[Dalhousie Law Journal](https://digitalcommons.schulichlaw.dal.ca/dlj)

Volume 44
Issue 1 *44:1 (2021) Special Issue: Purdy Crawford Workshop: The Role of Business Regulation in Advancing the Sustainable Development Goals*

Article 15

6-2021

Designing a More Sustainable Global Tax System

Allison Christians
McGill University, Faculty of Law

Recommended Citation

Allison Christians, "Designing a More Sustainable Global Tax System" (2021) 44:1 Dal LJ 19.

Allison Christians*

Designing a More Sustainable Global Tax System

The international tax system incentivizes unsustainable business practices because it ignores the private profits created by externalizing human, societal, and environmental costs. This paper proposes a novel reform: applying living wage and externality assessment tools to the rules for establishing where income arises for tax purposes. To do so, I propose a method that is relatively complex but arguably more accurate (in tax terms) and a complementary but relatively simpler proxy method. I examine how each method would implicate treaty-based and domestic rules and processes and conclude that the proposed design provides a viable starting point to make the global tax system support sustainable business practices without running afoul of international standards and without necessarily driving down cross-border investment.

Le système fiscal international encourage les pratiques commerciales non durables parce qu'il ne tient pas compte des profits privés créés par l'externalisation des coûts humains, sociétaux et environnementaux. Cet article propose une réforme novatrice : l'application d'outils d'évaluation du revenu de subsistance et des externalités aux règles permettant de déterminer le lieu d'origine du revenu à des fins fiscales. Pour ce faire, je propose une méthode relativement complexe mais sans doute plus précise (en termes fiscaux), ou alors une méthode de substitution complémentaire mais relativement plus simple. J'examine comment chaque méthode impliquerait des règles et des processus nationaux et fondés sur des traités, et je conclus que la conception proposée constitue un point de départ viable pour que le système fiscal mondial soutienne les pratiques commerciales durables sans enfreindre les normes internationales et sans nécessairement faire diminuer les investissements étrangers.

* H. Heward Stikeman Chair in Taxation Law, McGill University. Thanks for comments on early versions of this work go to Johannes Becker, Iain Campbell, Anzhela Cedelle, Kuzi Charamba, Steven Dean, Michael Devereux, Clifton J. Fleming, Judith Freedman, Werner Haslehner, Tarcisio Diniz Magalhães, Susie Morse, Jason Oh, Henry Ordower, Adam Rosenzweig, Kirk Stark, Joseph Stead, Laurens van Apeldoorn, Eric Zolt, and the participants of the Oxford International Law Conference (2019), the UCLA Tax Policy Colloquium (2020) and the BYU Tax Policy Colloquium (2020). Thanks for excellent research assistance go to Wei Bin Tan, Jodie Côté Marshall, Zoe Heffring, Nicole Maylor, Andrew Medeiros, Natacha Ngo, Kimia Towfigh, and Lily Maya Wang. This research is supported by a grant from the Ford Foundation and a grant from the Social Sciences and Humanities Research Council of Canada.

Introduction

All over the world, capital is invested in activities that produce unsustainable social and environmental externalities. Instead of responding with corrective regulations, politicians have done the opposite, effectively subsidizing firms that ignore these costs by permitting the resulting profits to be booked in low-tax regimes. Thereby incentivized by technical rules that are all but invisible to the public, the unsustainable exploitation of people and planet appears unstoppable even as it threatens societies with total collapse.

However, an opportunity to reverse course is emerging. This Article explains why and how to change course. Part I sets the stage by explaining why and how societies have inadequately valued and ultimately subsidized externalized social and ecological costs to date. Part II examines emerging tools that make it increasingly possible to count these costs and develops a novel framework for applying such tools to the tax system, where externalized costs turn into subsidized profits. Part III analyzes the implications of the framework and examines its feasibility in light of emerging investor and consumer demand for sustainability. The article concludes that the framework would be an appropriate tool to help the world move toward more sustainable business and investment practices.

I. *Status quo global tax: an unsustainable system*

Over the past ten years, headline news has featured a steady stream of stories about multinationals reaping record profits,[1] engaging in socially and environmentally destructive behaviours,[2] and paying lower taxes than they ever have before.[3] These trends are not typically connected in public discourse, but they should be because their concurrence demonstrates something fundamental about what societies value, and how perceptions of value change under the realization that past actions meant to support human flourishing have instead led to planetary destruction. Concerns surrounding each issue have led researchers, policymakers, and business leaders to ask fundamental questions about value creation and its role in legal reform.[4] Perceptions of value creation influence the design of

1. See e.g. Daisuke Wakabayashi, "Alphabet Earnings: Profits Triple and Slump Worries Ease," *New York Times* (25 July 2019), online: <www.nytimes.com/2019/07/25/technology/alphabet-earnings.html> [perma.cc/9WJS-NMSX]; Greg Magana, "Amazon's Q4 earnings reported record profit," *Business Insider* (4 February 2019), online: <www.businessinsider.com/amazon-q4-2018-record-profit-2019-2> [perma.cc/7RR7-S9D5]; Georgia Wells, "Facebook Posts Record Profit, Capping Grueling Year," *The Wall Street Journal* (30 January 2019), online: <www.wsj.com/articles/facebook-reports-record-profit-11548882887> [perma.cc/4NA8-5QGJ] .

2. See e.g. Marc Bain, "Nike is facing a new wave of anti-sweatshop protests," *Quartz* (1 August 2017), online: <https://qz.com/1042298/nike-is-facing-a-new-wave-of-anti-sweatshop-protests/> [perma.cc/4K5W-PG6L]; Jamie Fullerton, "Suicide at Chinese iPhone factory reignites concern over working conditions," *The Telegraph* (7 January 2018), online: <www.telegraph.co.uk> [perma.cc/CZ3P-7E6D]; Martine Parry, "The True Cost of Fast Fashion," (25 April 2018), online: *Fairtrade Foundation* <https://www.fairtrade.org.uk/Media-Centre/Blog/2018/April/The-true-cost-of-fast-fashion> [perma.cc/PT3T-VZAY].

3. See e.g. Rob Davies, "Starbucks pays UK corporation tax of £8.1m," *The Guardian* (15 December 2015), online: <www.theguardian.com/business> [perma.cc/7TB9-SQNW]; David Kocieniewski, "GE's Strategies Let It Avoid Taxes Altogether," *New York Times* (24 March 2011), online: <www.nytimes.com/2011/03/25/business/economy/25tax.html> [perma.cc/4K5W-PG6L]; Charles Duhigg & David Kocieniewski, "How Apple Sidesteps Billions in Taxes," *New York Times* (28 April 2012), online: <www.nytimes.com/2012/04/29/business/apples-tax-strategy-aims-at-low-tax-states-and-nations.html> [perma.cc/WE4Q-YDLU]; "Tax Paid By Some Global Firms in UK 'An Insult,'" *BBC News* (3 December 2012), online: <www.bbc.com/news/business-20559791> [perma.cc/2J5H-NTN4]; US, Homeland Security & Governmental Affairs, *The Shifting of Profits Offshore by U.S. Multinational Corporations: Hearing Before the Permanent Subcommittee on Investigations of the Subcommittee on Homeland Security & Governmental Affairs*, 113th Cong 2, 2013; European Commission, Press Release, IP/15/5880, "Commission decides selective tax advantages for Fiat in Luxembourg and Starbucks in the Netherlands are illegal under EU state aid rules" (21 October 2015), online: <europa.eu/rapid/press-release_IP-15-5880_en.htm> [perma.cc/5959-GNSB].

4. See e.g. Mariana Mazzucato, *The Value of Everything: Making and Taking in the Global Economy* (London: Allen Lane, 2019) (Mazzucato's work revisits that of Marilyn Waring, who drew the same conclusions thirty years ago to virtual silence in academic and policy circles); Marilyn

multiple forms of regulatory activity including, most crucially in terms of delivering economic incentives, the tax system.[5]

1. *Intangibles as value creators*

Responding to the negative news headlines about tax avoidance, in recent years policymakers have focused on improving the way value is measured for tax purposes, albeit to date with a limited scope of view. The idea is that to ensure multinationals contribute their fair share to society, their income should be taxed "where economic activities generating the profits are performed and where value is created."[6] Consensus on how to do so

---

Waring, *If Women Counted: A New Feminist Economics* (San Francisco: Harper & Row, 1988); See also Marilyn Waring, *Counting for Nothing: What Men Value and What Women are Worth* (Toronto: University of Toronto Press, 1999). Recent regulatory and policy reforms reflect that policymakers are contending with the same issue. See e.g. *Tax Cuts and Jobs Act*, Pub L No 115-97, §14221–23, 131 Stat 2054 (2017); EC, *Council Directive (EU) 2016/1164 of 12 July 2016 Laying Down Rules Against Tax Avoidance Practices That Directly Affect the Functioning of the Internal Market*, [2016] OJ, L 193 1, (stating that "the current political priorities in international taxation highlight the need for ensuring that tax is paid where profits and value are generated" at 1); Allison Christians, "Tax Activism and the Global Movement for Development through Transparency" in Brauner & Stewart, eds, *Tax, Law and Development*, (Cheltenham, UK: Edward Elgar, 2013) at 288-315; "Pulling the Plug: How to Stop Corporate Tax Dodging in Europe and Beyond," Oxfam 1, 8 (March 2015), online: (pdf):<www.oxfam.org> [perma.cc/P9BR-LLYS]; Tim Cook, "A Message to the Apple Community in Europe" (30 August 2016), online: <www.apple.com/ie/customer-letter/> [perma.cc/42W9-JNNB] (arguing against a European Commission determination involving Apple's dealings in Ireland because it violated the principle that a "company's profits should be taxed in the country where the value is created").

