MEASURING LOCATION-SPECIFIC RENTS

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I. INTRODUCTION

In the complex architecture of international taxation, the concept of inter-nation equity describes the fair distribution of taxing rights among sovereign nations, addressing the fundamental question of which country is entitled to tax what income.[1] One of the more deeply entrenched tenets of inter-nation equity is the assertion that countries possess a legitimate right to tax income derived from economic activities conducted within their territorial boundaries.[2] Taxing income in the country where wealth is produced is known as source-country taxation. This approach contrasts with residence-country (or home-country) taxation, under which a nation taxes its residents or domestic entities on their worldwide income.[3] The primacy of source-country claims are implicitly acknowledged and practically reinforced by the widespread practice of home countries granting tax relief, either through tax credits for source-country taxation or exemptions for foreign-source income that has already been subject to tax in the

[1] *See, e.g.*, Michael J. Graetz, *The David R. Tillinghast Lecture: Taxation International Income: Inadequate Principles, Outdates Concepts, and Unsatisfactory Policies*, 26 BROOK. J. INT'L L. 1357, 1395 (2001); Nancy H. Kaufman, *Fairness and the Taxation of International Income*, 29 L. & POL'Y INT'L BUS. 145, 153 (1998); Richard A. Musgrave & Peggy R. Musgrave, *Inter-Nation Equity*, *in* MODERN FISCAL ISSUES: ESSAYS IN HONOUR OF CARL S. SHOUP 63 (Richard M. Bird & John G. Head eds., 1972); Ivan Ozai, *Inter-Nation Equity Revisited*, 12 COLUM. J. TAX. L. 58 (2020); PEGGY BREWER RICHMAN, TAXATION OF FOREIGN INVESTMENT INCOME: AN ECONOMIC ANALYSIS (1963).

2 *See, e.g.,* LEAGUE OF NATIONS, ECON. & FIN. COMM'N, *Report on Double Taxation Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman and Sir Josiah Stamp*, League of Nations Doc. E.F.S. 73. F.19 (1923), reprinted in 4 JOINT COMM. ON INTERNAL REVENUE TAXATION, *Legislative History of United States Tax Conventions* 4003, 4027-29 (1962) [hereinafter "League of Nations Report"]; ORG. ECON. CO-OPERATION & DEV. [OECD], *Action Plan on Base Erosion and Profit Shifting*, at 20-21 (2013), https://www.oecd.org/content/dam/oecd/en/publications/reports/2013/07/action-plan-on-base-erosion-and-profit-shifting_g1g30e67/9789264202719-en.pdf [https://perma.cc/6GTM-T6YZ]; REUVEN S. AVI-YONAH, *Restatement (Third) of Foreign Relations Law of the United States* § 402(1)(a) (A.L.I. 1987); REUVEN S. AVI-YONAH, *International Tax as International Law: An Analysis of the International Tax Regime* 35-39 (2007) (discussing the historical development of source and residence principles); *Tax Justice Network, Source and Residence Taxation* at 1 (2005), https://www.taxjustice.net/cms/upload/pdf/Source_and_residence_taxation_-_SEP-2005.pdf [https://perma.cc/CQ2Z-PADT].

[3] *See, e.g.*, Yoram Keinan, *The Case for Residency-Based Taxation of Financial Transactions in Developing Countries*, 9 FLA. TAX REV. 1, 3-4 (2008).

jurisdiction of its origin.[4] This framework, in theory, seeks to prevent double taxation while affirming the source country's primary entitlement.

However, the theoretical appeal of source-country taxation is undermined by numerous practical and conceptual challenges. Perhaps the most formidable of these is the inherently vague and often elusive nature of the "source" concept itself.[5] Determining the geographical locus from which income originates is rarely straightforward, especially in an increasingly globalized and digitized economy where value creation is diffused and multinational enterprises ("MNEs") operate seamlessly across borders.[6] The intricate rules for determining source, as embedded in domestic legislation and the vast network of bilateral tax treaties, are frequently characterized by a degree of arbitrariness.[7] These rules, often born of historical compromise, administrative convenience, or raw negotiating power, may bear

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[4] *See* OECD, *Model Tax Convention on Income and on Capital,* arts. 23A–B (2017), https://www.oecd.org/en/publications/2017/12/model-tax-convention-on-income-and-on-capital-condensed-version-2017_g1g8769b.html [https://perma.cc/M2SF-ZPPU], [hereinafter "OECD Model Tax Convention"] (providing for the exemption and credit methods for elimination of double taxation); *See also* Robert J. Peroni, Karen B. Brown & J. Clifton Fleming, Jr., *Taxation of International Transactions: Materials, Text and Problems* 23–25, 361–362 (5th ed. 2021); Reuven S. Avi-Yonah, *International Tax as International Law*, 57 TAX L. REV. 483, 500 (2004); Lawrence Lokken & Yoshimi Kitamura, *Credit vs. Exemption: A Comparative Study of Double Tax Relief in the United States and Japan*, 30 NW J. INT'L L. & BUS. 621 (2010).

[5] For descriptions of the complexities and often arbitrary nature of income sourcing, *see, e.g.,* Fred B. Brown, *An Equity-Based, Multilateral Approach for Sourcing Income Among Nations*, 11 FLA. TAX REV. 565, 579-82 (2011); Wei Cui, *Minimalism About Residence and Source*, 38 MICH. J. INT'L L. 245 (2017); Michael Druckman-Church, *Taxing a Galaxy Far, Far Away: How Virtual Property Challenges International Tax Systems*, 51 COLUM. J. TRANSNAT'L L. 479, 504 (2013) ("The concept of source was always questionable and is becoming more and more arbitrary as the world economy further integrates."); Stephen E. Shay, J. Clifton Fleming, Jr. & Robert J. Peroni, *Designing a 21st Century Corporate Tax – An Advance U.S. Minimum Tax on Foreign Income and Other Measures to Protect the Tax Base*, 49 TAX L. REV. 675, 693-95 (2015); Alvin C. Warren, *Income Tax Discrimination Against International Commerce*, 49 TAX L. REV. 131, 135 (2001).

[6] *See generally*, Reuven S. Avi-Yonah, *Globalization, Tax Competition, and the Crisis of the Welfare State*, 113 HARV. L. REV. 1573, 1578 (2000).

[7] *See*, *e.g.,* William B. Barker, *Optimal International Taxation and Tax Competition: Overcoming the Contradictions*, 22 NW J. INT'L L. & BUS. 161, 205 (2002); AVI-YONAH, *supra* note 2, at 38 ("[S]ource rules are a wonderful thing for lawyers and something that causes economists despair.").

little resemblance to the actual economic processes and geographical locations where wealth is genuinely created.[8] A salient example of this disconnect arises in the context of intellectual property (IP).[9] Under conventional source rules, if a corporation develops valuable IP in Country A, incurs substantial research and development costs and relyies on skilled labor there, and then licenses that IP for use in Country B, the entirety of the resulting royalty income is sourced to Country B, the jurisdiction of use.[10] Such an allocation disregards the significant, if not primary, economic contribution of the activities undertaken in Country A, thereby challenging the normative integrity of the source principle.[11]

Another critical impediment to the robust application of the principle that source countries should have the primary right to tax income derived from their territory is the pervasive influence of the international tax treaty network.[12] These bilateral agreements, while

[8] *See, e.g.*, Stephen E. Shay, J. Clifton Fleming, Jr. & Robert J. Peroni, *The David R. Tillinghast Lecture "What's Source Got to Do With It?" Source Rules and U.S. International Taxation*, 56 TAX L. REV. 81, 83-84 (2002) ("[S]ource rules that serve as instruments for implementing source taxing jurisdiction and effecting residence country accommodation of source country taxation are surprisingly lacking in normative content. Thus, if timing of income and expenses is the Achilles heel of a purely domestic income tax system, the source of income and expense is an equally weak link in the international tax rules. Because no clear economic or equitable principles guide the formulation of rules to divide income and expense by geographic origin, the construction of these rules has been a significantly arbitrary exercise."). *Cf.* Mitchell A. Kane, *A Defense of Source Rules in International Taxation*, 32 YALE J. ON REG. 311 (2015) (arguing that coherent source rules can serve administrability and fairness objectives in international taxation).

[9] *See, e.g.,* Mitchell A. Kane & Adam Kern, *The Use and Abuse of Location-Specific Rents*, 76 TAX L. REV. 277, 287 (2023). For a discussion of the difficulty of applying traditional source rules to intangible income in the digital economy, *see, e.g.*, OECD, *Action 1: Addressing the Tax Challenges of the Digital Economy - 2015 Final Report*, https://www.oecd.org/en/publications/2015/10/addressing-the-tax-challenges-of-the-digital-economy-action-1-2015-final-report_g1g58cdd.html [https://perma.cc/LRP3-HPWN].

[10] *See, e.g.*, I.R.C. §§ 861(a)(4), 862(a)(4).

[11] *See, e.g.*, Michael P. Devereux, Alan J. Auerbach, Micheal Keen, Paul Oosterhuis, Wolfgang Schön & John Vella, *Taxing Profit in a Global Economy* 109 (2021) ("Long-standing allocation rules with regard to 'passive income' do not follow the 'value creation' concept and have never done so.").

[12] *See, e.g.*, REUVEN S. AVI-YONAH, DIANE M. RING, YARIV BRAUNER & BRET WELLS, *U.S. International Taxation: Cases and Materials* 1, (edition) (2022) ("[T]here is an international tax regime that is a coherent set of principles that in many ways constrain the ability of countries to adopt any international tax laws

designed to prevent double taxation and fiscal evasion,[13] frequently impose substantial restrictions on source-country taxing rights.[14] Common limitations include the imposition of maximum tax rates that source countries can levy on specific categories of income, such as dividends, interest, and royalties, or, in some instances, the complete prohibition of source-country taxation on certain income types.[15]

One might argue in defense of this treaty framework that source countries retain their unrestricted sovereign right to tax income derived from their territory, and that if they voluntarily choose to waive or curtail that right within the framework of a bilateral tax treaty they must, as rational actors, have received reciprocal concessions or benefits at least as valuable as the taxing rights foregone.[16] In this view, taxing rights are not merely instruments for revenue collection but also valuable assets that can be strategically traded or bargained away in pursuit of broader national interests, such as attracting foreign direct investment or securing reciprocal tax reductions for their own

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that they please. This regime is embodied principally in the more than 3,000 existing bilateral tax treaties…").

[13] *See, e.g.*, the proposed preamble to a bilateral tax convention in the OECD Model Tax Treaty: "(State A) and (State B), Desiring to further develop their economic relationship and to enhance their cooperation in tax matters, Intending to conclude a Convention for the elimination of double taxation with respect to taxes on income and on capital without creating opportunities for non-taxation or reduced taxation through tax evasion or avoidance (including through treaty-shopping arrangements aimed at obtaining reliefs provided in this Convention for the indirect benefit of residents of third States), Have agreed as follows," OECD Model Tax Convention *supra* note 4, at 27.

[14] *Id.*, Article 7 (Business Profits), at 33, arts. 10 (Dividends), 11 (Interest), and 12 (Royalties), at 35-7; Reuven Avi-Yonah, *The Structure of International Taxation: A Proposal for Simplification*, 74 TEX. L. REV. 1301, (1996).

[15] *See, e.g.*, *Convention Between the United States and America and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income*, Arts. 12(1), 13(1), 14(7) https://www.irs.gov/pub/irs-trty/nether.pdf [https://perma.cc/9H3U-KZVR] (forbidding the imposition of tax by the source country on interest, dividends, and certain types of capital gain, respectively).

[16] This reflects a public choice perspective on treaty negotiation. *See, e.g.*, Daniel Shaviro, *The Man Who Mistook His Law Professor for a Hat: A Well-Considered Dissent from Social Choice Theory in Tax Policy*, 17 VA. TAX REV. 613 (1998) (critically engaging with rational actor models in tax policy).

outbound investors.[17] However, this idealized portrayal of treaty negotiations as a balanced exchange between equals has been subjected to trenchant critique by numerous commentators.[18] Scholars have pointed out that the dynamics of bilateral tax treaty negotiations, particularly between developed and developing nations, may be less reflective of a fairly negotiated quid pro quo than might initially appear. Tax treaties often signal a country's investment climate and its adherence to perceived international norms.[19] Due to powerful network effects and the desire to conform to established models (like the OECD or UN Model Tax Conventions), there is often remarkably little scope for genuine bargaining over the substantive terms of the treaty. Source countries, particularly those with less economic leverage, may feel compelled to enter into standard-form tax treaties that significantly curtail their source taxing rights, perceiving it as a necessary cost of integration into the global economy, rather than a freely chosen exchange of equivalents.[20]

Another potential justification for treaty-based restrictions on source-country taxing rights is that, as previously noted, the underlying source rules themselves are often imperfect and may fail to ascribe income to the most appropriate jurisdiction. For instance, when a tax treaty restricts or prohibits a source country from imposing tax on royalties, this arguably reflects a tacit acknowledgment that the source country (often the country of payment or use) is not the true or exclusive economic source of such income, especially if the intangible

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[17] *See, e.g.,* David Elkins, *The Right and the Good: Taxing Rights, Value Creation, and the Rhetoric of International Taxation*, 24 FLA. TAX REV. 191, 206 (2020).

[18] *See, e.g.,* TSILLY DAGAN, INTERNATIONAL TAX POLICY: BETWEEN COMPETITION AND COOPERATION 72-119 (2018) (analyzing the distributional consequences of tax treaty politics); Allison Christians, *Tax Treaties for Investment and Aid to Sub-Saharan Africa: A Case Study*, 71 BROOK. L. REV. 639 (2005).

[19] *See, e.g.,* Zachary Liscow & Jennifer Nou, *Signaling in Tax Law*, 70 TAX L. REV.297 (2017) (general discussion of signaling theory in the context of tax law).

[20] *See, e.g.,* Sebastian Leduc & Geerten Michielse, *Are Tax Treaties Worth It for Developing Economies?*, in CORPORATE INCOME TAXES UNDER PRESSURE: WHY REFORM IS NEEDED AND HOW IT COULD BE DESIGNED 123 (Ruud de Mooij, Alexander Klemm & Victoria Perry, eds., 2021). For a classic discussion regarding similar themes in domestic contract law, *see, e.g.,* Friedrich Kessler, *Contracts of Adhesion – Some Thoughts About Freedom of Contract*, 43 COLUM. L. REV. 629 (1943).

property generating the royalties was developed elsewhere.[21] A further critical impediment to the robust application of the principle that source countries should have the primary right to tax income derived from their territory is the pervasive influence of the international tax treaty network.[22] This outcome could therefore be interpreted as a collectively agreed-upon refinement in the application of the principle that countries should be allowed to tax income derived from their territory, reallocating taxing rights to a jurisdiction with a putatively stronger economic claim. However, this benign interpretation is also contestable. The allocation of taxing rights under tax treaties may be no less, and potentially even more, arbitrary than under the basic source rules themselves. Furthermore, it is widely recognized that the ultimate allocation of taxing rights between the source country and the home country under bilateral tax treaties is frequently a function of national economic interests, diplomatic pressures, and the exploitation of bargaining power, rather than a disinterested theoretical inquiry into the "true" geographical source of income.[23]

In an effort to bring greater economic rationality and normative coherence into this challenging landscape, commentators have increasingly focused on the concept of location-specific rents (LSR).[24] In general economic parlance, "rent" refers to any payment to a factor

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[21] *See, e.g.,* WEI CUI & NIGAR HASHIMZADE, *The Digital Services Tax as a Tax on Location-Specific Rent*, CESifo Working Paper Series No. 7737, at 7–10 (Jan. 23, 2019).

