
HOW LOCAL DISCRIMINATION CAN PROMOTE GLOBAL PUBLIC GOODS

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International negotiations struggle to keep pace with global problems like climate change. To fill this gap, local governments increasingly take matters into their own hands. For example, to promote the benefits of clean energy, a local government might give subsidies to renewable energy companies. Since 2001, California has given \$2 billion in such subsidies, while states ranging from Minnesota to Kansas and Mississippi have doled out hundreds of millions of dollars each. Cities, such as Austin and Los Angeles, have also gotten into the act, contributing millions to renewable energy firms. To build support for these measures, the local government might condition the subsidy on the recipient's use of components manufactured in the locality.

In 2013, the World Trade Organization (WTO) said these kinds of subsidies are unlawful because they discriminate against foreign products. This Article argues that the decision fails to account for the public goods generated by such programs, and suggests a new way for the WTO to review local subsidy programs that would balance the WTO's impulse to protect international trade with the valuable global public goods such programs promise.

To make the case, I report on the results of an original fifty-state survey. I identify forty-four state renewable energy programs in twenty-three states within the United States that violate the WTO's 2013 decision. I argue that these programs can increase global welfare in the aggregate, notwithstanding their discriminatory nature. They can do so by creating political support at the local level for renewable energy programs that might not pass otherwise. Local governments internalize few of the benefits from providing global public goods, such as reducing greenhouse gas emissions through costly investments in renewable energy technology. Local efforts to address global public goods problems thus have to be linked to a concentrated benefit within the enacting jurisdiction. Protectionist measures that discriminate against foreign products provide this link, mobilizing local economic interests to pass global public goods programs that create benefits in other jurisdictions. Reforming international trade law to allow these linkages is imperative if local governments are to continue to play a role in solving global problems.

INTRODUCTION

Since 2001, California has provided over \$2 billion in subsidies for the purchase of solar panels.¹ Minnesota has allocated \$150 million for solar energy subsidies from 2014-2023,² in addition to \$11 million per year for wind and other renewable energy since the mid-1990s.³ Nor is the trend confined to left-leaning states. Kansas has allocated \$150 million in subsidies to encourage wind and solar energy businesses.⁴ Mississippi doled out \$173 million in subsidies to renewable energy firms in 2010 alone.⁵

As international negotiations on a new climate change agreement have stumbled forward over the last several years, these local actions have assumed a critical role in transitioning away from a fossil fuel-driven economy. Indeed, in September 2015, the top climate change negotiators from the United States and China announced a plan to achieve their joint climate goals in large part through coordinated action by states, provinces, and cities.⁶ Yet many of these local subsidies, totaling millions of dollars a year, are unlawful under the World Trade Organization's ("WTO") nondiscrimination rules. They contain local content requirements ("LCRs"): provisions that condition the grant of a benefit on the recipient's use of local factors of production. In the renewable energy context, LCRs frequently provide payments or tax credits for generating renewable energy, as long as the equipment (e.g., solar panels) used is produced locally.⁷ Such LCRs link local governments' environmental objectives to economic development objectives, allowing them to kill two birds with one stone. In 2013, the WTO Appellate Body ruled that these LCRs violate the obligation not to discriminate against foreign products contained in the General Agreement on Tariffs and Trade ("GATT").⁸ State and local

¹ Kenneth Redix II, *Solar Photovoltaic Subsidies in California* (Nov. 11, 2014) (unpublished draft Job Market Paper, University of North Carolina at Chapel Hill), <http://www.unc.edu/depts/econ/placement/reddixjmp.pdf> [<http://perma.cc/S3EQ-HKL8>].

² See *infra* Appendix.

³ See *infra* Appendix.

⁴ See *infra* Appendix.

⁵ See *infra* Section III.B.