5. The concept of value creation has intuitive appeal even if its implications are highly contested. See e.g. Michael Lennard, "Act of Creation: The OECD/G20 Test of "Value Creation" as a Basis for Taxing Rights and Its Relevance to Developing Countries" (2018) 25:3 Transnational Corporations J (critiquing the concept and its impact for developing countries); Allison Christians & Laurens van Apeldoorn, "Taxing Income Where Value is Created" (2019) 22:1 Fla Tax Rev 1 (analyzing how the tax system deals with valuation and demonstrating the flaws inherent to fragmentation and geographic assignment of a given stream of income); Werner Haslehner, "Taxing where value is created in a post-BEPS (digitalized) world?" (30 May 2018), online (blog): <kluwertaxblog.com/2018/05/30/taxing-value-created-post-beps-digitalized-world/> [perma.cc/Q2S9-RKR9]. (distinguishing value capture from value creation and questioning which one ought to be the focus of income taxation).

6. See OECD, *Action Plan on Base Erosion and Profit Shifting* (2013), online (pdf): <www.oecd.org/ctp/BEPSActionPlan.pdf> [perma.cc/FZ4Y-L8A9] (Explaining that all G20 countries have "called on countries to examine how their domestic tax laws contribute to [base erosion and profit shifting] and to ensure that international and domestic tax rules do not allow or encourage MNEs to reduce overall taxes by artificially shifting profits to low tax jurisdictions," and that the OECD had accordingly developed action plans "to ensure that profits are taxed where economic activities generating the profits are performed and where value is created"); OECD, *Aligning Transfer Pricing Outcomes with Value Creation—Actions 8-10: 2015 Final Reports* (2015) at 3, DOI: <10.1787/9789264241244-en> (stating that "weaknesses in the current rules create opportunities for base erosion and profit shifting (BEPS), requiring bold moves by policy makers to restore confidence in the system and ensure that profits are taxed where economic activities take place and value is created"); European Commission, *Fair Taxation of the Digital Economy* (2018), online: <ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en> [perma.cc/FTT7-8E8K]. ("Today's international corporate tax rules…fail to recognize the new ways in which profits are created in the digital world, in particular the role that users play in generating value for digital companies. As a result, there is a

is hampered by traditional modes of thinking about value. In particular, intangible assets such as concepts, processes, and branding are especially valuable to modern multinationals.[7] As legal instruments, intangible assets such as licenses are intuitively understood to create value as fee- and profit-generators.[8] As the asset can be legally located wherever the creator chooses, the fees and profits follow.[9] Intangible assets are therefore powerful economic levers, even if they are often invisible in discussions about the economics of sustainability.

Meanwhile, natural resources and the labour to develop and assemble goods and provide services are systemically assigned low value relative to the other contributors to modern business profit.[10] Even when a product is a tangible good made with scarce resources that must be sourced, altered, and assembled through physical processes with significant long-term effects on people and the environment, popular wisdom has it that the "real" value is not created by these things.

2. *From value creation to subsidy*

The implications of this wisdom are broad when considering the logic demonstrated. If value derives primarily from legally recognized and therefore economically marketable intangibles, then any quantifiable function can be used to drive taxing rights away from countries that provide human and natural resources to legal constructs in low-tax regimes.[11] The logic of value creation thus contributes to tax avoidance

disconnect—or 'mismatch'—between where value is created and where taxes are paid").

7. See e.g. Terence Tsai, Bor-shiuan Cheng & Donna Everatt, *The Acer Group's China Manufacturing Decisions (9A99M009)* (London, ON: Ivey, 1999) (laying out the visualization of the global value chain of a computer according to Acer CEO Stan Shih).

8. See e.g. Jonathan Douglas Putnam, *The value of international patent rights* (PhD Dissertation, Yale University, 1997) [unpublished]; Dominique Guellec & Bruno van Pottelsberghe de la Potterie, "Applications, grants and the value of patent" (2000) 69:1 Economics Letters 109; Markus Reitzig, "What determines patent value?: Insights from the semiconductor industry" (2003) 32:1 Research Policy 13; Susan Lund et al, "Globalization in Transition: The Future of Trade and Value Chains," *McKinsey Global Institute,* (16 January 2019), online (pdf): <mckinsey.com/mgi> [perma.cc/D6X6-9CCD].

9. See e.g. H Stewart Dunn Jr, "Tax Considerations in Patent Assignments and Licenses between Related Corporations" (1961) 16:3 Tax L Rev 315; See also Allison Christians & Stephen E Shay, "Assessing BEPS: Origins, Standards and Responses" (2017) 102A C de D Intl Fiscal Assoc (explaining that the ability to assign valuable legal rights to low-tax jurisdictions is a primary method to avoid taxation). In this context it is significant that strong protection of intellectual property rights became part of a global agenda through the GATT/WTO system. See Julia C Morse & Robert O Keohane, "Contested Multilateralism" (2014) 9:4 Rev Intl Organizations 3854.

10. See Everett, Tsai & Cheng, *supra* note 7.

11. In contrast no value is typically assigned to rent seeking, even though it is clear that regulatory arbitrage and lobbying for beneficial reforms can be a major source of value for firms. See e.g. Jeff Gerth, "GE's Taxes: A Case Study," *Fortune Magazine* (4 April 2011), online: <fortune.com/2011/04/04/ges-taxes-a-case-study/> [perma.cc/9XJQ-QLTE] (describing GE's 1,000 member

because value plays a key role in defining and assigning business profit to specific taxpayers located in different jurisdictions.

Technical rules transform the intuition of value creation into specific tax outcomes. The core rules that accomplish this are those designed to assign corporate income across the members of multinational groups, namely arms' length transfer pricing—so named because it seeks to price transactions among commonly controlled companies at the price that unrelated, or arm's length, market participants would agree is fair.[12] De facto harmonization across countries occurs in the form of a set of "Transfer Pricing Guidelines" propagated and continuously updated by the OECD.[13] Transfer pricing theoretically divides a stream of profit amongst all relevant contributors in proportion to their respective contributions.

The idea of transfer pricing might be conceptually coherent in some theoretical sense but as a system, it is inordinately complex to achieve in practice. This has led some to call for worldwide consolidation and allocation (such as through formulary apportionment).[14] But any form

tax department as a profit center that "boosted its 2008 and 2009 reported profits by a total of about $1 billion just by changing its mind about how it treated some of its overseas earnings"); Robert Alexander, Susan Scholz & Stephen Mazza, "Measuring Rates of Return for Lobbying Expenditures: An Empirical Analysis Under the American Jobs Creation Act" (2009) 25:4 JL & Pol 401 (showing the return on investment in political influence over tax policy matters in the United States to be as high as 22,000 per cent); Brian Kelleher Richter, Krislert Samphantharak & Jeffrey F Timmons, "Lobbying and Taxes" (2009) 53:4 Am J Pol Sci 893 (showing that each additional dollar spent on lobbying generates between US$6 and 20 of tax benefits for firms); Jennifer L Brown, Katharine D Drake & Laura Wellman, "The Benefits of a Relational Approach to Corporate Political Activity: Evidence from Political Contributions to Tax Policymakers" (2014) 37:1 J American Taxation Assoc at 70 (showing that firms that cultivate relationships with tax policy-makers tend to have lower subsequent effective tax rates than those that do not).

12. The principles of arm's length pricing extend to unincorporated enterprises in some respects. See e.g. Robert Couzin, "The OECD Project: Transfer Pricing Meets Permanent Establishment" (2005) 53:2 Can Tax J at 401-407. As such, the arm's length principle permeates taxation beyond the quintessential multinational organization.

13. OECD, *OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2017* (Paris: OECD Publishing, 2017), DOI: <10.1787/tpg-2017-en> [hereinafter, Transfer Pricing Guidelines]. Some countries have detailed national transfer pricing laws and regulatory structures in place, for example in the United States, IRC § 482, while others have a statute but little or no accompanying regulatory regime, as in Canada, *Income Tax Act*, RSC 1985, c 1 (5th Supp), s 247; the Netherlands, *Corporate Income Tax Act*, 8b (3), 29b-h; South Africa, *Income Tax Act*, s 38. A few countries, including Hungary, Mongolia, and Namibia, explicitly adopt the Transfer Pricing Guidelines as domestic law. See "2018-19 Worldwide Transfer Pricing Reference Guide," Ernst & Young, online: <ey.com> [perma.cc/CL2L-NEQA]. Others acknowledge them to be a useful reference that reflects international views if not a legal authority. For discussion, see Allison Christians, "How Nations Share" (2011) 87 Ind L J 1407, DOI: <10.2139/ssrn.1815305>.

14. See e.g. Valpy Fitzgerald & Tommaso Faccio, "Sharing the Corporate Tax Base: Equitable Taxing of Multinationals and the Choice of Formulary Apportionment" (2018) 25:2 Transnational Corporations J 1; Joann Martens Weiner, "Formulary Apportionment and Group Taxation in the European Union: Insights from the United States and Canada" (2005) Taxation Papers, Directorate General Taxation and Customs Union, European Commission, Working Paper No 8.

of profit allocation that assigns profit according to conventional notions of value creation will fail to address the significant value derived from externalizing social and environmental costs. As profits are continuously allocated to the countries with significant wealth and resources that can reinvest them productively, these countries are enabled to continuously improve the conditions that allow them to claim more profits for tax purposes in the future.

What is needed is an approach that focuses on the core task of correctly identifying geographic source, including when the source of value is in the form of externalized costs.[15] Such an approach would apply as a corrective in line with the underlying foundational principles rather than a deviation therefrom.[16] This is the aim of the framework outlined in the next section.

II. *Framework for reform*

It would be possible to more accurately measure the value created when profit is derived by externalizing costs ideally in a way that is consistent with existing principles. To do so would require an acceptance of the core idea that cost reduction is a common and quantifiable source of value to firms. The discussion that follows seeks to establish why this claim should be accepted.

1. *The role and value of cost saving*

Cost reduction is intuitively simple and in many cases easily measured, but its relationship to income for tax purposes requires some explanation. In general terms, identifying potential cost savings is a common goal of routine supply chain analyses.[17] Saving costs theoretically allows either

---

15. The reason the concept of income is sound as a tax base is that it permits countries to tax different people appropriately and differently, based on their ability to pay. See J Clifton Fleming Jr, Robert J Peroni & Stephen E Shay, "Fairness in International Taxation: The Ability-to-Pay Case for Taxing Worldwide Income" (2001) 5:4 Fla Tax Rev 299. A system that deviates from this fundamental principle violates some of the core pillars that explain the circumstances under which the state's power to tax should be seen as legitimate such that the polity may be seen as obligated to cooperate. See *Allison Christians, "*Drawing the Boundaries of Tax Justice" (2013) in Kim Brooks, ed, *The Quest for Tax Reform Continues: The Royal Commission on Taxation Fifty Years Later* (Toronto: Carswell, 2013) 53.