[22] *See, e.g., Testimony of Barbara Angus, International Tax Counsel United States Department of the Treasury on Pending Income Tax Agreements* (March 5, 2003) https://home.treasury.gov/news/press-releases/js86 [https://perma.cc/GP34-KVH5] ("Reductions in foreign withholding taxes borne by U.S. taxpayers result in a direct benefit to the U.S. fisc to the extent that the U.S. taxpayer otherwise would have been able to use the foreign tax credits associated with such withholding taxes to offset its U.S. tax liability.").

[23] *See, e.g.,* Reuven S. Avi-Yonah, *Tax Competition, Tax Arbitrage, and the International Tax Regime*, 61 BULL. FOR INT'L TAX'N 130 (2007) (discussing how national interests often drive international tax policy).

[24] *See, e.g.,* Joseph Bankman, Mitchell A. Kane & Alan O. Sykes, *Collecting the Rent: The Global Battle to Capture MNE Profits*, 72 TAX L. REV. 197 (2019); Wei Cui, *New Puzzles in International Tax Agreements*, 75 TAX L. REV. 201 (2022); Kane & Kern, *supra* note 9; Daniel Shaviro, *Digital Services Taxes and the Broader Shift from Determining the Source of Income to Taxing Location-Specific Rents*, NYU Law & Econ. Research Paper No. 19-36 (Sept. 3, 2019). For an early discussion related to taxing surplus profits or rents in international taxation, *see* Peggy B. Musgrave, *Interjurisdictional Coordination of Taxes on Capital Income*, in TAX COORDINATION IN THE E.U. COMMUNITY 187 (Sijbren Cnossen, ed. 1987).

of production in excess of what is required to keep that factor in productive use. It is income that is beyond the opportunity cost of the factor.[25] For example, if an individual is willing to work for $50 per hour, but due to high demand for her particular skills, is able to command a market rate of $80 per hour, the $30 difference constitutes economic rent. This surplus compensates neither for labor's disutility nor for foregone leisure; it represents a windfall arising from market conditions. The concept of rent is central to tax policy because, in theory, taxing pure economic rent—at any rate below 100 percent—does not alter the taxpayer's incentive to supply that factor and therefore avoids the deadweight loss normally created by taxation.[26] In this example, if the state could isolate the $30 rent component within wages and impose a 90-percent tax on that rent, the worker would still receive $50 for labor plus $3 of post-tax rent—a total of $53—sufficient, by assumption, to induce her to work. The term "rent" historically derives from payments for the use of unimproved land, a factor of production often considered to be in fixed supply. As classical economists like David Ricardo articulated, rent on land arises from its scarcity and differential fertility. In theory, regardless of how high the tax on pure economic rent may be, the landowner still has an incentive to make the land available for productive use—so long as the land does not provide personal consumption value that would be diminished by renting it out.[27]

Extrapolating to the international sphere, location-specific rent is, in broad terms, the economic rent that a firm derives from operating in a particular geographic location.[28] It represents surplus profits that

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[25] *See, e.g.,* Bankman et al., *supra* note 24, at 200.

[26] *See, e.g.,* TIM WALSHAW, TAXING ECONOMIC RENTS 106-07 (Lulu Press, 2020); KENNETH J. MC KENZIE, FISCAL FEDERALISM AND THE TAXATION OF NONRENEWABLE RESOURCES, in PERSPECTIVES ON FISCAL FEDERALISM at 247, 247-48 (Richard M Bird & François Vaillancourt, eds., 2006). Henry George famously advocated for a single tax imposed upon the rent from land, precisely because of its non-distortionary nature. Henry George, PROGRESS AND POVERTY 413 (1879) ("Taxes levied upon the value of land cannot check production in the slightest degree, until they exceed rent, or the value of land taken annually, for unlike taxes upon commodities, or exchange, or capital, or any of the tools or processes of production, they do not bear upon production").

[27] *See,* DAVID RICARDO, ON THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION 39-50 (3rd ed. 1821; Batoche Books 2001).

[28] *See, e.g.,* Alan J. Auerbach, Michael P. Devereux & Helen Simpson, *Taxing Corporate Income*, *in* DIMENSIONS OF TAX DESIGN: THE MIRRLEES REVIEW 837 (James Mirrlees, Stuart Adam, Timothy Besley, Richard Blundell, Stephen

could not have been earned had the firm chosen to operate elsewhere. This includes rents arising from access to unique natural resources,[29] specific agglomeration economies (e.g., industry clusters, skilled labor pools),[30] unique market access (e.g., a large or wealthy consumer base protected by entry barriers),[31] advantageous regulatory or legal environments, or specific public goods and services provided by the host jurisdiction that enhance productivity or reduce costs in ways not replicable elsewhere.[32] Particularly when contrasted with a source country's claims under the existing, often demonstrably arbitrary, source rules, the claim of a source country to tax the LSR derived from its unique attributes and territorial advantages would seem to be normatively robust and compelling. Moreover, from an efficiency perspective, imposing tax on LSR would in principle be non-distortionary. Since LSR by definition is tied to the specific location, firms could not avoid the tax by relocating their activities to other jurisdictions without forgoing that rent.[33] Thus, an LSR-based tax would not alter investment or production decisions.[34]

Despite the intuitive appeal and theoretical advantages of LSR, commentators disagree significantly regarding its precise definition

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Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles & James Poterba, eds., 2010).

[29] *See*, *e.g.*, Kane & Kern, *supra* note 9, at 280.

[30] See, *e.g.,* Mitchell A. Kane, L*ocation Savings and Segmented Factor Input Markets: in Search of a Tax Treaty Solution*, 41 BROOKLYN J. INT'L L. 1107, 1133 (2016).

[31] *See, e.g.,* Wei Cui, *The Digital Services Tax: A Conceptual Defense*, 73 TAX L. REV. 69, 96-97 (2019).

[32] *See, e.g.,* Allison Christians & Mahwish Tazeem, *Facebook's Libra: The Next Tax Challenge for the Digital Economy*, 3 STAN. J. BLOCKCHAIN L. & POL'Y 228, 251-52 (2020).

[33] *See, e.g.,* Martin G. Simmler, *Location-Specific Rents and the Schedular Structure of the International Tax System*, 8 WORLD TAX J. 75 (2016).

[34] I have argued previously that the locational "distortion" caused by taxation in the international arena is actually an efficiency-inducing phenomenon in that countries' international tax regimes (including the subsidies that they offer to MNEs) operate as a signal to the market of the advantages and disadvantages that the potential host country's citizens and residents expect to experience from the investment. By inducing MNEs to factor in the effect of an investment on the local society, such signals encourage MNEs to make decisions regarding where to invest in a manner that best promotes global welfare. *See* David Elkins, *The Merits of Tax Competition*, 91 IND. L.J. 905, 916-39 (2016). As the current article focuses not on efficiency but on measurement, I will not belabor the point here.

and scope.[35] A variety of definitions have emerged within the burgeoning literature, each exhibiting subtle distinctions in nuances and emphases.[36] Yet, many commentators proceed to discuss the policy implications of LSR and advocate for its taxation without first attempting a rigorous, operationalizable definition. Although no single definition has achieved universal acceptance, there is a substantial agreement regarding its major characteristics. LSR captures the unique, non-replicable contribution of the host jurisdiction to a corporation's generation of wealth—the profit component derived from locational advantages unavailable in alternative settings where the firm might otherwise deploy its mobile assets and capabilities. Accordingly, it is argued that taxation of LSR is both efficient, in that it is non-distortionary, and equitable – it allows the jurisdiction contributing unique value to capture a share of that value. The equity aspect of taxing LSR builds on the core principle that value belongs to those who create it[37] and expands it to the sovereign jurisdiction's contribution in the wealth creation of corporations.[38]

Critics, however, have raised concerns[39] that the practical appeal of LSR is undermined by its conceptual limitations, particularly its lack of measurability. A recent article by Kane and Kern advances this critique most forcefully, arguing that although LSR appears to represent, in their evocative phrasing, the "holy grail" of international taxation—fair, non-distortionary, and able to produce substantial revenue[40]—the concept is fatally flawed by its inherent immeasurability.[41] They contend that in order to quantify LSR accurately, one would require detailed information not only about how much the firm

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[35] *See, e.g.,* Kane & Kern, *supra* note 9, at 295 ("[N]either Huizinga and Nielsen nor other economists writing in the optimal tax literature have tried to provide a precise, general definition of LSR").

[36] *See, e.g.*, Devereux et al., *supra* note 28, at 22 (defining "location-specific economic rent" as "economic rent that can be earned only in one location"); Kane & Kern, *supra* note 9, at 300-01. A complicating factor is that some writers use the term "rent" in the context of international taxation to mean something other than the income that can be derived from only one location. *See, e.g.,* Reuven S. Avi-Yonah, *Bridging the North/South Divide: International Redistribution and Tax Competition*, 26 MICH. J. INT'L L. 371, 380 (2004) (inquiring what if the rent can be earned in a large number of potential locations?).

[37] JOHN LOCKE, TWO TREATISES OF GOVERNMENT 129-41(1689).

[38] *See infra* Part II.

[39] Kane & Kern, *supra* note 9.

[40] *Id*. at 279-81.

[41] *Id*. at 309-17.

actually earned in the host jurisdiction, but also how much it would have earned in a counterfactual scenario—specifically, if it had refrained from investing or other economic activity in the source country.[42] Such counterfactual data could conceivably be identified only in rare cases where the firm's abstention from investment or economic activity in one jurisdiction would leave its global operations unaffected; in that event, the entirety of income earned in the source country, minus a normal return on mobile capital, could properly be treated as rent. For example, whether or not Google operates in France, it might still derive the same income from its operations in the United Kingdom.[43] However, where several countries constitute plausible alternative venues, it is exceedingly difficult, and in practice nearly impossible, to determine the firm's counterfactual earnings had it operated elsewhere rather than in the actual source country.[44] The measurability of LSR is thus a critical linchpin. Whatever the theoretical appeal of taxing LSR, if it cannot be reliably quantified in practice, an international tax regime based on it is ultimately unworkable and remains a purely academic construct.

The concept of inter-nation fairness—and by extension the relevance of LSR—is important not only when designing a multinational agreement for the global allocation of taxing rights. It is also highly relevant in the more practical context of applying the rules of a country's existing international tax regime. As noted, many countries impose tax on the worldwide income of their residents and domestic firms. To mitigate or eliminate international double taxation, these countries typically grant a credit against domestic tax liability for taxes paid to a foreign jurisdiction on income derived from that foreign jurisdiction's territory.[45] A crucial question that frequently arises within the operational framework of the foreign tax credit mechanism is whether the home country will agree that the income in question was

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[42] *Id*. at 309.

[43] *Id*. at 322.

[44] *See* Kane & Kern, *supra* note 9 at 309 ("One reason why counterfactual revenues and costs are difficult to measure is that firms typically only report information about what they do earn and what they do spend, not about what they would have earned and would have spent. Firms, in other words, typically report the tax items that they actually realize. Thus, measuring LSR in a comprehensive fashion would likely require new kinds of information to be reported by firms and verified by tax authorities. In many cases, either the reporting or the verification or both will be difficult and uncertain.").

[45] *See, e.g.,* I.R.C. §§ 901-909 (2018).

indeed legitimately "derived from" (*i.e.*, sourced in) the territory of the foreign jurisdiction imposing the tax. If the home country deems the income insufficiently connected to the foreign jurisdiction, it may deny a credit for taxes paid there, resulting in double taxation.[46]

This issue has been at the heart of recent international tax controversies, such as the United States's denial of foreign tax credits for digital service taxes ("DSTs") imposed on American multinational corporations by various other countries.[47] DST jurisdictions view income earned by an American multinational from users or consumers resident in that country—through online advertising, digital platforms, or sale of user data—as derived from that country and consequently assert a legitimate sovereign right to tax. Conversely, from the perspective of the United States, such DSTs often fail to align with traditional international norms regarding income sourcing and permanent establishment thresholds. Consequently, under current regulations, the United States does not permit its multinational corporations to claim a tax credit for these digital service taxes.[48] While this ongoing controversy and the resulting practices are almost certainly driven more by the interplay of national economic power, protection of domestic tax bases, and strategic policy interests than by abstract theoretical analysis, proponents of LSR would presumably argue that foreign countries have a normatively sound right to tax such digital income if (and arguably only if) that income, or a discernible portion thereof,

[46] *See, e.g.,* Treas. Reg. §1.901-2(b)(5)(i).

[47] *See, e.g.*, Sean Lowry, *Digital Services Taxes (DSTs): Policy and Economic Analysis*, CRS Report R45532 (Feb. 25, 2019), https://www.congress.gov/crs-product/R45532) [https://perma.cc/5X7D-2G3K]; *Notice of Determination and Request for Comments Concerning Action Pursuant to Section 301: France's Digital Services Tax,* 84 FED. REG. 66956 (Dec. 6, 2019), https://www.federalregister.gov/documents/2019/12/06/2019-26325/notice-of-determination-and-request-for-comments-concerning-action-pursuant-to-section-301-frances [https://perma.cc/SU2K-86NU].

[48] Treas. Reg. §1.901-2(b)(5)(i)(A) (requiring that the foreign tax be "limited to gross receipts and cost that are attributable, under reasonable principles, to the nonresident's activities within the foreign country imposing the tax (including the nonresident's functions, assets, and risks located in the foreign country)…but does not include rules that take into account as a significant factor the mere location of customers, users, or any other destination-based criterion…"), (B)(1) ("gross income from services must be sourced based on where the services are performed, as determined under reasonable criteria[,]which do not include determining the place of performance of the services based on the location of the service recipient").

constitutes LSR—that is, if it represents surplus profits that could have been earned by the MNEs only by virtue of its access to that specific country's market or user base and nowhere else. Quantifying LSR could therefore have immediate practical consequences even without a global consensus on how to reallocate taxing rights. It may matter in situations where countries—whether as a matter of comity or domestic law—agree to grant a credit for foreign taxes paid on income derived from another jurisdiction's territory. Recognizing the right of the host country to impose tax on the LSR attributable to operations in its territory could provide a more principled basis for resolving such foreign tax credit disputes.

The central thesis of this article is that, despite skepticism of some commentators, LSR can be quantified with a reasonable degree of accuracy and objectivity. Achieving this in practice would necessitate a fundamental rethinking and consequent dismantling of several deeply ingrained features of current international tax law and policy. Specifically, it would require that international tax competition, often viewed with suspicion or outright hostility by policymakers, be given substantially free rein to act as the primary mechanism for determining the appropriate level of tax that source countries can effectively impose. Such an approach would inherently reject the notion of a harmonized global minimum tax, which, by its very nature, must allocate taxing rights by administrative fiat or formula rather than by market-based valuation of jurisdictional contributions.[49] Furthermore, this approach would challenge, if not entirely jettison, the traditional dichotomy between "source countries" and "home countries," at least with regard to the taxation of multinational corporate income. Instead, it would view the country in which a corporation is legally incorporated, or in which it is headquartered, as simply one among a number of jurisdictions in which that corporation produces wealth and derives location-specific advantages—each with a potential claim to tax a share of the ensuing rents.

