*, 10 GEO. MASON J. INT'L COM. L. 68, 75 (2019); Runnels, *supra* note 9; VANCE, *supra* note 59, at 128.

via facilitation of fast and efficient development of international legal-military rules of the (space) road.

Is this whole thing realistic? Maybe not much more unrealistic than the OST itself. The reader is reminded that at the time of the OST's formation, Cold War tensions ran hot.[362] The OST, with a fundamental disavowal of such a basic state element as territorial sovereignty,[363] was realized by the two superpowers who were also fiercely competing in space.[364] It is with the same hope for innovation and collaboration that Evolutive Regime Assertion is proffered. And with hope this framework may be of some aid, if not in direct implementation, then through some contribution to space law scholarship.

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[362] *See* Tingkang, *supra* note 44, at 559–60.

[363] De Man offers a cogent explanation of the OST's disavowal of territorial sovereignty in space: "From the writings of scholars advocating the solution, one can deduce an amalgamate of arguments predominantly grounded in the presupposition that the main purpose of the non-appropriation principle is to avoid territorial conflicts in outer space so as to guarantee the free exploration and use thereof in accordance with Article I OST. Further support for a territorial interpretation of Article II OST is then derived from the atypical formulation of Article II OST and its textual omission of natural resources. The proscription of 'national' appropriation in particular appears to address public sovereignty rather than private property rights, and the former is typically associated with entire territories rather than specific resources. Further, the reference to 'sovereignty' as a banned means of national appropriation in Article II OST is offset by the observation that outer space as a region is not entirely free from all forms of sovereignty, as states retain exclusive control and jurisdiction over space objects launched on their registry, as well as the personnel on board manned spacecraft. Hence, it could be argued that the reference to sovereignty in Article II OST should be read as territorial sovereignty[.]" DE MAN, *supra* note 111, at 23. *See also* Blount & Robison, *supra* note 45, at 169.

[364] *See* Blount & Robison, *supra* note 45, at 163–64; Michael Dodge, *Celestial Agriculture: Law & Policy Governing the Use of In Situ Resources for Space Settlements*, 97 N.D. L. REV. 161, 166 (2022); Durkee, *supra* note 50, at 452; LYALL & LARSEN, *supra* note 1, at 52–53; Tingkang, *supra* note 44, at 559–60.

THE FEDERAL TRADE COMMISSION, GERMANY, AND NON-COMPETE AGREEMENTS: AN ANALYSIS OF THE FEDERAL TRADE COMMISSION'S PROPOSED BAN ON NON-COMPETE AGREEMENTS AND A COMPARISON TO GERMAN NON-COMPETE LAW

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I. INTRODUCTION

The American workforce is incredibly unique. The United States of America is the only country to utilize an at-will employment system for a majority of workers. At-will employment means that an employer has the almost unlimited right to fire an employee. There are, of course, exceptions that place limits on the at-will employment system. The employee has a right to quit at any time without any notice and go work somewhere else, with the limits on those rights being written in the law and depending on what was in the employee's contract; for example, if a non-compete agreement was present in the contract. In other countries, such as Germany, an employee has a right to work once hired, and one of the exceptions to that right is the employer's limited right to fire as outlined by the law.[2] Similarly, an employer has a right to expect work from an employee. Although an employee has a right to quit, this is also limited by the law and usually requires notice.[3]

This goes to show that the protections for employers and employees alike vary between the United States and other countries, even if the protections have the same name. Other countries use non-compete agreements, including Germany, but there are specific restrictions and limitations on them.[4]

The Federal Trade Commission (FTC) published and is seeking to impose a complete ban on non-compete agreements in the United States, with few limited exceptions.[5] The FTC provided an extensive explanation as to why they are implementing this rule, and multiple courts analyzed the ban and the FTC's authority to enforce this ban. Examining the scope and reasoning for the law, the court cases, and comparing the ban to foreign law—specifically German law—provides insight into the use and utility of non-compete agreements, the scope a non-compete agreement should have, and their effect on worker mobility and the protection of trade secrets.

II. WHAT ARE NON-COMPETE AGREEMENTS?

An inherent part of every employment contract, non-compete agreements are a known standard in the American work environment.[6] Viewed as a protection for employers, companies may use non-compete agreements for everyone from their hourly, minimum wage employees to their most senior business executives.[7] Understanding what non-compete agreements are is essential to understanding how they should be limited or why they should or should not be banned.

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[2] *Mastering Employee Terminations in Germany: A Practical Guide for U.S. Employers*, FISHER PHILLIPS https://www.fisherphillips.com/en/news-insights/mastering-employee-terminations-germany-practical-guide-us-employers.html; Carrie Stemke, *9 Things You Need to Know About German Employment and Labor Laws*, GEORGETOWN LAW (Jun. 8, 2023), https://www.rippling.com/blog/labor-employment-law-in-germany.

[3] *Termination of Employment in Germany*, WELCOME CENTER GERMANY, https://www.welcome-center-germany.com/post/termination-of-employment-in-germany#:~:text=need%20to%20know.-,Notice%20Periods,adhered%20to%20by%20both%20parties.

[4] Judge Mario Eylert, National Reporter, Federal Labour Court of Germany, Erfurt, *Non-competition clauses in labour contracts*, XIVth Meeting of European Labour Court Judges, Cour de cassation, Paris (4 September 2006).

[5] FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342 (May 7, 2024) (codified at 16 C.F.R. § 910 and 912 (2024)).

[6] FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342.

[7] FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342.

A non-compete agreements is a "promise . . . not to engage in the same type of business for a stated time in the same market as the buyer, partner, or employer."[8] Generally, non-compete agreements are meant to prevent an employee from competing with the employer.[9] When written into employment contracts, a non-compete agreement typically keeps an employee from either starting a business or being employed by a competing business in the same area within a set period of time. Non-compete agreements can also be included in the sale of businesses, where the seller agrees not to open a new competing business within a designated area for a certain period of time.

III. THE HISTORY OF NON-COMPETES

The debate as to the use of non-compete agreements is not new. The history of non-compete agreements goes back hundreds of years, with the reasons for and against debated each time. The use of non-competes and the law surrounding them grew as America grew,[10] embedding their use in the foundations of our society.

The first time the litigation of a non-compete agreement occurred was in the year 1414 in England.[11] The defendant, a dyer's apprentice, was sued for breaking an indenture put forth by his mentor which bound the apprentice from practicing his trade in the same city as his mentor for six months, though the plaintiff, the mentor, did not show on the court date.[12] Finding that placing restraints on trade greatly violated common law, the courts ruled against the agreement so much so that if the plaintiff appeared in court seeking to enforce the restriction, he was subjected to time in jail until a fine was paid to the king.[13] Known as Dyer's Case, the idea that restraining trade was presumptively invalid stood as part of the common law right to trade for almost 300 years.

In 1711, the court in *Mitchel v. Reynolds* opined that some restrictions on trade could actually promote trade.[14] The courts looked at the agreements as any other contract, finding that so long there is reasonable consideration given for the restriction, the non-compete agreement may be valid.[15] Additionally, the court found that such agreements must be limited both in scope and length.[16] Preventing a person from the trade forever in all of a country would not be valid, even with consideration. However, restricting a person from practicing the trade for three years in one city and surrounding villages, with reasonable consideration, would likely be valid.[17] The court reasoned that allowing these agreements could benefit trade, industry,

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[8] Black's Law Dictionary.
[9] FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342.
[10] Alexander T. MacDonald, *The FTC's Ahistorical Attack on Noncompetes*, FEDERALIST SOC'Y (Jan. 24, 2023), https://fedsoc.org/commentary/fedsoc-blog/the-ftc-s-ahistorical-attack-on-noncompetes.
[11] MacDonald, *supra* note 10.
[12] *BU Law Yearbook*, BOSTON UNIVERSITY SCHOOL OF LAW, https://www.bu.edu/phpbin/lawyearbooks/display.php?id=16494; MacDonald, *supra* note 10.
[13] *Dyer Case*, ¶¶ 26–27 (1414) (CP), https://www.bu.edu/phpbin/lawyearbooks/display.php?id=16494; *see, e.g.*, MacDonald, *supra* note 10.
[14] *Mitchel v. Reynolds*, 24 E.R. 347, 184 (B.R. 1711), https://uk.practicallaw.thomsonreuters.com/Document/I4ECE2CC0673311DC9280C8956ECF36C5/View/FullText.html?comp=pluk&transitionType=Default&contextData=%28sc.Default%29; *see, e.g.*, MacDonald, *supra* note 10.
[15] *Mitchel*, 24 E.R. 347 at 181; *see* MacDonald, *supra* note 10.
[16] *Mitchel*, 24 E.R. 347 at 182; *see also* MacDonald, *supra* note 10.
[17] *See Mitchel*, 24 E.R. 347 at 185; *see also,* MacDonald, *supra* note 10.

workers, and the public.[18] One example the court gives of this benefit is that when a workman ages out of practicing his trade, an agreement not to practice his trade in a certain city for so long in return for consideration would essentially amount to selling his business. Selling his business would provide the workman with income that he would have lost had he continued practicing his trade.[19] This idea is not dissimilar to selling law practices in modern day, where a lawyer who sells her practice agrees not to practice in that area of law within a certain area for a specific number of years as part of the sale.

The principles established in *Mitchel* became the foundation for modern American non-compete law. Former U.S. President and Chief Justice of the U.S. Supreme Court William Howard Taft boosted these principles.[20] In 1898, when President Taft served as a judge for the Sixth Circuit Court of Appeals, he wrote the opinion for a case called *United States v, Addyston Pipe & Steel Co.*[21] The decision from this case, which was later modified in part and affirmed by the Supreme Court, is largely viewed as foundational to American antitrust law and the limitations on contracts.[22] Coming just under a decade after the enactment of the Sherman Anti-Trust Act, this case established the beginning of the Rule of Reason. Affirming the Court of Appeals' decision, the Supreme Court, required that "all the facts and circumstances" are to be examined when determining if a contract lawfully restrains interstate commerce with the requirement being that the restraint is ancillary to the primary purpose of a contract that is otherwise lawful.[23] Essentially, any restraint on trade must be incidental to the true purpose of the contract, not the purpose of the contract itself, and must be necessary to protect the benefits of that contract.[24]

The Rule of Reason is still largely and continually used in courts today when examining non-competes. When determining the reasonableness of a non-compete agreement, courts generally look at the geographical range, time period, and what limitations it places on the worker.[25] A court may also examine external factors, such as the number of workers in the same profession within an area. If enforcing a non-compete agreement were to then create monopoly, a court would likely take that into account as a reason not to enforce the agreement.[26] The determination of what a court may take into account is dependent on the court, as non-compete agreements, historically, have been regulated by the states, not the federal government.[27] Each court will view non-competes agreements and the enforcement of such agreements differently depending on that state's laws. For example, in South Carolina, a non-compete agreement must protect a legitimate business-related interest; the temporal and geographical scope of the agreement must be reasonably limited; the agreement must not excessively limit an employee's ability to earn a livelihood through honest endeavors; the agreement must be "reasonable from the standpoint of sound public policy;" and, like all

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[18] *Mitchel*, 24 E.R. 347 at 181; *see also,* MacDonald, *supra* note 10.
[19] *Mitchel*, 24 E.R. 347 at 186; *see also,* MacDonald, *supra* note 10.
[20] *See* MacDonald, *supra* note 10.
[21] United States v. Addyston Pipe & Steel Co., 85 F. 271 (6th Cir. 1898) [*Addyston I*].
[22] *See* MacDonald, *supra* note 13; *See also* Addyston Pipe & Steel Co. v. United States., 175 U.S. 211 (1899) [*Addyston II*].
[23] *See Addyston II,* 175 U.S. 211*; Addyston I,* 85 F. 271.
[24] *See Addyston I,* 85 F. 271*; Addyston II,* 175 U.S. 211.
[25] *See* MacDonald, *supra* note 10; *See also* Karpinski v. Ingrasci, 28 N.Y.2d 45 (N.Y. Ct. App. 1971).
[26] *See generally* Outsource Int'l v. Barton, 192 F.3d 662 (7th Cir. 1999).
[27] *See* MacDonald, *supra* note 10.; *A Brief History of Noncompete Regulation*, FAIR COMPETITION LAW (Oct, 11, 2021), https://faircompetitionlaw.com/2021/10/11/a-brief-history-of-noncompete-regulation/#:~:text=Noncompetes%20Have%20Been%20Around%20Since,).%E2%80%9D%20See%20Catherine%20L.

contracts, the agreement must have consideration.[28] Therefore, a South Carolina court would not only look at the restraints on time, place, and the activities of the worker, but also the consideration and legitimate business purpose tied to the contract.

In other states, specifically California, Oklahoma, and North Dakota, non-compete agreements are statutorily void.[29] However, all three states also have very limited exceptions to their ban on non-competes.[30] The exceptions are limited to (1) when an individual is selling a business's goodwill and (2) when a company dissolves or is preparing to dissolve, a partner, member, or shareholder leaves a company, or a partner, member, or shareholder sells their ownership interest.[31] A court in any of these three states would look to see if a non-compete agreement falls within one of these exceptions, and if not, strike the agreement down as void and unenforceable. The FTC's proposed ban strongly mimics the statutes in these three states, minus one of the exceptions.[32]

IV. THE FEDERAL TRADE COMMISSION'S PROPOSED RULE

Published on May 7, 2024, the final rule of the FTC's ban on non-competes provided that the entering of a non-compete agreement constituted an unfair method of competition.[33] The final rule seeks to ban not only non-compete clauses created after the date of implementation of the rule, but also to render any existing non-compete agreements void.[34] The final rule does differentiate between senior workers and regular employees, but the difference in the effect of the ban is only that current non-competes concerning senior executives are not voided following the implementation of the ban.[35] However, once the final rule is put into effect, senior workers and all other workers are essentially treated the same.

The FTC cites Sections 5 and 6(g) of the FTC Act as the statutes granting the authority to promulgate the rule.[36] In the final rule, non-compete agreements are considered to be unfair methods of competition, putting them in violation of Section 5 of the FTC Act.[37] In outlining their authority to promulgate the final rule, the FTC addressed comments from the public concerning their authority under the FTC Act, the Major Questions Doctrine, and the Non-Delegation Doctrine.[38] For the Major Questions Doctrine, the FTC argues that the FTC Act, specifically Section 5, demonstrates clear congressional intent that the FTC have broad powers to regulate unfair methods of competition, which the FTC determines non-compete agreements

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[28] Stephenson & Murphy, *Non-Compete Covenants* (last visited Mar. 3, 2025), https://stephensonmurphy.com/employment-lawyer/non-compete-covenants/#:~:text=Covenants%20not%20to%20compete%20are,a%20covenant%20is%20too%20broad.

[29] *See* FAIR COMPETITION LAW, *supra* note 27; CAL. BUS. & PROF. CODE § 16600 (Deering 2024); N.D. CENT. CODE § 9-08-06 (2023); OKLA. STAT. TIT. 15, § 217 (1989).

[30] *See* CAL. BUS. & PROF. CODE § 16600 (Deering 2024); N.D. CENT. CODE § 9-08-06 (2023); OKLA. STAT. TIT. 15, § 217 (1989).

[31] *See* CAL. BUS. & PROF. CODE § 16601 (Deering 2007); CAL. BUS. & PROF. CODE § 16602 (Deering 2003); CAL. BUS. & PROF. CODE § 16602.5 (Deering, 2007); N.D. CENT. CODE § 9-08-06 (2019); OKLA. STAT. TIT. 15, § 218 (1989); OKLA. STAT. tit. 15, § 219 (1989).

[32] *See* FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342.