⁶ Coral Davenport, *U.S. and Chinese Climate Change Negotiators to Meet in Los Angeles*, N.Y. TIMES (Sept. 15, 2015), <http://www.nytimes.com/2015/09/16/us/us-and-chinese-climate-change-negotiators-to-meet-in-los-angeles.html> [<http://perma.cc/V9VR-ZXH8>]; Press Release, Office of the White House Press Sec'y, Fact Sheet: U.S. – China Climate Leaders Summit (Sept. 15, 2015), <https://www.whitehouse.gov/the-press-office/2015/09/15/fact-sheet-us—china-climate-leaders-summit> [<https://perma.cc/QLM8-GTEN>].

⁷ "Buy American" provisions offer a more general example. Such provisions typically require government contractors to purchase their supplies from American companies even if those supplies are more expensive than the same products purchased from non-American companies.

⁸ Appellate Body Reports, *Canada—Certain Measures Affecting the Renewable Energy Generation Section, Canada—Measures Relating to the Feed-in Tariff Program*, ¶ 5.85,

efforts to address climate change—and millions of dollars in subsidies for renewable energy—are now in jeopardy.

This Article argues that the use of these discriminatory subsidies at the subnational level can sometimes increase global welfare.⁹ The discriminatory conditions in these subsidies can create the necessary political support for programs that provide global public goods—programs that might not pass absent lawmakers' ability to discriminate. Local governments internalize few of the benefits from providing global public goods, such as the reduction of greenhouse gas emissions through costly investments in renewable energy technology. Local efforts to address public goods problems thus have to be linked to a concentrated benefit within the enacting jurisdiction. LCRs provide this link, mobilizing local economic interests to pass green energy programs that create positive benefits in other jurisdictions.

To highlight the stakes, I report the results of what is, to my knowledge, the first fifty-state survey of renewable energy programs containing LCRs within the United States. I identify forty-four such programs in twenty-three states within the United States.¹⁰ China and India have already identified several of these programs as incompatible with WTO law,¹¹ raising the specter that these programs could quickly become the subject of WTO disputes if trade rules do not evolve to take into account the unique role of local governments in providing global public goods. Moreover, these programs are similar to ones found in other parts of the world, including programs within the European Union challenged by China before the WTO.¹²

These local measures are part of a broader national and international trend of providing public goods locally. Internationally, cities and local governments provide critical support to efforts to deal with issues such as climate change and public health crises.¹³ Cities around the world have also come together to

WTO Doc. WT/DS412/AB/R, WT/DS426/AB/R (adopted May 24, 2013) [hereinafter *Canada—Renewable Energy*] (finding that Canada's LCR programs—"Minimum Required Domestic Content Levels"—violate Article III:4 of the GATT 1994 standards).

⁹ I use the terms "local" and "subnational" interchangeably.

¹⁰ See *infra* Appendix.

¹¹ See *infra* Part III.

¹² Request for Consultations by China, *European Union and Certain Member States—Certain Measures Affecting the Renewable Energy Generation Sector*, WTO Doc. WT/DS452/1 (Nov. 5, 2012).

¹³ See, e.g., Michele M. Betsill & Harriet Bulkeley, *Cities and the Multilevel Governance of Global Climate Change*, 12 GLOBAL GOVERNANCE 141, 142 (2006) (explaining that the European Union has focused on "cities as a means to address environmental issues" and has called on "all local authorities to establish a Local Agenda . . . through participation with their communities"); Alan Blinder, *Mississippi, a Vaccination Leader, Stands by Its Strict Rules*, N.Y. TIMES, Feb. 5, 2015, at A13 (discussing the success of Mississippi's mandatory school vaccination program and a local vote to allow conscientious objectors).

negotiate climate change agreements meant to fill in the gaps in the formal international regime.¹⁴

Federal nations such as the United States have long celebrated this role for local government. Local governments act as laboratories for experimenting with different policies and vehicles for providing critical services.¹⁵ In addition to the benefits of experimentation, local control permits government to customize policies to fit local circumstances and priorities.¹⁶ Local control may thus increase the flexibility, responsiveness, and effectiveness of government.¹⁷

Yet, local government differs systematically from national government. At any level of government, discriminatory conditions create benefits for the protected group (e.g., local solar panel producers) while shifting much of the cost of the measures to foreign constituencies unrepresented in the legislature. Discriminatory conditions are thus a cheap way of providing an incentive for protected groups to lobby for public goods measures. They enlist the support of the protected group in favor of the overall package (e.g., a renewable energy subsidy).