The argument will proceed as follows. This Part has introduced the problem and the thesis. Part II will delve into the normative underpinnings of a source country's claim to tax income that is produced within its territory. I will argue that, if such a claim is to be

[49] For a pre-Pillar Two discussion of the complexities of international tax coordination *see,* Wolfgang Schön, *International Tax Coordination for a Second-Best World (Part I)*,1 WORLD TAX J. 67 (2009).

normatively grounded rather than merely asserted as an incident of sovereignty, it must ultimately rest upon a neo-Lockean conception of entitlement, wherein wealth properly belongs to those agents who have contributed to its production, in proportion to their respective contributions. Therefore, it is not strictly accurate to assert that source countries are entitled to a portion of all wealth produced within their territory merely by virtue of territorial presence. Rather, source countries are entitled to share in that wealth if, and to the extent that, the jurisdiction itself has made a demonstrable contribution to its production. Quantifying LSR from this perspective, in turn, becomes a question of quantifying the economic value of the source country's unique contribution to the creation of wealth by firms operating within its ambit.

Part III will consider the attributes of private and public goods. Focusing on the domestic sphere, it will describe how markets constitute an essential tool for valuing the contribution of private goods and why markets are incapable of valuing the contributions of public goods. The key element here is the concept of excludability. Since private goods are excludable, the owners of the factors that produce them can condition their use on payment. In the absence of market failures, the payment they receive reflects their actual economic contribution to the creation of wealth. Because public goods are not excludable, those who wish to exploit them have no need to acquire the consent of the public or the government and the market mechanism is therefore inoperative.

Part IV will explain that the classification of a good as public or private is not ontological, but context-dependent. If there is a practical means of preventing those who do not pay for a good from using it, then the good is properly classified as private. If there does not exist a practical means of doing so, then the good is properly classified as public. In the international context, because a country normally has the means to prevent outsiders from operating in its territory, goods that are public with respect to members of society are private from the perspective of those outsiders. Therefore, the market – in this case, free tax competition among countries – can succeed in quantifying a country's actual contribution to the production of wealth. What is required is that countries be permitted or encouraged to engage in tax competition (subject to measures that may be required to prevent or mitigate certain types of market failure).

Part V will focus on the concepts of "source country" and "home country," and argue that from the perspective of LSR, there is

no significant difference between them. When a country permits the registration and headquartering of corporations in its territory, it is providing services for which it is entitled – under a neo-Lockean concept of entitlement – to a share of the income produced by those corporations commensurate with its contribution. The tax regime that a country can successfully impose on domestic corporations, including the parameters of its foreign tax credit regime, is a strong indication of how much the factors that determine corporate residence contribute to the production of the firm's wealth. Part VI will summarize the findings and offer concluding thoughts. It will emphasize that the purpose of the article is not to argue either for or against allocation of tax rights in accordance with LSR. Rather the purpose is to show such an allocation requires quantifying the host country's contribution to the creation of wealth, and that tax competition can supply that quantification.

II. THE NORMATIVE UNDERPINNINGS OF TAXING LSR

Our initial step in building the argument for the measurability of LSR is to examine rigorously the normative underpinnings that support taxing LSR, and more broadly, that justify the widely accepted idea that source countries possess a fundamental right to tax income that derives from their territory. While this claim is often accepted on largely intuitive grounds or as a self-evident corollary of national sovereignty,[50] its justification can be more robustly supported by two

[50] *See*, *e.g.*, OECD, *Action Plan on Base Erosion and Profit Shifting* 20–21 (2013), https://www.oecd.org/content/dam/oecd/en/publications/reports/2013/07/action-plan-on-base-erosion-and-profit-shifting_g1g30e67/9789264202719-en.pdf [https://perma.cc/76DQ-MP2K]; OECD, *Aligning Transfer Pricing Outcomes with Value Creation, Actions 8-10-2015 Final Reports* (2015), https://dx.doi.org/10.1787/9789264241244-en [https://perma.cc/2FY8-FBN8]; OECD, *Tax Challenges Arising from Digitalisation—Interim Report* 2018, at 167 (2018), https://doi.org/10.1787/9789264293083-en [https://perma.cc/47YW-7MMM] ("The BEPS Project produced a substantial renovation of the international tax rules, underpinned by the principle that the location of taxable profits should be aligned with the location where economic activities and value creation take place"); OECD, *Harmful Tax Practices—2018 Progress Report on Preferential Regimes: Inclusive Framework on BEPS: Action 5*, at 3 (2019), https://doi.org/10.1787/9789264311480-en [https://perma.cc/JH4E-8ZR4] ("Weaknesses in the current rules . . . requir[e] bold moves by policy makers to . . . ensure that profits are taxed where economic activities take place and value is created").

interrelated, and historically significant normative concepts: the benefit theory of taxation and the principle of neo-Lockean entitlement. Of course, one can readily reject either or both of these foundational theories. For example, one could proceed from a cosmopolitan or global justice perspective, that taxing rights should be allocated in such a manner as to promote some predetermined notion of global distributive justice (e.g., to effectuate transfers from wealthier to poorer nations or to fund global public goods), and that a country's contribution to income generation should be taken into account only instrumentally, for purposes of economic efficiency, rather than as a primary basis for entitlement.[51] For those who subscribe to such alternative normative frameworks, the effort to justify a country's intrinsic right to tax wealth merely because it originates within its territory holds little persuasive force—except, perhaps, as a target for critical deconstruction. However, if one accepts that states have, or ought to have, a primary claim to tax income arising within their territory, as advocates of taxing LSR do, then clarifying the normative foundation of that claim is essential. Understanding this justification matters beyond philosophical completeness; it is critical to the proper parameters and limitations of that right. In other words, when we assert that countries have the right to tax income deriving from their territory, it is of paramount importance to understand precisely which income, and under what conditions, countries have a legitimate moral or economic claim to tax.

Benefit theory has a long and venerable history in the field of taxation and served as the basis for discussions of tax policy throughout most of the modern era. In the mid-seventeenth century, Thomas Hobbes posited that taxes should be imposed in accordance with benefits received from protection and other services provided by the state.[52] He went on to argue that, since the appropriate measure of such benefit is the amount that one consumes, taxes should be levied on

[51] *See, e.g.,* Ilan Benshalom, *The New Poor at Our Gates: Global Justice Implications for International Trade and Tax Law*, 85 NYU L. REV. 1 (2010); Carlo Garbarino, *Cosmopolitan Rights, Global Justice, and the Morality of Cooperation*, 23 FLA. TAX REV. 743 (2020); Henry Ordower, Ut*opian Visions Toward a Grand Unified Global Income Tax*, 14 FLA. TAX REV. 361 (2013).

[52] THOMAS HOBBES, LEVIATHAN 238 (Richard Tuck, ed., 1996) (1651) ("To Equal Justice, appertaineth also the Equall imposition of Taxes; the Equality whereof dependenth not on the Equality of riches, but on the Equality of the debt, that every man oweth to the Common-wealth for his defence").

consumption.[53] In the eighteenth century, Adam Smith claimed that because the protection provided by the state is essential for the production of income, individuals should contribute taxes in proportion to the income that they earn.[54] Although Hobbes and Smith are often viewed as conflicting figures in tax theory, with Hobbes favoring a consumption tax and Smith an income tax, they were actually engaged in a shared discourse grounded in the benefit theory of taxation.[55] Others followed suit, and benefit theory came to dominate tax theory until the late nineteenth to early twentieth century.[56]

Closely related to benefit theory, though less frequently made explicit in traditional tax theory, is the view that tax represents an exercise of the state's neo-Lockean rights in the wealth it helps produce. In his Second Treatise of Government, John Locke argued for a natural right to property, and particularly to land, as a bulwark against the prerogative of the crown to expropriate that right.[57] He started off by

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[53] *Id.* at 238 ("[T]he Equality of Imposition, consisteth…in the Equality of that which is consumed…").

[54] ADAM SMITH, AN INQUIRY INTO THE NATURE OF AND CAUSES OF THE WEALTH OF NATIONS vol. 2, at 310 (Edwin Cannan ed., 5th ed. Methuen & Co. 1904) (1776) ("The subjects of every state ought to contribute towards the support of the government as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state").

[55] Benefit theory was similarly inconclusive with regard to the progressivity or regressivity of the tax structure. At the end of the nineteenth century, Seligman reviewed the literature, mostly French and German, and showed how benefit theory had been used to justify proportional taxation, regressive taxation, and progressive taxation. EDWIN R. A. SELIGMAN, Progressive Taxation in Theory and Practice, 9 PUBL'NS AM. ECON. ASS'N 7, 79–126 (1894) https://cooperative-individualism.org/seligman-edwin_progressive-taxation-in-theory-and-practice-1894-jan-mar.pdf [https://perma.cc/4XWN-N6CJ].

[56] *See, e.g.,* HERBERT J. KIESLING, TAXATION AND PUBLIC GOODS: A WELFARE-ECONOMIC CRITIQUE OF TAX POLICY ANALYSIS 31 (Univ. of Mich. Press, 1992). Even the utilitarian Jeremy Bentham described taxation in terms of benefit theory. JEREMY BENTHAM, AN INTRODUCTION TO THE THE PRINCIPLES OF MORALS AND LEGISLATION 160 (Batoche Books, Kitchener, 1781) ("To defend the community against its external as well as its internal adversaries, are tasks, not to mention others of a less indispensable nature, which cannot be fulfilled but at a considerable expense. But whence is the money for defraying to costs to come? It can be obtained in no other manner than by contributions to be collected from individuals; in a word, by taxes. The produce then of these taxes is to be looked upon as a kind of *benefit* which it is necessary the governing part of the community should receive for the use of the whole." (emphasis added)).

[57] LOCKE, *supra* note 37, at §§ 24-51.

positing that the physical world is owned by all humans in common,[58] the single exception being that individuals own their bodies and, by extension, their labor.[59] By combining their labor with common resources, for example by picking apples in a forest, their labor becomes embedded in what was previously held in common, thereby giving them an ownership interest in the apple.[60] The same principle applies to land: by working fallow land, their labor becomes incorporated into the now-productive land, giving them ownership of it as well.[61] The neo-Lockean view adds a refinement and holds that when various factors of production combine to create value, that value belongs to the contributors in proportion to their contribution.[62] It is only when one of the factors has little or no value that the product belongs in its entirety to the providers of the other factors. Indeed, in recognizing the exclusive right of the laborer, Locke explicitly relied on the claim that uncultivated land holds little to no inherent value, and that almost all

[58] *Id*. at §§ 24-25.

[59] *Id*. at § 26 ("Though the earth and all inferior creatures be common to all men, yet every man has a 'property' in his own 'person.' This nobody has any right to but himself. The 'labour' of his body and the 'work' of his hands, we may say, are properly his").

[60] *Id*. at §§ 27-30 ("He that is nourished by the acorns he picked up under an oak, or the apples he gathered from the trees in the wood, has certainly appropriated them to himself. Nobody can deny but the nourishment is his. I ask, then, when did they begin to be his? when he digested? or when he ate? or when he boiled? or when he brought them home? or when he picked them up? And it is plain, if the first gathering made them not his, nothing else could. That labour put a distinction between them and common. That added something to them more than Nature, the common mother of all, had done, and so they became his private right").

[61] *Id*. at § 31 ("But the chief matter of property being now not the fruits of the earth and the beasts that subsist on it, but the earth itself, as that which takes in and carries with it all the rest, I think it is plain that property in that too is acquired as the former. As much land as a man tills, plants, improves, cultivates, and can use the product of, so much is his property…. He that…subdued, tilled, and sowed any part of it, thereby annexed to it something that was his property, which another had no title to, nor could without injury take from him.").

[62] *See, e.g.,* HILLEL STEINER, AN ESSAY ON RIGHTS (Cambridge Univ. Press, 1994). *See also* Nozick's famous *reductio ad absurdum* argument against Locke's theory of acquisition: "[W]hy isn't mixing what I own with what I don't own a way of losing what I own rather than a way of gaining what I don't? If I own a can of tomato juice and spill in into the sea so that its molecules (made radioactive, so I can check this) mingle evenly throughout the sea, do I thereby come to own the sea, or have I foolishly dissipated my tomato juice?" ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 174-75 (Basic Books, 1974).

of its worth arises from the labor.[63] While Locke's argument might have been valid at a time when land was abundant and populations were small, in the contemporary world—where land is scarce and demand is high—undeveloped land holds significant economic value.[64] Development land thus belongs jointly to the owner of the underdeveloped land and to the developer, in proportion to their respective contributions.

The next stage in the neo-Lockean argument holds that, in creating wealth in the modern world, individuals rely heavily on services provided by the government and, more broadly, on the civil society in which they operate. Since both the individual entrepreneur, laborer, or property owner and society as a whole contribute to the creation of wealth, each has a legitimate claim on the product of that cooperative venture—and the tax system is one of the means by which society can realize its claim.[65]

Looking at benefit theory and neo-Lockeanism through the prism of contemporary classification of legal disciplines, we might say that the former rests on contractual or quasi-contractual claims, while the latter is based on a property right. However, their similarities greatly outweigh their differences. They both argue that the state has a legitimate, natural-right claim to tax wealth generated within its

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[63] LOCKE, *supra* note 37, at § 40 ("Nor is it so strange as, perhaps, before consideration, it may appear, that the property of labour should be able to overbalance the community of land, for it is labour indeed that puts the difference of value on everything; and let any one consider what the difference is between an acre of land planted with tobacco or sugar, sown with wheat or barley, and an acre of the same land lying in common without any husbandry upon it, and he will find that the improvement of labour makes the far greater part of the value. I think it will be but a very modest computation to say, that of the products of the earth useful to the life of man, nine-tenths are the effects of labour. Nay, if we will rightly estimate things as they come to our use, and cast up the several expenses about them—what in them is purely owing to Nature and what to labour—we shall find that in most of them ninety-nine hundredths are wholly to be put on the account of labour").

[64] While Locke was aware that in his time, the was no longer any land left in England that could still be appropriate, he suggested that America was still in the period of abundance. *See generally*, LOCKE, *supra* note 37, at §§ 34, 36.

[65] *See, e.g.,* Yoseph Edrey, *The Janet R. Spragens Memorial Symposium: Low Income Workers and the Federal Tax System: Constitutional Review and Tax Law: An Analytical Framework*, 56 AM. U. L. REV. 1187, 1215-19 (2007); Elkins, *supra* note 34, at 211-29, 238; BARBARA FRIED, *Symposium: Federal Tax Policy in the New Millenium: The Puzzling Case for Proportionate Taxation*, 2 CHAP. L. REV. 157, 176-77 (1999).

territory. Importantly, they also imply limits on that power: a tax is legitimate only to the extent that it reflects the contribution of society in general, and of the state in particular, to the production of that wealth.