[33] *Id.*

[34] *Id.*

[35] *Id.*

[36] *Id.*

[37] *Id.*

[38] *Id.* at II.C.

to be.[39] In a similar argument for the Non-Delegation Doctrine, the FTC maintains that the FTC Act clearly provides an intelligible principle (the prohibition of unfair methods of competition) within Congress's grant of authority.[40]

In making the determination of whether non-compete agreements are unfair methods of competition, the FTC examined multiple different types of studies using five guiding principles to determine the relative strength of the studies.[41] The most weight was given to any studies concerning State law changing in a way that effects non-compete agreements and their enforceability and an examination of the before and after of such change.[42] Studies that simply looked at workers subject to non-compete agreements, versus workers that were not subject to non-compete agreements, were given less weight or if a study simply looked at the economic outcomes of the different levels of enforceability between states.[43] Additionally, if more than one or two states were considered in a particular study, then the FTC also weighed those studies more heavily than studies only concerning one state.[44] The FTC looked to ensure accuracy by considering studies that used "sophisticated, nuanced measures of enforceability" more heavily.[45] Lastly, the FTC more heavily considered studies that examined outcomes similar to or the same as the outcome the FTC was concerned with instead of studies that examined ineffective proxies.[46]

Following their examination of the studies under these principles, the FTC found that non-competes are a method of competition, putting non-compete agreements within the FTC's regulatory purview. The FTC further determined non-compete agreements to be unfair methods of competition because they are "restrictive and exclusionary" in a way that influences "competitive conditions in labor markets…[and] product and service markets" negatively.[47] The FTC also states that non-compete agreements negatively influences "competitive conditions in labor markets…[and] product and service markets" because they are "exploitive and coercive."[48] Essentially, the FTC found non-competes limit the mobility of workers and prevents them from seeking more favorable jobs, which in turn stifles competitive conditions such as wage growth, job quality, innovation, business formation within an industry, consumer prices, and product quality.[49] The FTC also highlighted the "prevalence of non-competes" as an essential element of the reason for the ban, estimating that about one-fifth (1/5) of American workers are subject to a non-compete agreement.[50] Such widespread use supports the FTC's inquiry under Section 5 by bringing into focus the "nature and tendency of the conduct."[51]

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[39] *Id.* at II.C.2. The Major Questions Doctrine is a principle of administrative law dictating that agencies (like the FTC) must have clear and explicit congressional authorization to make decisions on major questions, or questions with significant economic, political, or social consequences.
[40] *Id.* at II.C.3. The Non-Delegation Doctrine is a constitutional principle that holds that Congress cannot delegate its legislative powers to administrative agencies (like the FTC) without providing an intelligible principle to guide the agency's actions.
[41] *Id.* at IV.A.2.
[42] *Id.*
[43] *Id.*
[44] *Id.*
[45] *Id.*
[46] *Id.*
[47] *Id.* at IV.A.1.
[48] *Id.*
[49] *Id.* at I.B.1 and IV.B.
[50] *Id.* at I.B.2.
[51] *Id.*

The FTC also outlined narrow and specific exceptions to the ban.[52] The first exception focuses on when a business entity is sold.[53] The exception allows a non-compete agreement between the seller of a business and the buyer of that business which restricts the seller from competing with the business they just sold.[54] The FTC next considers the "exception for existing causes of action," and notes that while prior non-compete clauses are no longer enforceable under the ban, if a cause of action (such as a breach of a non-compete agreement) was brought prior to the ban going into effect, then the final rule will not apply to that particular non-compete and the action could go forward.[55] The third exception dictated by the FTC is the good faith exception which says that "the final rule prohibit[s] an employer from representing to a worker that the worker is subject to a non-compete unless the employer has a good faith basis to believe the worker is subject to an enforceable non-compete."[56] This exception essentially serves to keep the ban from infringing on any First Amendment rights.[57]

The FTC also details the alternative policies considered and addresses comments from the public for each.[58] For the consideration of a rebuttable presumption instead of a total ban of non-competes, the FTC found that a rebuttable presumption was unlikely to effectively address and reduce the prevalence of noncompete agreements or their negative effects on competition.[59] The FTC also looked at possible disclosure or reporting rules, limits on scope and duration, a compensation requirement, or any combination thereof.[60] In addressing a possible disclosure rule, the FTC determined that while such rule may address the deceptive portion of non-competes, simply informing workers about non-competes would not serve to address any harm caused by non-compete agreements, nor would it be as effective as the complete ban.[61] Similarly, the FTC found that a possible reporting rule would not achieve the objectives of the final rule, as it would not serve to reduce the prevalence or effects of non-competes and would result in significant costs to employers.[62] When looking at the possibility of limiting the scope and duration of non-competes instead of a total ban, the FTC reasoned that limiting the way in which a non-compete agreement "curtails job motility for the individual worker . . . to a lesser degree," it still "curtails the worker's job motility," and thus does not sufficiently address the negative effects on competition caused by non-competes.[63] The last discrete alternative that the FTC considered was a compensation requirement, meaning non-competes would be valid so long as there was valid consideration or compensation separate from any compensation given for work done by the employee.[64] The FTC rejected this alternative as again failing to address and remedy the negative impact of non-compete agreements.[65] The final alternative the FTC addressed was essentially the option to do nothing.[66] This alternative was simply the choice to do nothing in favor of continuing to rely

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[52] *Id.* at V.
[53] *Id.* at V.A.
[54] *Id.*
[55] *Id.* at V.B.
[56] *Id.* at V.C.
[57] *Id.*
[58] *Id.* at IX.
[59] *Id.* at IX.A.
[60] *Id.* at IX.B.
[61] *Id.* at IX.B.1.
[62] *Id.* at IX.B.2.
[63] *Id.* at IX.B.3.
[64] *Id.* at IX.B.4.
[65] *Id.*
[66] *Id.* at IX.C.

on case-by-case litigation and state law.[67] The FTC noted that this was not a viable option as it is currently not working and does nothing to address the negative effects of non-compete clauses.[68] The FTC's publication of the final rule triggered numerous court cases in various states seeking an injunction in order to stop the rule from going into effect.

V. COURT CASES ADDRESSING THE FTC'S BAN

There have been multiple cases filed against the FTC in response to the publication of the final rule limiting the use of non-compete agreements, specifically in Pennsylvania, Florida, and Texas.[69] With the rule initially set to go into effect in September 2024, the plaintiffs in these cases all motioned for preliminary injunctions, looking to stay the effective date and enjoin the FTC from enforcing the restriction.[70] Each court responded differently, granting or denying the motion with varying rationales.[71] Only one court, a U.S. District Court in Texas, has ruled on the case beyond the motion for preliminary injunctions.[72]

a. *ATS Tree Servs., LLC v. FTC*

Decided on July 23, 2024, the U.S. District Court for the Eastern District of Pennsylvania denied ATS Tree Services, LLC's (ATS) motion for a stay of effective date and preliminary injunction.[73] ATS originally filed its complaint, which stated four claims, on April 25, 2024, two days after the FTC positively voted for the adoption of the final rule.[74] Around two weeks after ATS filed their complaint, ATS moved for a preliminary injunction and stay of effective date.[75] ATS alleged that the FTC did not have statutory authority to "promulgate substantive rules," and even if the FTC did have some statutory authority, the final rule exceeds such authority by banning all non-compete agreements.[76] For the final assertion in ATS's injunction, ATS alleged that the Federal Trade Commission Act (FTC Act) itself violates the Constitution by "delegat[ing] legislative power to the FTC."[77] The court denied the entirety of the injunction and stay of effective date.[78]

In addition to finding that ATS failed to establish that irreputable harm would occur should they be subject to the FTC's non-compete ban, the court found that ATS failed to show a substantial likelihood of success on the merits, as required for an injunction, in arguing that there was a reasonable probability of a lack of authority to issue the ban on the part of the FTC, or that the delegation of authority from Congress to make the rule was unconstitutional.[79] ATS

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[67] *Id.*
[68] *Id.*
[69] *ATS Tree Servs., LLC v. FTC*, No. 24-1743, 2024 U.S. Dist. LEXIS 129398 (E.D. Pa. July 23, 2024); *Props. of the Vills., Inc. v. FTC*, No. 5:24-cv-316-TJC-PRL, 2024 U.S. Dist. LEXIS 151982 (M.D. Fla. Aug. 15, 2024); *Ryan LLC v. FTC*, No. 3:24-CV-00986-E, 2024 U.S. Dist. LEXIS 117418 (N.D. Tex. July 3, 2024) [hereinafter *Ryan LLC I*]; *Ryan LLC v. FTC*, No. 3:24-CV-00986-E, 2024 U.S. Dist. LEXIS 148488 (N.D. Tex. Aug. 20, 2024) [hereinafter *Ryan LLC II*].
[70] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398; *Props. of the Vills.*, 2024 U.S. Dist. LEXIS 151982; *Ryan LLC*, 2024 U.S. Dist. LEXIS 117418 *I*; *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[71] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398; *Props. of the Vills.*, 2024 U.S. Dist. LEXIS 151982; *Ryan LLC I*, 2024 U.S. Dist. LEXIS 117418; *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[72] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[73] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398.
[74] *Id.* at *4–5.
[75] *Id.* at *5–6.
[76] *Id.*
[77] *Id.* at *5.
[78] *Id.* at *3.
[79] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *21.

supplemented its assertion that the FTC did not have authority to implement the ban by arguing that non-competes should fall under the Rule of Reason analysis; specifically, that even if the FTC did have rulemaking authority, the ban was overly broad, federalism principles cover non-competes as they are subject to state regulation, and non-competes should be analyzed under the Major Questions Doctrine.[80]

The court first examined the FTC Act, how it grants authority to the FTC, and what authority is granted.[81] The court specifically looked at Section 5 of the FTC Act, which grants authority to the FTC to prevent the use of "unfair methods of competition," and the Section 5 Policy Statement, which elaborates upon the authority established by Section 5 and how a company's conduct may fall within the purview of the section as an "unfair method of practice."[82] The Policy Statement defines conduct and what it means for conduct to be unfair, providing two elements to aid in determining when conduct falls within the bounds of unfair conduct: (1) that "the conduct may be coercive, exploitative, collusive, abusive, deceptive, predatory, or involve the use of an economic power of a similar nature" and (2) that "the conduct must tend to negatively affect competitive conditions."[83] The court further looked at the powers granted to the FTC by examining the adjudicatory procedures laid out in Section 5 and the powers granted in Section 6 for investigation and regulation.[84] Specifically, the court looked at whether Section 6(g) grants the FTC the authority to regulate unfair competitive business practices relating to through substantive rulemaking or only through adjudicative procedural rules.[85] The court considered a number of instances where the FTC had enacted substantive rules in the past, the judicial and legislative responses to these rules, and the effect of the 1975 and 1980 Amendments to the FTC Act on the FTC's rulemaking authority.[86]

When examining the FTC's rulemaking authority, the court began by noting that the meaning of a statute is to be ascertained by the plain language of the statute.[87] The court further noted that, when examining a statute that proports to delegate discretionary authority, the statute must be independently interpreted "and effectuate the will of Congress" within the limits placed by the Constitution.[88] Under these principles, the court analyzed Sections 5 and 6 of the FTC Act. Looking at the text of these Sections, the court noted that nothing in either Section "expressly limits the FTC's rulemaking power to issue exclusively procedural rules."[89] Nowhere in Section 6(g) do the words "procedural" or "substantive" appear, and the court declined to "infer meaning from that absence."[90] Therefore, the court found that, as necessary to stop unfair business practices relating to competition, the FTC Act authorizes the FTC to implement procedural and substantive rules.[91] The court also declined to interpret Sections 5 and 6 as limiting the FTC to being an adjudicative body.[92] The court explained that having the power to adjudicate does not carry any weight regarding the FTC's rulemaking ability.[93] The

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[80] *Id.* at *33.
[81] *Id.* at *7–11.
[82] *Id.* at *9–11.
[83] *Id.* at *11 (quoting ECF No. 62 at 242).
[84] *Id.* at *12–13.
[85] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *13.
[86] *Id.* at *13–17.
[87] *Id.* at *15.
[88] *Id.* at *35 (quoting Loper Bright Enters. v. Raimondo, 603 U.S. 369 (2024)).
[89] *Id.* at *36.
[90] *Id.* at *37.
[91] *Id.*
[92] *Id.* at *39.
[93] *Id.*

court specifically noted that when past courts analyzed the FTC's power to adjudicate and its rulemaking ability, the courts "found that Congress directly authorized the FTC to issue substantive rules to prevent unfair methods of competition."[94]

The court also examined the word "prevent" as it is used in the statute.[95] The court concluded that Congress's choice in using the word prevent indicated an intention for the FTC to have proactive ways of stopping unfair competitive business practices, rather than just retroactive adjudicative ways.[96] For the FTC's final rule regarding non-compete agreements, the court stated that the rule fell directly in the area of preventing unfair competition methods by "ceas[ing] the past and ongoing harm" and preventing future harm caused by non-compete agreements.[97] The court further noted that Congress confirmed the FTC's authority to make substantive rules through the 1975 and 1980 Amendments to the FTC Act.[98]

Finding that the FTC does have substantive rulemaking authority, the court then looked to the validity of the rule itself and the extent of its coverage.[99] The court analyzed each of the ATS's four arguments against the validity of the rule.[100] First, the court addressed ATS's assertion that reasonable non-competes are not unfair in practice, and that the Rule of Reason should be used in each case to determine if that particular non-compete agreement constitutes an unfair method of competition.[101] Highlighting the extensive research completed by the FTC in the development of this rule, the court determined that the FTC reasonably found all non-competes to be unfair competitive business practices and unjustifiable in the course of legitimate business practice—fulfilling the requirements provided in the Section 5 Policy Statement—with the FTC determining non-competes to be exploitive and negatively affecting competition by preventing workers to seek better jobs.[102] Therefore, the court found that the rule was valid and the Rule of Reason did not apply.[103]

Next, ATS asserted that non-competes historically fall under state—not federal—regulation, and therefore, the FTC lacked the authority to regulate non-competes without an express provision in the FTC Act granting such authority.[104] The FTC contended there was "overlapping antitrust jurisdiction," as there is federal antitrust law, but states still typically have their own antitrust law as well.[105] The court reasoned that, since the final rule provided that parallel state laws addressing non-competes may continue to be effectuated as long as they do not conflict with the rule, state law is not preempted.[106] The court further noted that the FTC Act allows the FTC to regulate all unfair business practices relating to competition, so the rule will rightfully override any conflicting state law.[107] The court also recognized the discussion provided in the rule that there are already constraints on states' ability to govern non-competes

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[94] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *38 (citing Nat'l Petroleum Refiners Ass'n v. F.T.C., 482 F.2d 672 (D.C. Cir. 1973); United States v. JS&A Grp., Inc., 716 F.2d 451, 454 (7th Cir. 1983)).
[95] *Id.* at *40–41.
[96] *Id.*
[97] *Id.* at *41.
[98] *Id.* at *41–47.
[99] *Id.* at *47–56.
[100] *Id.*
[101] *Id.* at *47–50.
[102] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *47–50.
[103] *Id.*
[104] *Id.* at *50–52.
[105] *Id.* at *50.
[106] *Id.* at *51.
[107] *Id.*

because courts and laws differ greatly across the states, and due to the utilization of choice of law provisions.[108] Therefore, the court found that there were no federalism issues brought on by any crossover with the rule and state laws.[109]

For their third argument, ATS contended that any purported authority the FTC possessed to implement the rule should be analyzed under the Major Questions Doctrine, which requires agencies to evidence definite authorization from Congress to regulate in a certain way.[110] The FTC argued that, as the rule falls directly in the plain language of the FTC Act, the Major Questions Doctrine does not apply.[111] The court noted that the Major Questions Doctrine only applies in exceptional cases where there is "reason to hesitate before concluding that Congress meant to confer [the] authority" that an agency is asserting.[112] In determining whether to apply the Major Questions Doctrine to a regulation, the factors to be considered by a court include the regulation's economic and political significance, as well as if "there is a mismatch between an agency's challenged action and its congressionally assigned mission and expertise."[113] The court distinguished the rule from other Major Questions Doctrine cases by highlighting that the FTC has previously implemented substantive rules under Section 6(g), and courts have adjudicated and upheld the authority of the FTC that the rule is promulgated under.[114] Finding that the rule fell squarely within the core mission of the FTC and that the rulemaking authority had previously been used and upheld by courts, the court determined the Major Questions Doctrine did not apply.[115]

Finally, ATS argues that the authorized substantive rulemaking is an unconstitutional legislative delegation by Congress.[116] The court found this argument to be without merit, as the only time courts have found a delegation unconstitutional is when Congress fails to confine the discretion of the authority granted.[117] As long as Congress sets forth "an intelligible principle" to direct the agency in using the delegated authority, the delegation is to be found constitutional.[118] The court noted that the case ATS relied upon specifically places the "FTC Act outside the bounds of an unconstitutional delegation issue" in acknowledging the existence of an intelligible principle for the FTC Act.[119] Therefore, the court found that the purported authority was properly delegated to the FTC.[120]

The court's rejection of each of ATS's assertions argues for the allowance of the FTC's non-compete rule as the court's analyses and findings state that the FTC possessed substantive rule making authority, the Rule fell within the authority of the FTC, and Congress constitutionally delegated the authority to the FTC.

b. *Props. of the Vills., Inc. v. FTC*

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[108] *Id.* at *51–52.
[109] *Id.* at *52.
[110] *Id.* at *52–54.
[111] *Id.* at *52.
[112] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *53
[113] *Id.* (quoting West Virginia v. EPA, 597 U.S. 697, 732 (2022)) (internal quotes omitted).
[114] *Id.* at *53–54.
[115] *Id.* at *53–54.
[116] *Id.* at *54–56.
[117] *Id.*
[118] *Id.*
[119] *Id.* at *55.
[120] *Id.* at *56.