16. See e.g. Susan C Morse, "The Transfer Pricing Regulations Need a Good Edit" (2013) 40:5 Pepp L Rev 1415 (explaining that unilateral "Incremental transfer pricing reform is more feasible and less risky than sweeping adoption of a global formulary apportionment approach." at 1443); Stephen E Shay, "Comment on Selected Aspects of Proposals in Public Consultation Document on Addressing the Challenges of the Digitalization of the Economy" (March 2019) Boston College Law School, online: <papers.ssrn.com/sol3/papers.cfm?abstract_id=3349186> [perma.cc/XXQ2-DX95] (stating that "it is appropriate and important to determine if it is possible to achieve a re-alignment of taxing jurisdiction using modifications of existing income tax principles and concepts" at 5).

17. See e.g. Alireza Anvari et al, "A Study on Total Quality Management and Lean Manufacturing: Through Lean Thinking Approach" (2011) 12 World Applied Sciences J 1585.

price reduction for the consumer or increased profit for the firm, or both. More profit translates into more tax base overall, but cost savings also have a distributional effect on the location of profit when more than one jurisdiction is involved in the value chain.

When firms save costs in their supply chains, it shows up as profit at some point (unless paid out, for example in the form of additional compensation).[18] When cost savings translate into increased profit, a government is likely to impose taxation. The fact that cost saving produces value is not controversial. Controversy may arise, however, when more than one jurisdiction may be said to be the source of the profit, and when costs saved by some activities are counted while costs saved by others are not. For example, a specific patented technique or trademarked process is a legally identifiable source of saving in a supply chain. But the benefit that arises from systemically-produced harms to vulnerable people and the planet is not. Activities that produce profit by harming people and the planet occur with the highest frequency and most damaging effect in the world's poorest countries, while activities that produce profit by innovating can occur anywhere. They often occur in tax-favoured regimes, with lucrative effect in the world's richest countries.

Accordingly, when the supply chain is international, the innovative ideas, technology, and methods that allow companies to streamline, integrate their activities and design new processes and products are assigned virtually all of the value created through international cooperation. There is no doubt that these inputs are value drivers, but the ability to externalize social and environmental costs is also a major value driver, and it is routinely ignored. A solution is to acknowledge that cost externalization reduces costs in the same sense that an innovative idea or process does, and therefore attempt to quantify the former in the same way as we currently do the latter.

2. *Revealing uncounted costs: emerging tools*

Following the logic of supply chain management, a firm is very likely to realize cost savings by outsourcing to relatively less developed countries, as has been well documented across the literature, as well as being acknowledged by courts.[19] A firm is likely to find relevant cost savings in the form of under-compensated labour, whereby workers are paid less than a living wage; uncompensated environmental impact, whereby regulations

18. Costs saved may generate cash flow that is reinvested and therefore the profit it generates is delayed to future taxable periods or indefinitely.

19. See e.g. *Sundstrand Corp v Comm'r of Internal Review,* 96 TC 226 (1991) (examining cost savings involved in taxpayer's decision to expand operations outside of the United States).

that would otherwise internalize such costs to the polluter are lacking or impossible to enforce;[20] and failures of public social infrastructure, including effective administrative and legal systems, which prevent needed social programs from being funded, thus privatizing gains while transferring risk to the public.[21]

These cost savings arise because of lack of development, as evidenced by a commitment to their elimination reflected in the Sustainable Development Goals endorsed by all countries of the United Nations.[22] Systemic deprivation of human rights forces individuals to work for less than a living wage and without adequate social and environmental protections.[23] Systemic deprivation of civil and political rights prevents individuals from holding irresponsible and harmful governments to account. [24] Systemic lack of development forces even the most responsible governments to allow firms to use the environment unsustainably. Countries that do not suffer from systemic lack of development generally do not tolerate and trade on these conditions, but instead invest in the physical and legal (regulatory) infrastructure necessary to eliminate them.

Externalizing the costs of social and environmental damage is extremely valuable to firms in the same way as adopting resource-saving manufacturing and transportation designs and processes.[25] The economic source of these cost savings is lack of development. For tax purposes, the geographic source logically follows: it is where the lack of development occurs. Failing to account for these value drivers in the tax system in effect rewards policies that enable systematic exploitation of people and natural

20. See e.g. Will Steffen et al, "Planetary Boundaries: Guiding Human Development on a Changing Planet" (2015) 347:6623 Science 1259855, DOI: <10.1126/science.1259855> (explaining early use of "waterways and airsheds as 'dumping grounds' for waste from industrial processes" at 1259855-1).

21. See e.g. Vincent Arel-Bundock & Srinivas Parinandi, "Conditional Tax Competition in American States" (2018) 38:2 J Pub Pol'y 191 at 261 (if a country's legislators are not properly funded and staffed, they cannot undertake policy research to avoid poor legislative choices).

22. According to the World Bank, taxation is a "significant factor" in 10 of the 17 sustainable development goals. See "Taxation and SDGs: First Global Conference of the Platform for Collaboration on Tax," *World Bank, Conference Report* (undated) at 9, online (pdf): <documents1.worldbank.org> [perma.cc/ACQ3-ADSQ] at 9. In fact, taxation is relevant to realization of all the goals, as acknowledged in the same report. *Ibid* at 17 (stating that "revenues to fund public services" and to "promote economic growth and equitably distribute public resources" are needed in connection with all 17 of the goals).

23. See e.g. World Health Organization, *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health* (2008), online: <www.who.int/publications/i/item/WHO-IER-CSDH-08.1> [perma.cc/MR2X-5QXF].

24. See e.g. Guido Schmidt-Traub & Jeffrey Sachs, "Financing Sustainable Development: Implementing the SDGs through Effective Investment Strategies and Partnerships" (2015) SDSN Working Paper, online (pdf): <resources.unsdsn.org> [perma.cc/E3YC-UERS] at 23.

25. See *Waring (1988), supra* note 4.

resources.[26] The tax system should therefore assign associated profits accordingly, with transfer pricing used as an appropriate mechanism.

3. *Application of new tools to existing rules*

In applying the above observations to taxation, it is necessary to establish that existing principles allow revenue authorities to correct stated prices even when they reflect market standards.[27] To do so requires a translation of the value associated with cost savings into transfer pricing terms. This can be accomplished by converting cost savings to a price or premium (discount) factor[28] that can be incorporated into the tax system by means of a transfer price adjustment under generally accepted standards, which is to say, without inflating the overall profit of firms.[29]

Such cost savings may be articulated as either an itemized series of premiums or discounts specific to particular industries or areas (itemized cost savings method) or a single intangible asset associated with the aggregate costs saved in a given jurisdiction (location savings method). Adopting either approach would be expected to boost the profit assigned to countries where cost externalization takes place relative to that currently counted in arms-length transfer pricing terms, and the two approaches could work in tandem not only to produce more revenue but also to provide better information about value attribution going forward.

a. *Itemized cost savings*

The first approach is a series of cost savings adjustments that would reflect the externalized costs of production using independent economic analysis for each factor relevant to the scrutinized case. This approach mirrors standard supply chain analysis which explains the value created

26. See e.g. Adam H Rosenzweig, "Defining a Country's 'Fair Share' of Taxes" (2015) 42:2 Fla St UL Rev 373 (proposing an allocation of cooperative surplus according to what would produce an efficient allocation of public spending). Rosenzweig's proposed method would also allocate more tax base to lower-income countries but not by way of existing standards or institutions.

27. The US *Altera* case is the most recent demonstration of this principle. *Altera Corp v Comm'r*, 2018 WL 3542989 at 2 (9th Cir 2018) (holding that related parties entering into cost-sharing arrangements must account for the value of shared stock-based compensation costs even if such costs would not generally be shared among unrelated parties).

28. The premium or discount (depending on the direction of relevant payments) would be applied as a percentage increase or decrease by a government as a price adjustment, even where the given price would otherwise fall within the acceptable range of comparable prices, as described in more detail below.

29. The exercise is thus purely distributional in nature when applied via transfer pricing or its corollary, income associated with a permanent establishment, so long as all countries cooperate to prevent double taxation as provided in tax treaties and domestic legislation. Lack of cooperation by other countries would likely cause double taxation and is addressed in Part III.

by eliminating other kinds of costs, and it tracks international standards for allocating global profit across countries.[30]

Transfer pricing standards embody a process by which a multinational firm demonstrates to each relevant tax authority that its stated income in each jurisdiction should be respected for tax purposes.[31] It should be so respected when the inter-company transactions that produced the income reflect what would be expected between unrelated parties acting in their own interests in fair market conditions (in tax terms, acting at arm's length).[32]

In demonstrating this, transfer pricing standards allow firms to explain their income calculations by reference to the price, cost, margin, or profit associated with the underlying transactions, depending on which transfer pricing method is applied.[33] Some countries require firms to use specified methods in a specified order of preference, or require certain methods be used by certain firms or in certain sectors, while others simply require the firm to choose the method that best reflects economic reality.[34]

In broad strokes, the relevant standards undertake a four-step process to ensure related party prices reflect fair market value.[35] First, the taxpayer's stated price for a given transaction must be identified.[36] Second, the stated price is compared against a range of cases in the market that (a) are comparable and (b) involve unrelated parties.[37] Third, if the stated

30. This alignment has benefits and drawbacks, which are also discussed below.

31. See e.g. U.S transfer pricing regulations. IRC §1.482-1(d) *Comparability*; Transfer Pricing Guidelines, *supra* note 13 at para 5.27, Contemporaneous documentation (stating that each taxpayer should determine its transfer prices "before the pricing is established" and "confirm the arm's length nature of its financial results at the time of filing its tax return").