Despite its historical pedigree, benefit theory largely fell out of favor as the primary justification for the overall structure of domestic tax systems during the late nineteenth and early twentieth centuries.[66] There were two significant reasons for this phenomenon, one ideological and the other practical. The ideological reason is that benefit theory does not provide grounds for redistributive taxation: if taxes are viewed strictly as payments for services received from the state, what basis is there for redistributing wealth?[67] In fact, benefit theory is at its core profoundly anti-redistributive.[68] It effectively attempts to simulate a world in which distributive shares are determined by an idealized market in which individuals pay fair value (no more and no less) for services they receive from the state. However, the essence of redistribution lies in dissatisfaction with the outcomes of the market, even an idealized one, and in the belief that that the allocation of resources should take into account, at least to some degree, the need to meet individual needs or mitigate inequality. Moreover, as noted by one prominent mid-twentieth century commentator, there is an

[66] *See, e.g.,* 20 Richard Sherf & Matthew Weinzierl, U*nderstanding Different Approaches to Benefit-Based Taxation*, 41 FISC. STUD. 385, 387 (2020).

[67] Among the first to challenge the then-dominant benefit theory was John Stuart Mill, who argued that taxes should be imposed not according to benefit, but in order to increase overall welfare ("the greatest benefit for the greatest number"), *See generally,* JOHN STUART MILL, UTILITARIANISM, LIBERTY, AND REPRESENTATIVE GOVERNMENT 54-55 (Ernest Rhys ed., 1910).

[68] *See, e.g.,* JOHN STUART MILL, PRINCIPLES OF POLITICAL ECONOMY 156-157 (1970) (Sr. William James Ashley ed., Longman Green and Co.,1848) ("If there were any justice, therefore, in the theory of justice now under consideration, those who are least able of helping or defending themselves, being those to whom the protection of the government is the most indispensable, ought to pay the greatest share of its price."); MILL, *supra* note 67, at 54-55 ("[I]f there were no law or government the rich would be far better able to protect themselves than the poor would be, and indeed would probably succeed in making the poor their slaves."); Jeffrey A. Schoenblum, *Tax Fairness or Unfairness? A Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, 12 AM. J. TAX POL'Y 221, 228-29 (1995) ("[A]ny argument justifying unequal, proportional or progressive taxation of high income earners on the ground that they derive disproportionately or absolutely greater benefits from the government and the community is unsustainable.").

inherent contradiction in attempting to fund redistribution of wealth by taxing those who are its primary beneficiaries.[69] As modern states increasingly pursued welfarist objectives and used the tax-and-transfer system to mitigate income inequality and provide social safety nets, theories that supported such redistributive aims—such as the ability-to-pay and broader social justice frameworks—came to dominate.[70]

Another, more practical, reason for the decline of benefit theory in the domestic context is the difficulty of accurately quantifying the benefit procured by each individual from the wide range of diffuse and collectively consumed public services. It is not feasible in practice to quantify in dollars and cents the benefit any specific individual derives from public goods such as national defense, a stable legal system, law enforcement, or an economic infrastructure.[71] Changing the frame of reference from benefit to ability-to-pay obviates the need to perform such a calculation. The problems encountered when attempting to apply benefit theory to contemporary broad-based taxation also plague neo-Lockeanism. It is impossible in practice to quantify the contribution of society in general, and the state in particular to the production of wealth; and neo-Lockeanism fares no better than does benefit theory in justifying redistribution of wealth.[72]

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[69] HENRY C. SIMONS, PERSONAL INCOME TAXATION 4 (Univ. of Chicago Press, 1938).

[70] *See, e.g.,* League of Nations Report, *supra* note 2, at 4022 ("[T]he entire exchange theory has been supplanted in modern times by the faculty theory or theory of ability to pay."); LIAM MURPHY & THOMAS NAGEL, THE MYTH OF OWNERSHIP: TAXES AND JUSTICE (2002), at 30–35 (arguing that the benefit principle has conceptual and practical limitations and that fairness in taxation should instead focus on distributive justice and ability to pay); Donna M. Byre, *Progressive Taxation Revisited*, 27 ARIZ. L. REV. 739, 765 (1995); Eric Jensen, *The Taxing Power, the Sixteenth Amendment, and the Meaning of "Incomes*,*"* 33 ARIZ. ST. L.J. 1057, 1091 (2001) ("From the beginning, supporters of the modern income tax stressed that it was necessary to tie taxation to ability to pay …"); Marjorie E. Kornhauser, *Choosing a Tax Rate Structure in the Face of Disagreement*, 52 UCLA L. REV. 1697, 1708−17 (2005); Kyle C. Logue & Gustavo G. Vetton, *Narrowing the Tax Gap Through Presumptive Taxation*, 2 COLUM. J. TAX L. 100, 112–13, 121 (2010); Daniel Shaviro, *The David R. Tillinghast Lecture: The Rising Tax-Electivity of U.S. Corporate Residence*, 64 TAX L. REV. 377, 388-89 (2011); Shay et al., *supra* note 8, at 94 ("[T]he principal normative justification for income taxation is that it allocates the cost of government among taxpayers on the basis of comparative economic well-being, or ability to pay").

[71] *See, e.g.,* Emmanuel Voyiakis, *The Moral Force of the Benefit Principle*, 42 ECON. & PHIL. 26 (2026).

[72] *See, e.g.,* MURPHY & NAGEL, *supra* note 70, at 19–21.

The next question that we need to ask is how these objections play out in the international context, specifically with regard to the taxation of foreign individuals and entities.[73] The anti-redistributive nature of benefit theory and neo-Lockean entitlement can pose a significant limitation in the domestic sphere, where taxation is a primary tool for achieving redistributive goals. However, this limitation is less critical in the international context. For those who begin from the premise that countries are entitled to tax wealth generated within their territory, or wealth that benefits from their societal resources, redistribution is not the central concern. If one holds that distributive justice is predominantly a domestic concern and has little or no impact in relations among states, then the fact that these theories allocate taxing rights only to those countries that have demonstrably contributed to the production of wealth is, in modern terms, not a bug but a feature. It aligns with a Westphalian conception of sovereignty where states are primarily responsible for their own fiscal affairs and interact as distinct economic entities.[74] Perhaps surprising support for such a view can be found in the writing of the philosopher John Rawls. Although his monumental work, A Theory of Justice,[75] advocated for a highly redistributive domestic social policy, he later wrote that distributive justice is strictly a domestic affair and there are almost no international obligations of distributive justice.[76] In other words, if one

[73] The first to discuss source country taxation in terms of benefit (what he referred to as "wirtschaftliche Zugehörigkeit" or "economic allegiance") may have been Georg von Schnaz in 1892, *See* Eric C. C. M. Kemmeren, *Source of Income in Globalized Economies: Overview of the Issues and a Plea for an Origin-Based Approach*, 60 INT'L BULL. FISC. DOCUMENTATION 430, 431 (2006). The concept of economic allegiance was later adopted in a report by a committee of four leading economists to the League of Nations in 1923, League of Nations Report, *supra* note 2, at 4003.

[74] *See, e.g.,* Thomas Nagel, *The Problem of Global Justice*, 33 PHIL. & PUB. AFF. 113 (2005). The Westphalian concept of sovereignty, as encapsulated it the 1648 Treaty of Westphalia that ended the Thirty Years War, provides that states have the sole right and the sole responsibility to govern their internal affairs; *See*, *e.g.*, STEPHEN D. KRASNER, SOVEREIGNTY: ORGANIZED HYPOCRISY 20 (1999); WENHUA SHAN, PENELOPE SIMONS & DALVINDER SINGH, REDEFINING SOVEREIGNTY IN INTERNATIONAL ECONOMIC LAW 8 (2008).

[75] JOHN RAWLS, A THEORY OF JUSTICE (1971).

[76] JOHN RAWLS, THE LAW OF PEOPLES 20 Critical Inquiry 36, 40-42 (Univ. of Chicago Press, 1999). For critique of Rawls' position from a Rawlsian perspective, *see, e.g.,* Thomas W. Pogge, *The Law of Peoples: The Incoherence Between*

proceeds from the assumption that the international tax system is not supposed to be redistributing wealth among nations, then the anti-redistributive nature of benefit theory and neo-Lockeanism is not objectionable.[77]

On the other hand, the issue of quantification remains relevant in the international arena. Just as it is practically impossible at the domestic level to measure the contribution the state's contribution to the overall production of wealth or to assign a precise value to the benefits procured by any particular market actor from the multifaceted services provided by the state, it is equally impossible to determine the specific contribution of any one country to a MNE's global profits. Indeed, much of the ongoing debate in international taxation—such as the disagreement between the arm's length principle and the formulary apportionment—centers on this challenge of attribution.[78] A longstanding debate concerns which economic factors—such as sales, assets, and payroll—should be included in the apportionment formula and how much weight each should carry among those who advocate for formulary apportionment as an alternative to the arm's length standard.[79] This debate itself underscores the profound difficulty in

Rawls's Theories of Justice, 72 FORDHAM L. REV. 1739 (2004); Simon Caney, *Cosmopolitanism and the Law of Peoples*, 10 J. POL. PHIL. 95 (2002).

[77] Of course, as noted earlier, the position is not self-evident and one could coherently attempt to apply cosmopolitan principles in the international tax field, allocating tax rights by criteria other than contribution to the production of wealth. However, as the concept of allocating taxing rights in accordance with LSR necessarily proceeds from the idea of allocating taxing rights in accordance with contribution, we need not consider these other approaches.

[78] *See, e.g.,* Reuven S. Avi-Yonah, Kimberly A. Clausing & Michael C. Durst, *Allocating Business Profits for Tax Purposes: Proposal to Adopt a Formulary Profit Split*, 9 FLA. TAX REV. 497 (2009); Michael J. Graetz & Rachael Doud, *Technological Innovation, International Competition, and the Challenges of International Income Taxation*, 113 COLUM. L. REV. 347 (2013); Reuven S. Avi-Yonah, *The Rise and Fall of Arm's Length: A Study in the Evolution of U.S. International Taxation*, 15 Va. Tax Rev. 89 (1995); Julie Roin, *Can the Income Tax Be Saved? The Promise and Pitfalls of Adopting Formulary Apportionment*, 61 TAX L. REV. 169 (2008); OECD TRANSFER PRICING GUIDELINES FOR MULTINATIONAL ENTERPRISES AND TAX ADMINISTRATIONS 34-38 (2022) https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/01/oecd-transfer-pricing-guidelines-for-multinational-enterprises-and-tax-administrations-2022_57104b3a/0e655865-en.pdf [https://perma.cc/6GJB-2U3S].

[79] *See, e.g.,* J. Clifton Fleming Jr., Robert J. Peroni & Stephen E. Shay, *Formulary Apportionment in the U.S. International Income Tax System: Putting Lipstick on a Pig?*, 36 MICH. J. INT'L L. 1 (2015); Reuven S. AviYonah- & Ilan

agreeing upon a universally accepted, non-arbitrary method for attributing income to specific geographic locations based on underlying economic activity or contributions. In the specific context of LSR, as noted by Kane and Kern, determining the LSR allocable to a country would require not only knowledge of its actual income but also counterfactual knowledge of how much it would have earned were it not for its operations in the country in question.[80]

In subsequent parts, I will argue that qualifying a country's unique contribution to the production of wealth is not only theoretically possible but also practically achievable in the international context. However, substantiating this claim requires a close examination of why such quantification is so problematic in the domestic context. This, in turn, calls for a closer examination of the economic characteristics of goods provided by the state, particularly the attribute of excludability. I begin by explaining the concept of excludability and the classification of goods into public (and club) goods on the one hand and private (and common) goods on the other. As a result, it becomes clear that markets are fairly adept at valuing goods that possess the attribute of excludability but are unable to assign value to goods that lack it. Because the goods provided by the state are typically non-excludable in the domestic context, there is no reliable method to quantify their value. By contrast, in the international context, government-provided goods are generally excludable and are therefore capable of being valued through market mechanisms.

III. VALUING CONTRIBUTION

This section begins by explaining the types of goods that exist and the ways in which markets can determine and allocate value. Economists typically classify goods and services according to two key

Benshalom, *Formulary Apportionment: Myths and Prospects – Promoting Better International Policy and Utilizing the Misunderstood and Under-Theorized Formulary Alternative* (2011) https://repository.law.umich.edu/cgi/viewcontent.cgi?article=2180&context=facarticles [https://perma.cc/3R9C-QFNH]; Reuven S. Avi-Yonah & Kimberly A. Clausing, *A Proposal to Adopt Formulary Apportionment for Corporate Income Taxation: The Hamilton Project* (2007) https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1071&context=law_econ_archive [https://perma.cc/Y2XD-342M].

[80] Kane & Kern, *supra* note 9, at 309.

characteristics: (1) excludability and (2) rivalry in consumption.[81] A good is excludable if it is feasible and practical to prevent individuals who have not paid for it from consuming or benefiting from it.[82] A good is rival in consumption if one person's consumption of the good meaningfully diminishes the amount available to others.[83] Based on these two attributes, the universe of goods can be classified into four canonical groups:[84]

1.**Private Goods:** Private goods are both excludable and rival in consumption.[85] Examples abound: a loaf of bread, a pair of shoes, a personal computer, a ticket to a specific seat in a theater. The provider can exclude non-payers, and one person's consumption prevents another's simultaneous consumption of that same unit.

2.**Club Goods:** Club goods are excludable but non-rival in consumption, at least up to a certain capacity limit.[86] Examples include cable television subscriptions, access to a park, streaming services, or software licenses. Non-payers can be excluded, but one person's enjoyment does not typically diminish another's ability to do so, at least until congestion sets in.[87]

3.**Public Goods:** Public goods are characterized by being both non-excludable and non-rival in consumption.[88] The

[81] *See, e.g.,* Paul A. Samuelson, *Diagrammatic Exposition of a Theory of Public Expenditures*, 37 REV. ECON. & STAT. 350 (1955) [hereinafter "Samuelson, Diagrammatic Exposition"]; Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 REV. ECON. & STAT. 387 (1954) [hereinafter "Samuelson, Pure Theory"].

[82] *See, e.g.,* NICHOLAS GREGORY MANKIW, PRINCIPLES OF MICROECONOMICS 212 (8th ed. 2015).

[83] *Id*. at 212; *See also* Elinor Ostrom, *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, 100 AM. ECOM. REV. 641, 644-45 (2010) (suggesting the term "subtractability of use" for "rivalry of consumption").

[84] MANKIW, *supra* note 82, at 212-13; Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917, 929–42 (2005) (explaining the classification of goods based on rivalry and excludability, and how this affects their efficient provision and governance).

[85] MANKIW, *supra* note 82, at 212.

[86] *Id.* at 213.

[87] *See, e.g.,* Richard A. Musgrave & Peggy B. Musgrave, Public Finance in Theory and Practice 54 MCGRAW-HILL (1989); James M. Buchanan, *An Economic Theory of Clubs*, 32 ECONOMICA 1 (1965).

[88] MANKIW, *supra* note 82, at 212.

> classic example is national defense; it is virtually impossible to exclude any citizen within a territory from the security it provides, and one citizen's "consumption" of this security does not reduce the security available to others. Other examples include street lighting, environmental protection, broadcast radio signals, and fundamental scientific knowledge.[89]
>
> 4.**Common Goods**: Common goods are non-excludable but rival in consumption.[90] This category is prone to the "tragedy of the commons."[91] Examples include fish stocks in the open ocean, timber in an unmanaged public forest, or common grazing land. It is difficult to exclude users, but each user's consumption (e.g., catching fish) directly reduces the resource available to others.[92]

For the purposes of analyzing the valuation of a state's contribution, the attribute of excludability or non-excludability—rather than rivalry or non-rivalry in consumption—is of primary operational significance. Consequently, the distinction between private goods and club goods (both excludable), and between public goods and common goods (both non-excludable), while important in other contexts, is less critical to this argument. For clarity and analytical simplicity, I refer to the broader categories of "private goods" and "public goods," with the understanding that the former encompass both private and club goods, and the latter include both public and common goods.