In Florida, the Florida Middle District Court granted the preliminary injunction and the motion for stay of effective date filed by the plaintiff, Properties of the Villages, Inc. (PV), on August 14, 2024.[121] In a decision delivered from the bench, the court granted PV's injunction and stay of effective date.[122] The court first noted that the legal burden needed for a preliminary injunction and a stay of effective date are basically the same.[123] The court further noted that, in the Eleventh Circuit, a preliminary injunction serves to keep the parties' positions safe until a merits trial can take place, and requires that four factors be shown in order to be granted.[124] The party seeking the injunction must show (1) it has a significant chance of success on the merits, (2) the injunction must be granted in order for the party to avoid suffering irreparable harm, (3) the harm to the opposing party caused by the injunction is outweighed by the harm that would be suffered without the injunction, and (4) the injunction and public interest do not conflict.[125] With the opposing party being a governmental commission, the last two factors combine.[126]

PV put forward three issues in its argument for the injunction.[127] PV contended that (1) the FTC lacked substantive authority to make rules concerning unfair methods in competitive business practices; (2) even if the FTC did possess the authority, the non-compete rule goes beyond that authority; (3) and the rule does not comply with the Commerce Clause.[128]

The court did not delve far into PV's contention that the rule does not comply with the Commerce Clause.[129] Acknowledging the arguments that PV raises in support of this assertion, the court found that PV failed to show a significant chance of success for any of them as independent arguments.[130]

Similar to *ATS Tree Servs., LLC v. FTC*, when analyzing PV's contention that the FTC lacks the substantive authority necessary for making rules over unfair business practices in competition, the court examined Sections 5 and 6 of the FTC Act.[131] The court noted that Section 5 authorizes the FTC preventing unfair business methods that affect competition and that Section 6(g) allows the FTC to create rules and regulations to govern as set out in the subchapter.[132] The FTC maintained that Section 5 and Section 6(g) granted the FTC the authority necessary to implement the non-compete rule.[133] PV contended the list that the rulemaking authority provided for in Section 6 is a part of contains only ministerial acts, and it is unlikely that Congress intended to grant a broad authority in one sentence within a list of detailing numerous different guidelines as to FTC's authority to promulgate rules related to the governance of unfair competitive business practices. PV further contended that Section 6(g) lacked other marks typically associated with a substantive rule.[134] The court found PV's arguments to be unpersuasive and unlikely to succeed, noting first that nothing in Section 6

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[121] *Props. of the Vills*, 2024 U.S. Dist. LEXIS 151982.
[122] *Id.*
[123] *Id.*
[124] *Id.* at *8–9.
[125] *Id.* at *8.
[126] *Id.*
[127] *Id.* at *10–15.
[128] *Props. of the Vills*, 2024 U.S. Dist. LEXIS 151982 at *10-15.
[129] *See id.* at *14.
[130] *Id.*
[131] *Id.* at *10–14; *see also ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *37.
[132] *See ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *10–14.
[133] *See id.*
[134] *Id.*

purports to limit the FTC to making only procedural rules.[135] The court reasoned that in reading the FTC Act and its amendments together, along with looking at previous court cases (including *ATS Tree Servs., LLC v. FTC*), Congress intended to give at least some version of substantial rulemaking power to the FTC.[136]

PV's final contention for their injunction asserted that even if the FTC has the authority to make substantial rules, the non-compete rule exceeded that authority. Under this contention, PV argued that non-competes are not always unfair, fall within state regulatory authority, is improperly retroactive, and should be subject to the Major Questions Doctrine.[137] The court was unpersuaded by the first three arguments set forth by PV for this issue, but dug further into the possible Major Questions Doctrine implications.[138] The court highlighted its review of numerous Supreme Court cases, cases from circuit courts, the rule and dissents from two of the FTC Commissioners, and briefs from law professors and the parties.[139]

In the two-prong analysis, court first found that there is a substantial likelihood a major question is posed by the non-compete rule.[140] The court reasoned that, so long as non-competes may be considered an unfair business practice, the non-compete rule does fall under the FTC's purview.[141] However, the court here determined that the economic significance in the effect on around thirty million American workers and a financial impact in the hundreds of billions on the companies affected, along with the political impact of preempting any state laws that conflict with the rule, outweighs the authority the FTC has when considering all the factors together.[142] Thus, the court found that there is a substantial likelihood of a major question.[143] For the second prong, the court examined Sections 5 and 6 to determine if there was a clear legislative authorization from Congress for the rule.[144] The court here determined that there is a lack of historical precedence of the FTC using its power to make a rule within the same "scope and manner" as this rule requires and that Congress likely did not intend for Section 6(g) authority to extend so far as to cover this rule.[145] Thus, the court found that there is a substantial likelihood presented by PV that the final rule falls outside of the FTC's authority, and, subsequently, it was substantially likely that the Major Questions Doctrine applied.[146] After finding that irreputable harm would be suffered, the court then granted the preliminary injunction, strictly limited to enjoining the FTC from enforcing the non-compete rule against PV only.[147] The FTC filed for appeal on September 24, 2024.[148]

c. *Ryan, LLC v. FTC*

Set in the United States District Court for the Northern District of Texas, Dallas Division, this case is the only one to have reached a hearing on the merits with a decision being

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[135] *Id.*
[136] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398, at *10–14.
[137] *Id.* at *15–24.
[138] *Id.*
[139] *Id.*
[140] *Id.*
[141] *Id.*
[142] *Id.*
[143] *Id.* at *21.
[144] *Id.* at *21–23.
[145] *ATS Tree Servs.*, 2024 U.S. Dist. LEXIS 129398 at *24.
[146] *Id.*
[147] *Id.* at *25–28.
[148] *Props. of the Vills*, 2024 U.S. Dist. LEXIS 151982, *appeal filed* by the FTC on Sep. 24, 2024.

rendered from the court as of November 2024.[149] On July 3, 2024, the court granted the preliminary injunction and motion for stay of effective date filed by Ryan, LLC (Ryan) and the Plaintiff Intervenors (PI), before ruling on the merits on August 20, 2024, by granting summary judgment to Ryan and the PIs.[150] The parties' arguments for the preliminary injunction and summary judgment, along with the court's rationale for both decisions, were largely the same.[151]

The court first outlined the FTC Act, specifically Sections 5 and 6, and the powers granted to the FTC through it, along with the proposed non-compete rule.[152] The court included the prevalence of non-competes provided by the FTC in the rule, the regulatory history of non-competes, and a short summary of how the FTC developed the rule.[153] The court further looked at specific provisions within the rule, such as the FTC's definitions distinguishing between a worker and a senior executive, unfair practices in competition in relation to each of them, and any exceptions to the rule.[154]

The court noted that the causes of actions listed in Ryan's complaint were brought under the Administrative Procedures Act (APA) and the Declaratory Judgment Act.[155] Ryan asserted the FTC lacked the statutory authority to impose the rule, the rule itself acted as an "unconstitutional exercise of power," and the research and conclusions from the research were "arbitrary and capricious."[156]

As with the above courts, the legal standard first used by the court to grant the preliminary injunction was dictated by Federal Rules of Civil Procedure 65(a).[157] However, in the decision on the merits, Ryan moved for summary judgment, meaning the legal standard was different even if the arguments largely remained the same.[158] For summary judgment, there must be no genuine dispute of fact presented by the evidence brought by either party.[159] For a dispute of material fact to exist, the court must find that the evidence is enough that a jury could decide in favor of the non-moving party.[160] Any inferences drawn by the court must be made in favor of the non-moving party, and no credibility determinations or considerations of the weight of the evidence may be made.[161] The burden falls on the non-moving party to show that a reasonable jury could find in favor of them after the moving party fulfills their initial responsibility of showing that there is no genuine issue.[162] The court noted that a moving party may first submit evidence negating or argue a lack of evidence supporting "an essential element of the nonmovant's . . . affirmative defense."[163] If there is no evidence supporting an essential element of the affirmative defense, then all other facts are necessarily rendered immaterial,

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[149] *Ryan LLC I*, 2024 U.S. Dist. LEXIS 117418.
[150] *Id.*; *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[151] *Ryan LLC I*, 2024 U.S. Dist. LEXIS 117418; *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[152] *Ryan LLC I*, 2024 U.S. Dist. LEXIS 117418, at *4–6.
[153] *Id.* at *6–11.
[154] *Ryan LLC I*, 2024 U.S. Dist. LEXIS 117418 at *11.
[155] *Id.*
[156] *Id.* at *11–12.
[157] *Id.* at *13. *See* FED. R. CIV. PRO. 65(a).
[158] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488.
[159] *Id.* at *15.
[160] *Id.*
[161] *Id.*
[162] *Id.* at *16
[163] *Id.* at *16.

leaving no genuine issue of material fact.[164] After such showing by the moving party is made, the non-moving party must articulate specific facts in support of their claim to show there is a genuine dispute of material fact.[165] If any assertion of fact made by one party is left unaddressed by the other party, that fact may be considered undisputed for the purposes of the summary judgment motion.[166] The court then dove into the elements of each argument, first discussing the statutory authority of the FTC before analyzing whether the actions, findings, and conclusions of the FTC were arbitrary and capricious.[167]

The first issue presented was whether the FTC Act granted the FTC the authority to "create substantive rules regarding unfair methods of competition."[168] Ryan asserted that Section 6(g) of the FTC Act does not grant the FTC the ability to make substantive rules, which is the authority under which the ban was made.[169] The FTC argued that Section 6(g) and Section 18 grant such authority.[170] The court noted that when examining a statute, they must look at the plain meaning of it and the intent of the legislature.[171] In examining Section 5 and Section 6 as a whole, the court determined that "Section 5 creates a comprehensive scheme to prevent unfair methods of competition" with "Section 6 enumerat[ing] additional powers that generally aid in the administration of that adjudication-focused scheme," which, at the very least, grants the FTC the ability to make procedural rules in regulating unfair methods of competition.[172] The court then looked at Section 6(g) specifically, along with Section 18.[173] The court determined that a plain reading of Section 6(g) does not grant the FTC substantive rulemaking authority regarding unfair methods of competition.[174] The court then stated that Section 18 specifically limits "the FTC's ability to make rules dealing with unfair or deceptive practices" and not rules concerning unfair methods of competition, but recognized that Section 18 "acknowledges [that] the FTC has some rulemaking power" regarding unfair methods of competitions.[175] However, after acknowledging that the FTC does have some authority to make substantive rules regarding unfair methods of competition, the court determined that the FTC does not have the authority to do so "through this method," i.e., the ban, as Section 6(g) only grants the power to make rules concerning the procedures or practices of the FTC.[176]

The court next looked at Ryan's contention that the lack of substantial rulemaking power is further indicated by the absence of a "statutory penalty for violating rules promulgated under Section 6(g)," noting that, historically, there are sanctions established when legislative rulemaking is authorized by Congress.[177] The prescription of a sanction for violating an agency's rules indicated Congress's intention that the agency have the ability to make rules having the force of law, and the lack of such sanction indicates the authority to make only procedural rules.[178] The court noted that Section 5 does include a penalty provision while

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[164] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488, at *16–17.
[165] *Id.* at *17–18.
[166] *Id.*
[167] *Id.* at *22, 33.
[168] *Id.* at *24.
[169] *Id.* at *22.
[170] *Id.* at *24.
[171] *Id.* at *23.
[172] *Id.* at *24.
[173] *Id.*
[174] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488 at *25.
[175] *Id.*
[176] *Id.* at *26.
[177] *Id.*
[178] *Id.* at *26–27.

Section 6(g) lacks one, indicating that any rulemaking power granted by Section 6(g) does not include the ability to make substantive rules, and Section 6(g) fails to reference any other Section that may grant substantive rulemaking authority.[179]

In the final part of the court's examination of the text of the FTC Act, the court looked at the history of the FTC Act and its amendments.[180] The court noted that the FTC asserted no substantive rulemaking ability until 1962, when, under Section 6(g), the FTC issued the Trade Regulation Rules with the intention that the rules have the force of law.[181] Such substantive rulemaking authority was then confirmed by the D.C. Circuit, leading to several more rules being created by the FTC until 1978, when no more substantive rules were made until the non-compete ban.[182] The amendments enacted in 1967 and 1968 expressly granted substantive rulemaking authority to the FTC, which the court stated would be superfluous had Section 6(g) already granted such authority.[183] The court noted that Section 18 was implemented in 1975 specifically to codify the FTC's substantive rulemaking ability regarding unfair or deceptive practices only, not such ability for unfair methods of competition.[184] Further, the court highlighted that Section 18's specific statement that any limitations placed on the FTC's substantive rulemaking authority relating to unfair or deceptive practices does not affect the FTC's "authority. . .to prescribe rules (including interpretive rules) . . .with respect to unfair methods of competition" is not an affirmation that the FTC has any substantive rulemaking authority relating to unfair methods of competition.[185] In regards to any argument made by the FTC that the 1980 amendments of the FTC Act confirms the substantive rulemaking ability, the court viewed them "as a piecemeal attempt to confer rulemaking authority that Congress has not affirmatively granted to the FTC" and rejected such arguments, confirming the court's decision that the text of the FTC Act does grant any substantive rulemaking power regarding unfair methods of competition; thus leading the court to the conclusion that the non-compete ban goes beyond the statutory authority of the FTC.[186]

The court then examined whether the FTC's acts, findings, and conclusions are arbitrary and capricious, determining that the rule did fall into this category as it was overbroad to an unreasonable extent and provided no reasonable explanation.[187] The court first noted that "the arbitrary and capricious standard requires that agency action be reasonable and reasonably explained" as explained by the Supreme Court.[188] To determine if a rule promulgated by an agency is arbitrary and capricious, the court must determine if

> the agency [] relied on factors Congress [did] not intend[] it to consider, entirely failed to consider an important aspect of the problem [being addressed], offered an explanation for its decision that runs counter to the evidence before the agency, or [the rule] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise, [189]

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[179] *Id.* at *27–28.
[180] *Id.* at *28-29.
[181] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488 at *29.
[182] *Id.*
[183] *Id.* at *29-30.
[184] *Id.* at *30-31.
[185] *Id.* at *31.
[186] *Id.* at *32-33.
[187] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488 at *33-34.
[188] *Id.* at *33.
[189] *Id.* at *33-34 (quoting Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 103 S. Ct. 2856, 2867, 77 L. Ed. 2d 443 (1983)).

looking only at the basis for the rule given by the agency.[190]

The court stated that the FTC's ban was based on an examination of "a handful of studies" of the economic effects of policies implemented by different states and approaches by states to non-competes in specific situations, none of which included a total ban like the FTC's proposed rule.[191] The court stated that this lack of support for a complete ban alone "renders the rule arbitrary and capricious."[192] The court further supported this statement by concluding the ban as being based on "inconsistent and flawed empirical evidence," the failure of the FTC "to consider the positive benefits of non-compete agreements," and the FTC's dismissal of "the substantial body of evidence supporting" non-competes.[193]

The court next determined that any alternatives to the ban were left unaddressed in the FTC's explanation of the ban.[194] By failing to address any alternatives, the FTC failed to provide a sufficient explanation as to why the ban is the reasonable choice among other possible actions, and fails to evaluate any reliance interests, their significance, and their weight.[195] The court indicated the lack of such analysis and noted the only statement in the FTC's reasoning is that a case-by-case analysis would have an "*in terrorem*" effect that would only serve to undermine the objective of the rule.[196] The court seems to contradict itself when it stated that the FTC failed to consider alternatives by dismissing any alternatives under the conclusions of "pro-competitive justifications outweigh[ing] the harms" and the alternative ways employers have to "protect their interests."[197] Such dismissal with conclusions as to why would seem to indicate the consideration of alternatives. Nonetheless, the court decided that the FTC's ban on non-compete clauses was arbitrary and capricious.[198]

With the court concluding that the FTC lacked statutory authority to impose the ban on non-competes and that the ban is arbitrary and capricious, the court dismissed any other arguments as unnecessary.[199] The court then granted summary judgment to Ryan and the PIs and ruled that the non-compete ban is unlawful and cannot be enforced.[200] This decision affects not only the state of Texas where the case was brought, but actually extends to make the ban on non-competes unlawful anywhere in the United States.