But discriminatory conditions are likely to be more effective in actually helping pass such measures at the local level for two reasons. On the one hand, bargaining in local legislatures typically involves lower transaction costs than bargaining in national legislatures. Local government involves fewer interest groups. Creating one more group in favor of a measure thus has a greater impact on the likelihood that the measure will pass than it would at the national level. Moreover, because there are fewer players, the transaction costs of cycling among different combinations of measures and different possible legislative coalitions are lower. A smaller scale of government may also reduce the number of veto players who must sign off on a measure.

At the same time, the bargaining space—the number of issues over which lawmakers can negotiate—is narrower at the local level. Local governments have smaller budgets, as well as less territory and fewer issues under their

¹⁴ See, e.g., Betsill & Bulkeley, *supra* note 13, *passim* (analyzing the Cities for Climate Protection program, a network of municipal governments working to address climate change).

¹⁵ See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (“It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments . . .”).

¹⁶ See Richard Briffault, *The Local Government Boundary Problem in Metropolitan Areas*, 48 STAN. L. REV. 1115, 1124 (arguing that local governments can provide goods and services efficiently due to their capacity “to match distinctive local conditions and preferences”); Hari M. Osofsky, *Climate Legislation in Context*, 102 NW. U. L. REV. COLLOQUY 245, 247-48 (2008) (arguing that local legislation on climate control “spur[s] innovation and action” and is more efficient because it has insight into the “unique confluence of factors affecting” the local environment).

¹⁷ See, e.g., *New York v. United States*, 505 U.S. 144, 168 (1992) (discussing the virtues of state government for enhancing the accountability of government officials).

jurisdiction. Removing discriminatory measures thus causes a greater reduction in the likelihood of passage than at the national level. Local lawmakers lose one of their most effective coalition-building tools and have fewer possible alternatives to which they can turn. By contrast, at the national level, lawmakers have many more issues over which they can bargain.

Two predictions flow from this observation. First, discriminatory conditions are more likely at smaller scales of government. The fifty-state survey in this Article offers some empirical support for this proposition.¹⁸ Recent studies on the rise of protectionism in the wake of the Great Recession have identified roughly twenty renewable energy LCRs at the national level.¹⁹ I identify forty-four such provisions at the state level alone within the United States.²⁰ Although hardly conclusive, this data provides empirical support for a hypothesis that can be tested in other federal systems.

Second, applying international economic law's ("IEL") nondiscrimination rules to discriminatory local measures that provide global public goods may be welfare defeating in some instances. The costs of economic discrimination are born in part outside of the discriminating jurisdiction. Government officials that discriminate against foreign products to benefit their constituents may obtain political benefits from doing so. Foreign businesses and disfavored domestic consumers absorb the economic costs, which may exceed the private benefits government officials and their supporters receive. Nondiscrimination rules exist to solve this political economy problem. By creating costs for discriminatory government policies, nondiscrimination rules cause government officials to internalize the trade costs of their discriminatory actions.

Nondiscrimination rules do not, however, allow government officials to internalize any benefits from passing measures that, while economically discriminatory, create positive spillovers. International economic law therefore only partially respects the internalization principle—the idea that the exercise of authority should be located at the smallest level of governance that fully internalizes the effect of its exercise.²¹ For example, Chinese subsidies for renewable energy benefit Chinese renewable energy companies at the expense of American corporations, but they also benefit everyone in the world by reducing the cost of renewable energy technology and therefore reducing global carbon emissions. The application of nondiscrimination rules aims to

¹⁸ See *infra* Appendix.