The analysis will begin with a simplified economy consisting solely of private goods and the factors that produce them. In this setting, the owners of various distinct factors of production—labor,

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[89] *Id.* at 214-16.

[90] *Id.* at 213.

[91] *See* ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1st ed. 1990); Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968); *See also* Carol M. Rose, T*he Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 720–39 (1986) (challenging the inevitability of the tragedy of the commons through historical and customary legal arrangements).

[92] But *see* MANKIW, *supra* note 82, at 213 ("[B]oundaries between the categories are sometimes fuzzy. Whether goods are excludable or rival in consumption is often a matter of degree. Fish in an ocean may not be excludable because monitoring fishing is so difficult, but a large enough coast guard could make fish at least partly excludable. Similarly, although fish are generally rival in consumption, this would be less true is the population of fishermen were small relative to the population of fish.").

capital, and so forth—collaborate to create wealth by producing a marketable output. Additionally, there is a common, pre-agreed principle holding that the total wealth generated by this cooperative endeavor should be allocated among the contributing parties in direct proportion to their respective contribution to the production of that wealth. At first glance, this allocative task might appear extraordinarily daunting. When several (or all) factors of production are necessary to generate wealth, it may seem impossible to disentangle and determine the specific portion of the total wealth that is properly attributable to each individual factor. To take a very simple example, both labor and capital are often necessary to create a valuable output that neither could produce alone. It is clear that the product of their joint effort must be divided between the suppliers of the labor and capital, but the precise share to which each factor is normatively entitled is not immediately apparent in abstract.[93]

Determining those respective shares does not produce a single, universally applicable rule. The distribution of output in a multi-factor production process varies on the specific circumstances of the cooperative enterprise.[94] The economic value of any particular contribution is inherently context-dependent. Suppose that the production of a specific good G requires the input of factor F—that is, without the participation of F, G simply cannot be produced. What, then, is the value contributed by F to the creation of the wealth embodied in G? In other words, how much do the collective contributors of all the other necessary factors of production benefit from the inclusion of F in the production process? The simplistic suggestion that the contribution of F equals the entire surplus value—or total revenue minus the income that could be produced by the best alternative uses of other factors—is clearly inaccurate, for the simple reason that there may well be several other factors that are also individually necessary to produce G. It cannot be maintained that the economic value of each such necessary contribution is independently equal to the entire surplus value generated by the enterprise; otherwise, the sum of the claimed values of the

[93] *See generally*, Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777, 777–79 (1972).

[94] *See* Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960) (demonstrating how allocation outcomes depend heavily on institutional arrangements and transaction costs, rather than natural justice or intrinsic value).

individual contributions would exceed the actual value of what is collectively produced.[95]

The correct economic answer is that we cannot definitively determine the specific benefit that the joint enterprise procures from F (and thus F's fair price or fair share of the output) without crucial information about the broader market context. Specifically, we need to know the available supply of F (i.e., how many alternative market actors could potentially provide an equivalent or substitutable F) and what the aggregate demand is for F from other potential wealth-creating enterprises, as well as the available supply of and aggregate demand for the other factors of production involved in creating G.[96] To illustrate, suppose that growing crops requires two primary factors: arable land and agricultural labor. The relative value of these two contributions—and thus the division of proceeds from crop sales between landowners and laborers—depends directly on the relative scarcity and availability of these factors.[97] Moreover, the only practical means of quantifying the value of each factor's contribution is to observe the price that each factor is able to demand in a competitive market.[98]

As already noted, Locke's argument that labor is the source of value when it combines with land to produce output is valid only under conditions in which the land is abundant. [99] If there is a virtually limitless supply of fertile land available for cultivation but a significant

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[95] *See generally*, ISRAEL M. KIRZNER, MARKET THEORY AND THE PRICE SYSTEM 142-82 (John R. Beishline ed., Liberty Fund 2007) https://cdn.mises.org/Market%20Theory%20and%20the%20Price%20System_2.pdf [https://perma.cc/8FHJ-ENPC].

[96] Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103 (1979) (providing a law-and-economics justification for using market prices as proxies for marginal value).

[97] *See, e.g.,* JOHN BATES CLARK, THE DISTRIBUTION OF WEALTH: A THEORY OF WAGES, INTEREST AND PROFITS 77-115 (1902) (laying out the marginal productivity theory of distribution and the role of land and labor).

[98] *See, e.g.,* KIRZNER, *supra* note 95; ALFRED MARSHALL, PRINCIPLES OF ECONOMICS Book VI, Ch. VI (8th ed. 1920) https://eet.pixel-online.org/files/etranslation/original/Marshall,%20Principles%20of%20Economics.pdf [https://perma.cc/7UKB-9FD2] (on the determination of factor prices through marginal productivity in competitive markets); Louis Kaplow & Steven Shavell, *Fairness Versus Welfare*, 114 HARV. L. REV. 961, 985–92 (2001) (discussing how markets allocate goods and the use of willingness to pay as a proxy for value contribution).

[99] *See generally*, Jeremy Waldron, *The Right to Private Property*, 9 OXFORD J. LEGAL STUD. 313, 320–24 (1989).

scarcity of able-bodied labor, laborers will hold a strong bargaining position. They will be able to demand a wage that approaches the full marginal product of their labor, which in this scenario might approximate the total value of the agricultural produce. In this market context, the landowner's assertion that the crops owe their existence to the use of their particular parcel of land is economically weak. The laborer, possessing the scarce factor, could simply have chosen to work someone else's equally available land.[100] Conversely, if arable land is extremely scarce and in high demand, while labor is plentiful and largely undifferentiated, then the economic contribution attributable to the land itself will be far more valuable. Landowners can command high rents for the use of their scarce resource, while laborers receive wages closer to their subsistence level or to their opportunity cost in alternative, less productive pursuits. In this scenario, the laborer's countervailing assertion that their labor alone caused the crops to grow is likewise weak economically. The landowner, as the holder of the scarce factor, could readily hire another worker from the abundant labor supply.[101]

It is important to recognize that the specific institutional arrangement for production and distribution—whether the landowner pays the laborer a fixed wage and keeps the residual profit (the crop value minus wages and other costs), the laborer pays the landowner a fixed rent for the land and retains the residual (the crop value minus rent and other costs), or both enter into a sharecropping or partnership agreement allocating a predetermined share of the output or profits—does not fundamentally alter the underlying economic calculus.[102] In

[100] For example, following the Black Plague and the decimation of the population in Europe, the value of labor rose significantly relative to what it was before the plague. *See, e.g.,* Pamuk Şevket, *The Black Death and the Origins of the "Great Divergence" Across Europe, 1300-1600*, 11 EUR. REV. ECON. HIST. 289, 291 (2007) ("The Black Death caused urban real wages to rise by as much as 100 percent in the decades after 1350 and they remained above their earlier levels until late in the sixteenth century."); *See also* Remi Jedwab, Noel D. Johnson & Mark Koyama, *The Economic Impact of the Black Death*, 60 J. ECON. LIT. 132 (2022).

[101] *See, e.g.,* George J. Stigler, *The Economics of Information*, 69 J. POL. ECON. 213, 213–16 (1961) (explaining how factor prices are determined by supply, demand, and scarcity in competitive markets).

[102] *See* Coase, *supra* note 94 (explaining how the legal and institutional structure defines the framework within which market transactions and surplus division occur); STEVEN N.S. CHEUNG, THE THEORY OF SHARE TENANCY 102–03 (1969) (arguing that under competitive conditions and zero transaction costs,

a well-functioning market economy, characterized by information symmetry, low transaction costs, and freedom of contract,[103] each participant—that is, each owner of a factor of production—ultimately receives compensation reflecting the economic benefit derived by the joint enterprise from their specific contribution, given the prevailing supply and demand for that factor and its substitutes.[104] There may also be a distinct reward for risk-bearing and for entrepreneurship, as these can constitute a value contribution to the joint enterprise.[105] Thus, a laborer who works for a fixed wage might not end up with the same income as one who rents land, works it, and sells the output, even if the supply of and the demand for both labor and land are constant.

Now consider a scenario where there is a large supply of relatively homogeneous labor, assuming for simplicity that there are no significant restrictions on trade or movement. The market will determine, through the forces of supply and demand, how much of the total value created belongs to each factor.[106] For example, if (a) all parcels of land are equally productive, (b) all units of labor are interchangeable, (c) the total available supply of labor exactly matches the amount of labor required to optimally cultivate all available land, (d) there is no collusion or cartelization on the part of either landowners or laborers, (e) there are no significant legal or practical restrictions on who can work where or which land can be cultivated, and (f) there is effective demand for all crops that could be produced if the land were fully utilized, then the division of total value could plausibly approach a

institutional form – wage, rent, or sharecropping – does not affect allocative efficiency).

[103] Of course, any of these factors may be missing in which case the market could operate at a suboptimal level and misallocate rewards. However, for the purpose of our discussion at the moment, we will disregard possible instances of market failure.

[104] *See, e.g.,* Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 305–11 (1976) (explaining how competitive markets lead to factors of production being compensated according to their marginal economic contribution); Posner, *supra* note 96.

[105] *See, e.g.,* FRANK H. KNIGHT, RISK, UNCERTAINTY AND PROFIT 197-232 (1964) (1921) (explaining how pure economic profit arises as a reward for bearing uninsurable uncertainty and the distinct contribution of entrepreneurship).

[106] *See generally*, MANKIW, *supra* note 82, at 362-64. *See also* CLARK, *supra* note 97, at 3 ("[F]ree competition tends to give to labor what labor creates, to capitalists what capital creates, and to entrepreneurs what the coordinating function creates").

relatively stable ratio—perhaps even fifty-fifty—if the marginal productivities of land and labor are equal under these conditions. In such a case, the marginal landowner and the marginal laborer each recognize their mutual dependence in producing wealth. In other words, the joint enterprise is perceived to benefit from each type of contribution to a similar degree at the margin. If labor becomes scarcer or land more abundant, the economic value of labor will rise while the value of the land contribution will fall.[107] Conversely, if labor supply expands or the supply of land contacts, the economic value of labor will fall while the value of land contribution will rise.[108]

Of course, deviations from this ideal market scenario, such as the existence of monopolies (a single seller of a factor),[109] oligopolies (a few dominant sellers),[110] monopsonies (a single buyer),[111] or cartels (collusive agreements among sellers or buyers),[112] can significantly distort this process and prevent the market from performing its valuation and allocation function properly. For example, a monopolist owner of a critical and unique factor of production can extract a price for that factor that far exceeds what would prevail in a competitive market, thereby capturing a share of the enterprise's surplus that is disproportionate to its "true" competitive contribution and is instead reflective of its market power. Such market failure means that the

[107] *See supra* note 96.

[108] *See generally,* KNIGHT, *supra* note 105, at 94-173 (detailing the conditions under which factor prices are determined by supply and demand, reflecting the marginal productivity and relative scarcity of inputs).

[109] *See, e.g.,* MANKIW, *supra* note 82, at 289-312.

[110] *See, e.g.,* MANKIW, *supra* note 82, at 337-54. *See also* Joshua Wright & Aurelien Portuese, *Antitrust Populism: Toward a Taxonomy*, 25 STAN. J.L. BUS. & FIN. 131, 142 (2020) (describing how in 1972 the FTC for the first time fined an oligopoly consisting of Kellogg, General Mills, General Foods, and Quaker Oats and in 1973 forced the oligopoly of Exxon, Shell, Mobil, Texaco, SoCal, Gulf, Amocom, and Arco to sell 40% to 60% of their refining capacity).

[111] *See, e.g.,* MANKIW, *supra* note 82, at 374. *See also* Jeffrey L. Harrison, *Complications in the Antitrust Response to Monopsony*, *in* THE GLOBAL LIMITS OF COMPETITION LAW 54, 54 (Ioannis Lianos & D. Daniel Sokol, eds., 2012) ("[M]onopsony is the mirror of monopoly. Monopsonists use buying power to lower prices while monopolists use seller (or market power) [sic] to raise them.").

[112] See, e.g., MANKIW, supra note 82, at 339-40, 345. See also Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004) (A cartel presents greater anticompetitive concerns than monopolistic behavior and is the supreme evil of antitrust.).

observed payments to factors do not necessarily reflect their marginal productivity or opportunity cost in a competitive sense.[113]

The fundamental reason that an idealized, competitive market can, at least in theory, effectively value the contribution of different factors with regard to the production of private goods is precisely because these goods are excludable. Owners of such factors of production possess both the legal and practical ability to withhold their inputs from the production process unless they receive adequate compensation. In a competitive setting, that compensation tends to converge towards the value of that factor's marginal contribution to the enterprise.[114] If others who wish to create value via a joint enterprise are unwilling to pay this market-determined value, the factor owner can deploy it elsewhere or choose to withhold.[115] If, for some reason, the factor owner were to be forced to participate in the joint enterprise, the right to refuse to cooperate would be curtailed and the market mechanism would not be an efficient means of determining the value of the contribution.[116] It is the power to exclude, and thus to demand payment, that is the crucial market mechanism that facilitates valuation.

When attention turns to public goods, the market-based valuation mechanism breaks down. Because public goods are non-excludable, the provider—whether the government or society at large—cannot effectively withhold their benefits from individuals or firms that refuse to pay for them voluntarily.[117] This dynamic gives rise to the well-known "free-rider problem": everyone benefits from the public good regardless of their individual contribution to its financing, leaving no economic incentive for anyone to contribute to its provision.[118]

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[113] *See generally*, Francis M. Bator, *The Anatomy of Market Failure*, Q.J. ECON. 351 (1958).

[114] *See* Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 731–32 (1998) (the right to exclude is the foundational element of property and enables markets to function by creating the conditions for voluntary exchange and valuation).

[115] Continuing to assume no significant market failure.

[116] *See* Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. S453, S456–59 (2002) (explaining how the ability to exclude enables market pricing and efficient resource allocation).

[117] *See, e.g.,* Richard Abel Musgrave, *The Voluntary Exchange Theory of Public Economy*, 53 Q.J. ECON. 213, 219–20 (1939); Samuelson, Diagrammatic Exposition, *supra* note 81, at 355; Samuelson, Pure Theory, *supra* note 81, at 388.

[118] See MANKIW, *supra* note 82, at 214.

The non-excludability of public goods means that their provision cannot typically be financed through market transactions based on direct charges for use.[119] They can generally be financed only by compulsory taxation or other forms of collective funding and, indeed, the provision of public goods is one of the most basic and least controversial functions of a tax system.[120] However, if the government seeks to impose taxes that accurately reflect the contribution of public goods to the production of wealth by specific firms or individuals—or the benefits derived by them from those public goods—there is no convenient, direct, market-based method for objectively valuing that contribution or benefit on an individualized basis.[121] The same non-excludability that necessitates tax financing also frustrates market-based valuation of the underlying service for allocation purposes. As discussed earlier, the practical impossibility of quantifying the value or contribution of public goods was one of the factors, alongside redistributive considerations, that ultimately undermined benefit theory and led to its replacement by alternative frameworks, such as ability-to-pay principle, as the dominant normative justification for broad-based taxation.[122]

IV. PRIVATE AND PUBLIC GOODS IN THE INTERNATIONAL CONTEXT

When theories of public finance move from the domestic to the international sphere, they often overlook that excludability—and thus the classification of goods as "public" or "private"—is not an immutable, ontological characteristic of the good itself.[123] It is instead

[119] *See, e.g.*, Musgrave & Musgrave, *supra* note 87, at 42-44.