VI. GERMAN EMPLOYMENT LAW AND NON-COMPETES

German employment law is America's law turned on its head, meaning there are many differences and some surprising similarities. At its core, both look to balance employers' and employees' rights in a work environment, though each country takes a different approach to achieve that goal. In both countries, employers and employees have a base right regarding employment, then laws are placed to limit that base right. In America, the right is to fire

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[190] *Id.* at *34.
[191] *Id.* at *35.
[192] *Id.*
[193] *Id.* at *35-36.
[194] *Id.* at *36.
[195] *Id.*
[196] *Ryan LLC II*, 2024 U.S. Dist. LEXIS 148488 at *36.
[197] *Id.* at *37.
[198] *Id.*
[199] *Id.*
[200] *Id.* at *39

(employer) or quit (employee), however, in Germany, the right is to work (employee) or expect work (employer).[201] Due to the difference in the base right, German non-compete law is far more restrictive than American non-compete law (prior to the FTC's ban). Understanding the basics of what German employment law permits and prohibits is essential to understanding German non-compete law.

a. *The Basics of German Employment Law*

German employment law is built on a solid foundation of employee protections, rights, and obligations, aimed at ensuring fair treatment in the workplace.[202] The system is heavily influenced by a social partnership between employers, employees, and unions, and it emphasizes security and fairness for workers.[203] German employment law has several key aspects, including employment contracts, employee protections and rights, and termination of employment.[204]

Depending on the type of employment, a written employment contract may be required, and if a written contract is not required, it is still strongly recommended to have one.[205] A written employment contract is required for fixed term employment.[206] For other types of employment, it is not required to have a written employment contract, but it is still strongly recommended.[207] An employment contract serves to outline the terms of employment, including the employee's job description, salary, and working hours.[208] The standard terms outlined in an employment contract are generally governed by statutory provisions, collective bargaining agreements, or works agreements.[209] The contract may also include provisions concerning dismissal; however, protections against unfair dismissal are extensively outlined in German labor law.[210]

Regardless of if the employer or employee terminates the employment relationship (i.e., fires or quits), the terminating party must give statutory notice to the other party, the length of which is determined by the duration of the employment.[211] The range for the notice period starts at four weeks and can extend up to seven months.[212] If the employee works at a company

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[201] FISHER PHILLIPS, *supra* note 2.

[202] *See* FISHER PHILLIPS *supra* note 2; Christina Schön, *Investment Guide: Termination of Employment*, GERMANY TRADE & INVEST (last accessed April 9, 2025), https://www.gtai.de/en/invest/investment-guide/termination-of-employment-660268; *Labour Law*, FEDERAL MINISTRY OF LABOUR AND SOCIAL AFFAIRS (Mar. 8, 2023) (Ger.), https://www.bmas.de/EN/Labour/Labour-Law/labour-law.html.

[203] *See* FEDERAL MINISTRY OF LABOUR AND SOCIAL AFFAIRS, *supra* note 202; FISHER PHILLIPS, *supra* note 2.

[204] *See* FEDERAL MINISTRY OF LABOUR AND SOCIAL AFFAIRS, *supra* note 202.

[205] *Employment And Labor Laws in Germany: A Guide for Global Employers*, VELOCITY GLOBAL (Nov. 14, 2024), https://velocityglobal.com/resources/blog/employment-labor-laws-in-germany/#:~:text=Employment%20and%20Labor%20Laws%20in%20Germany:%20A%20Guide%20For%20Global%20Employers&text=Germany's%20robust%20economy%20and%20highly,those%20in%20many%20other%20nations.

[206] *Id.*

[207] *Id.*

[208] *Id.*; WELCOME CENTER GERMANY, *supra* note 3.

[209] VELOCITY GLOBAL, *supra* note 205.

[210] FISHER PHILLIPS, *supra* note 2.

[211] *Dismissal Law and Termination Procedure Under German Law*, TAYLORWESSING, https://www.taylorwessing.com/-/media/taylor-wessing/files/germany/2022/10/tw_2022_dismissal-law-and-termination-procedure-under-german-law.pdf#:~:text=Under%20German%20law%2C%20the%20employment%20relationship%20can,given%20by%20one%20of%20the%20contracting%20parties.&text=The%20minimum%20statutory%20notice%20period%20for%20both,last%20day%20of%20a%20calendar%20month%20(sec.

[212] *Id.*; FISHER PHILLIPS, *supra* note 2.

for less than two years, the terminating party only has to give 4 weeks of employment. However, if the employee works at the company for twenty (20) years or more, the terminating party must give at least seven months of notice.[213]

Further, once an employee has worked for a company for a consecutive six months, the employee is protected by the Employment Protection Act against unfair termination.[214] Under this act, an employer must be able to justify the dismissal with one of the valid reasons outlined in the act.[215] The acceptable reasons generally fall into three categories: personal, operational, or behavioral.[216]

Besides the Employment Protection Act, employees are protected by a variety of other statutes.[217] German labor statutes include anti-discrimination laws, protected maternity and paternity leave, paid sick leave, and a minimum amount of vacation days required for employees to have.[218] These strict statutes further demonstrate the extensive protections afforded under German employment law.

b. *German Non-Compete Law*

In Germany, non-compete agreements are enforceable under strict conditions laid out in statutory law.[219] The validity of non-compete agreements are heavily regulated to balance employer interests with the employee's right to freedom of occupation.[220] The agreements are subject to both statutory law and judicial discretion, with the statutory law differentiating between non-compete agreements that occur during the term of employment and non-compete agreements that occur after the termination of employment.[221] Additionally, German non-compete agreements could be subject to any European Union directives, however, the only existing directive that effects non-compete agreements is on commercial agents and limits non-compete agreements to two years.[222]

Before looking at any statutory regulations concerning non-compete agreements, these agreements first must be analyzed under the constitutional rights of German citizens, such as the freedom of occupation (Art. 12 of the Basic Law) and the freedom of contract (Art. 2 of the Basic Law).[223] Specifically, when examining these constitutional rights, the German Federal Constitutional Court has ruled that private autonomy must align with constitutional principles.[224] Non-competition clauses imposed without fair negotiation or compensation may be rendered unenforceable.[225]

Following any constitutional considerations, when looking at the statutory regulations, non-compete agreements are specifically governed by Section 60 of the Commercial Code

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[213] TAYLORWESSING, *supra* note 211.
[214] *Id.*; FISHER PHILLIPS, *supra* note 2.
[215] VELOCITY GLOBAL, *supra* note 205; FISHER PHILLIPS, *supra* note 2.
[216] VELOCITY GLOBAL, *supra* note 205; FISHER PHILLIPS, *supra* note 2.
[217] FISHER PHILLIPS, *supra* note 2.
[218] *Id.*
[219] Judge Mario Eylert, *supra* note 4.
[220] *Id.*
[221] *Id.*
[222] *Id.*
[223] *Id.*
[224] *Id.*
[225] *Id.*

(HGB), which prohibits employees from competing during the term of their employment.[226] This prohibition was extended to cover all employees, not just commercial ones, by the Federal Labour Court (BAG).[227] When looking at non-compete agreements occurring after the termination of employment, such agreements must be explicitly agreed upon and in writing.[228] Agreements that occur in this time period are regulated by Sections 74 and 75 of the HGB.[229] Additionally, the HGB requires that employers compensate their employees at least half of their previous salary for the non-compete agreement to be considered enforceable.[230]

The final condition for non-competes occurring after termination of employment is that these agreements must protect a justified business interest.[231] The primary interest that would qualify as a justified business interest is the protection of business secrets, such as customer lists, pricing, and work systems.[232] An employer who merely desires to restrict competition is insufficient as a justified business interest and, thus, would not succeed in justifying the use on a non-compete agreement.[233]

Along with the conditions of a non-compete agreement being written, justified, and supported by consideration, the reasonableness of non-compete agreement is also evaluated.[234] In determining the reasonableness of a non-compete agreement, the geographical, time, and industry factors are examined.[235] A non-compete agreement is considered reasonable if the factors examined and the agreement as a whole do not impose an unreasonable burden on the employee's future career.[236]

Should a non-compete agreement be brought to court over challenges to its enforceability or alleged violation, the employer generally bears the burden of proof when enforcing the clause, while the employee must prove entitlement to compensation for the restraint placed on them.[237] If a non-compete agreement is challenged by the employee as overly broad or without consideration, a court may render it void.[238] Of the actions a court may take, the law does not allow for a court to modify the non-compete agreement, but may only declare it as enforceable or unenforceable.[239]

If an action is brought because an employee breached an enforceable non-compete agreement, courts may issue temporary injunctions so long as the employer proves significant harm is or will be caused should the employee be allowed to engage in the behavior that violates the non-compete agreement.[240] Furthermore, if a post-termination non-compete agreement is violated by an employee, a court may order compensation and enforcement of the clause, along

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[226] *Id.*
[227] *Id.*
[228] *Id.*
[229] *Id.*
[230] *Id.*; Handelsgesetzbuch [HGB] [Commercial Code] § 74(2) (Ger.).
[231] FISHER PHILLIPS, *supra* note 2.
[232] *Id.*
[233] *Id.*
[234] *Id.*
[235] *Id.*
[236] *Id.*; HGB, Section 74a.
[237] FISHER PHILLIPS, *supra* note 2.
[238] *Id.*
[239] *Id.*
[240] *Id.*

with damages.[241] The same is true if a non-compete agreement that is in effect while the employee is still employed with the employer is violated.[242]

Overall, non-compete agreements are enforceable in Germany, but the agreements are subject to strict statutory requirements, including that such agreements must be written agreements, there must be consideration for the limitations placed by the agreements, and the agreements must be backed by a justified business interest. When considering the enforceability of such agreements on a case-by-case basis, Courts must balance the freedom of contract with constitutional rights, such as the freedom of occupation, and ensure that clauses are not overly burdensome to employees.

VII. ANALYSIS

Despite the different foundations for their employment law, America would likely greatly benefit from looking at German employment law. German employment law seeks to protect both employers and employees where non-compete clauses are concerned, and does so in an effective manner. The FTC's categorical ban on non-compete clauses is effective and serves to address the negative effects that non-competes have on workers and competition, however, the categorical ban may still be harmful when considering possible alternatives that would effectively mirror the German approach to non-compete agreements.

First, the differentiation between non-compete agreements being in effect during employment versus after is essential as to their effect on competition and protecting employers. Non-competes being in effect while a worker is still employed with the other party to the agreement further serves companies interests in protecting their assets and trade secrets. It also makes sense when considering companies' interests in having their employees work only for them, not for a competitor or starting their own competing business while still working for the employer. It is the effects of non-competes still constraining individuals even after their employment has ended that the FTC's ban is concerned with; keeping non-competes in effect during employment would only serve to protect company interests from other unfair or illegal methods of competition. Companies would have to be careful to ensure that these types of non-competes don't otherwise infringe on an employee's right to leave their employment.

Further, as exemplified by German employment law, the combination of limiting the scope and duration of a non-compete agreement, while requiring the agreement to be negotiated, written, explicit, backed by consideration, and justified by a larger reason than simply restricting competition, would likely still serve to limit the negative effects of non-compete agreements on competition while simultaneously protecting employers, employees, and the interests of all parties involved. Given that one of the primary reasons for the FTC's non-compete ban was the limitation imposed on worker mobility and the subsequent effects on competition, such as the impact on wages,[243] requiring consideration to the same effect of German law would cover the gap of losing opportunities, and, therefore, likely money, on the part of the employee, while still giving companies the opportunity to protect their interests in this way. The compensation aspect, especially if set to a high amount and made to be separate from any severance packages, may also serve to deter companies from utilizing them if they feel their interests are substantially covered by other laws, such as trade secret laws.

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[241] *Id.*
[242] *Id.*
[243] FTC Non-Compete Clause Rule, 89 Fed. Reg. 38342, at I.B.1 and IV.B.

The justification for the non-compete could be made easy or hard, depending on how a rule governing it were phrased. If it were following the German example of anything but limiting competition may serve as a justifiable reason, then companies likely could use protecting trade secrets as a justifiable reason for a non-compete agreement. However, if the German law were to be expanded on and included a provision to the effect of any reason substantially covered by already existing law cannot be justifiable reason for the use a non-compete agreement, then this would also serve to limit the implementation of non-compete agreements to cases when they truly are needed to protect company interests.

VIII. CONCLUSION

The FTC's complete ban on non-compete agreements does not appear to be the most effective way to address their use and the subsequent effects on competition, especially when considering the substantial pushback resulting in the enjoinment of the rule and overall disproval from the public and the courts. A rule that seeks to balance the interests of employers, employees, and the concerns outlined by the FTC may receive a more positive response from concerned parties. Using German employment law and how non-competes are addressed within German law as, at the very least, an example and starting point could serve to create a feasible and effective rule in accordance with the law and desire for promotion of competition and the protections of employers and employees.

THE DARK SIDE OF THE INTERNET: THE FACILITATION OF CSAM BY SOCIAL MEDIA COMPANIES AND WHAT SHOULD BE DONE ABOUT IT

By Megan Holderness

I. INTRODUCTION

The internet has changed the way we interact with the world—a fact even Congress has recognized.[1] While definitions of social media are broad and evolving, they can be summarized as "internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others."[2] Today, social media platforms boast an estimated 4.9 billion users worldwide in 2023,[3] and the social networking industry is worth approximately $139 billion.[4]

However, the rise of social media comes with the rise of crimes committed on social media platforms. Some of these crimes include cyberstalking, harassment, hacking, phishing, identity theft, fraud, and drug, gun, and human trafficking.[5] Perhaps one of the most harmful and exploitative of crimes facilitated by social media sites is the sharing of child sexual abuse material (CSAM). Formerly known as child pornography, CSAM is statutorily defined under federal law[6] and includes material depicting anyone under the age of eighteen.[7] Since as recently as 2016, the term "CSAM" has been preferred instead of "child pornography." Pornography is generally

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[1] "The Congress finds the following: (1) The rapidly developing array of Internet and other interactive computer services available to individual Americans represent an extraordinary advance in the availability of educational and informational resources to our citizens. (2) These services offer users a great degree of control over the information that they receive, as well as the potential for even greater control in the future as technology develops. (3) The Internet and other interactive computer services offer a forum for a true diversity of political discourse, unique opportunities for cultural development, and myriad avenues for intellectual activity. (4) The Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation. (5) Increasingly Americans are relying on interactive media for a variety of political, educational, cultural, and entertainment services." 47 U.S.C. § 230.

[2] Caleb T. Carr & Rebecca A. Hayes, *Social Media: Defining, Developing, and Divining*, 23 ATL. J. OF COMMC'N 50 (2015).

[3] Belle Wong, *Top Social Media Statistics and Trends of 2024*, FORBES, (last updated May 18, 2023), https://www.forbes.com/advisor/business/social-media-statistics/.

[4] Alex Petridis, *Social Networking Sites in the US - Market Research Report (2014-2029)*, IBIS WORLD, (last updated Sept. 2024), https://www.ibisworld.com/united-states/industry/social-networking-sites/4574/).