32. Transfer Pricing Guidelines, *supra* note 13 at para 1.8 (stating that countries have adopted the arm's length principle in order to create parity of tax treatment between multinational groups and independent enterprises, as putting "associated and independent enterprises on a more equal footing for tax purposes…avoids the creation of tax advantages or disadvantages that would otherwise distort the relative competitive positions of either type of entity"); See also IRC §1.482-1 (a) ("The purpose of [IRC] s 482 is to ensure that taxpayers clearly reflect income attributable to controlled transactions and to prevent the avoidance of taxes with respect to such transactions").

33. Transfer Pricing Guidelines, *supra* note 13 at paras 2.1–2.151 (laying out alternative methods); See also IRC §1.482–1 (b)(2)(i) (same).

34. IRC §1.482–1 (c) (Best method rule); Transfer Pricing Guidelines, *supra* note 13 at para 2.1 (discussing approaches for the selection of the most appropriate method).

35. Solely for ease in navigating the method herein, all possible transfer pricing methods are encompassed within the term "profit" in the discussion that follows such that the term includes, for these purposes, "cost," "margin," or "profit," as the case may be, in relation to the relevant rule in the U.S. regulations and the Transfer Pricing Guidelines.

36. IRC §1.482–1 (b)(1) (Beginning the analysis with the concept of a "controlled transaction" which is defined as a transaction undertaken between commonly controlled taxpayers); Transfer Pricing Guidelines, *supra* note 13 at para 3.4 (providing a "typical process" that can be used to identify controlled transactions and choose tested parties).

37. ICR §1.482–1 (d) (laying out the parameters for comparability); Transfer Pricing Guidelines,

price falls outside the range of the comparable prices, the taxpayer may make appropriate allowances for factors that affect either the stated price or one or more of the comparable prices.[38] Finally, if the stated price is still outside the given range of prices, tax authorities are authorized to adjust the stated price to reflect the price that would be between unrelated parties in fair market conditions.[39]

The cost savings analysis I propose would begin at the second step of this analysis, namely, in the search for "comparable" prices involving unrelated parties. The challenge at this stage is that all relevant prices are distorted by the same economic condition, namely, lack of development and all of its manifestations in the form of inadequate protections of labour, environment, and society, none of which are measured in conventional GDP terms, and none of which are currently accounted for by firms in their dealings with each other, whether they are related parties or not.[40]

In a conventional search for comparable prices, certain market-wide distortions are allowed to stand without notice or challenge. This perpetuates the conditions that produce the distortion: since comparable A is wrong, a similarly priced B will necessarily be wrong as well, and therefore so would be prices C through Z, whether they are the taxpayer's stated price or a comparable. A different kind of adjustment is necessary to properly evaluate both stated prices and comparable prices. Using available relevant economic data, all comparable prices would need to be adjusted to reflect what would be expected if the market was not distorted by conditions related to chronic lack of development. As a starting point two possible tools to demonstrate the necessary correction are examined, namely living wage analysis and life cycle assessment.[41]

b. *Living wage analysis*

The first analysis focuses on labour, which has traditionally been attributed a major role in multinational location decisions. The premise is that where workers are systematically paid wages lower than that demonstrably required to sustain life, stated prices cannot reflect fair market value since in a fair market, unexploited workers would clearly not accept such

supra note 13 at paras 3.1–3.83 (same).

38. For example, adjustments may be made to account for different levels and forms of risk and economic conditions that differently affects controlled versus uncontrolled taxpayers. ICR §1.482–1 (d); Transfer Pricing Guidelines, *supra* note 13 at paras 1.33–1.40.

39. ICR §1.482–1 (a)(2) (outlining the tax administration's authority to make allocations); Transfer Pricing Guidelines, *supra* note 13 at para 4.4 (same).

40. See Waring (1988), *supra* note 4.

41. In addition to the two sources described herein, costs savings could be associated with a number of other Sustainable Development Goal targets.

conditions.[42] Since wages distorted by systemic lack of development translate into prices that do not reflect fair market value, profit allocation for tax purposes is accordingly distorted. Instead of properly allocating profit to the cost saved by underpaying workers, firms will attribute their increased profit to other sources of value in their value chains, especially intangibles whose value is in the eye of the beholder.[43]

To correct this error, existing economic models would be drawn upon to provide a more accurate allocation. The Anker Living Wage and the Asia Floor Wage provide two independent analytical tools that are both region- and sector-specific, thus capable of providing a granular assessment of the costs saved.[44] For example, as shown in prior work, Asia Floor Wage analysis provides sufficient information to demonstrate that an immediate price adjustment is necessary to reflect the systemic underpayment of workers in the garment sector in Vietnam.[45] Using Unilever as a case in point, this research demonstrated that the Asia Floor Wage could be used to demonstrate a clear gap between actual wages paid and a minimal amount that would be paid if workers were working in fair market value conditions.[46] This gap provides the taxing authority with evidence of the necessary counterfactual to stated prices.

The gap thus revealed can be characterized for tax purposes as an uncompensated portion of labour. As a negative externality, undercompensating labour constitutes an uncounted cost saving that can be attributed in globally accepted source terms to the jurisdiction where the work took place. When saved costs are understood as a source of

42. See Christians & van Apeldoorn, *supra* note 5.
43. See Yariv Brauner, "Value in the Eye of the Beholder: The Valuation of Intangibles for Transfer Pricing Purposes" (2008) 28 Va Tax Rev 79 at 104.
44. Richard Anker & Martha Anker, L*iving Wages Around the World: Manual for Measurement* (Cheltenham, UK: Edward Elgar Publishing, 2017); International Labour Office, Richard Anker, "Estimating a Living Wage: A Methodological Review" (2011) Conditions of Work and Employment Series No 29, online (pdf) <www.ilo.org/public/libdoc/ilo/2011/111B09_199_engl.pdf> [perma.cc/6JU4-8SXM]; Asia Floor Wage, online: <asia.floorwage.org/> [perma.cc/X8E6-T9SK] (describing itself as "an international campaign and alliance for collective industrial bargaining in the global garment industry").
45. See Christians & van Apeldoorn, *supra* note 5 at 33-34.
46. Unilever was shown to provide an appropriate case study because it has committed to sustainable growth, including "respecting and promoting human rights and good labour practices," as part of its Code of Business Principles. "Advancing Human Rights in our Own Operations," *Unilever* online: <www.unilever.com/sustainable-living/enhancing-livelihoods/fairness-in-the-workplace/advancing-human-rights-in-our-own-operations/ (last visited Oct. 7, 2018); *Unilever's Human Rights Policy Statement*>. See also, "Unilever's Human Rights Policy Statement," *Unilever*, online: <www.unilever.com.co.za> [perma.cc/8D36-HKMW]. The study examined Unilever's payment of workers in the Vietnamese garment industry and showed a gap of between 8 and 42 cents per hour between actual wages and those that would be required to sustain life under the circumstances. Christians & van Apeldoorn, *supra* note 5.

value, an adjustment for tax purposes to the price of goods transferred among related parties is warranted. This adjustment does not change the wages paid to labour or create phantom profit to the firm.[47] Instead, its sole purpose is to more accurately allocate the firm's global profit to its corresponding elements of the supply chain instead of allocating the profits derived from such uncounted costs to other intangibles such as design, branding, goodwill, and the like.

c. *Life cycle assessment*

In the same manner as under-compensating workers, causing or benefiting from environmental and social destruction in a geographic location reduces costs. These savings are currently not considered in the profit allocation analysis, but they should be to the extent they can be quantified. In particular, externalized environmental costs are well known to produce price distortions in addition to incentivizing irresponsible behaviour, the long term effects of which are demonstrably catastrophic.[48] Other externalized costs may be less well documented or understood as environmental costs, but not less impactful.[49]

Some of these costs are becoming increasingly quantifiable through emerging "life cycle assessments," which seek to measure the full cost of production including disposal.[50] Most life cycle assessment to date has focused on ecological impacts but more recent studies expand the analysis to social and economic impacts as well. [51] Many recent life cycle

47. That said, the articulation of the gap and its consequences may prompt future regulation. There is the risk that some governments will choose not to regulate to better the situation of their people and environment but will continue to claim the tax associated with the cost saved. This raises difficult political and normative questions regarding which government should "benefit" in tax revenue terms from ongoing exploitation—the capital exporter or the capital importer. In order to focus the discussion on the feasibility of the proposed reallocation on the tax side, it must be assumed that the countries that have agreed to focus resources on the Sustainable Development Goals are also occupied with questions of accountability on the regulatory side (including where the revenue should be spent).

48. See United Nations, Intergovernmental Panel on Climate Change, *Sixth Assessment Report*, online: <www.ipcc.ch/report/sixth-assessment-report-working-group-ii/> [perma.cc/RH5S-P6RQ].

49. See e.g. James Fava et al, eds, SETAC Workshop Report, *A Conceptual Framework for Life Cycle Impact Assessment (1993).*

50. Recently published life cycle assessments include studies of, for example, sugarcane, sugar and ethanol production in Thailand; electric vehicles in Brazil; and oilseed crop rotation in the Pacific Northwest. See Wanchat Sawaengsak et al, "Development of a Social Impact Assessment Method and Application to a Case Study of Sugarcane, Sugar, and Ethanol in Thailand" (2019) 24:10 Intl J Life Cycle Assessment 2054, DOI: 10.1007/s11367-019-01624-8; Jorge Enrique Velandia Vargas et al, "Life Cycle Assessment of Electric Vehicles and Buses in Brazil: Effects of Local Manufacturing, Mass Reduction, and Energy Consumption Evolution" (2019) 24:4 Intl J Life Cycle Assessment 627, DOI: 10.1007/s1167-018-1488-y; Sharath Kumar Ankathi et al, "Life Cycle Assessment of Oilseed Crops Produced in Rotation with Dryland Cereals in the Inland Pacific Northwest" (2019) 24 Int'l J Life Cycle Assessment 4, at 627-641.