¹⁹ SHERRY STEPHENSON, INT'L CTR. FOR TRADE AND SUSTAINABLE DEV., ADDRESSING LOCAL CONTENT REQUIREMENTS IN A SUSTAINABLE ENERGY TRADE AGREEMENT 3 (2013); see also Joanna I. Lewis, *The Rise of Renewable Energy Protectionism: Emerging Trade Conflicts and Implications for Low Carbon Development*, GLOBAL ENVTL. POL., Nov. 2014, at 10, 14.

²⁰ See *infra* Appendix.

²¹ See ROBERT D. COOTER, THE STRATEGIC CONSTITUTION 107 (2000) (stating that for optimal governance, "[a]ssign power over public goods to the smallest unit of government that internalizes the effects of its exercise . . .").

force Chinese officials to internalize the trade effects of their policies on American producers. It does not, however, allow them to internalize the environmental benefits non-Chinese citizens receive from Chinese subsidies. Economic nondiscrimination rules therefore stack the deck against non-economic concerns.

To be sure, IEL has long recognized a place for the pursuit of non-economic objectives. The WTO, for example, allows states to deviate from trade commitments in the pursuit of certain permissible objectives, such as the protection of human health or the conservation of exhaustible natural resources.²²

But the application of these exceptions has often been uneven. Moreover, international law in general, and international economic law in particular, has been slow to adapt to the increased importance of local governmental action and its unique dynamics. As a default matter, international law treats local action the same as national action, despite the systematic differences in how lawmaking operates at different levels of government.²³ In the context of the WTO, panels applying exceptions to the rules requiring nondiscriminatory treatment typically ask whether there is a less restrictive measure that makes an equal contribution to the measure's non-trade objective.²⁴ A measure that does not include a discriminatory conditions will almost always meet this test.

This approach ignores the political realities inherent in small local governments trying to tackle global problems. In some cases, banning discriminatory conditions such as LCRs may doom the passage of local public goods programs. Supporters may be unable to assemble a coalition if they cannot link public goods objectives to local economic objectives. Where the benefits from providing the global public good outweigh the costs of economic discrimination, this result is welfare defeating.

To be clear, I am not arguing that local discrimination is an ideal way to provide global public goods. From an economic standpoint, a measure without a trade-distorting discriminatory provision is always preferable to the same measure with the discriminatory provision. Rather, I am arguing that local discrimination may, in some cases, be a second-best alternative to an undersupply of (or complete failure to provide) the public good. In a narrow set of cases, a measure that creates net global benefits may only be available if linked to a discriminatory provision.

This Article proceeds in five Parts. In Part I, I explain how IEL's nondiscrimination rules prohibit local content requirements. I focus on the WTO Appellate Body's recent decision in *Canada—Renewable Energy*, which

²² See General Agreement on Tariffs and Trade art. XX, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT] (establishing that the Agreement does not prevent adoption or enforcement of measures that protect public morals, human or animal health, national treasures, and exhaustible natural resources).

²³ See *infra* Part I.

²⁴ See *infra* text accompanying notes 236-40.

declared unlawful a provincial program in Ontario that conditioned payments to renewable energy electricity generators on their use of locally-produced renewable energy equipment.²⁵ The *Canada—Renewable Energy* decision has touched off a string of trade disputes about allegedly discriminatory renewable energy support programs. Many of these disputes—including *Canada—Renewable Energy* itself—center on local, rather than national, programs. International law generally treats local violations of international law as equivalent to national violations, despite the increasingly important role of local governments in delivering global public goods and the systematic differences between local and national governments.

Part II reports the results of the fifty-state survey of renewable energy subsidy programs containing LCRs. To their origins, I examine the history of a number of these programs. This inquiry reveals the critical role that economic development played in passing renewable energy support programs. At the state level, a link to economic development objectives appears critical to passing renewable energy support programs.