[5] Jill Harness, *The Most Common Crimes Committed on Social Media*, VISTA CRIM. L. (Jan. 18, 2021), https://vistacriminallaw.com/common-social-media-crimes/.

[6] "[C]hild pornography" means any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct where – (A) the production of such visual depiction involves the use of a minor engaging in sexually explicit conduct; (B) such visual depiction is a digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct; or (C) such visual depiction has been created, adapted, or modified to appear that an identifiable minor is engaging in sexually explicit conduct." 18 U.S.C. § 2256(8) (Supp. 2009); "Except as provided in subparagraph (B), "sexually explicit conduct" means actual or simulated— (i) sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex; (ii) bestiality; (iii) masturbation; (iv) sadistic or masochistic abuse; or (v) lascivious exhibition of the anus, genitals, or pubic area of any person; (B) For purposes of subsection 8(B) [(8)(B)] of this section, "sexually explicit conduct" means— (i) graphic sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex, or lascivious simulated sexual intercourse where the genitals, breast, or pubic area of any person is exhibited; (ii) graphic or lascivious simulated; (I) bestiality; (II) masturbation; or (III) sadistic or masochistic abuse; or (IV) graphic or simulated lascivious exhibition of the anus, genitals, or pubic area of any person…" 18 U.S.C. § 2256(2) (Supp. 2009).

[7] 18 U.S.C. § 2256(1) (Supp. 2009).

generated by adults who have consented to the recording of their sexual acts. However, children cannot consent to sex, or the recording and distribution of their abuse depicted in photos, videos, or other materials. Instead, CSAM is evidence of sexual abuse endured by children and should be referred to as such.[8] In the United States, there are a number of state and federal laws which ban creating, sharing, possessing, and distributing CSAM.[9] It is also banned in most countries around the world, given the egregious nature of these crimes and the life-long effects they have on innocent children who are victimized.[10]

Despite the alarming amount of CSAM on social media platforms, the government has required little of these companies to detect and remove such content. Meanwhile, social media companies have done little, if any, to help solve the problem on their own. While social media companies should do more, they will only do as much as is required of them. Thus, the government needs to take the reins. This paper argues that the government should pass proposed legislation, impose an affirmative duty on social media companies to monitor their platforms for CSAM, and require these companies to implement artificial intelligence (AI) programs more effectively to detect and remove CSAM.

II. THE PROBLEM OF CSAM ON SOCIAL MEDIA

a. Development of Social Media

Shortly after the invention of the internet in 1983,[11] social media sites began popping up on the platform. Digital communication companies such as CompuServe, America Online (AOL), and Prodigy offered real-time messaging unlike anything before.[12] In 1997, the first social media network as known today came on the market: SixDegrees.[13] The following years brought some of the most recognizable and influential social media sites: Friendster in 2001, LinkedIn in 2002, MySpace in 2003, Facebook in 2004,[14] YouTube[15] and Reddit in 2005, Twitter (now X) in 2006,[16] WhatsApp in 2009,[17] Instagram in 2010, Snapchat in 2011, and TikTok in 2016.

Social media networks were initially invented to connect family, friends, and other individuals on a digital platform that could be accessed anywhere in the world. Like-minded communities online formed to foster connection and facilitate communication. While originally

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[8] *What Is Child Sexual Abuse Material (CSAM)*, RAINN (Aug. 25, 2022), https://rainn.org/news/what-child-sexual-abuse-material-csam [hereinafter *What is CSAM*].
[9] *See* 18 U.S.C. §§ 1466A, 2251–2253.
[10] *INHOPE Global CSAM Legislative Overview 2024*, INHOPE, https://inhope.org/EN/articles/inhope-global-csam-legislative-overview-2024.
[11] *A Brief History of the Internet*, ONLINE LIBR. LEARNING CTR., https://www.usg.edu/galileo/skills/unit07/internet07_02.phtml.
[12] *The Evolution of Social Media: How Did It Begin, and Where Could It Go Next?*, MARYVILLE UNIV. (May 28, 2020), https://online.maryville.edu/blog/evolution-social-media/.
[13] Esteban Ortiz-Ospina, *The Rise of Social Media*, OUR WORLD IN DATA (Sept. 18, 2019), https://ourworldindata.org/rise-of-social-media.
[14] *Evolution of Social Media*, *supra* note 12.
[15] William L. Hosch, *YouTube*, BRITANNICA, https://www.britannica.com/topic/YouTube (last updated Dec. 19, 2024).
[16] *Evolution of Social Media*, *supra* note 12.
[17] Roland Martin, *WhatsApp*, BRITANNICA, https://www.britannica.com/topic/WhatsApp (last updated Feb. 19, 2025).

social media sites were accessed via laptop and desktop computers, the dawn of the smartphone revolutionized their use. The Apple iPhone launched in 2007, which expanded the use of social media to a mobile platform. Further technological developments, such as high-quality in-phone cameras, shifted these platforms to be more photo- and video-oriented.[18] However, social media is no longer simply used for communicating with friends or connecting to compatible strangers. In the modern day, social media platforms are powerful tools to advertise, grow businesses, access information, and influence the political climate. It has transformed how we interact with the world.

With the broad reach of social media, that transformation has been widespread and rapid. In 2019, 3.5 billion people of the world's population of 7.7 billion used the internet.[19] Of those 3.5 billion people, more than two-thirds used at least one social media platform.[20] In the United States, about 70% of Americans used social media sites.[21] These numbers have dramatically increased in a short period of time. From 2005 to 2019, the percentage of U.S. adults using social media increased from 5% to 79%. Facebook's global usership rose from 1.5% in 2008 to 30% in 2018.[22]

Facebook is the largest social media company in the world with 3 billion monthly active users globally, including a third of Americans aged thirteen to seventeen.[23] However, other social media platforms are close behind. In 2018, YouTube had 1.9 billion monthly active users, WhatsApp had 1.33 billion in 2017, WeChat and Instagram had 1 billion each, and TikTok had 500 million.[24]

There are age, gender, and socio-economic differences that affect the use of social media, which may vary among platforms. Trends consistently show that young people use social media sites more than the older population. For example, in 2019, 90% of adults aged eighteen to twenty-four of the surveyed group had used YouTube while 38% of adults aged sixty-five and older had used it.[25] Additionally, on average women use social media more than men.[26] Those numbers may also vary by platform, as women used Pinterest more while men used Reddit more in 2021.[27] Furthermore, in wealthy countries, as many as 96% of people aged sixteen to twenty-four are social media users.[28] This may be attributed in large part to the widespread availability of the internet in these countries and greater accessibility to technological devices. With such frequent use comes a lot of time spent on social media sites as well. In 2018, the average social media user in the U.S. spent more than six hours daily on these platforms.[29] While social media can provider

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[18] *Evolution of Social Media*, *supra* note 12.
[19] Ortiz-Ospina, *supra* note 13.
[20] *Brief History of the Internet*, *supra* note 11.
[21] Matthew Jones, *The Complete History of Social Media: A Timeline of the Invention of Online Networking*, HISTORY COOPERATIVE (Oct. 31, 2024), https://historycooperative.org/the-history-of-social-media/.
[22] *Brief History of the Internet*, *supra* note 11.
[23] Katherine Schaeffer, *5 Facts About How Americans Use Facebook, Two Decades After Its Launch*, PEW RESEARCH CENTER (Feb. 2, 2024), https://www.pewresearch.org/short-reads/2024/02/02/5-facts-about-how- americans-use-facebook-two-decades-after-its-launch/.
[24] Ortiz-Ospina, *supra* note 13.
[25] *Id.*
[26] *Id.*
[27] *Id.*
[28] *Id.*
[29] *Id.*

a lot of positive material for users, they can also facilitate a lot of negative material as well.

b. History of CSAM

The history of child sexual exploitation is, unfortunately, a long one. In ancient Greece, children as young as twelve years old were forced to enter marriages and sexual relationships with adults.[30] This trend continued throughout time: fourteen-year-old girls were married off in the Roman Empire, seven-year-old girls were made to wed in medieval times, and an adult could legally have sexual relations with girls as young as ten in early nineteenth-century England.[31] Children have been sexualized in art and writings throughout history, as well, including in ancient Greece, ancient Rome, and during the Renaissance.[32] However, the 1826 invention of the camera signaled a turning point in CSAM production.[33] Later, in the 1970s, popular films and magazines portrayed child abuse in media.[34] Initially, this CSAM was expensive, the images were low quality, the chances of being caught were high, and the distribution speed was slow. However, the dawn of the internet has caused a boom in the CSAM market. Today, offenders can easily connect to each other; CSAM is available twenty-four hours per day; and access is often free, anonymous, and instant.[35]

Child sexual abuse is often committed by people the child knows, including family members and trusted adults in their life. Most offenders involved with the possession and distribution of CSAM also commit participatory offenses against these minor victims through grooming, secrecy, and normalization.[36] The statistics regarding CSAM production, distribution, and consumption are alarming. In 2021, online platforms reported almost 30 million cases of suspected child sexual exploitation online to the National Center for Missing & Exploited Children (NCMEC) CyberTipline, including about 85 million photos and videos which constituted CSAM.[37] The ages of these children varied but there are some trends: about 4% showed infants or toddlers, 56% showed prepubescent children, 25% showed pubescent children, and 14% showed children across multiple age groups.[38] Of these, 97% of CSAM victims were girls.[39] Additionally, about 82% of CSAM featured severe abuse. The most severe abuse was more likely to be committed against younger children.[40] The good news is 89% of the more than 252,000

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[30] Bryce Garreth Westlake, *The Past, Present, and Future of Online Child Sexual Exploitation: Summarizing the Evolution of Production, Distribution, and Detection*, THE PALGRAVE HANDBOOK OF INTERNATIONAL CYBERCRIME AND CYBERDEVIANCE, June 2020, at 5.

[31] *Id.* at 5–6.

[32] *Id.* at 6.

[33] *Id.*

[34] *Id.*

[35] *Id.*

[36] Janis Wolak, David Finkelhor, & Kinberly J. Mitchell, *Child-Pornography Possessors Arrested in Internet- Related Crimes: Findings From the National Juvenile Online Victimization Study*, *in* UNIVERSITY OF NEW HAMPSHIRE SCHOLARS' REPOSITORY: CRIMES AGAINST CHILDREN RESEARCH CENTER (2005).

[37] *What is CSAM*, *supra* note 8.

[38] *Id.*

[39] United Nations Office on Drugs and Crime (UNODC), *Background Paper: Towards Zero: An Initiative to Reduce the Availability of Child Sexual Abuse Material on the Internet*, at 6, (2023), https://www.unodc.org/pdf/criminal_justice/endVAC/EGM/EGM_CSAM_Removal_Background_Paper.pdf [hereinafter *UNODC CSAM Paper*].

[40] *Towards a Global Indicator on Unidentified Victims in Child Sexual Exploitation Material: Summary Report*

CSAM URLs reported to the Internet Watch Foundation (IWF)[41] were traced back to the original owners or digital storage spaces, which enabled them to find the offenders' locations.[42]

Troubling data shows that the United States hosts more CSAM than any country in the world.[43] As of 2022, the United States made up 30% of the world's total CSAM URLs.[44] Part of the reason for that is that many CSAM sites have moved their servers to the U.S. in recent years.[45] There may be other nearly unsolvable factors that contribute to this as well: the large population size of the U.S. (337 million people in 2024)[46], the country's hub as the host of the most secure internet servers and data centers in the world, and the overwhelming volume of CSAM for law enforcement to investigate. These circumstances, as well as the availability of the internet, have created the perfect storm for CSAM possession and distribution to thrive.

Victims of CSAM often feel the negative effects of these heinous crimes committed against them long after their victimization. These survivors report feelings of guilt, shame, trouble with adult intimacy and relationships, problems with oversexualized behavior, low self-esteem, alcohol and substance abuse, eating disorders, and mental illnesses such as depression and post-traumatic stress disorder (PTSD).[47] Overwhelmingly, CSAM victims suffer from feelings of powerlessness and embarrassment as they are in constant fear of not only their perpetrators, but also being recognized as they move into adulthood.[48]

c. Social Media Companies' Facilitation of CSAM

The interconnectivity and easy access of social media has led to a global rise in cybercrime committed on these sites. With the internet's expeditious growth in the 1990s and early 2000s, peer-to-peer (P2P) file-sharing sites,[49] social media platforms, and instant messaging have resulted

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(2018), INTERPOL & ECPAT INTERNATIONAL, https://ecpat.org/wp-content/uploads/2021/05/TOWARDS-A-GLOBAL-INDICATOR-ON-UNIDENTIFIED-VICTIMS-IN-CHILD-SEXUAL-EXPLOITATION-MATERIAL-Summary-Report.pdf.

[41] IWF is based in the United Kingdom and operates in 30 countries. *Internet Watch Foundation*, SAFE ONLINE, https://safeonline.global/internet-watch-foundation-1/.

[42] Rhiannon Williams, *The US Now Hosts More Child Sexual Abuse Material Online Than Any Other Country*, MIT TECHNOLOGY REVIEW (Apr. 26, 2022), https://www.technologyreview.com/2022/04/26/1051282/the-us-now-hosts-more-child-sexual-abuse-material-online-than-any-other-country/.

[43] *What is CSAM*, *supra* note 8.

[44] *UNODC CSAM Paper*, *supra* note 39.

[45] *What is CSAM*, *supra* note 8.

[46] *U.S. and World Population Clock*, UNITED STATES CENSUS BUREAU, https://www.census.gov/popclock/ (last updated Dec. 19, 2024).

[47] *What is CSAM*, *supra* note 8.

[48] United Nations Office on Drugs and Crime (UNODC), *Background Paper: Towards Zero: An Initiative to Reduce the Availability of Child Sexual Abuse Material on the Internet*, at 7, (2023), https://www.unodc.org/pdf/criminal_justice/endVAC/EGM/EGM_CSAM_Removal_Background_Paper.pdf.

[49] "In general, individuals become P2P users by downloading software that connects them to the computers of other users in a network (e.g., Gnutella, BitTorrent, Ares). These other users could be located anywhere in the world. The software allows users to log onto the P2P network and issue requests for and download files from other network users, called peers. Users create shared folders that are accessible to others in the network and use these folders to receive downloaded files and also to share files they possess. Procedures vary somewhat among networks, but in most, users search for electronic files by using keywords, which are broadcast to the network of participating peers." Janis Wolak, Marc Liberatore, & Brian Neil Levine, *Measuring a year of child pornography trafficking by U.S. computers on a peer-to-peer network*, 38 JOURNAL OF CHILD ABUSE & NEGLECT (2014), https://www.sciencedirect.com/science/article/abs/pii/S0145213413003232.

in the prevalence of CSAM online.[50]

In a 2012, the U.S. Sentencing Commission reported to Congress that CSAM offenders use social media to groom minors and solicit CSAM from them.[51] They also emphasized the internet's evolving role in CSAM in the United States:

> Until the late 1970s and early 1980s, child pornography was difficult to find, risky to produce, expensive to duplicate, and required a secure and private storage area. Technological advances since that time have made child pornography much more widely available and reduced the barriers to offending. . . Most child pornography offenders now rely on Internet or Internet enabled technology to access and distribute child pornography . . . Many child pornography offenders rely on P2P networks . . .[52]

The statistics also support these assertions. In the last 15 years, NCMEC has seen a 15,000% increase in CSAM files reported.[53] Almost a million CSAM files were reported on Google, Dropbox, Microsoft, Snapchat, TikTok, X, and Verizon Media. In the fourth quarter of 2020, alone, Meta reported the removal almost 5.5 million CSAM files from their platform.[54] From 2005 to 2019, the development of mobile and digital technology resulted in an increase in offenders sentenced for CSAM production by 422%,[55] which is a sizeable increase but still does not keep up with the rapid rates of CSAM distribution.

In today's world, offenders sometimes gradually escalate inappropriate interactions to soliciting CSAM from minors themselves. Self-generated CSAM is less likely on popular platforms like X or Instagram, but they can occur on any social media site.[56] Through social media networks, offenders build digital relationships of trust in which they groom the minor and normalize sexualization. After building that rapport, offenders suggest, pressure, or trick minors into sending them nude photos, performing sexual acts, or exchanging explicit messages. About

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[50] Bryce Garreth Westlake, *The Past, Present, and Future of Online Child Sexual Exploitation: Summarizing the Evolution of Production, Distribution, and Detection*, THE PALGRAVE HANDBOOK OF INTERNATIONAL CYBERCRIME AND CYBERDEVIANCE, June 2020, at 6.