51. See ISO 14040 (1997) ("LCA studies the environmental aspects and potential impacts

assessments focused on ecological impact are quantitative in nature, thus potentially providing the tax authority with a resource for pricing the difference between a production line that internalizes versus one that externalizes such costs.[52]

Further research is required to locate publicly available quantitative life cycle assessments and apply them to specific industries or jurisdictions for tax purposes.[53] The goal would be to provide tax authorities with independent economic studies demonstrating applicable price differentials, similar to those demonstrated by the living wage assessments discussed above. The transfer price adjustment would accordingly adjust the stated price by the difference between stated production costs and costs actually incurred pursuant to the life cycle assessment.

This is a resource-intensive task since life cycle assessments are time-consuming and complex exercises, often made by specific firms as to their unique supply chains and processes, and often not easily scaled to industries or nations.[54] In addition, many life cycle assessments are semi-quantitative in nature, using a scoring system to rate a product cycle on the basis of various indicators.[55] This type of assessment may be informative

throughout a product's life (i.e. cradle-to-grave) from raw material acquisition through production, use and disposal [including] resource use, human health, and ecological consequences"); Walter Klöpffer & Birgit Grahl, *Life Cycle Assessment (LCA): A Guide to Best Practice* (2014) at 1-2 citing the ISO 14040 and other standards and explaining that standard life cycle assessment focuses on ecological impacts and not economic or social impacts; Subramanian Senthilkannan Muthu, *Social Life Cycle Assessment: An Insight* (2015) (explaining that while environmental life cycle assessment is well developed and widely used, social assessment is a complementary approach).

52. See Muthu, *supra* note 51 (discussing Type II assessments).

53. See e.g. PWC, *Life Cycle Assessment and Forest Products: A White Paper (2010*), online (pdf): <www.pwc.com> [perma.cc/9PJ5-XCMU] (stating that "[w]herever possible LCA practitioners use existing data contained in databases rather than create new data. There are public Life Cycle Inventory (LCI) databases, which are typically free, and private databases that typically charge fees. The quality of the data in the databases varies both within and between databases. The potential impact on the results is often studied by sensitivity analyses on the key inputs and outputs." at 11). An example of a public life cycle inventory database is the National Renewable Energy Laboratory, U.S. Life Cycle Inventory (LCI) Database (2012), online: <https://www.nrel.gov/lci/> perma.cc/QE6G-MF4Z], which measures energy and material flows into and out of the environment in U.S.-based production processes.

54. See e.g. UNEP, *Guidelines for Social Life Cycle Assessment of Products* (2009) at 57, online (pdf): <www.lifecycleinitiative.org/wp-content/uploads/2012/12/2009%20-%20Guidelines%20for%20sLCA%20-%20EN.pdf> [perma.cc/2PHS-98WL] (affirming that social life cycle assessments are very costly and time-consuming); PWC (2010), *supra* note 53 at 11 ("LCA is an assessment tool that requires a large amount of data and data analysis.").

55. These types of life cycle assessments use a "scale-based" approach to characterize various "performance reference points." See e.g. Andreas Ciroth & Juliane Franz, *LCA of an Ecolabeled Notebook: Consideration of Social and Environmental Impacts along the Entire Life Cycle* (Berlin: GreenDeltaTC GmbH, 2011). Federal Public Planning Service Sustainable Development, Brussels (developing a scoring system using six performance levels: very good, good, satisfactory, inadequate, poor, and very poor performance levels, and six impact levels: positive, lightly positive, indifferent,

to a company assessing its own practices for internal purposes, but it does not necessarily yield specific information about the cost firms save by failing to change their practices accordingly.[56]

As such, qualitative or score-based assessments may be difficult to translate into specific price adjustments without some additional work. Future research could, for example, attempt to enlist the assistance of firms that are engaged in socially responsible practices to undertake *pro forma* analyses regarding what costs such firms could save by choosing to relax their internal standards by opting for more environmentally and socially harmful processes.[57] Such assessments would potentially yield an accurate estimate of some externalized costs, albeit requiring intense investment of effort and involving a significant amount of complexity.

d. *Aggregate location savings*

The second method proposed for pricing in the cost savings attributable to cost externalization is to take an aggregate approach. The approach might be characterized as a form of "location savings," sometimes referred to as "location specific advantage," a term of art whose familiarity to date may be attributed mainly to China.[58] In brief, as explained in the Transfer Pricing Guidelines, location savings refers to "cost savings attributable to operating in a particular market."[59]

Location savings might possibly be calculated as a price differential on a transactional basis (as in the itemized cost savings described above), but it might also be imagined as a separate intangible to which profit should be attributed, beyond any existing assets or activities. A single location savings factor could be derived by proxy using research that

lightly negative, negative, and very negative effect.).

56. See e.g. UNEP, *supra* note 54 at 25.

57. Firms such as SAP, PWC and McKinsey routinely engage in such exercises and could be instrumental to this research. See e.g. SAP, *Implementation Services*: *Measure your supply chain quickly and efficiently*, online: <www.sap.com/canada-fr/services/implementation/supply-chain-consulting.html> [perma.cc/8C72-UFY5]; "Supply chain planning and optimization", *PWC,* online: <www.pwc.com/ca/en/services/consulting/operations/supply-chain-planning-and-optimization.html> [perma.cc/5HXZ-6XJJ]; "Manufacturing & Supply Chain", *McKinsey*, online <www.mckinsey.com/business-functions/operations/how-we-help-clients/manufacturing-supply-chain> [perma.cc/HZ5A-QPJQ]. However, some firms may be conflicted by private interests that benefit from the current lack of publicity surrounding this kind of analysis.

58. See e.g. Jinyan Li & Stephen Ji, "Location-Specific Advantages: A Rising Disruptive Factor in Transfer Pricing" (2017) 71:5 Bull for Intl Taxation 259; Martin Hearson & Wilson Pritchard, "China's challenge to international tax rules and the implications for global economic governance" (2018) 94:6 Intl Affairs 1287.

59. Transfer Pricing Guidelines, *supra* note 13 at para 9.139 (adding at para 9.126 that "Location savings can be derived by an MNE group that relocates some of its activities to a place where costs (such as labour costs, real estate costs, etc.) are lower than in the location where the activities were initially performed").

seeks to measure the cost of attaining various aspects of the sustainable development goals, generally expressed as a percentage of national GDP.[60]

More analysis is necessary, but these studies provide a starting point. If the amount of investment needed to achieve the sustainable development goals of particular countries can be determined, a simple calculation may be used to determine a location saving involved in transacting in each jurisdiction, in tax terms. That is, for each country, there is a quantifiable cost to achieve the Sustainable Development Goals which could be used to formulate an aggregate location savings percentage to plug into the transfer pricing formula (or, if ultimately adopted, into a formula for allocating a unitary tax base).

The simplest approach is to apply a jurisdiction's aggregate annual development need to its annual GDP to produce a flat rate. Thus, for example, if it was determined that a country with an annual GDP of $10 million needed to spend $1 million per year to achieve the sustainable development goals, the rate would be 10%.[61] This rate would be applied as a location savings factor to all intercompany prices on a nationwide basis unless it could be tailored to specified sectors depending on their contribution to GDP or their contribution to specific problems (such as environmental impact). The percentage would be applied as a premium to payments into the jurisdiction (that is, increasing downstream payments), and a discount on outbound payments (that is, decreasing upstream payments) for tax purposes.

A sustainability-based location savings factor could be applied in a variety of ways, but the Chinese method for location specific advantage provides a point of departure. The Chinese method starts by calculating a standard arm's length return for a specified transaction, generally using cost-plus as the transfer pricing method. [62] A typical markup percentage that a firm in a developed country would impose in arm's length inter-company transaction is then determined by reference to relevant comparables. This

60. See e.g. Johannes Jütting & Shaida Badiee, "Financing SDG data needs: What does it cost?" (26 September 2016), online (blog): <www.data4sdgs.org/news/financing-sdg-data-needs-what-does-it-cost> [perma.cc/B4PE-QG3C]; See also UNESCAP, "Expert Group Meeting on How Much Do Ambitions Cost? Investment Needs for Achieving the Sustainable Development Goals in Asia and the Pacific," online: *UNESCAP* <www.unescap.org/events/expert-group-meeting-how-much-do-ambitions-cost-investment-needs-achieving-sustainable> [perma.cc/JY77-UMHJ]; Guido Schmidt-Traub, "Investment Needs to Achieve the Sustainable Development Goals: Understanding the Billions and Trillions" (2015) SDSN Working Paper, online (pdf): <resources.unsdsn.org> [perma.cc/F2HE-XTRF]; Schmidt-Traub & Sachs, *supra* note 24.

61. To date, aggregate studies estimate that low-income countries will need to spend between 4 and 14% of national GDP in lower-middle and low-income countries, respectively. See *Schmidt-Traub & Sachs, supra* note 24.

62. See Li & Ji, *supra* note 58.

"full cost markup" percentage is applied to the difference in costs borne to produce the specified good or service as between the comparables and the target firm.

The Chinese location savings method suggests that the measured difference in costs incurred to produce goods or provide services in China versus in developed countries represents the location savings of operating in China. To accurately represent sustainability instead would require undertaking a separate calculation to determine the externalized cost saving. As such, the chosen percentage (such as, in the example given, the SDG needs of a country as a percentage of its GDP) would be applied as the "externalized cost markup" in the same manner as China's full cost markup was applied, namely by multiplying it by the cost difference of producing goods or providing services in the less developed country as compared to developed countries.

The rationale of applying a differential rate in this manner is that the needed development spending represents some measure of market-wide circumstances that boost firm profits via cost savings. Overall development spending needs are an admittedly imperfect approximation of location savings, yet they are a reasonable proxy in the sense that countries are entitled to tax the value created in their jurisdictions, and the fact that significant spending is needed to achieve the Sustainable Development Goals demonstrates a likelihood that the entire market is distorted by lack of development, the non-amelioration of which produces private value for firms. A tax authority would thus be justified in making a universal price adjustment using the prescribed percentage, and would have a reasonable expectation that other countries ought to cooperate with such an adjustment.

e. *Complementary approach*

Each of the methods has its advantages and disadvantages, and each will face variation in acceptance and objection by firms, governments, and commentators.[63] Factoring in some of the main administrative and behavioural influences at play, a complementary approach would set location savings as a default and allow itemized costs savings as a rebuttal, at least until more and better measurement tools are available.