Parts III and IV present the Article's central theoretical contribution. Part III develops a model of lawmaking that explains how the ability to discriminate against foreign economic interests lubricates lawmaking. Discriminatory conditions, precisely because they are cheap ways of creating concentrated benefits within the enacting jurisdiction, are an effective way to build support for public goods programs that otherwise would not pass. Part IV uses this model to advance two hypotheses. First, nondiscrimination rules constrain local lawmaking more than national lawmaking. Second, economic discrimination at the local level may be welfare-increasing in some instances. The basic argument is that discriminatory conditions link a concentrated economic benefit to a diffuse public good. In so doing, discriminatory conditions can solve a political collective action problem in which local governments in particular undersupply global public goods. The application of nondiscrimination rules to discriminatory local measures that provide global public goods may thus be welfare defeating.

Finally, Part V considers the implications of this result for GATT/WTO law. Most discriminatory conditions are welfare-decreasing and thus should remain unlawful. The challenge is to devise legal doctrines that distinguish between those discriminatory conditions necessary to pass a measure that increases global welfare through the provision of a global public good, and those that merely discriminate to no other purpose. Focusing primarily on the GATT, I offer two proposals to accomplish this task. First, I propose what I refer to as a "political necessity" test for use in GATT Article XX cases involving local measures. Under this test, where a local measure is defended on Article XX

²⁵ See *Canada—Renewable Energy*, *supra* note 8 (upholding a finding that Canada's FIT Program violates the national treatment obligation incorporated into Article 2 of the TRIMs Agreement). Throughout the Article I discuss international economic law in general, though for concreteness I focus on the WTO.

grounds, WTO panels should ask first whether the measure pursues an objective authorized by one of the exceptions in Article XX *and* whether the measure provides a global public good protected by a multilateral treaty. If the measure does, then the panel should evaluate the necessity of the measure in light of *politically* available alternatives. Using objective evidence, such as the rate of discriminatory provisions in the local jurisdiction's code, the panel should assess whether the discriminatory provision was necessary to the measure's passage. If the panel concludes that it was, the panel should still rule against the measure unless it finds that the benefits from providing the global public good, including those benefits created outside the enacting jurisdiction, exceed the costs of economic discrimination. Second, I suggest that states include narrow, targeted exceptions in IEL agreements for renewable energy measures.

I. LOCAL CONTENT REQUIREMENTS

Local content requirements are laws, regulations, or governmental measures that condition a benefit on the use of a certain percentage of inputs from the local jurisdiction. LCRs can be found at every level of government and are an especially common form of economic discrimination. One recent study estimated that in the wake of the 2008-09 financial crisis and ensuing recession, governments implemented over 100 new LCRs, reducing international trade by over \$93 billion.²⁶ LCRs are becoming increasingly popular in the renewable energy sector. Subsidizing renewable energy with LCRs, when effective, reduces greenhouse gas emissions while supporting the development of local renewable energy businesses, a technology-driven industry that produces high-end manufacturing jobs. Renewable energy LCRs thus allow governments to link environmental and economic development objectives. As I explain in this Part, however, most LCRs are straightforward violations of IEL's nondiscrimination rules.

A. *Nondiscrimination and Local Content Requirements*

Governments like LCRs for a variety of policy reasons. LCRs, it is often argued, can increase employment.²⁷ By protecting infant industries, LCRs can help establish globally-competitive domestic industries that otherwise would

²⁶ GARY CLYDE HUFBAUER ET AL., LOCAL CONTENT REQUIREMENTS: A GLOBAL PROBLEM, at xxi (2013).