[51] *Federal Child Pornography Offenses*, UNITED STATES SENTENCING COMMISSION, at 267, https://www.ussc.gov/sites/default/files/pdf/news/congressional-testimony-and-reports/sex-offense-topics/201212-federal-child-pornography-offenses/Full_Report_to_Congress.pdf.

[52] *Id.* at 71.

[53] Glen Pounder & Rasty Turek, *On Social Media, Child Sexual Abuse Material Spreads Faster Than It Can Be Taken Down*, FAST CO. (July 14, 2021), https://www.fastcompany.com/90654692/on-social-media-child-sexual-abuse-material-spreads-faster-than-it-can-be-taken-down.

[54] *Social Media Is Accelerating the Spread of Child Sexual Abuse Material*, GIVING COMPASS (May 3, 2024), https://givingcompass.org/article/social-media-is-accelerating-the-spread-of-child-sexual-abuse-material (citing Glen Pounder & Rasty Turek, *On Social Media, Child Sexual Abuse Material Spreads Faster Than It Can Be Taken Down*, FAST COMPANY (July 14, 2021), https://www.fastcompany.com/90654692/on-social-media-child-sexual-abuse-material-spreads-faster-than-it-can-be-taken-down).

[55] *Federal Sentencing of Child Pornography: Production Offenses*, UNITED STATES SENTENCING COMMISSION (October 2021), https://www.ussc.gov/sites/default/files/pdf/research-and-publications/research-publications/2021/20211013_Production-CP.pdf.

[56] David Thiel & Renée DiResta, *Child Safety on Federated Social Media*, STANFORD INTERNET OBSERVATORY, at 8, (July 2023), https://stacks.stanford.edu/file/druid:vb515nd6874/20230724-fediverse-csam-report.pdf.

10% of CSAM was obtained in this way. However, the offenders may not stop at grooming and CSAM solicitation. From there, offenders may engage in sextortion[57] or commit hands-on sexual offenses against the minor.[58]

CSAM can be exchanged on social media sites in a variety of ways. The exchanges may occur via direct messages, chat rooms, private video calls, private channels, file-sharing and purchasing, and even through posts or hashtags.[59] On Snapchat, messages can disappear instantly, and metadata can be hard to retrieve, which makes it more difficult for law enforcement to collect evidence of CSAM creation, possession, or distribution. However, if the content is saved by a user communicating in that chat with another user, the content is still available. Snapchat also offers a story function to broadcast content to "friends" and offers public profiles for users to reach an even wider audience. With so many options on the social media market, consumers can find just about any platform with ease.

It is important to note that social media companies do not just include the big names we may use in everyday life like Facebook, Instagram, or TikTok. For example, Gnutella is a file-sharing network in which people can post and access digital files. In a one-year span, from 2010 to 2011, about 776,000 computers in more than 100 countries used Gnutella to share CSAM.[60] About 260,000 of those computers were located in the United States.[61] From those American computers, more than 5,000 CSAM images were shared more than 26,000 times per day.[62]

III. THE CURRENT STATE OF THE LAW

a. Laws Regulating CSAM on Social Media Platforms

The Electronic Communications Privacy Act of 1986 (ECPA)[63] protects the privacy of electronic, oral, and wire communications, including electronically stored data such as CSAM. More specifically, Title II of the ECPA, known as the Storage Communications Act (SCA),[64]

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[57] Sextortion is the extortion of the minor by threatening to distribute their CSAM in exchange for more material, money, or other demands, which is like blackmail.

[58] Midwest Regional Children's Advocacy Center, *Implications of Social Media Use and Exposure to Pornography and Child Sexual Abuse Material (CSAM): The Role of the Medical Provider*, at 2, https://www.mrcac.org/wp-content/uploads/2023/07/Social-Media-Use-and-Exposure-to-Porn-CSAM.pdf. (citing Celeste Krewson, *Sexual Abuse Prevalent Against Teenagers in the United States*, CONTEMPORARY PEDIATRICS (Oct. 20, 2022), https://www.contemporarypediatrics.com/view/sexual-abuse-prevalent-against-teenagers-in-the-united-states).

[59] Thiel & DiResta, *supra* note 56 at 6–9.

[60] Emily D. Gottfried, Emily Knight Shier, & Abby L. Mulay, *Child Pornography and Online Sexual Solicitation*, 22 CURRENT PSYCHIATRY REPORTS (2020) (citing Janis Wolak, Marc Liberatore, & Brian Neil Levine, *Measuring a year of child pornography trafficking by U.S. computers on a peer-to-peer network*, 38 JOURNAL OF CHILD ABUSE & NEGLECT (2014), https://www.sciencedirect.com/science/article/abs/pii/S0145213413003232).

[61] *Id.*

[62] *Id.*

[63] Since 1986, the ECPA has been amended by the following: the 1994 Communications Assistance to Law Enforcement Act (CALEA), the 2001 USA PATRIOT Act, the 2006 USA PATRIOT reauthorization acts, the FISA Amendments Act of 2008, and others. *Electronic Communications Privacy Act of 1986 (ECPA)*, BUREAU OF JUSTICE ASSISTANCE, U.S. DEPARTMENT OF JUSTICE, https://bja.ojp.gov/program/it/privacy-civil-liberties/authorities/statutes/1285.

[64] 18 U.S.C. §§ 2701–12.

maintains privacy safeguards for service providers' stored content and subscriber information. Generally speaking, electronic communication service companies cannot voluntarily disclose communications or subscriber/customer records that they facilitate.[65] However, there are some exceptions.[66] For example, these companies may voluntarily disclose communications to law enforcement if "the contents…were inadvertently obtained by the service provider…and appear to pertain to the commission of a crime,"[67] while customer records may be divulged "to any person other than a governmental entity."[68] However, both communications and customer records may be disclosed to NCMEC pursuant to 18 U.S.C. § 2258A[69] and as otherwise provided in other code sections such as 18 U.S.C. § 2703.[70]

Under the latter exception, 18 U.S.C. § 2703 outlines the legal procedures that law enforcement must follow in order to compel communications from these companies, including social media companies. Some of these procedures include obtaining search warrants, court orders, or user consent.[71] If the government follows the correct procedures, certain identifiable information is required to be disclosed to the government entity, including the user's name, address, identifying number or network address, and payment information. When this happens, the user does not know such information has been shared with the government.[72] In addition, upon receipt of request for such information, these providers have a duty to take any measure necessary to preserve these records and other evidence so that they can provide it in later proceedings.[73]

The other exception, 18 U.S.C. § 2258A, imposes a duty on these companies, including social media companies, to report violations of law related to CSAM and sex trafficking of minors.[74] This includes both apparent CSAM and imminent CSAM based on the facts or circumstances of the content.[75] The provider's report to NCMEC may include identifying information about the user, the user's history of content on the platform, the user's geographic location, visual depictions of the CSAM being reported, and any communications surrounding the CSAM.[76] After NCMEC receives such a report, they must share the report with the appropriate law enforcement agency.[77] The provider must then preserve the data or files reported for one year after the submission to NCMEC.[78]

Notably, these companies have no duty to monitor their platforms for criminal activity, including CSAM, or proactively ensure that these materials are not distributed on their platforms.

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[65] 18 U.S.C. § 2702(a).
[66] 18 U.S.C. § 2702(b)–(c).
[67] 18 U.S.C. § 2702(b)(7).
[68] 18 U.S.C. § 2702(c)(6).
[69] 18 U.S.C. § 2702(b)(6), (c)(5).
[70] 18 U.S.C. § 2702(b)(2), (c)(1).
[71] 18 U.S.C. § 2703(c)(1).
[72] *See* 18 U.S.C. § 2703(c)(3).
[73] *See* 18 U.S.C. § 2703(f)(1).
[74] 18 U.S.C. § 2258A(a)(1).
[75] *See* 18 U.S.C. § 2258A(a)(2).
[76] *See* 18 U.S.C. § 2258A(b), (g)(3).
[77] 18 U.S.C. § 2258A(c).
[78] 18 U.S.C. § 2258A(h).

In fact, that lack of duty is explicitly stated in the law.[79] Social media companies are generally not required to share criminal activity taking place on their platforms with law enforcement, unless they are obligated by law to do so.

Nonetheless, the consequences for failure to report CSAM that companies have encountered can be costly. These companies may be fined between $600,000 to $1 million for a knowing and willful failure to report depending on the size of the company and the number of offenses.[80] Section 230 of the Communications Decency Act of 1996, however, "provides immunity to online platforms from civil liability based on third-party content and for the removal of content in certain circumstances."[81] The policy goal of this provision is to encourage these sites to removal illegal content like CSAM and foster an environment in which online media can thrive.[82] That being said, the protection that civil immunity provides may pose challenges in the enforcement of CSAM violations of these platforms. Most notably, immunity from liability disincentivizes platforms from taking a more aggressive stance against CSAM measures on their sites.

b. The Role of Government Agencies and Programs in Combatting CSAM

The production, distribution, and possession of CSAM are strictly criminalized on both the state and federal levels.[83] Social media can be used as a tool in law enforcement's arsenal in aiding their investigations into CSAM and other crimes.[84] On public social media sites, law enforcement can access profiles, content, and other information without authorization. They can also make posts of their own to track down suspects or make the public aware of certain initiatives.[85]

A number of federal and international government agencies and programs work to stop and prevent CSAM on social media and other online platforms, including the Internet Crimes Against Children (ICAC) Task Force program;[86] the Federal Bureau of Investigation's (FBI) Violent Crimes Against Children (VCAC) program;[87] the U.S. Department of Justice's Child Exploitation and Obscenity Section (CEOS);[88] the Homeland Security Investigations (HSI) branch

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[79] Nothing in this section shall be construed to require a provider to— (1) monitor any user, subscriber, or customer of that provider; (2) monitor the content of any communication of any person described in paragraph (1); or (3) affirmatively search, screen, or scan for facts or circumstances described in sections (a) and (b). 18 U.S.C. § 2258A(f).

[80] 18 U.S.C. § 2258A(e).

[81] *Department Of Justice's Review Of Section 230 Of The Communications Decency Act Of 1996*, U.S. DEPARTMENT OF JUSTICE, https://www.justice.gov/archives/ag/department-justice-s-review-section-230- communications-decency-act-1996. *See* 47 U.S.C. § 230(c).

[82] *See* 47 U.S.C. § 230(b).

[83] *See* 18 U.S.C. §§ 1466A, 2251–2253.

[84] *See* Rachel Levinson-Waldman, *Principles for Social Media Use by Law Enforcement*, BRENNAN CENTER FOR JUSTICE (Feb. 7, 2024), https://www.brennancenter.org/our-work/research-reports/principles-social-media-use-law-enforcement.

[85] *Law Enforcement and Technology: Using Social Media*, CONGRESSIONAL RESEARCH SERVICE, (January 2022), https://sgp.fas.org/crs/misc/R47008.pdf.

[86] *Internet Crimes Against Children Task Force Program*, OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION, U.S. DEPARTMENT OF JUSTICE, https://ojjdp.ojp.gov/programs/internet-crimes-against-children-task-force-program.

[87] *Violent Crimes Against Children*, FEDERAL BUREAU OF INVESTIGATION, https://www.fbi.gov/investigate/violent-crime/vcac.

[88] *CEOS Mission*, CRIMINAL DIVISION, U.S. DEPARTMENT OF JUSTICE, https://www.justice.gov/criminal/criminal-ceos/ceos-mission (last updated Aug. 11, 2023).

of the U.S. Immigration and Customs Enforcement (ICE);[89] NCMEC, the International Centre for Missing & Exploited Children (ICMEC)[90] and its U.S. Financial Coalition Against Child Sexual Exploitation (FCACSE);[91] and Interpol.[92] These agencies and programs work to spread awareness about CSAM and child exploitation, investigate possible crimes on these platforms, and work with law enforcement to bring offenders to justice.

However, these bodies face many challenges to regulation. While some offenders use rudimentary routes to access and save CSAM online, others utilize sophisticated technology and encryption when committing their crimes.[93] Such advanced technology often present barriers to law enforcement, including digital forensic analysis that cannot be completed in a timely manner.[94] In addition, such complex technology also makes it harder for law enforcement to catch and trace CSAM in the first place. Social media companies also often have concerns surrounding privacy, specifically regarding sharing data and user information with law enforcement and government agencies. This can result in "delays in obtaining identifying information from IPSs [internet service providers] regarding their customers suspected of distributing child pornography."[95] However, perhaps the most disturbing challenge of all is sorting through the massive volume of CSAM on these sites.[96]

IV. WHAT SOCIAL MEDIA COMPANIES CURRENTLY DO

The U.S. Government does not require social media companies to actively sort through CSAM on their sites. If they do become aware, then these companies are required by law to report it to NCMEC.[97] Some social media companies independently take extra measures to stop CSAM on their sites.[98] For example, many social media sites offer reporting mechanisms for CSAM and other content that violates the terms of service.[99] Additionally, TikTok has established a "zero-tolerance approach" to CSAM and encourages the use of age controls and restrictions on the app.[100] Google supports some of the proposed legislation for stronger protections, and works with

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[89] *Child Exploitation*, Homeland Sec. Investigations, U.S. DEP'T. OF HOMELAND SEC., https://www.dhs.gov/hsi/investigate/child-exploitation (last updated Aug. 7, 2024).

[90] *Our Mission: About ICMEC*, INTL'L CTR. FOR MISSING & EXPLOITED CHILD., https://www.icmec.org/about/.

[91] *U.S. Financial Coalition Against Child Sexual Exploitation*, INT'L CTR. FOR MISSING & EXPLOITED CHILD., https://www.icmec.org/fcacse/.

[92] *International Child Sexual Exploitation Database*, INTERPOL, https://www.interpol.int/en/Crimes/Crimes-against-children/International-Child-Sexual-Exploitation-database.

[93] *Federal Child Pornography Offenses*, U.S. SENTENCING COMM'N, 71–72, https://www.ussc.gov/sites/default/files/pdf/news/congressional-testimony-and-reports/sex-offense-topics/201212-federal-child-pornography-offenses/Full_Report_to_Congress.pdf.

[94] *Id.* at 72.

[95] *Id.*

[96] *Id.*

[97] 18 U.S.C. § 2258A(a) (2022).

[98] *See* Coen Teunissen & Sarah Napier, *Child Sexual Abuse Material and End-to-End Encryption on Social Media Platforms: An Overview*, AUSTL. GOV'T: AUSTL. INST. OF CRIMINOLOGY, at 7–9 (July 2022), https://www.aic.gov.au/sites/default/files/2022-07/ti653_csam_and_end-to-end_encryption_on_social_media_platforms-v2.pdf.

[99] Neeraj Soni, *Navigating the Social Media Complaint Reporting Mechanism*, CYBERPEACE (Sept. 26, 2023), https://www.cyberpeace.org/resources/blogs/navigating-the-social-media-complaint-reporting-mechanism.

[100] *Age Appropriate Experiences*, TIKTOK, https://www.tiktok.com/legal/page/global/age-appropriate-experiences/en.

NCMEC and child experts to stop CSAM on their platforms.[101] Google also publishes a transparency report that shows how many CyberTipline reports they have made, how many accounts have been identified as CSAM offenders, how many hashes they have added to the NCMEC database, and more.[102] Facebook has voiced commitments to not only detect, report, and remove CSAM, but also to prevent it altogether.[103] In 2021, Facebook also introduced a feature that prevents users from searching for CSAM on the site.[104] As a result of these efforts, millions of files have been removed, and millions of accounts have been identified.

However, other companies offer virtually no protections. Telegram allows CSAM distribution through private channels. Discord has almost no safeguards to prevent children from meeting predators online.[105] A vast majority of sextortion occurs on sites like Wizz,[106] Instagram, TikTok, and Snapchat, despite any protections they may have.[107] In 2022, the U.S. Senate Judiciary Committee Chair Dick Durbin confronted Elon Musk about his failed promises to rid his platform X of child sexual exploitation,[108] to which Musk did not respond.