The primary advantage of using an itemized cost method is that it most precisely tracks the transfer pricing guidelines as they are currently

63. See e.g. Robert Bird & Karie Davis-Nozemack, "Tax Avoidance as a Sustainability Problem" (2018) 151:4 J Bus Ethics 1009 (explaining firm-level choices with respect to sustainability as social risk factor assessments); Laszlo Goerke, "Corporate social responsibility and tax avoidance" (2019) 21:2 J Public Economic Theory 310 (citing Bird & Davis-Nozemack for the same observation).

written. The tax authority making an adjustment following this method should be viewed as interpreting an agreed standard, rather than overriding or ignoring it. The cost savings adjustment is a positive claim about an economic phenomenon just like any other claim relevant to the transfer pricing analysis. Just as current transfer pricing analysis involves consulting external databases to locate comparable prices and analyze appropriate adjustments, the tools to be used in applying this method are external datasets and formulas created by economists and other professional analysts whose efforts are undertaken to correctly assess the economic cost of relevant inputs. This makes the cost savings adjustment of a piece with existing transfer pricing analysis.

The disadvantages to the cost savings method include the cost of actually undertaking the method but also its complexity and its novelty. The method is complex to the same degree and for the same reasons that arm's length pricing is complex.[64] The intricacies involved in identifying appropriate comparable prices and discarding inappropriate ones, and in evaluating the factors that analogize or distinguish a scrutinized price versus a compared price, are notorious. The complexity of transfer pricing has been well documented and is a major reason for many calls for a replacement regime.[65] Because it closely aligns with the current system, a sustainability-based price adjustment would suffer from the same systemic issues.

Even so, a cost savings adjustment arguably adds little complexity relative to the status quo. It is not materially more difficult to apply a living wage analysis to a given price than it is to apply any other kind of analysis involving underlying market conditions. Identifying, evaluating, and distinguishing economic factors relevant to pricing is the *raison d'etre* of the transfer pricing industry. This industry is fully capable of applying any appropriate economic analysis, as the relevant rule requires. Certainly, the clients of this industry are tolerant when the complexity of a requisite analysis leads to reduced taxation.[66] In short, complexity may be a good reason to reject the transfer pricing regime as a whole, but it is not a valid reason to accept the status quo while rejecting a sustainability

64. See e.g. *Transfer Pricing Guidelines, supra* note 13 at para 4.95 ("Applying the arm's length principle can be a resource-intensive process. It may impose a heavy administrative burden on taxpayers and tax administrations that can be exacerbated by both complex rules and resulting compliance demands.")

65. See e.g. IMF, Fiscal Affairs Department & Legal Department *Corporate Taxation in the Global Economy*, Policy Paper No 19/007 (Washington: IMF, 2019) at 60, online (pdf): [perma.cc/U2S2-7H39].

66. See e.g. Steven A Dean, "Attractive Complexity: Tax Deregulation, the Check-the-Box Election, and the Future of Tax Simplification" (2005) 34:2 Hofstra L Rev 405.

adjustment that would arguably lead to greater accuracy in the taxation of multinationals.

Compared to the itemized cost savings method, the location savings method is less accurate in the sense of correcting stated or market prices to approximate their particular fair market value, but it is also less intricate and will be easier for tax administrations to apply.[67] The method faces a risk of being characterized as a safe harbour approach, which has met with resistance by policy makers in the past (but may be gaining acceptance).[68] However, its simplicity and predictability may be seen as beneficial to both firms and tax authorities, which could lead to future acceptance by the international community as safe harbours of other kinds have received.[69]

Given that each method has its benefits and drawbacks, a complementary approach could help identify the best outcome through experience. An aggregate location savings method could serve as the default rule, but firms could be permitted to provide documentation to support an itemized cost savings method on a case-by-case basis. Firms that opted to measure their itemized cost savings would presumably do so because it would reduce the profit allocated to the jurisdiction in question, possibly raising distributive concerns.[70] However, the approach would still be valuable to the extent it would provide governments and taxpayers with valuable information about the efficacy of the itemized cost savings method.[71] The next section therefore explores the feasibility of adopting a sustainability adjustment inclusive of the itemized, aggregate, and complementary approaches.

67. The method may be less contested by the taxpayer as well, for the reasons discussed below.

68. See Transfer Pricing Guidelines, *supra* note 13 at 204-205 (explaining the reasons for past resistance and defining a safe harbour as "a provision that applies to a defined category of taxpayers or transactions and that relieves eligible taxpayers from certain obligations otherwise imposed by a country's general transfer pricing rules" at para 4.102); see also Susan C Morse, "Safe Harbors, Sure Shipwrecks" (2016) 49:4 U.C. Davis L Rev 1385.

69. This is arguably the case in respect of Brazil's fixed margin approach. See e.g. André Gomes de Oliveira & Francisco Lisboa Moreira, "The Brazilian Transfer Pricing Regime" (2017) 71:6 Bull for Intl Taxation 6 ("the practicability and certainty provided by the Brazilian approach, which may be problematic for some taxpayers, can also be described as advantageous to some investors. In the end, it could result in a simple business decision: certainty or economics? In the time of BEPS, the search for certainty could become a trend."); Luis Eduardo Schoueri, "Arm's Length: Beyond the Guidelines of the OECD" (2015) 69:12 Bull for Intl Taxation 12, (citing Keynes that "It is better to be roughly right than precisely wrong.")

70. See Bird & Davis-Nozemack, *supra* note 63.

71. A pilot project could isolate one or more relatively easily priced components of production for purposes of developing a comparison of the likely scale of the differential between the two methods. For example, economic methods that price the carbon footprint of common supply chains might be used as a preliminary evaluative step.

III. *Prospects for Implementation*

Taking sustainability into account in tax would be an appropriate corrective to an ongoing problem, but in designing any proposed tax reform, due regard must be paid to feasibility in both practical and political terms. This requires coming to terms with two of the core tropes of taxation, namely, that any move to increase the taxation of capital is practically impossible due to tax competition, and that unilateral change is politically impossible because it will increase taxation. While each of these tropes has great political power in pressuring countries to conform to a status quo that is demonstrably flawed yet fixable, the framework proposed here has the potential to overcome both.

1. *Economic viability*

A popular mantra of tax policy is that jurisdictions dependent on foreign investment (which describes all jurisdictions to some extent) cannot tax capital or business profits of multinationals because they will either fight, by adopting increasingly aggressive tax avoidance practices, or flee, by moving their operations to a more favourable location.[72] As political rhetoric, tax competition is an intuitively coherent refrain but as a causal claim it has always been debatable.[73] In any case, recent developments suggest that the tolerance levels of governments to engage in tax competition may be in a state of flux, as may be corporate responsiveness to broad stakeholder preferences regarding their ecological and social impact.[74]

This is not to say that countries are becoming less competitive or that firms are becoming advocates for more taxation; the opposite is likely true in most cases. But the increasing public recognition that tax and development are in a symbiotic relationship may allow governments

---

72. As a result, economically powerful countries constantly vie for national advantage even when this results in policies that hurt those less economically powerful, and indeed, even when there is evidence that the chosen policies are self-destructive races-to-the-bottom. For an argument that the problem begins at the level of cities where capital is so powerful that it "distorts local decision-making," requiring checks on local governmental power, see Richard Schragger, "Mobile Capital, Local Economic Regulation, and the Democratic City" (2009) 123:2 Harv L Rev 482 at 487.

73. See e.g. Peter Wilson, "The role of taxes in location and sourcing decisions" in Alberto Giovannini, Glenn Hubbard & Joel Slemrod, eds, *Studies in international taxation* (Chicago: University of Chicago Press, 1993) 195; Salvador Barrios, "International taxation and multinational firm location decisions" (2012) 96:11-12 J Pub Econ 946; IMF/OECD report on Tax Certainty, online (pdf): <www.imf.org/external/np/g20/pdf/2017/031817.pdf> [perma.cc/W5VH-HTMV]; IMF/OECD update on Tax Certainty, online (pdf): <https://www.oecd.org/tax/tax-certainty-update-oecd-imf-report-g20-finance-ministers-july-2018.pdf> [perma.cc/2KCL-QRVG]. The effect of tax competition on resource-rich countries is particularly difficult to gauge. See e.g. Mario Mansour & Artur Swistak, "Tax Competition and Coordination in Extractive Industries" in Philip Daniel et al, eds, *International Taxation and the Extractive Industries* (London: Routledge, 2019) at ch 13.

74. See Bird & Davis-Nozemack, *supra* note 63; See also Sandra K Miller & Karie Davis-Nozemack, "Toward Consistent Duties for Publicly Traded Entities" (2016) 68:1 Fla L Rev 263.

to view the proposed framework as supportive rather than destructive of national competitiveness, and firms to view it as contributing to rather than detracting from their profitability. This is first, because taking sustainability into account would support those factors that most impact capital investment decisions; second, because even when tax is the dispositive factor, taking sustainability into account may not disrupt the status quo enough to merit aggressive taxpayer response; and third, because investors, consumers, and ultimately firms are increasingly sensitive to reputational scrutiny. Accordingly, some firms are likely willing to embrace sustainable taxation as a part of their overall business strategy, especially if the effect is to increase their overall competitiveness vis a vis firms with less sustainable practices.

One conclusion to be drawn from these observations is that a tax system that is certain and stable is also competitive. To build such a tax system requires countries to develop a virtuous cycle of tax and development, that is, to raise enough revenues to sustain economically productive markets but also to build up the institutions necessary to ensure that the revenues are spent in productive ways and not diverted to waste, fraud, abuse, or the like.[75]

The proposed framework is capable of contributing to this objective not only by producing needed revenues but also in the way that it produces such revenues. Because the proposal calls for determining the real costs of underdevelopment, its operation would produce information about various aspects of governance that contribute to this predicament. To the extent these calculations will be revealed to the public, they contribute to accountability in governance even as they produce the revenues necessary to respond to governance failures. As such, in the long run, adoption of significant reform has the potential to foster rather than detract from a nation's overall competitiveness.