[120] *See, e.g.,* Reuven S. Avi-Yonah, *The Three Goals of Taxation*, 60 TAX L. REV. 1, 2 (2006); *Cf.* NOZICK, *supra* note 62, at 93-95 (no person or group of persons can provide services and then force others, even those who benefit from them, to contribute to their provision).

[121] *See* Thomas D. Griffith, *Theories of Personal Deductions in the Income Tax*, 40 HASTINGS L.J. 343, 360–66 (1989) (explaining how non-excludability leads to the breakdown of voluntary financing and justifies taxation of public goods).

[122] *See, e.g.,* Walter J. Blum & Harry Kelvin, Jr., *The Uneasy Case for Progressive Taxation*, 19 CHI. L. REV. 417, 451-55 (1952); David Elkins, *Responding to Rawls: Toward a Consistent and Supportable Theory of Distributive Justice*, 21 BYU J. PUB. L. 267, 315 (2007).

[123] *See, e.g.*, Graetz, *supra* note 1, at 298 ("The services a nation provides may contribute substantially to the ability of both residents and foreigners to earn income there. Taxing that income is one way for the source country to be

context-dependent and, critically, contingent upon the community or group with respect to whom excludability is being assessed.

For purposes of international analysis, it is helpful—albeit at the risk of oversimplification—to distinguish between two classes of persons. The first might be described as "insiders" (e.g., residents, citizens, and domestic corporations), while the other might be described as "outsiders" (e.g., foreign individuals and foreign corporations).[124] Goods that are public with regard to the first class might be private with regard to the second class. For example, consider attributes of a country's climate, geography, culture, and its physical, legal, and economic infrastructure. It is impossible or impractical to prevent insiders from benefiting from these goods. Therefore, from the perspective of domestic public finance, these goods are properly classified as public.

For foreign entities contemplating investment or operations in the country, the situation is markedly different. A sovereign state possesses the inherent and internationally recognized power to control entry into its territory and access to its markets.[125] It can, if it wishes, prevent foreign entities from benefiting from territorial advantages that insiders take for granted. In other words, with regard to foreign entities, these advantages are excludable. Furthermore, since the distinguishing traits of public and private goods are the non-excludability

compensated for its expenditures on the services it provides."); Kaufman, *supra* note 1, at 153 ("In a benefit-based income tax system, individuals who benefit equally from government, including nonresidents, should contribute to the host country's cost of government. In other words, most existing scholarship internationalizes interindividual equity."); Gary D. Sprague & Rachel Hersey, *Permanent Establishments and Internet-Enabled Enterprises: The Physical Presence and Contract Concluding Dependent Agent Tests*, 38 GA. L. REV. 299, 304-05 (2003) ("This notion of 'fairness' is reminiscent of the historical use of 'cost' and 'benefit' theories to justify taxation. Both theories stem from the notion that there is a 'social contract' between a state and taxpayer. Under the cost theory, taxes ought to be paid in accordance with the cost of the service performed by the government. Under the benefit theory, taxes ought to be paid in accordance with the particular benefits conferred upon the taxpayer. Under both theories, a source state has a fair claim to the income produced within its borders and earned by foreigners because those benefiting from its services should be made to bear their share of the costs.").

[124] *See, e.g.*, Peroni, et al., *supra* note 4, at 9-11. A detailed description of how black-letter law distinguishes between insiders and outsiders is not necessary for our discussion. *See* 26 U.S.C §§ 7701(a)(4), (5), (30), (31) & § 7701(b).

[125] *See, e.g.,* Adeoye Akinsanya, International *Protection of Direct Foreign investments in the Third World*, 36 INT'L & COMPAR. L. Q. 58, 59 (1987) (["T]here is no international law compelling a State to allow private foreign investments.").

of the former and the excludability of the latter, what functions as a public good for insiders can constitute a private good for outsiders.[126]

Note that benefit theory is often conceptualized primarily in terms of a taxpayer receiving benefits that flow from direct government expenditures on public services (e.g., defense, infrastructure, and environmental protection).[127] Factors such as climate, geography, and culture are rarely mentioned in this context, perhaps because they are the background against which the government operates. When determining how to allocate the burden of government expenditures, benefit theory logically focuses on the services those expenditures finance rather than on factors external to government action. In the international context, however, the benefits or advantages provided by a host country are not necessarily limited to those financed by public spending. When a country allows a foreign entity to establish a subsidiary, build a factory, acquire investments, or sell products within its borders, it grants access to a range of advantages, some derived from government expenditure (such as infrastructure) and some others that are

[126] This is not to say that there do not exist public goods even in the international context. As noted, for our purposes the key attribute is excludability. When those who provide the good cannot prevent others (and particularly others who refuse to pay) from benefiting from it, the good will properly be classified as public. Perhaps the foremost example today is the attempt to limit or reverse global warming. When a country reduces its carbon emissions, it benefits not only those living, operating, or investing in the country, but also individuals and firms worldwide. As it is not possible to exclude people from benefiting from these efforts, such a good is public even in the international context. For this reason, it is likely that significant progress in this realm can be achieved only by a coordinated international effort, the equivalent of government action in the domestic context to provide local public goods. *See, e.g.,* JOSEPH E. STIGLITZ & JAY K. ROSENGARD, ECONOMICS OF THE PUBLIC SECTOR 809 (4th ed. 2015).

[127] Brown, *supra* note 5, at 592-93 ("At its core, the benefits principle underlying source taxation is an equitable principle. Nonresidents who earn income that profits from a country's government activities should be subject to source taxation on such income; otherwise, the burden for these government activities that benefit nonresidents would be borne by residents of the country alone. Thus, an equitable sharing of the cost of government activities between nonresidents and residents is at the root of source taxation."); Craig Elliffe, *Justifying Source Taxation in the Digital Age*, 52 VICTORIA UNIV. WELLINGTON L. REV. 743, 748 (2021) ("[Adam] Smith identifies that everyone benefits from general public services and everyone should contribute to the cost of sustaining them (consistent with the benefit theory)."); Kaufman, *supra* note 1, at 158 ("[John Stuart] Mill observed that it would be impractical to determine each taxpayer's share of the cost or benefit received on account of government goods and services.").

not (such as climate, culture, or natural resources). This distinction is relevant in two interrelated ways. First, when computing the LSR available from a given country, all of these advantages should be considered, not only those financed by public expenditure.[128] Second, in the relationship between the host country and the foreign entity, these advantages are excludable, allowing the host country to charge for its international tax regime.

Conversely, the mere fact that a government incurs substantial expenses does not by itself indicate that it is providing a net positive international good for which it can claim a share of the foreign entity's profits. For example, if a government spends heavily to overcome inherent local disadvantages, such as increased defense due to regional instability or costly infrastructure to manage extreme weather, those expenses may simply raise the location to a baseline level of functionality rather than create a unique advantage over other jurisdictions. Similarly, expenditures on purely domestic social welfare programs, while crucial for its citizens, may not directly contribute to the specific LSR of an export-oriented foreign entity, unless they indirectly enhance productivity (e.g., through public health or education that builds a more capable workforce). Benefit theory may be relevant for allocating the costs of these programs in domestic public finance, but the question does not arise in the international context if foreign entities gain no comparative advantage from such spending. Moreover, whether a particular government action or locational attribute eliminates a negative condition or creates a positive one often turns on the chosen baseline for comparison. The only relevant economic question is whether the jurisdiction's overall locational package provides a net advantage to the foreign entity relative to its next-best alternative.[129]

A. Quantifying LSR

The fact that LSR rests on goods that are public in the domestic sphere but effectively private in the international context suggests a possible basis for quantification. As we have seen, domestic competitive market forces can assign value to individual private goods that combine to produce wealth.[130] In a similar manner, international tax competition can assign value to international private goods. In a world

[128] *See supra* note 49.
[129] See Elkins, *supra* note 17, at 213-14.
[130] See *supra,* Part III.

where capital is relatively mobile and MNEs seek to maximize global after-tax profits for their shareholders, countries effectively compete with one another to attract and retain foreign direct investment and other forms of economic activity. Each country effectively offers a package of locational advantages—its infrastructure, markets, legal framework, workforce, and natural resources—and collects payment for this package through taxation and regulatory costs. International investors operating primarily out of self-interest will evaluate these packages. If the total cost of operating in Country A—including taxes imposed by for access to its unique locational advantages—exceeds the incremental profit expected relative to the next-best option,[131] a rational MNE will decline Country A's offer and opt for the alternative instead. Conversely, if the expected LSR from operating in Country A exceeds the tax and other costs it imposes, the MNE will likely find investment there attractive.

Thus, the maximum tax revenue that a country can sustainably extract from internationally mobile capital and activities, without driving that capital and those activities away to competing jurisdictions, serves as a market-based measure of the economic value of the unique benefits (that is, the LSR) its jurisdiction provides to MNEs. If a country seeks to impose taxes that capture more than the true LSR it provides, it will find itself uncompetitive in attracting and retaining investment. It will be in the same strategic position as an owner of a private factor of production in the domestic sphere who overestimates that factor's indispensability and demands a price exceeding the actual value of its potential contribution to the production of wealth, given the array of other factors available from alternative suppliers. Such an owner will quickly find that the market is unwilling to meet those demands. Only when the owner moderates the asking price to align with the competitive value of the contribution will the market respond by permitting participation in the production of wealth and a share of that wealth in reasonable accordance with that contribution.

This, in essence, is the core of the argument for how LSR can be measured: it is measured by what a country can successfully charge in taxes in a competitive international environment. The LSR represents the unique supranormal profits that firms can earn by operating in a given country—profits unavailable elsewhere. If this is indeed the

[131] The next best option might be investing in another country, or it might be simply not investing at all. *See*, *e.g.*, Kane & Kern, *supra* note 9, at 322.

case, then source countries that genuinely offer significant LSR will be able to impose taxes that capture a substantial portion of that LSR; MNEs will remain willing to invest because they still retain a portion of the LSR that exceeds what they could earn in alternative jurisdictions. If, in a reasonably competitive international climate, a country finds that it cannot impose meaningful taxes on foreign MNEs without triggering significant disinvestment or discouraging new investment, this would serve as strong market-based evidence that the country is overvaluing its purported LSR. Through a dynamic process of trial and error, or through more deliberate ex ante analysis, source countries competing for mobile investment will, over time, tend to calibrate their tax policies to capture a significant share of their actual market-validated contribution to the production of wealth by MNEs.

Of course, the LSR available in a country is not necessarily or even likely constant across all types of economic activity. Some types of economic activity might greatly benefit from access to a country's territory and the advantages inherent therein, while for others, the same endowment and government-provided services might be less significant or even negligible. It is therefore reasonable to assume that the tax a country can successfully charge foreign firms will not be constant but will vary from industry to industry and from investment to investment. By fine-tuning its tax regime and imposing differential rates on various categories of income, a country can more accurately approximate the LSR that foreign firms derive from operating in its territory.

B. Factor Prices

For the sake of completeness, it is important to note that some of the economic benefits of operating in a particular country will inevitably be captured by the owners of local factors of production, particularly land and labor. For example, if a country with a high-quality education system, a strong work ethic, or a workforce with a cultural predisposition toward innovation and creative thinking, wages will likely be higher than in countries lacking these traits. Other advantages of operating in a given country, such as a favorable geopolitical position or superior infrastructure, will likely be reflected in the price of both land and labor. These additional costs will reduce the profit that the firm can expect to earn from operating there and will consequently reduce the maximum sustainable tax that the host country can successfully charge. However, in such instances, the host country may be able

to tax the income earned by these local factors of production. The overall revenue that a country can collect from a foreign entity's operations attributable to its unique locational advantages will be a combination of taxes imposed on local factors of production along with the tax imposed directly on the foreign entity itself. From the perspective of the foreign entity, it is effectively incurring both the tax imposed directly upon itself and, indirectly, the tax imposed on the income of the factors with whom it contracts.[132]

C. Overlapping Rents

The idea of utilizing international tax competition as a means of quantifying LSR provides a potential resolution to one of the commonly cited theoretical conundrums in LSR literature: the problem of "overlapping rents" or "multiple necessary jurisdictions." This arises when a number of distinct countries are each arguably necessary for an MNE to produce a single stream of income.[133] For example, consider an MNE that exploits unique natural resources extracted in Country A, processes them in Country B using patented technology developed in Country C, and sells the final product to affluent consumers in Country D. Each of these countries might be indispensable to the creation of that particular income. When each country independently seeks to tax what it views as its full LSR, the aggregate may exceed the total economic rent generated by the enterprise.

This problem is directly analogous to the domestic situation discussed earlier, where multiple, privately-owned factors of production are all essential and complementary to a single production process. In such a case, the market (assuming no market failure, such as collusion or extreme power imbalance) will allocate to each factor owner a share of the output that reflects its economic contribution. Because each of the factors of production exhibits excludability, the owner of each factor can prevent others from exploiting it unless the price they are willing to pay is equal to the actual contribution of that factor. On the other hand, if the owners of the various factors demand too much as the price of participation, the entire enterprise will be unviable. It is only through the interplay of market forces that the value of each factor's contribution can be determined.[134]

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[132] *See, e.g.,* Elkins, *supra* note 34, at 940-41.
[133] *See, e.g.,* Kane & Kern, *supra* note 9, at 313-14.
[134] See *supra,* Part II.

The same principle applies internationally. The crucial point here is that, while access to a country's territory, markets, resources, infrastructure, and so forth is a non-excludable public good from the perspective of local residents, from the perspective of outsiders it is an excludable private good; and it should therefore operate in the international sphere much like a private factor in the domestic sphere. The country can deny the MNE access if it does not pay a price reflecting the country's economic contribution to the production of wealth. Clearly, MNEs will not be willing, in the long run, to pay more in total global taxes than they are earning in sustainable economic profits. If each of the "necessary" countries (A, B, C, and D in our example) independently insists on imposing taxes that it believes capture the entirety of its LSR, the sum of these tax demands could exceed the MNE's capacity to pay while still earning a normal return on its mobile capital. The MNE would then be forced to restructure its operations, withdraw from one or more of these jurisdictions, or cease the particular line of business altogether. This, in turn, sends a powerful signal to the overreaching countries that their tax demands are unsustainable and must be reduced. Through this competitive interplay, involving a combination of locational advantages and a corresponding tax price, a more sustainable equilibrium will emerge. Each country will find that it can impose tax only up to the point where the MNE still finds it profitable to continue utilizing that country's specific advantages in conjunction with the advantages (and tax costs) of the other necessary jurisdictions. In this way, the market mechanism of free and open tax competition will function in a manner analogous to the market for private factors in the domestic setting, forcing a competitively determined division of the overall rents among the contributing jurisdictions.