In fact, many of the world's largest social media companies are simply not doing enough. On January 31, 2024, the Senate Judiciary Committee held a full committee hearing featuring CEOs from a number of the most popular social media companies: Mark Zuckerberg from Meta, Lina Yaccarino from X, Shou Xi Chew from TikTok, Evan Spiegel from Snapchat, and Jason Citron from Discord. The hearing featured testimony from all of these CEOs regarding the prevalence of CSAM and child exploitation online, as well as what they can do to prevent it.[109] The hearing called for transparency and accountability from the social media companies, as well as the need for collaboration between the government and these platforms.[110] However, the Committee made one major finding that summarizes the meeting: "social media companies have

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[101] Susan Jasper, *An Update on Our Child Safety Efforts and Commitments*, GOOGLE: THE KEYWORD (Apr. 23, 2024), https://blog.google/technology/safety-security/an-update-on-our-child-safety-efforts-and-commitments/.

[102] *Google's Efforts to Combat Online Child Sexual Abuse Material*, GOOGLE TRANSPARENCY REP., https://transparencyreport.google.com/child-sexual-abuse-material/reporting?hl=en.

[103] John Buckley, Malia Andrus & Chris Williams, *Understanding the Intentions of Child Sexual Abuse Material (CSAM) Sharers*, META (Feb. 23, 2021), https://research.facebook.com/blog/2021/2/understanding-the-intentions-of-child-sexual-abuse-material-csam-sharers/.

[104] Pounder & Turek, *supra* note 53.

[105] Ahsan Habib, *CSAM: The Role of Social Media and Jurisdictions*, ACAMS TODAY (Apr. 23, 2024), https://www.acamstoday.org/csam-the-role-of-social-media-and-jurisdictions/.

[106] *See Is the Wizz App Dangerous for Kids? A Safety Guide to 'Teen Tinder'*, QUSTODIO BY QORIA (Feb. 15, 2024), https://www.qustodio.com/en/blog/is-wizz-app-dangerous/.

[107] Ahsan Habib, *CSAM: The Role of Social Media and Jurisdictions*, ACAMS TODAY (Apr. 23, 2024), https://www.acamstoday.org/csam-the-role-of-social-media-and-jurisdictions/ (citing Kevin Poireault, *Nigerian 'Yahoo Boys' Behind Social Media Sextortion Surge in the US*, INFOSECURITY MAG. (Jan. 29, 2024), https://www.infosecurity-magazine.com/news/nigerian-yahoo-boys-social-media/).

[108] *See* Alix Fraser et al., *Protecting Children Online — Questions for Five Big Tech CEOs*, TECH POL'Y PRESS (Jan. 26, 2024), https://www.techpolicy.press/protecting-children-online-questions-for-five-big-tech-ceos/.

[109] *Protecting Children Online: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. (2024), https://www.judiciary.senate.gov/protecting-children-online.

[110] *Key Takeaways from the Online Child Sexual Exploitation Hearing with Social Media CEOs*, SAFER (Feb. 2, 2024), https://safer.io/resources/key-takeaways-from-the-online-child-sexual-exploitation-hearing-with-social- media-ceos/; *see also* Barbara Ortutay & Haleluya Hadero, *Meta, TikTok and Other Social Media CEOs Testify in Heated Hearing on Child Exploitation*, ASSOCIATED PRESS, https://apnews.com/article/meta-tiktok-snap-discord- zuckerberg-testify-senate-00754a6bea92aaad62585ed55f219932 (Jan. 31, 2024, 8:26 PM).

failed to police themselves at our kids' expense, and now Congress must act."[111]

Part of this shortcoming comes from the government explicitly not imposing a duty on social media companies to act.[112] Instead, they only have to report CSAM to the CyberTipline if they become aware of its existence on their platform[113] or else they can be fined up to $1 million.[114] However, this potential fine may not be sizeable in the eyes of billion-dollar social media companies. In addition, a fine of $1 million may be cheaper for a company than taking further steps to prevent CSAM. Monitoring requires human moderators,[115] AI programs, the implementation of programs, constant updates, expanded data storage, and increased data privacy, which could cost millions, if not billions, of dollars to fund.[116]

Another incentive for social media companies to further implement CSAM detection and removal systems may be to avoid a bad reputation.[117] Parents do not want their children on a platform that does not offer protections to ensure age-appropriate content. The vast majority of users do not want the "wild west" of platforms where they may be exposed to criminal content. Additionally, many people, in general, do not want to support a company they consider immoral.[118] In today's age, when news is easily accessible at our fingertips, a company's reputation can be destroyed in a matter of seconds. Therefore, social media companies only do just enough to prevent CSAM to avoid hitting the headlines. As much as these companies do not want a reputation for facilitating CSAM, they want to avoid a reputation for intruding on users even more.[119] In this political climate, many social media companies are staunch advocates for the freedoms of speech and expression, as some companies believe imposing greater restrictions would violate such rights.[120]

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[111] Joao-Pierre S. Ruth, *Senate Hearing and Big Tech's Social Media* Responsibility, INFO. WEEK (Feb. 5, 2024), https://www.informationweek.com/data-management/senate-hearing-and-big-tech-s-social-media-responsibility.

[112] 18 U.S.C. § 2258A(f).

[113] 18 U.S.C. § 2258A(a).

[114] 18 U.S.C. § 2258A(e).

[115] *See* David Thiel & Renée DiResta, *Child Safety on Federated Social Media,* STAN. INTERNET OBSERVATORY, 10 (2023), https://stacks.stanford.edu/file/druid:vb515nd6874/20230724-fediverse-csam-report.pdf.

[116] *AI Pricing: How Much Does Artificial Intelligence Cost?,* WEBFX, https://www.webfx.com/martech/pricing/ai/.www.webfx.com/martech/pricing/ai/ (last visited Dec. 20, 2024).

[117] Rhiannon Williams, *The US Now Hosts More Child Sexual Abuse Material Online Than Any Other Country*, MIT TECH. REV. (Apr. 26, 2022), https://www.technologyreview.com/2022/04/26/1051282/the-us-now-hosts-more-child-sexual-abuse-material-online-than-any-other-country/.

[118] *See* Kat Tenbarge & Kevin Collier, *X Sees Largest User Exodus Since Elon Musk Takeover*, NBC NEWS (Nov. 13, 2024, 4:40 PM), https://www.nbcnews.com/tech/tech-news/x-sees-largest-user-exodus-musk-takeover-rcna179793.

[119] Michael Salter, Delanie Woodlock, & Tim Wong, *The Sexual Politics of Technology Industry Responses to Online Child Sexual Exploitation During COVID-19: "This Pernicious Elitism"*, J. OF CHILD ABUSE & NEGLECT at 2–3 (Nov. 13, 2023), https://www.sciencedirect.com/science/article/pii/S0145213423005471#bb2005 (citing Michael Salter, *Online Child Sexual Exploitation in the News*, *in* THE ROUTLEDGE COMPANION TO GENDER, MEDIA, AND VIOLENCE 401-11 (Karen Boyle & Susan Berridge, eds., 2023), https://www.taylorfrancis.com/chapters/edit/10.4324/9781003200871-44/online-child-sexual-exploitation-news-michael-salter).

[120] Michael Salter, Delanie Woodlock, & Tim Wong, *The Sexual Politics of Technology Industry Responses to Online Child Sexual Exploitation During COVID-19: "This Pernicious Elitism"*, J. OF CHILD ABUSE & NEGLECT at 3 (Nov. 13, 2023), https://www.sciencedirect.com/science/article/pii/S0145213423005471#bb2005 (citing Ellie Hanson, *'Losing Track of Morality': Understanding Online Forces and Dynamics Conducive to Child Sexual Exploitation, in*

V. WHAT SHOULD BE DONE

Given social media companies' generally ineffective response to the CSAM problem, the government take the reins. The government should pass proposed legislation with stricter guidelines, impose a duty on social media companies to monitor their sites for CSAM, and require these online service providers to implement AI programs to remove these materials.

a. Proposed Legislation

Proposed legislation may offer support in the country's fight against CSAM and child sexual exploitation, and many national groups advocate for the passage of such bills. The Rape, Abuse & Incest National Network (RAINN), the largest anti-sexual violence organization in the U.S.,[121] has pushed for Congress to pass the Child Rescue Act and the Project Safe Childhood Modernization Act.[122] Introduced in April 2024, the Child Rescue Act would "direct the Attorney General to convene a national working group to study proactive strategies and needed resources for the identification and rescue of children from sexual exploitation and abuse."[123] Introduced a year earlier, the Project Safe Childhood Modernization Act "modifies and reauthorizes through FY2028 the Project Safe Childhood Program within the Department of Justice," which "coordinates child sexual exploitation investigations and prosecutions across federal, state, and local law enforcement; provides training to law enforcement on best practices; and supports public education programs."[124] Additionally, the National Children's Alliance (NCA), a national professional membership organization which has served almost two million through their Children Advocacy Centers,[125] supported the passage of U.S. National Blueprint to End Sexual Violence Against Children and Adolescents.[126] Focused on prevention, healing, and justice, the Blueprint calls for the government to take a series of actionable steps against CSAM and child exploitation.[127] These proposed laws are a solid foundation upon which the other two parts of my proposals build.

Some government entities have also added to the conversation. The Department of Justice (DOJ) has proposed amendments to Section 230 of the Communications Decency Act of 1996.[128] Instead of full civil immunity, DOJ suggests carve-outs for companies acting in bad faith and for child abuse content.[129] NCMEC also advocates for the passage of the Strengthening Transparency

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CHILD SEXUAL EXPLOITATION: WHY THEORY MATTERS, 87–116 (Jenny Pearce, ed., 2019), https://bristoluniversitypressdigital.com/edcollchap/book/9781447351429/ch005.xml).

[121] *Mission Statement*, RAINN, https://rainn.org/mission-statement, (last visited Dec. 20, 2024).

[122] *What Is Child Sexual Abuse Material (CSAM)*, RAINN (Aug. 25, 2022), https://rainn.org/news/what-child-sexual-abuse-material-csam.

[123] Child Rescue Act, H.R. 8183, 118th Cong. (2024).

[124] Project Safe Childhood Act, H.R. 2661, 118th Cong. (2023).

[125] *About: Our Story*, NAT'L CHILD.'S ALL., https://www.nationalchildrensalliance.org/our-story/.

[126] *Advocacy: Our Positions*, NAT'L CHILD.'S ALL., https://www.nationalchildrensalliance.org/supported-legislation/.

[127] *Introducing the U.S. National Blueprint*, KEEP KIDS SAFE, https://www.keepkidssafe.us/the-blueprint#read-the-blueprint-desktop.

[128] *DEPARTMENT OF JUSTICE'S REVIEW OF SECTION 230 OF THE COMMUNICATIONS DECENCY ACT OF 1996*, U.S. DEP'T OF JUST., https://www.justice.gov/archives/ag/department-justice-s-review-section-230-communications-decency-act-1996.

[129] *Section 230 — Nurturing Innovation or Fostering Unaccountability?: Key Takeaways and Recommendations*, U.S. DEP'T OF JUST. (June 2020), https://www.justice.gov/ag/media/1072971/dl?inline=.

and Obligation to Protect Children Suffering from Abuse and Mistreatment Act of 2023 (STOP CSAM). The Act is a comprehensive bill that, among other things, "improves reporting of [CSAM] to NCMEC's CyberTipline; creates transparency requirements for online platforms; increases accountability for online platforms knowingly hosting, storing, promoting, or facilitating the distribution of CSAM; and . . . creat[es] a Report and Remove program to formalize requests to online platforms to remove CSAM."[130] However, even bipartisan legislation such as the above act[131] has been criticized over freedom of expression and privacy rights concerns.[132]

b. Duty to Monitor

The United States should impose a duty on social media companies and other electronic communications providers to actively monitor their sites for CSAM and evidence of other criminal activity. Other parts of the world already impose such a duty. For example, the European Union's Digital Services Act (DSA) imposes a duty on social media companies and other similar platforms to put measures in place to combat illegal content online. These measures include providing users with easy ways to flag suspicious content and working with trusted flaggers to evaluate such reports.[133] Article 24(b) of the DSA further strengthened protections against user-generated CSAM.[134] Similarly, in the United Kingdom, the Online Safety Act (OSA) imposes a duty on companies like social media sites to monitor and search their platforms for illegal content and CSAM. On January 31, 2024, criminal offenses went into effect for a number of other violations related to CSAM as well.[135]

However, the effectiveness of the DSA and the OSA are unknown. The DSA was issued in December 2020[136] and went "into full effect" in February 2024.[137] The OSA is also fairly new,

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[130] *The STOP CSAM ACT*, NAT'L CTR. FOR MISSING & EXPLOITED CHILD., https://www.missingkids.org/content/dam/missingkids/pdfs/ncmec-support-stop-csam-act.pdf; *see* STOP CSAM Act of 2023, S. 1199, 118th Cong. (2023).

[131] *Rep. Barry Moore Introduces Bipartisan Legislation to Protect Children Online*, BARRY MOORE (Apr. 12, 2024), https://barrymoore.house.gov/media/press-releases/rep-barry-moore-introduces-bipartisan-legislation-protect-children-online.

[132] Emma Llansó, *The STOP CSAM Act Threatens Free Expression and Privacy Rights of Children and Adults*, CTR. FOR DEMOCRACY & TECH. (May 2, 2023), https://cdt.org/insights/the-stop-csam-act- threatens-free-expression-and-privacy-rights-of-children-and-adults/.

[133] *The Digital Services Act*, EUR. COMM'N, https://commission.europa.eu/strategy-and-policy/priorities- 2019-2024/europe-fit-digital-age/digital-services-act_en. See *The Digital Services Act: Practical Implications for Online Services and Platforms*, LATHAM & WATKINS LLP (Mar. 2023), https://www.lw.com/admin/upload/SiteAttachments/Digital-Services-Act-Practical-Implications-for-Online- Services-and-Platforms.pdf.

[134] Lorna Woods & Clare McGlynn, *Pornography Platforms, the EU Digital Services Act and Image-Based Sexual Abuse*, THE LONDON SCH. OF ECON. & POL. SCI. (Jan. 26, 2022), https://blogs.lse.ac.uk/medialse/2022/01/26/pornography-platforms-the-eu-digital-services-act-and-image-based- sexual-abuse/.

[135] *Online Safety Act: Explainer*, GOV.UK: DEP'T FOR SCI., INNOVATION, & TECH. (May 8, 2024), https://www.gov.uk/government/publications/online-safety-act-explainer/online-safety-act-explainer.

[136] Aina Turillazzi, Mariarosaria Taddeo, Luciano Floridi, & Federico Casolari, *The Digital Services Act: An Analysis of its Ethical, Legal, and Social Implications*, 15 L., INNOVATION & TECH. 83, 83 (2023). www.tandfonline.com/doi/epdf/10.1080/17579961.2023.2184136?needAccess=true.

[137] Gabby Miller, *The Digital Services Act is Fully in Effect, But Many Questions Remain*, TECH POL'Y PRESS, (Feb. 20, 2024), https://www.techpolicy.press/the-digital-services-act-in-full-effect-questions-remain/.

as it was enacted in October 2023.[138] That being said it is expected that these laws will result in increased CSAM detection and removal. If social media companies are statutorily required to constantly look for CSAM, they must take actionable steps to seek it out instead of passively waiting for someone to come across such material and report it to them. Not only will actively searching be more effective to finding more CSAM, but it will also be quicker than the current process. By eliminating the reliance on a middleman (the user) to find and report these materials, these companies can find these files themselves and remove them immediately.

The U.S. government should impose this duty to monitor for the above reasons. However, there may be constitutional obstacles to this proposal. The Fourth Amendment protects citizens against "unreasonable searches and seizures" by the government.[139] Typically, law enforcement must obtain a warrant showing probable cause in order to perform a search. One exception to this requirement is if there are exigent circumstances. This means that warrantless searches are valid if a reasonable person would believe that entry is necessary to provide emergency assistance; catch a fleeing suspect;[140] prevent physical harm; destruction of evidence; escape; or "some other consequence improperly frustrating legitimate law enforcement efforts."[141] Notably, the Fourth Amendment only applies to government action,[142] while this proposal concerns searches conducted by social media companies. However, warrantless searches are unconstitutional when performed by private parties "if the private party act[s] as an instrument or agent of the Government."[143] Thus, these CSAM searches of users by social media companies may constitute Fourth Amendment violations.