The first impact of the proposed framework would be to increase the declared profit of multinational firms within relatively less affluent jurisdictions, that is, where labour and environmental externalities occur. Since the framework requires assessing the difference between stated prices and a readily available counterfactual fair market price, the possible increase in profit declared in a particular country might be modest in global terms even if significant to the adjusting country. For instance, in the example given above with respect to the labour price differential, it could be that the overall application of living wage standards to existing prices in a particular market could increase the tax base by a fractional

75. Fostering good governance practices is a constant challenge for all jurisdictions, rich and poor.

amount compared to the status quo.[76] The additional tax thereby generated at source may simply be too small to warrant a reconsideration of core business location decisions, in light of other considerations.

A related concern is that jurisdictions should not tax multinationals more than independent firms because the former will fragment into the latter to avoid even a risk of increased tax. However, even fragmented supply chains may be comparably taxed to the extent that one firm may be considered effectively managed if not legally controlled by another.[77] When such a relationship rises to the level of creating a permanent establishment in the jurisdiction, a firm would be subject to the same general principles underlying arms' length-based transfer pricing,[78] likely to the same modest effect.[79]

Even if the framework would produce more than a modest change for multinational firms in some jurisdictions, however, it does not necessarily increase a given firm's tax overall. The outcome depends on the responses of other jurisdictions. International tax allocation could be a zero-sum game with respect to profit in the sense that increasing the amount allocated to one location should lead to corresponding decreases in others.[80] To the extent that the tax rates on the relevant income are the same in both jurisdictions, corresponding adjustments elsewhere would eliminate any tax increase and make the taxpayer indifferent to the reform.[81] As above, a

---

76. See Unilever, *supra* note 46.

77. For example, a local firm that supplies exclusively to one firm or on detailed specifications may be considered a dependent agent of the foreign one, thus creating a permanent establishment.

78. See e.g. Robert Couzin, *supra* note 12 (stating that "when it comes to allocating taxing jurisdiction over the profits of multinational enterprises (MNEs), the dominant methodology is the one used in transfer pricing" at 402). Where a treaty is applicable, this characterization will depend on treaty definitions of permanent establishments involving dependent agents and may ultimately depend on cooperation among relevant competent authorities. Where there is no treaty, domestic law establishing residence through a permanent establishment or other criteria will apply, with attendant interpretational implications.

79. See e.g. Susann van der Ham & Robert Halat, *Transfer Pricing Perspectives: Implications of the new permanent establishment definition on retail and consumer multinationals* (undated PWC report), online (pdf): <www.pwc.com/gx/en/tax/publications/transfer-pricing/perspectives/assets/tp-16-implications.pdf> [perma.cc/rP42-8NPE] at 37. ("The existence of a permanent establishment does not automatically mean a material increase in tax exposure (although it is likely to trigger additional compliance costs and administrative burden for businesses), especially where the local place of business already receives arm's length remuneration. In most cases, remuneration based on costs incurred by the PE should be appropriate, though there may be situations in which remuneration based on commission would be more suitable.").

80. See IRC §1.482-1(g) (describing events triggering correlative adjustments and procedures for achieving them); Transfer Pricing Guidelines, *supra* note 13 at paras 4.29-4.67 (describing secondary adjustments in general and treaty-based adjustments supported by the mutual agreement procedure administered by competent authority). If there is no treaty, a corresponding adjustment may be available under domestic law, but even if not, double tax may be relieved by foreign tax credit.

81. See e.g. James Hines, *International Taxation and Multinational Activity* (Chicago: University of

modest rate differential between countries would likely produce relatively minimal taxpayer response.

That said, where profit that is currently allocated to a low- or nil-tax jurisdiction is reallocated to a higher tax jurisdiction, corresponding adjustments elsewhere will not alleviate the increase at source to the same degree. In this respect, the action of the OECD to allocate more multinational profits away from low- and nil-tax jurisdictions through the BEPS initiative potentially helps countries that wish to adopt a sustainability-based pricing framework in the future. In allocating multinational profits away from low-tax regimes, this initiative raised the overall expected level of tax for multinationals relative to customarily tolerated levels. This creates more space for countries to tax at source since once a given tax rate is expected to be paid, firms are indifferent as to who collects it.[82]

2. *Consumer and investor demand for sustainability*

The rising demand of some consumers, investors, and firms for an end to unsustainable practices provides a complementary reason to be optimistic about the viability of the proposed sustainability-based pricing adjustment. These preferences may especially help stem capital flight and tax avoidance where the global value chain is generally built upon developing country resources.[83]

Taxation is undoubtedly an increasingly important element of corporate social responsibility and sustainable investment measures, and payment of a "fair share" may even form part of a firm's social license to operate.[84] For example, in 2013, Starbucks declared its intention to make voluntary tax payments to the UK going forward, after public protest against it arose following media reports that it had paid no tax over the

---

Chicago Press, 2009) (given a specified tax rate, firms are indifferent as to whom the tax is paid).

82. OECD countries should view the sustainability adjustment as a complement to their work on base erosion and profit shifting and in particular their work on tax issues arising from the digitalization of the economy, but to the extent that this work was primarily about reallocating profits to OECD member states, there might be resistance to "sharing" the base with non-member states. For discussion see Allison Christians & Tarcisio Magalhaes, "A New Global Tax Deal for the Digital Age" (2019) 67:4 Can Tax J 1.

83. See e.g. World Bank, *supra* note 22 at 19 (noting that "John Connors, Group Tax Director, Vodafone, observed that in the long run, business interests align with those of global policy-makers and tax authorities because sustainable tax environments are good for business investment").

84. For an explanation, See e.g. Allison Christians, "How Starbucks Lost its Social License—And Paid £20 Million to Get it Back" (2013) 71:7 Tax Notes Intl 637 (explaining that activists descended on 40 of Starbucks' retail locations throughout the U.K., setting up crèches and women's refuges to represent the social services lost to multinational tax avoidance); Steven A Dean & Dana Brakman Reiser, "SE(c)(3): A Tax Regime to Catalyze Social Enterprise Crowdfunding" (2015) 90:3 Ind LJ 1091; Steven A Dean & Dana Brakman Reiser, *Social Enterprise and the Law: Trust, Public Benefit and Capital Markets* (New York: Oxford University Press, 2017).

entirety of its operations there.[85] Similarly, NGOs in low income countries are now constantly bringing taxation to the headlines, potentially making firms more reluctant to express their tax aversion in ways that may become public. The possibility that failing to cooperate with the efforts of a state to impose a tax may accordingly have a social cost, even if unpredictable and inconsistent across firms and countries.[86] Firms might thus be willing to pay a modestly higher amount of tax if it provides some insurance to protect their reputations against public outcry.

From a more pro-active position, some companies might embrace the proposed pricing adjustments as a way to document the real costs of certain externalities that their key stakeholders (be they founders, managers, employees, or customers) would like to address as a matter of preference.[87] Accounting for these costs for tax purposes is one way to ensure that these firms remain competitive with those that do not express the same preferences.[88] For example, it is conventional wisdom that garment manufacturers cannot produce garments sustainably, in terms of paying labourers a fair wage and curbing their environmental impact, because these externalized costs are so high that no company can compete without engaging in the same practices. Pricing in some of the externalities would raise the standard, potentially making eco-conscious garment companies more competitive.[89]

To be sure, green washing is a constant possibility in any public communication regarding compliance with industry standards, especially in connection with highly visible retail businesses. In providing incentives to demonstrate the real costs of various social, environmental, and economic factors at play, the complementary approach described above potentially addresses this problem by making information and analysis a

85. The activists targeted Starbucks after a parliamentary investigative committee demanded an accounting from it and other multinational companies that had been called out in a Reuters news story for having paid little or no taxes to the U.K. despite consistently delivering annual financial statements showing growing sales in the country.

86. There is an innate inconsistency in this approach because some firms are highly visible public actors while others are completely obscure. Some firms are therefore expected to respond to public pressure surrounding the payment of tax, while others may be less inclined to cooperate. However, this is a general condition of public attention.

87. For example, in the case of socially responsible investment funds. See e.g. Unilever statement on corporate mission; Patrick Jahnke, "Holders of Last Resort: The Role of Index Funds and Index Provides in Divestment and Climate Change" (2019) University of Edinburgh Working Paper, DOI: <10.2139/sssrn.3314906> (stating that capital markets "have a significant role to play in facilitating a transition to a more sustainable economy" and detailing the ways in which investors express their preferences for more sustainable companies).

88. *Ibid.*

89. See e.g. Megan Cerullo, "Patagonia will no longer sell vests with finance firm logos on them," *CBS News* (3 April 2019), online: <www.cbsnews.com> [perma.cc/JW7R-8868].

cost-effective tax planning choice for some firms. The proposed pricing adjustments thus potentially enhance accountability where firms see value in assuring founders, investors, consumers, or the broader public that their products are demonstrably sustainable.

3. *Political viability*

Finally, the need for cooperation among jurisdictions calls for caution in adopting unilateral international tax reform.[90] The concern is that absent *ex ante* multinational cooperation, virtually any change to the status quo will cause unrelieved double taxation, with capital flight and tax avoidance the likely responses.[91] However, the coherence of the proposed pricing adjustments with status quo rules makes its unilateral adoption logistically feasible, fitting in with established rules as well as dispute resolution processes.

As described above, an expected policy objection to the adoption of the proposal is that firms are likely to resist, with recourse to internal appeals as well as, where applicable, treaty-based dispute resolution.[92] The possibility of objection raises concerns that other governments will not cooperate because they will adhere to status quo interpretations of the transfer pricing rules to resist any sustainability-based adjustment. This taps into the enduring trope of international taxation that all change requires *ex ante* consensus, lest unrelieved double taxation arise to the detriment of global trade and investment.

The reality is that all the elements necessary to prevent double taxation already exist in tax treaties, in many domestic legal systems, or both. Accordingly, *ex-post* harmonization is possible precisely because tax treaties include wide latitude for jurisdictions to resolve disputes amongst themselves. So long as the proposed sustainability-based adjustment is consistent with the core elements of international taxation, the necessary cooperative mechanisms also exist within the current paradigm.