D. Restricting Tax Competition

One of the dominant themes in recent international tax policy is the attempt to curb international tax competition. A prime example is the OECD/G20 Inclusive Framework's Pillar Two initiative, which aims to establish a global minimum corporate tax rate, currently set at 15%.[135] The goal of Pillar Two is to ensure that large MNEs pay a

[135] *See* OECD, *Tax Challenges Arising from Digitalisation of the Economy – Global Anti-Base Erosion Model Rules (Pillar Two)*, (Dec. 20, 2021), https://doi.org/10.1787/782bac33-en [https://perma.cc/84XB-2ZWF]. Pillar Two is

minimum level of tax on their global income, regardless of where they operate or book their profits.[136] Pillar Two provides that if the country from which the income is considered to have been derived (the source country) imposes less than the global minimum, other countries (in accordance with a delineated pecking order) may impose a "top up" tax up to the minimum rate.[137] Because MNEs would not benefit from a tax reduction in the source country to below the global minimum—since they would have to cover the difference elsewhere—source countries can impose the minimum tax rate without fearing that doing so will discourage MNEs from operating in their territory.[138]

The question of whether restricting tax competition is an appropriate goal of the international tax regime has been much debated in the literature.[139] Commentators have also challenged the efficacy of

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the second part of the OECD's Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy. For Pillar One, *see* OECD, *Fact Sheet Amount A: Progress Report on Amount A of Pillar One*, (July 11, 2022), https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/cross-border-and-international-tax/pillar-one-amount-a-fact-sheet.pdf [https://perma.cc/4GQF-XPVX]; OECD, *Consolidated Report on Amount B: Inclusive Framework on BEPS*, (Feb. 24, 2025), https://doi.org/10.1787/182b47ad-en [https://perma.cc/8733-HS9X].

[136] *See generally*, Reuven Avi-Yonah & Young Ran Kim, *Tax Harmony: The Promise and Pitfalls of the Global Minimum Tax*, 43 MICH. J. INT'L L. 505 (2022); Reuven Avi-Yonah, Young Ran Kim & Karen Sam, *A New Framework for Digital Taxation*, 63 HARV. INT'L L. J. 279 (2022).

[137] *See, e.g.*, Andrew Duxbury, Jonathan D. Grossberg & Genevieve Tokic, *Reforming the Foreign Tax Credit, Subpart F, and GILTI in Light of Pillar Two*, 58 AKRON L. REV. 1, 11-12 (2025); Assaf Harpaz, *International Tax Reform: Who Gets a Seat at the Table?*, 44 U. PA. J. INT'L L. 1007, 1021-23 (2023).

[138] *See, e.g.*, Stephen E. Shay, J. Clifton Fleming, Jr. & Robert J. Peroni, *Directions for U.S. International Tax Policy, A Response to Hanna and Wilson*, 48 J. CORP. L. DIGITAL 8, 16 (2022) ("It is expected that most source countries will adopt a qualified domestic top-up tax (QDMTT) to retain revenue that, under Pillar 2, would otherwise be paid to others as a 'top-up' tax to reach the 15% minimum rate on GloBE income.").

[139] Avi-Yonah, *supra* note 6, at 1578; Barker, *supra* note 7, at 175; Elkins, *supra* note 17, at 930-33; Fleming et al., *supra* note 79, at 12-13; Graetz, *supra* note 1, at 285; Keinan, *supra* note 3, at 34-35; Musgrave & Musgrave, *supra* note 87, at 569; Avi Nov, *The "Bidding War" To Attract Foreign Direct Investment: The Need for a Global Solution*, 25 VA. TAX REV. 835, 844 (2006); Oleksandr Pastukhov, *International Taxation of Income Derived from Electronic Commerce: Current Problems and Possible Solutions*, 12 B.U. J. SCI. & TECH. L. 310, 325-26 (2006); Julie Roin, *Competition and Evasion: Another Perspective on International Tax Competition*, 89 GEO. L. J. 543, 595–96 (2001); Adam H. Rosenzweig,

Pillar Two, arguing that tax competition will continue largely unchanged and that the new rules will do no more than revise the terms of engagement.[140] Reviewing these arguments is beyond the scope of this article. What is significant for our purposes is that attempting to limit international tax competition – and in particular, attempting to do so by establishing a global minimum tax along the lines of Pillar Two – is fundamentally antithetical to the idea of allocating taxing rights based on market-determined LSR. A global minimum tax, by its very design, imposes a tax floor that is not directly related to the specific LSR provided by each jurisdiction. It allocates taxing rights based on centrally determined rules and formulas, overriding the outcomes that would emerge from free tax competition.[141] If our goal is to measure and tax true LSR, then initiatives like Pillar Two, which seek to blunt the sharp edge of tax competition, are counterproductive because they obscure the very market signals that are necessary to value each jurisdiction's unique contribution.

Of course, one might argue that the advantages of restricting tax competition outweigh the advantages of imposing tax in accordance with each country's LSR and that when the two goals conflict,

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Why Are There Tax Havens?, 52 WM. & MARY L. REV. 923 at 931, 946-47 (2010); Fadi Shaheen, *International Tax Neutrality: Revisited*, 64 TAX L. REV. 131, 133 (2011); DANIEL N. SHAVIRO, FIXING U.S. INTERNATIONAL TAXATION 114 (2014); Joel Slemrod & Reuven Avi-Yonah, *(How) Should Trade Agreements Deal with Income Tax Issues?*, 55 TAX L. REV. 533, 554 (2002). For a classic discussion of tax competition on the local level, see Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956) (arguing that local communities could compete for residents by offering different packages of public services at different tax rates, and individuals would vote with their feet as to which packages they would prefer). While tax competition for international investments is superficially similar, the two are not essentially analogous. For discussion of Tiebout in the context of international taxation see Grace Nielsen, *Resolving the Conflicts of Citizenship Taxation: Two Proposals*, 25 FLA. TAX REV. 436, 452-53 (2021); Reuven S. Avi-Yonah, *Globalization, Competition, and the Fiscal Crisis of the Welfare State*, 113 HARV. L. REV. 1573, 1611-16 (2000); Elkins, *supra* note 18, at 930-33; Efraim Chalamish, *The Future of Bilateral Investment Treaties: A De Facto Multilateral Agreement?*, 34 BROOK. J. INT'L L. 303, 318 (2009); Adam H. Rosenzweig, *Defining a Country's "Fair Share" of Taxes*, 42 FLA. ST. U. L. REV. 373, 394-95 (2015).

[140] *See, e.g.,* Heydon Wardell-Burrus, *State Strategic Responses to the GloBE Rules* (Oxford Ctr. for Bus. Tax'n, Working Paper 22/21, Dec. 1, 2022); Adam Kern, *The Hole in the Global Minimum Tax*, 93 U. CHI. L. REV. (forthcoming 2026).

[141] On the arbitrary nature of source rules, *see supra* notes 6-11 and accompanying text.

the former should take precedence. At first blush, the proposition is not unreasonable. However, it is important to be aware of the inherent conflict between the two goals and of the fact that efforts to restrict tax competition undermine the goal of aligning taxing rights with LSR. Advocating for allocating taxing rights according to LSR within the framework of a global minimum tax or other means of restricting tax competition is, in practice if not in theory, self-contradictory. Without the signals provided by tax competition, it is simply not possible quantify a country's LSR.

E. Caveat: International Tax Competition and Market Failure

The idealized vision of international tax competition as a perfect market mechanism for revealing and pricing LSR is, however, subject to potential impediments. Just as purely domestic markets can suffer from distortions that prevent the efficient allocation of resources according to contribution, the international arena may likewise exhibit departures from perfect competition. This is not an argument against the idea that tax competition can provide a fair value of each country's LSR, but rather a recognition that, like any market, its efficiency can be hampered by certain types of market failure. Distortions analogous to the monopolies, oligopolies, monopsonies, and cartels observed in domestic commercial spheres can occur on the international level as well. Examples of potential anti-competitive dynamics in the international tax context include:

> 1.**Monopsonistic or Oligopolistic Power of Multinational Enterprises:** In certain industries or regions, a single MNE (a monopsonist) or a small group of dominant MNEs (an oligopsony) might be the primary "buyers" of location-specific advantages offered by host countries. For example, a few large tech firms might dominate the demand for access to particular digital ecosystems or specialized labor pools relevant to their sector. Such concentrated buyer power could enable these MNEs to exert undue pressure on host countries to lower their tax rates below the level that would prevail in a more broadly competitive market, thereby allowing the MNEs to capture a larger share of the LSR than the host country. This is not a failure of tax competition per se, but a distortion caused by excessive market power on the demand side.[142]

[142] *See, e.g.*, Bankman et al., supra note 24, at 199.

2.**Cartel-like Behavior by Multinational Enterprises:** Beyond individual monopsony power, there is the potential for MNEs, either within specific industries or more broadly, to engage in tacit or explicit cartel-like behavior. This could manifest as a collective understanding or strategy to systematically pressure governments for lower taxes, to boycott jurisdictions that attempt to assert their right to tax LSR robustly, or to collectively exploit information advantages regarding international tax planning opportunities. Such actions by a "buyers' cartel" would suppress the "price" (tax levels) countries could obtain for their LSR, distorting the market outcome.

3.**State-Driven Cartelization of Taxing Rights:** Conversely, attempts by groups of countries to form "sellers' cartels" for taxing rights can also distort the market. Initiatives that seek to impose global minimum tax rates or to allocate taxing rights by fiat, as discussed earlier concerning the OECD's Pillar Two, can be viewed from this perspective. Instead of allowing the competitive interaction of individual countries and MNEs to determine the value of LSR in each jurisdiction, such arrangements attempt to set price floors or allocate market shares through collective agreement. This fundamentally interferes with the market discovery process that genuine tax competition could provide for measuring LSR. It replaces market determination with administered pricing, which, like any cartel, may serve the interests of its members but not necessarily lead to an efficient market-based valuation of each specific country's unique contribution.[143]

[143] Alan O. Sykes, *The Economic Structure of International Investment Agreements with Implications for Treaty Interpretation and Design*, 113 AM. J. INT'L. L. 482, 484-85 (2019). Sykes notes that what he refers to as "host country monopsony power" "arises when host countries offer investment opportunities to investors that are more profitable than opportunities available elsewhere. In such cases, host countries have the leverage to extract some of the returns on foreign investments (which can also be termed 'surplus' or 'profits') through a range of different policies…This international externality can lead to inefficiently low levels of inbound investment, and to distortions in other policies affecting established investors whenever host countries reap the benefits of the policy but foreign investors bear some of the costs." However, what he denounces as "host country monopsony power" is the essence of LSR. *See also* Mindy Herzfeld, *The Case Against BEPS: Lessons for Tax Coordination*, 21 FLA. TAX REV. 1, 42 (2017).

For those who regard allocating taxing rights according to each country's LSR as a desirable objective of the international tax regime,[144] the central analytical task should be to identify and evaluate the anti-competitive structures and behaviors—whether stemming from powerful corporate actors or collusive state arrangements—that may impede the functioning of such a market. The goal of this inquiry would be to explore ways to enhance the competitiveness and integrity of the international tax environment. This might involve, for instance, promoting greater transparency to reduce MNEs' information advantages, applying principles analogous to antitrust law to curb the abuse of dominant positions by MNEs, or critically evaluating intergovernmental initiatives to ensure they do not inadvertently create cartels that stifle beneficial competition. Addressing such market imperfections would move the international tax system closer to one in which tax competition genuinely allows for a fairer and more efficient measurement and allocation of location-specific rents.

V. HOME COUNTRY TAXATION AND THE FOREIGN TAX CREDIT

The complex question of which sovereign nation is entitled to tax which components of an MNE's income has implications that extend beyond the theoretical design of an ideal overall structure for the international tax regime. It also has immediate practical relevance in the context of domestic rules for granting a foreign tax credit ("FTCs"). Many countries—particularly those that are significant exporters of capital—assert the right to tax domestic individuals and entities on their worldwide income.[145] With respect to corporations,[146]

[144] As noted earlier, the contention that taxing rights should be allocated in accordance with each jurisdiction's LSR is hardly unassailable. It is arguable that the taxing rights should be allocated, not by contribution, but rather by need or by the expected effect on some global welfare function. Alternatively, it is arguable that allocating taxing rights in accordance with LSR is an important goal but that it is less important than the advantages inherent in restricting tax competition.

[145] *See, e.g.,* Catherine Brown & Christine Manolakas, *Trade in Technology within the Free Trade Zone: The Impact of the WTO Agreement, NAFTA, and Tax Treaties on the NAFTA Signatories*, 21 NW J. INT'L L. & BUS. 71, 97 (2000).

[146] Because both international trade and, as a consequence, the discourse regarding international taxation is dominated by corporations, the test focuses on the criteria for determining corporate residence or domesticity. Individual residence poses other questions, which are outside the realm of this article. *See, e.g.,* David Elkins, *A Scalar Conception of Tax Residence*, 41 VA. TAX REV. 149, 159-70

the criteria for determining residence or domesticity for tax purposes differ substantially across jurisdictions. Common connecting factors include the jurisdiction in which the corporation is legally formed or incorporated,[147] or that in which it is centrally managed and controlled.[148] The latter test is itself subject to diverse interpretations and applications: some countries look to where strategic decisions are made (generally where board meetings are held), while others to where day-to-day operational management occurs.[149]

(2022) (surveying the criteria for individual tax residence in Australia, Canada, France, Germany, Israel, the United Kingdom, and the United States).

[147] *See, e.g.,* I.R.C. § 7701(a)(4).

[148] The management and control test derives from the 1906 House of Lords decision in De Beers Consolidated Mines, Ltd. v. Howe [1906] AC 455 (HL) (appeal taken from Eng.) (United Kingdom of Great Britain and Ireland); In 1988, Parliament expanded the common law definition of corporate residence by providing that a corporation incorporated in the United Kingdom is a U.K. corporation regardless of where it is controlled and managed. Finance Act 1988, § 39 (later superseded by the Finance Act 2009, § 14) (UK). For proposals that the United States adopt something akin to the management and control test, *see, e.g.*, Reuven S. Avi-Yonah, *Beyond Territoriality and Deferral: The Promise of "Managed and Controlled"* (Aug. 12, 2011) (Mich. L. Pub. L. & Legal Theory, Working Paper No. 248), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1908707 [https://perma.cc/P88F-XNUT]; Reuven S. Avi-Yonah, *International Taxation of Electronic Commerce*, 52 TAX L. REV. 507, 528 (1997); Reuven S. Avi Yonah, *Corporate and International Tax Reform: Proposals for the Second Obama Administration*, 40 PEPP. U. L. REV. 1365, 1370 (Apr. 26, 2013); Terrence R. Chovrat, *Book Review: A Different Perspective on Tax Competition*, 35 GEO. WASH. INT'L L. REV. 501, 515 (2003); Charles Edward Andrew Lincoln IV, *Is Incorporation Really Better Than Central Management and Control for Testing Corporate Residency? An Answer to Corporate Tax Evasion and Inversion*, 34 OHIO N. U. L. REV. 359 (2017); Omri Marian, *Jurisdiction to Tax Corporations*, 54 B.C. L. REV. 1613, at 1645, 1664 (2013); PRESIDENT'S ADVISORY PANEL ON TAX REFORM, SIMPLE, FAIR, AND PRO-GROWTH: PROPOSALS TO FIX AMERICA'S TAX SYSTEM at 135 (Nov. 2005); Kyrie E. Thorpe, *International Taxation of Electronic Commerce: Is the Internet Age Rendering the Concept of Permanent Establishment Obsolete?*, 11 EMORY INT'L L. REV. 633, 693 (1997); David R. Tillinghast, *A Matter of Definition: "Foreign" and "Domestic" Taxpayers*, 2 INT'L TAX & BUS. L. 239, 262 (1984).