That being said, this proposal does not violate the Fourth Amendment. Under the private search doctrine, private actors can give the government evidence of criminal activity they find in the course of a warrantless search, and the government may use that evidence in their prosecution of that individual.[144] In other words, "the Fourth Amendment does not prohibit the obtaining of information revealed to a third party and conveyed by him to Government authorities."[145] If social media companies find CSAM on their platforms, the government can use those materials as evidence. Furthermore, social media companies are not acting as government instruments or agents. The company is a completely separate entity, which may be regulated by the government. Although social media companies would be statutorily required to search for CSAM, it is only an initial indication to law enforcement. A secondary search conducted by law enforcement of that potential offender, however, would require a warrant.[146]

Additionally, in some situations, CSAM found by social media companies may constitute exigent circumstances. If there is evidence of ongoing child sexual exploitation, the circumstances

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[138] Peter Coe, *Tackling Online False Information in the United Kingdom: The Online Safety Act 2023 and Its Disconnection from Free Speech Law and Theory*, 15 J. OF MEDIA L. 213, 214 (2023). www.tandfonline.com/doi/epdf/10.1080/17577632.2024.2316360?needAccess=true.

[139] U.S. CONST. amend. 4.

[140] *See Missouri v. McNeely*, 569 U.S. 141 (2013).

[141] *United States v. McConney*, 728 F.2d 1195 (9th Cir. 1984).

[142] *See United States v. Jacobsen*, 466 U.S. 109 (1984).

[143] *Skinner v. Railway Labor Executives' Assn.*, 489 U.S. 602 (1989).

[144] *See McNeely*, *supra* note 140.

[145] *United States v. Miller*, 425 U.S. 435, 443 (1976).

[146] *See United States v. Carpenter*, 585 U.S. 296 (2018).

may demonstrate a need for immediate intervention. Lastly, individuals and entities have a reasonable expectation of privacy,[147] however, a warrant is not required to obtain information when parties knowingly expose that information to a third party.[148] In this situation, social media companies facilitate user-generated content on their platforms. As such, users share content, such as CSAM, with social media companies, which eliminates the need for a warrant.

c. AI Programs

By far, the biggest obstacle in the fight to eradicate CSAM from the internet, specifically on social media, is the sheer volume of these materials. It seems as though there is a never-ending stream of this abuse online, even as law enforcement tries their best to detect and remove these materials. Simply put, there is too much CSAM online for humans to sift through.

Luckily, technological advances may offer a solution: artificial intelligence (AI). Although definitions vary, AI is generally "an interdisciplinary branch of computer science that deals with models and data processing systems for the performance, emulation, or recreation of functions that earlier have been associated with human intelligence, such as reasoning, learning, and self-improvement."[149] At its core, AI imitates human cognition by learning through experiences via algorithms and pattern recognition.[150] There are also different types of AI: reactive, predictive, and generative. Reactive AI responds to certain inputs, such as Siri responding to prompts on Apple devices. Predictive AI uses data analysis to make predictions, such as personalized suggested shows on Netflix. Generative AI, like ChatGPT, creates original content.[151] In the context of CSAM detection and removal, the focus is on reactive AI.[152]

There are a number of advantages to using AI in the pursuit of CSAM eradication from social media. AI is adaptable, given that it is constantly learning from inputted information and can be catered to whatever goal the developer aims to achieve. It generally computes with less errors due to automation, as opposed to humans who constantly make mistakes. Thus, AI enhances efficiency for users and can be more productive in less time. Additionally, it is available twenty-four hours a day, seven days a week, so AI programs can run without needing a break like humans would. These programs would also make searching for CSAM easier, as the process would be

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[147] *See Katz v. United States,* 389 U.S. 347 (1967).

[148] *See Smith v. Maryland*, 442 U.S. 735 (1979). *See also United States v. Miller*, 425 U.S. 435 (1976).

[149] Emile Loza de Siles, *AI, on the Law of the Elephant: Toward Understanding Artificial Intelligence*, 69 BUFFALO LAW REVIEW 1418 (2021), https://digitalcommons.law.buffalo.edu/cgi/viewcontent.cgi?article=4928&context=buffalolawreview. (citing *Artificial Intelligence*, DICTIONARY.COM, https://www.dictionary.com/browse/artificial-intelligence; High-Level Expert Group on A.I., Eur. Comm'n, *A Definition Of AI: Main Capabilities and Scientific Disciplines* 7 (Dec. 18, 2018)).

[150] *What is (AI) Artificial Intelligence?,* UNIVERSITY OF ILLINOIS CHICAGO, (May 7, 2024), https://meng.uic.edu/news-stories/ai-artificial-intelligence-what-is-the-definition-of-ai-and-how-does-ai-work/.

[151] *Pros and Cons of AI in the Future of Education*, NATIONAL MATH + SCIENCE INITIATIVE, (Aug. 16, 2024), https://www.nms.org/Resources/Newsroom/Blog/2024/August-2024/Pros-and-Cons-of-AI-in-the-Future-of-Education.aspx.

[152] Especially in the last couple of years, discussion and legislation regarding generative AI CSAM has become more prominent. AI models are being trained to create fake materials depicting child sexual abuse. This paper is not focused on that very broad topic, but it is related to the contents of this paper. *Generative AI CSAM is CSAM*, NATIONAL CENTER FOR MISSING & EXPLOITED CHILDREN, (March 11, 2024), https://www.missingkids.org/blog/2024/generative-ai-csam-is-csam.

completely automated, with the exception of occasional human review. AI programs can also be integrated into systems that are already in place, so companies can easily implement such programs.[153]

Steps are already being taken by the government to use AI to detect and remove CSAM. On October 30, 2023, President Biden signed an Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence.[154] In the Order, he charged several government agencies, including the National Institute of Standards and Technology (NIST), with establishing standards for the use of AI systems within the government. CSAM was specifically included as a target of such programs.[155]

One example of an AI program used for this purpose is Microsoft's PhotoDNA. Developed in 2009 in partnership with Dartmouth College, PhotoDNA is a program that helps to identify and remove CSAM from the internet. When the program detects an image, it creates a unique digital signature (called a "hash") for the image, which is like a fingerprint for the image. Then, the image's hash is compared to hashes contained in a NCMEC database composed of the illegal images that have been previously identified.[156] When the image's hash matches that of a known illegal image, it can be detected and removed without human intervention.

Since its inception, PhotoDNA has aided, detected, disrupted, and reported millions of these files from around the world.[157] It is highly effective and very accurate, with an almost 0% rate of false positive matches and a less than 2% rate of false negatives.[158] In 2009, Microsoft donated the program to NCMEC to enhance their systems in place in the fight against CSAM and enable online service providers, like social media companies, to better equip them in their fight as well.[159] In 2015, Microsoft expanded the impact of PhotoDNA by making it available on Microsoft Azure,[160] allowing even more companies to detect and remove CSAM from their platforms.[161] Today, PhotoDNA is available for free to qualified businesses,[162] such as developers, non-profit

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[153] Nikita Duggal, *Incredible Advantages of AI: Notable 23 Benefits of AI*, SIMPLILEARN, (Oct. 22, 2024), https://www.simplilearn.com/advantages-and-disadvantages-of-artificial-intelligence-article.

[154] Exec. Order No. 14110, 88 Fed. Reg. 75191 (Oct. 30, 2023).

[155] *Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence*, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, https://www.nist.gov/artificial-intelligence/executive-order-safe-secure-and-trustworthy- artificial-intelligence.

[156] Ilana Berger & Time Torres, *Detecting Novel CSAM – Why Image Hash Matching Isn't Enough Anymore*, ACTIVEFENCE, (July 12, 2024), https://www.activefence.com/blog/detecting-csam-hash-matching/.

[157] *PhotoDNA*, MICROSOFT, https://www.microsoft.com/en-us/photodna?oneroute=true (last visited Feb. 15, 2025).

[158] Martin Steinebach, *An Analysis of PhotoDNA*, ASSOCIATION OF COMPUTING MACHINERY (August 2023), https://dl.acm.org/doi/10.1145/3600160.3605048.

[159] *Microsoft and National Center for Missing & Exploited Children Push for Action to Fight Child Pornography,* MICROSOFT (Dec. 15, 2009), https://news.microsoft.com/2009/12/15/microsoft-and-national-center-for-missing-exploited-children-push-for-action-to-fight-child-pornography/

[160] Microsoft Azure is a part of the Microsoft suite used by businesses as an infrastructure tool. It is "a public cloud computing platform…that can be used for services such as analytics, virtual computing, storage, networking, and much more. It can be used to replace or supplement [their] on-premise servers." Logan McCoy, *Microsoft Azure Explained: What It Is and Why It Matters*, CCB TECHNOLOGY, https://ccbtechnology.com/what-microsoft-azure-is-and-why-it-matters/ (last visited Feb. 15, 2025).

[161] *PhotoDNA*, *supra* note 154.

[162] "Qualified businesses" are vetted by a third-party service. However, the requirements for being considered "qualified" are unclear. Nevertheless, the businesses and online service providers using PhotoDNA must host user-

organizations, and technology companies. It is also now free to law enforcement, and is predominantly used by their forensic tool developers.[163]

Other programs go even further. Thorn, a non-profit organization that works to prevent child sexual abuse,[164] has an AI program called Safer Predict.[165] In 2019, Thorn launched Safer, a hashing AI program that worked essentially the same as PhotoDNA. Safer has proven to be successful, given that it has matched more than three million CSAM materials since its launch.[166] In 2024, they expanded the program by introducing Safer Predict, which detects new and unreported CSAM materials, instead of relying on database hash matches. Not only can Safer Predict identify new content, but it can also identify text, conversations about sextortion, self-generated CSAM, and potential abuse that may occur offline. Safer Predict has also been a success; it has already labeled 2 million files as potential CSAM.[167]

Nevertheless, there are a number of issues with AI programs: inputted data sets may be incomplete, algorithms may be biased, it takes time to develop more sophisticated technology, and, most notably, AI systems can be very expensive to create and implement.[168] Even if there are systems already in place into which AI can integrate, the price tag is still relatively high. Another issue with AI is that it is limited in its functions. Because AI programs learn from patterns and inputted data, the program may only be as good as the information it has analyzed. In addition, "AI systems cannot…match higher-order human abilities, such as abstract reasoning, concept comprehension, flexible understanding, [and] general problem-solving skills.... Instead, today's AI systems excel in narrow, limited settings…often where there are clear right or wrong answers where there are discernible underlying patterns and structures."[169] Essentially, as it currently stands, it is impossible for AI to completely take the place of humans in this space. Human moderators are still needed to review decisions made by the AI programs and work with law enforcement in the course of an investigation.

One particular problem with Microsoft PhotoDNA is the incomplete database to compare its detected images to illegal ones. The program works by comparing the hashes of the images it

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generated content. *PhotoDNA Cloud Service: Organizations, Businesses & Non-Profits*, MICROSOFT, https://www.microsoft.com/en-us/photodna/CloudService?oneroute=true (last visited Feb. 15, 2025). https://www.microsoft.com/en-us/photodna/FAQ?oneroute=true (last visited Feb. 15, 2025).

[163] *PhotoDNA*, MICROSOFT, https://www.microsoft.com/en-us/photodna?oneroute=true.

[164] *Who We Are*, THORN, https://www.thorn.org/about/ (last visited Feb. 15, 2025); *PhotoDNA, supra* note 154.

[165] *Introducing Safer Predict: Using the Power of AI to Detect Child Sexual Abuse and Exploitation Online*, THORN, (July 19, 2024), https://www.thorn.org/blog/introducing-safer-predict-using-the-power-of-ai-to-detect-child-sexual-abuse-and-exploitation-online.

[166] *Id. See also Safeguard Your Brand with Comprehensive CSAM Detection,* SAFER BUILT BY THORN, https://safer.io/.

[167] *Who We Are*, *supra* note 161.

[168] *See* Antonio Pontón-Núñez, *Addressing the Risks and Harms of Artificial Intelligence by Leveraging Capital*, NONPROFIT QUARTERLY, (Apr. 8, 2024), https://nonprofitquarterly.org/addressing-the-risks-and-harms-of-artificial-intelligence-by-leveraging-capital/?gad_source=1&gclid=CjwKCAiApY-7BhBjEiwAQMrrEd0BJdAtr7w52Cbl07znN9XBMj6Acn978gDQdZM6XZ5SftWVGJ8rfxoC4HoQAvD_BwE.

[169] Harry Surden, *Artificial Intelligence and Law: An Overview*, 35 GEORGIA STATE UNIVERSITY LAW REVIEW 1309 (2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3411869 (citing Jack Krupansky, *Untangling the Definitions of Artificial Intelligence, Machine Intelligence, and Machine Learning*, MEDIUM (June 13, 2017), https://medium.com/@jackkrupansky/untangling-thedefinitions-of-artificial-intelligence-machine-intelligence-and-machine-learning-7244882f04c7; John Rennie, *How IBM's Watson Computer Excels at Jeopardy!,* PLOS BLOGS (Feb. 14, 2011), https://www.cs.cornell.edu/courses/cs6700/2013sp/readings/01-a-Watson-Short.pdf).

detects to hashes in a database of hashes of known illegal images. However, there are many CSAM images that are not in the database, and more images are being created and uploaded every day. If an image is not in the database, PhotoDNA does not know to report it as CSAM. Simply put, hash matching is not enough. These programs need to account not only for known CSAM images but also for videos, text discussions, and newly generated content.[170] Safer Predict is, therefore, a better solution.

As Congress has previously expressed, social media companies have not done enough on their own to stop CSAM on their platforms. Congress has called on them, individually and collectively, to take actionable steps toward this goal.[171] I agree that social media companies should rise to that challenge on their own. However, I am not optimistic that they will actually do so. As history has shown, these companies will not implement measures to effectively act for a public concern as harmful and widespread as CSAM. Therefore, the government should step in via legislation to require that social media companies implement AI programs, like Safer Predict, onto their platforms so that CSAM can be detected and removed quicker and more effectively that the measures currently in place. There would have to be minimum requirements for these programs based on their effectiveness, accuracy, and data privacy. One obstacle to this proposal may be the cost of implementing these programs to satisfy compliance. However, the government could partially subsidize such an undertaking; the government could incentivize these companies to implement AI; or, depending on their size and net worth or market capitalization, these companies may be left to their own devices to fund the implementation.

VI. CONCLUSION

In summary, there is no easy solution to the problem of CSAM on social media. The government seems to point their finger at social media companies, while social media companies seem to do the bare minimum as required by the government. Because of this stand-still, I suggest that the government implement proposed legislation, impose a duty on these companies to monitor their platforms, and require social media companies to implement robust AI programs, like Safer Predict, to detect potential child sexual exploitation.

Thankfully, it is not just the government and social media companies who can work to solve these problems. There are a number of things the average person can do to stop the production, distribution, and possession of CSAM. Users can report suspicious content on their respective social media platforms and to NCMEC's Cyber Tipline. Parents can put privacy settings on their children's social media accounts and educate them about online safety practices. Law enforcement and prosecutorial agencies can educate the public about CSAM and child sexual exploitation, spread awareness, and support survivors.[172]

While the road to the elimination of CSAM may be a long one, it is a goal worth fighting

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[170] Steinebach, *supra* note 155; *see also* Ilana Berger & Time Torres, *Detecting Novel CSAM – Why Image Hash Matching Isn't Enough Anymore*, ACTIVEFENCE, (July 12, 2024), https://www.activefence.com/blog/detecting-csam-hash-matching/.

[171] *Protecting Children Online*, U.S. SENATE COMMITTEE ON THE JUDICIARY, https://www.judiciary.senate.gov/protecting-children-online.

[172] *How to Prevent Child Sexual Abuse Material (CSAM)*, RAINN (July 12, 2023), https://rainn.org/news/how-prevent-child-sexual-abuse-material-csam.

toward in whatever way possible. If CSAM is Goliath, we must come together to muster the strength of David. I am optimistic about that future, one that hopefully comes as soon as possible.