---

90. See e.g. Business at OECD, Statement to OECD Ministerial Council Meeting May 2019, (May 2019), online (pdf): <biac.org/wp-content/uploads/2019/05/Final-Business-at-OECD-MCM-2019-statement1.pdf> [perma.cc/XX5Z-3QZB].

91. The consensus problem, expressed in broad international relations terms, is that every possible international tax system design will produce winners and losers and there is no mutually advantageous equilibrium to be had, so the best strategy will always be to reduce taxation. Policy change is further encumbered by the need for consensus across differently situated countries, the excessive influence of business lobbies, and the massive resources involved in effecting change versus adapting the status quo.

92. See e.g. OECD, *Model Tax Convention on Income and on Capital: Condensed Version*, arts 9, 25; see also Christians, *supra* note 13 (detailing the procedures by which taxpayers may appeal tax assessments under domestic law and tax treaties).

The proposed adjustment is consistent with the core elements of international taxation because it introduces a method to clearly reflect fair market value, which is the means by which transfer pricing achieves its overall goal to distribute multinational income across countries in a reasonable and equitable manner.[93] In this sense, the proposal outlined herein is not radical or revolutionary at all, but merely a reflection of our improved ability to measure relevant economic factors relative to the past. For example, transfer pricing rules clearly require taxpayers to set prices among controlled affiliates in a way that reflects fair market value and the authority of tax authorities to adjust prices is generally broadly permitted to more clearly reflect fair market value.[94] A sustainability-based pricing adjustment in line with the foregoing analysis is therefore consistent with the need to correct for distortions to fair market value in light of overall economic conditions.[95]

This language, to the extent it reflects or constitutes local transfer pricing regulations, explicitly provides the tax authority with the requisite legal authority to adjust prices in the manner proposed herein.[96] Adjusting the cost of goods or services transferred from a controlled subsidiary to its parent is therefore a matter of the tax authority's application of the relevant

93. Transfer Pricing Guidelines, *supra* note 13 at para 5. ("OECD member countries have chosen this separate entity approach as the most reasonable means for achieving equitable results and minimising the risk of unrelieved double taxation.")

94. See e.g. IRC §482.

95. Transfer Pricing Guidelines, *supra* note 13 at 45 (stating that prices are to be adjusted to reflect the "economic circumstances of the parties and the market in which they operate"). The Guidelines do not provide additional details regarding the kinds of circumstances or the modes for adjustment they necessitate but they clearly acknowledge that "comparability issues can arise in connection with …local market advantages or disadvantages." Paragraph 1.144 in particular acknowledges that "[f]eatures of the local market…may affect the arm's length price," and in particular notes that "the relative availability of local country infrastructure, the relative availability of a pool of trained or educated workers, proximity to profitable markets, and similar features…create market advantages or disadvantages that should be taken into account. Appropriate comparability adjustments should be made to account for such factors where reliable adjustments that will improve comparability can be identified." The principle is reflected in national laws, such as in the United States where regulations provide explicitly that every transfer pricing method requires analysis of all relevant factors affecting comparability, including overall economic conditions. See e.g. IRC §1.482–1(d)(3)(iv) (stating that the "comparability of transactions and circumstances must be evaluated considering all factors that could affect prices or profits in arm's length dealings (comparability factors)…each method requires analysis of all of the factors that affect comparability under that method, [including]… Economic conditions").

96. See e.g. IRC § 482 ("In any case of two or more organizations, trades, or businesses (whether or not incorporated, whether or not organized in the United States, and whether or not affiliated) owned or controlled directly or indirectly by the same interests, the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among such organizations, trades, or businesses, if he determines that such distribution, apportionment, or allocation is necessary in order to prevent evasion of taxes or clearly to reflect the income of any of such organizations, trades, or businesses.").

domestic rules. The taxpayer would of course be entitled to object to the adjustment and engage in internal appeals as well as, where applicable, instigate a mutual agreement procedure under an applicable tax treaty.

As an interpretation of the paradigmatic rule set, the proposed pricing adjustment might appear unconventional, but it is within the bounds of conventional legal interpretive approaches. Further, invoking treaty processes opens up opportunities for governments to expressly insist that tax outcomes align with, rather than impede, governments' commitments to achieve the Sustainable Development Goals. This challenge to the political tax conventional wisdom is also relatively straightforward in concept but raises some difficult policy issues because there is more than one approach to achieving the underlying goals and governments must be convinced to cooperate.[97]

Because sustainable growth requires sustainable tax systems, OECD countries should view the proposal set forth herein as a complement to BEPS. If they do so, they will use tax treaty dispute resolution processes to work cooperatively to ensure that profits are attributed to the jurisdictions in which demonstrable determinants of firm profitability arise.

Finally, related to the observation that much of international tax is worked out in treaty-based dispute resolution is the observation that a unilateral disruption to the status quo is a common method to generate multilateral cooperation on tax.[98] This may be because disruption is necessary to demonstrate the viability of a new approach, which emboldens others to act.[99]

---

97. The OECD proclaims that its mission is to contribute to the expansion of world trade to achieve "the highest sustainable economic growth" in member countries. Transfer Pricing Guidelines at para 7. Because tax treaty disputes are bilateral and because low-tax jurisdictions may not readily cooperate with countries invoking a sustainability-based adjustment to allocate profits elsewhere, it may be necessary for successive correlative adjustments. For example, a firm might choose to dispute a sustainability-based adjustment by enlisting the assistance of a competent authority in a low-tax jurisdiction against the adjusting jurisdiction. If the adjusting jurisdiction cannot overcome the combined economic forces of the firm and the low-tax jurisdiction, it might look to the competent authorities of jurisdictions with other entities in the multinational structure to make their own adjustments in respect of profits allocated to the low-tax jurisdiction. Working cooperatively potentially helps both richer and poorer countries to prevent each other from returning to the pre-BEPS status quo, whereby most profit will be allocated to low tax jurisdictions.

98. See e.g. Arthur Cockfield, "Shaping International Tax Law and Policy in Challenging Times" (2018) 54:2 Stan J Intl L 223; Leopoldo Parada, *Double Non-Taxation and the Use of Hybrid Entities: An Alternative Approach in the New Era of BEPS (Alphen aan den Rijn:* Kluwer Law International, 2018); Leopoldo Parada, "Hybrid Entities and Conflicts of Allocation of Income within Tax Treaties: Is New Article 1(2) of the OECD Model (article 3(1) of the MLI) the Best Solution Available?" (2018) 3 Brit Tax Rev.

99. A unilateral approach could be expanded through cooperation from other jurisdictions in a particular region or sharing similar economic conditions, on the same principle as cross border collective organization of nongovernmental associations, such as labour and industry groups.

Recent examples of this pattern of disruption generating cooperation can be seen in the tax justice movement prompting the UK to initiate an investigation into tax avoidance at the level of the G20, which led the OECD to begin the BEPS initiative;[100] the US adoption of comprehensive information gathering processes which led to global adoption of standards on gathering and sharing tax information among nations;[101] the US adoption of a global minimum tax on certain kinds of income;[102] and the adoption by the UK and Australia of diverted profits taxes and similar responses to digital economy issues which are currently prompting the OECD to construct a consensus position.[103] These examples demonstrate that a combination of public pressure and political commitment can produce unilateral reforms that may well be imperfect, but lead to better cooperation and consensus going forward.

Conclusion

There is a political paralysis in addressing climate change that is indelibly intertwined with the economic reality that we have built a world in which climate inaction is financially subsidized and legal reform appears to be overwhelmingly costly in political and economic terms. Reversing course involves altering economic incentives, some of which have been hidden in complex regulatory regimes due in part to our inability to count the true costs of human activity. Yet recent developments in the measurement of labour and environmental externalities present an as-yet untapped opportunity to alter the status quo without creating undue political or economic risk.

Connecting these developments to trends in consumer and investor demands for more sustainability provides a means to make relatively modest adjustments that would reduce one particularly pernicious form of embedded impetus for human, social, and ecological destruction. The key to the approach is that as conventionally applied and interpreted, standard economic measurement tools too often undercount or ignore some significant sources of value and in so doing, attribute their contributions

100. Christians & Shay, *supra* note 9.

101. See OECD, *Standard for Automatic Exchange of Financial Account Information in Tax Matters* (OECD Publishing, 2017), online: <https://read.oecd-ilibrary.org/taxation/standard-for-automatic-exchange-of-financial-account-information-for-tax-matters_9789264216525-en#page3>.

102. See 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 Base" (2015) 17:9 Fla Tax Rev 669; Clifton Fleming Jr, Robert J Peroni & Stephen E Shay, "Formulary Apportionment in the U.S. International Income Tax System: Putting Lipstick on a Pig?" (2014) 36:1 Mich J Intl L 1.

103. OECD, *Addressing the Tax Challenges of the Digitalisation of the Economy*, (2019), online: DOI: <10.1787/9789264216525-en>.

to other factors. As a result of this type of systemic measurement error, the profit derived from unsustainable practices are instead assigned to assets, especially intellectual property, which can be located for legal purposes in low-tax regimes, thus compounding the economic rewards of unsustainability instead of fostering a move to greater sustainability as the public demands.

The proposal set forth in this article calls for using emerging tools to identify counterfactual scenarios that account for the value created where firms benefit from significant cost savings by externalizing social and environmental harms to the public. Applied within existing rule sets, this approach would assign more profit to negative externalities, aligning tax rules with the real costs of social and environmental harm.

As with all proposed reforms of regulatory systems involving economic and political tradeoffs, the potential success of revealing and eliminating hidden subsidies faces the logistical problem of coordination and the economic reality of competition as major barriers. Neither of these barriers can be fully overcome, but by working within rather than disrupting the existing rule sets, the proposed approach takes advantage of existing coordination processes within treaty-based dispute resolution mechanisms on the one hand, and domestic provisions on the other. To the extent that coordination is possible, the risk that competition will prevent governments from implementing needed reforms is reduced. Indeed, recent trends in political tolerance for unintended tax subsidies have already moved the needle, creating policy space to incorporate innovations in scientific measurements of value. The proposed approach described here establishes a legally and politically viable means to reveal and ultimately eliminate hidden subsidies for human, social, and ecological destruction in line with virtually universal demands by public, private, non-profit, and academic stakeholders.