[149] *See, e.g.*, Marian, *supra* note 148, at 1625–26 ("All Commonwealth jurisdictions adhere, among other tests, to the CMC [Central Management and Control] test . . . Civil law countries look into multiple factors such as the place of effective management ('POEM') which is similar (and sometimes even viewed as identical) to CMC; the 'legal seat,' which is indicated in registration documents or in the articles of association; the place where the main economic activity of the corporation is carried on; and the place of residence of shareholders."); Luca Cerioni, *The*

To prevent or mitigate the double taxation that would otherwise occur if both the source country (where income is generated) and the home country (where the MNE is resident) taxed the same income, home countries often offer an FTC. This credit reduces the domestic MNE's domestic tax liability on foreign-source income by the amount of income tax it already paid to the source country on that same income.[150]

This well-established phenomenon of worldwide taxation by home countries, coupled with the provision of FTCs, raises two distinct and—in some respects contradictory—challenges to the analytical framework developed above, which posits that tax competition can provide a means of quantifying a country's LSR. First, if the home country routinely and generously grants a credit for income tax paid to a foreign source country (up to the home country's own tax rate),[151] then MNEs based in that home country may become largely indifferent to the level of tax they pay in those foreign source countries, at least up to that limit. If every dollar of tax paid to Country S (a source country) results in a dollar-for-dollar reduction in tax owed to Country H (the home country), the MNE's global tax burden remains

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"Place of Effective Management" as a Connecting Factor for Companies' Tax Residence Within the EU vs. the Freedom of Establishment: The Need for a Rethinking?, 13 GERMAN L. J. 1095, 1095–96 (2012) (France, Germany, Hungary, Italy, the Netherlands, Poland, Slovakia, and Spain determine corporate residence by reference to effective management); Lu Hern Kuan & Leonard Ong, Tax Considerations for Multinational Banks Doing Business in Singapore, *J. Tax'n F. Inst.* 36 (2000) ("[T]he control and management of a company is vested in its directors and a company is usually regarded as resident in Singapore if its directors' meeting are held in Singapore."); OECD, *Model Tax Convention on Income and on Capital, Condensed Version*, at 112–13 (Dec. 18, 2017), https://www.oecd.org/ctp/treaties/model-tax-convention-on-income-and-on-capital-condensed-version-20745419.htm [http://perma.cc/FUE4-9K82] ("Competent authorities having to apply paragraph 3 would be expected to take account of various factors, such as where the meetings of the person's board of directors or equivalent body are usually held, where the chief executive officer and other senior executives usually carry on their activities, where the senior day-to-day management of the person is carried on, where the person's headquarters are located, which country's laws govern the legal status of the person, [and] where its accounting records are kept . . .").

[150] *See, e.g.,* I.R.C. §§ 901-909.

[151] *See, e.g.,* I.R.C. § 901(a) (limiting the amount of the foreign tax credit to the taxpayer's U.S. tax liability for foreign source income); 901(d) (further limiting the amount of the foreign tax credit by applying the limitation separately to each of several categories of income).

unchanged so long as it does not exceed Country H's.[152] This "FTC effect" could potentially blunt MNEs sensitivity to source-country tax rates, thereby weakening the tax competition as a mechanism for accurately pricing and valuing the LSR provided by Country S. In such cases, Country S might impose a tax that diverges from its true LSR, effectively shifting the burden to Country H's treasury rather than the MNE itself.

Second—and conversely—home countries normally grant FTCs only for foreign taxes that they recognize as legitimate income taxes and, crucially, only when they acknowledge the authority of the foreign jurisdiction to impose that tax on that particular income in question.[153] If the income in question lacks a sufficient economic nexus to the foreign taxing jurisdiction (under the home country's own sourcing or entitlement criteria), the home country may deny an FTC for the taxes paid abroad, even if that foreign country successfully imposed and collected that tax under conditions of (perhaps imperfect) international tax competition.[154] In effect, the home country acts as a gatekeeper, capable of overriding the market-based "verdict" of tax competition through its own normative assessment of the foreign country's taxing rights.

These challenges are answerable, but only if the traditional categorization of countries into "home" and "source" is abandoned. For the purpose of measuring and allocating taxing rights based on each jurisdiction's LSR, the home country is not unique in its relationship with the MNE. Rather, it is one among several jurisdictions offering a bundle of valuable services and locational advantages. These may include a sophisticated and predictable system of corporate law, a well-developed commercial culture, political and social stability conducive to long-term strategic planning, access to deep and liquid capital

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[152] *See, e.g.,* Daniel N. Shaviro, *Rethinking Foreign Tax Creditability*, 63 NAT'L TAX J. 709, 710 (2010); Daniel Shaviro, The Case Against Foreign Tax Credits, 3 J. LEGAL ANALYSIS 65 (2011); Kimberly Clausing & Daniel Shaviro, A Burden-Neutral Shift from Foreign Tax Creditability to Deductibility?, 64 Tax L. Rev. 431, 431 (2011)

[153] See *supra,* notes 43-44, and accompanying text.

[154] *See, e.g.*, BRET WELLS, INTERNATIONAL TAXATION 13-17 (5th ed. 2022) (illustrating a scenario in which income tax paid by a U.S. taxpayer to a foreign government is not creditable because under the principles of U.S. international taxation, in contradistinction to the principles of the foreign country's international tax regime, the source of the income was in the United States and not in the foreign country).

markets, the availability of highly skilled managerial and technical talent, a prestigious corporate domicile, and a favorable network of tax treaties. These elements constitute the home country's unique contribution to the MNE's global wealth creation.[155] Indeed, such contributions have often been invoked in the legal and economic literature to provide a normative, benefit-theory justification for home-country taxation of the worldwide income of firms that establish their headquarters or legal incorporation within its borders.[156]

The additional global income that an MNE can earn as a result of these elements constitutes the LSR derived from the home country. Accordingly, home countries should be able to capture via their tax systems a significant portion of the LSR generated by their willingness to allow corporations to form or maintain headquarters within their territory and to benefit from their distinct jurisdictional offerings. This allocation can be achieved if we fully embrace the view that the so-called home country is simply one of many jurisdictions competing to offer legal and institutional services in the international marketplace. The taxes that it imposes on its "domestic" entities—including the structure of its FTC rules and the degree of generosity or strictness of its foreign tax credit regime—represent, in economic substance, the

[155] *See, e.g.*, Rebecca Rudnick, *Who Should Pay the Corporate Tax in a Flat Tax World?*, 39 CASE W. RES. L. REV. 965, 994 (1988); Marian, *supra* note 144, at 1615, 1642; Reuven S. Avi-Yonah, *Corporations, Society, and the State: A Defense of the Corporate Tax*, 90 VA. L. REV. 1193, 1205-06 (2004); *see generally* Inho Andrew Mun, *Reinterpreting Corporate Inversions: Non-Tax Competitions and Frictions*, 126 YALE L. J. 2152 (2017) (solution to problem of corporate inversions is to align tax paid with benefits).

[156] *See, e.g.*, Michael S. Kirsch, *The Congressional Response to Corporate Expatriations: The Tension Between Symbols and Substance in the Taxation of Multinational Corporations*, 24 VA. TAX REV. 475, 551-63 (2005) (listing among the advantages of U.S. incorporation: (a) procuring terms of the typical U.S. corporate tax regime, (b) accessing benefits under certain trade agreements, (c) obtaining eligibility to apply for certain government contracts, (d) presenting oneself as an American corporation to American consumers, and (e) securing protection from U.S. legislators, administrators, and diplomats). For justifications of other criteria of corporate residence, *see, e.g.*, Marian, *supra* note 148, at 1620, 1648-49; Adam H. Rosenzweig, *Source as a Solution to Residence*, 17 FLA. TAX REV. 471, 507 (2015); Rudnick, *supra* note 155; John T. VanDenburgh, *Closing International Loopholes, Changing the Corporate Tax Base to Effectively Combat Tax Avoidance*, 47 VALPARAISO U. L. REV. 313, 347-54 (2012).

price that it charges for permitting the MNE to register or be headquartered in its territory.[157]

If a country's overall tax system, including its FTC framework, makes it unattractive for MNEs to choose it as their legal domicile or place of control and management—for example, because its FTC regime is excessively restrictive, leading to unrelieved double taxation on foreign operations; or, because its corporate tax rate on residual worldwide income is too high relative to the value of its LSR—then firms will be dissuaded from incorporating or headquartering there. Domestic MNEs may also be incentivized to expatriate or invert, relocating their legal domicile or effective management to a more fiscally competitive jurisdiction.[158] This competitive pressure among potential home jurisdictions ensures that, over time, no country can successfully impose a tax (including the effect of its FTC regime) exceeding the true LSR associated with the factors that make an entity

[157] *Id.*

[158] Where corporate residence is determined by reference to the place of effective management or a home office, expatriation is a relatively straightforward procedure: simply move the management or the home office to a different jurisdiction. When corporate residence is determined by place of incorporation, the issue is more complex because a corporation's existence is a function of its registration: a domestic corporation cannot "become" a foreign corporation. Granted, a domestic corporation or its shareholders can establish a new corporation under the laws of a foreign jurisdiction, but the foreign corporation will have its own legal personality and will be a subsidiary or a sibling (or some other relative) of the old domestic corporation. The domestic corporation will not have become the foreign corporation. *See, e.g.*, Tillinghast, *supra* note 148, at 259 ("[A] mid-life shift in a corporation's status may be achieved only at the price of 'killing' the old corporation and 'creating' a new one . . ."). To circumvent this obstacle to expatriation, tax planners developed a series of techniques collectively known as inversions. *See, e.g.*, DONALD *See, e.g.,* Donald J. Marples & Jane G. Gravelle, *Corporate Expatriation, Inversions, and Mergers: Tax Issues*, CONG. RES. SERV. 4–5 (2017), https://fas.org/sgp/crs/misc/R43568.pdf [https://perma.cc/BZ3R-TK9G]. In a typical inversion, the subsidiary of a foreign corporation merges into a U.S. corporation that had served as the parent to a multinational group; simultaneously, assets that produce foreign-source income are transferred from the U.S. corporation to the foreign corporation. *See, e.g.*, Steven Goldman, *Corporate Expatriation: A Case Analysis*, 9 FLA. TAX REV. 71, at 73-74, 84-91, 77–80, and 92–98 (2008). And when the smoke clears, the corporate structure may be very similar to what it was previously, except that at the peak of the corporate pyramid a foreign corporation stands instead of a domestic corporation. *See* Marian, *supra* note 148, at 1654–55. For legislative and regulatory attempts to combat corporate inversions, *see* I.R.C. § 7874; Treas. Reg. § 1.7874-8.

"domestic" for tax purposes.[159] The "price" a country can charge for serving as an MNE's home jurisdiction is thus constrained by global tax competition itself.

Therefore, the home country's decision on whether to grant an FTC for a tax paid to a "source" country is not an external, normatively superior judgment that overrides a market outcome; rather, it is an integral part of the overall package that the home country offers in competition with other potential home countries. A home country that adopts an overly restrictive FTC policy (e.g., by narrowly defining creditable foreign taxes or by applying stringent source rules that are overly narrow for FTC limitation purposes) effectively increases the cost of being domiciled in that jurisdiction for MNEs with extensive foreign operations. This may make it less competitive as a home country. Conversely, a home country with a more liberal FTC policy might attract more MNEs to domicile there, but it also sacrifices revenue that it might otherwise have collected. The "optimal" FTC policy for a home country, from its own revenue and economic perspective, is one that strikes these considerations, with the balance influenced by the competitive offerings of other nations.

In this framework, the foreign tax credit is not primarily a mechanism for achieving an inter-national equity arrangement. Rather, it is an instrument through which a home country modulates the tax burden on its MNEs to ensure that the total tax paid for the privilege of being domiciled or headquartered there—i.e., tax liability to the home country after the FTC—reflects the LSR that it provides as a home base. The entire global system becomes a multifaceted competitive market where each jurisdiction (whatever its traditional label) attempts to price its unique locational contributions. The distinction between source country and residence taxation blurs: both are simply instruments for capturing a share of the LSR generated through different types of jurisdictional contribution.

VI. CONCLUSION

The concept of taxing LSR has attracted increasing attention in recent years as scholars and policymakers search for more coherent principles to allocate taxing rights among jurisdictions. Referencing the unique, place-bound advantages that jurisdictions provide to multinational enterprises, this trend reflects a growing sense that taxing

[159] *Id.*

rights should not rest solely on formalistic criteria, but rather on substantive economic contributions tied to place, whether in the form of infrastructure, human capital, legal systems, or market access.

The point of this article is not to endorse LSR as a normative basis for international taxation. Rather, it aims to clarify the internal logic of that approach and explore how one might apply its principles in practice. It proceeds from the simple premise that LSR cannot play a meaningful role in international taxation unless it can be quantified. Commentators discussing LSR tend either to ignore the problems of quantification or to state that they are insurmountable.

The article's central claim is that tax competition, although often treated with skepticism or alarm, provides a mechanism—perhaps the only mechanism—through which LSR can be measured. When jurisdictions compete to attract or retain mobile economic activity, the taxes they are able to impose without driving firms away constitute a market signal of the unique value they provide. While this signal is noisy and mediated by many institutional factors, it nonetheless offers an observable and behaviorally grounded mechanism for quantifying the value that jurisdictions contribute. If no country were able to provide LSR, then tax competition, as its detractors warn, could perhaps drive taxes on international investment down to zero. However, when a country does provide LSR (i.e., profits that a firm can earn in that country and nowhere else), then even in a competitive environment the host jurisdiction should be able to successfully impose tax. In fact, if the tax base is the firm's LSR, then any tax rate below 100% is feasible.

This framing has several implications. First, it offers a different way of understanding familiar elements of international tax design. The allocation of taxing rights across jurisdictions, the determination of corporate residence, and even the design of foreign tax credit systems can all be interpreted, at least in part, as mechanisms through which countries attempt to price and extract the LSR they offer. These systems have developed not purely through power or happenstance, but through repeated interaction and adaptation within a competitive global environment.

Second, the analysis helps critique recent efforts to reconfigure the international tax regime. Proposals to assign taxing rights based on user location, or to shift profit allocation toward market jurisdictions, often appeal—explicitly or implicitly—to LSR-type reasoning. Yet they are also accompanied by proposals to limit tax competition. While each of these objectives is, at least prima facie, not

unreasonable, there does not appear be a recognition that they are based on contradictory hypotheses and in practice may undermine one another.

Third, it posits that free and fair international tax competition should not necessarily be viewed as a breakdown of the international tax order but rather as a decentralized process for discovering the value that states provide. From this perspective, the challenge is not to suppress tax competition but to make it more transparent and interpretable, treating its outcomes not as mere symptoms of strategic behavior, but as signals that can inform a more coherent and grounded approach to international tax allocation.

To be clear, the project here is not to champion LSR as the sole or ideal basis for taxing rights, nor to suggest that tax competition always produces efficient or fair outcomes. Rather, it is to show that if the international tax literature is to take LSR seriously, it must offer a defensible account of how LSRs can be measured. Tax competition offers one such account. It may not constitute a complete answer, but it is likely a necessary part of any serious effort to align taxing rights with real economic contributions.