²⁷ JAN-CHRISTOPH KUNTZE & TOM MOERENHOUT, INT'L CTR. FOR TRADE AND SUSTAINABLE DEV., LOCAL CONTENT REQUIREMENTS AND THE RENEWABLE ENERGY INDUSTRY—A GOOD MATCH? 6 (2013) (“The alleged capability for LCRs to create ‘green jobs’ is often something that helps governments gain political support for green industrial programs.”). Critically, the empirical evidence as to whether LCRs actually provide these benefits is mixed. *See id.* at 8 (“The balance between job losses . . . and job gains . . . is very difficult to estimate and depends on sectoral and policy specifics.”). In part, LCRs create inefficiencies in trade that have adverse consequences for welfare. *See infra* Section III.A.

not exist.²⁸ Both of these effects increase the tax-base for the government, providing it with additional revenue.²⁹ Moreover, if the LCR is tied to some other objective, such as a green energy program, it may have longer-term beneficial consequences in terms of spurring innovation in green technology, developing of green jobs, and reducing in environmental harms such as greenhouse gas emissions.³⁰

Local content requirements can be categorized by the kind of benefit extended to products, services, or investments meeting the prescribed local content standard.³¹ Preferential licensing is an especially common benefit. Governments may only grant licenses for cultural activities such as radio stations or film, investments, or import licenses to those meeting the relevant criteria. For example, Australia requires television broadcasters to air fifty-five percent Australian programming between 6 a.m. and midnight in order to receive a rebate on their licensing fees.³² Less quixotically, countries may require that businesses incorporate local content into their business plan as a condition of a license to extract natural resources.³³

Governments may also extend financial incentives to qualifying products, services, or investments.³⁴ Financial incentives can take the form of preferential rates, such as Ontario extended to electric companies generating renewable energy produced with local equipment.³⁵ Governments may also use direct financing or preferential tax and tariff schemes as a means of conferring a financial benefit.³⁶ To give but one example, in *Indonesia—Autos*, the European Communities, the United States, and Japan challenged, *inter alia*, tax breaks that Indonesia provided to imported automobiles and component parts based on the percentage of components in the vehicle produced in Indonesia.³⁷ Indonesia, in turn, defined local components as “parts or sub parts of Motor

²⁸ KUNTZE & MOERENHOUT, *supra* note 27, at 6 (“Support is aimed at fostering infant industries by protecting them from foreign competition . . .”).

²⁹ *Id.* (“[I]t is sometimes claimed that LCRs will lead to an increased tax base for governments because of a larger local manufacturing industry.”).

³⁰ *Id.* at 6-7.

³¹ Holger P. Hestermeyer & Laura Nielsen, *The Legality of Local Content Measures Under WTO Law*, 48 J. WORLD TRADE 553, 557 (2014).

³² *Id.* at 558-59.

³³ *Id.* at 560 (“Conditioning the grant of the concessions required to exploit [natural] resources on the use of local content is one of the means employed in this respect.”).

³⁴ *Id.* at 563.

³⁵ See *Canada—Renewable Energy*, *supra* note 8, ¶ 1.3 (“The FIT Programme is a scheme implemented by . . . Ontario . . . through which generators of electricity produced from certain forms of renewable energy are paid a guaranteed price . . .”).

³⁶ Hestermeyer & Nielsen, *supra* note 31, at 564 (stating that governments may use project financing or preferential tariffs to encourage the use of local content).

³⁷ Panel Report, *Indonesia—Certain Measures Affecting the Automobile Industry*, ¶¶ 1.1-1.12, 2.6-2.14, WTO Doc. WT/DS54/R (adopted July 23, 1998) [hereinafter *Indonesia—Autos*].

Vehicles which are domestically made and have Local Contents at a level of more than 40 per cent . . .”³⁸ Finally, governments may also give qualifying products, services, or investments preferential treatment in government procurement processes.³⁹

B. *Disputes over Renewable Energy LCRs*

Local content requirements run a very high risk of violating IEL’s prohibition on discriminating against foreign goods, services, or capital. The basic problem with LCRs is that they encourage consumers to purchase potentially more expensive domestic inputs, rather than cheaper foreign-produced inputs. For example, a government might use a renewable energy LCR to provide a subsidy to homeowners who install solar panels, provided that the solar panel is produced within the local jurisdiction. The result of such a measure is that homeowners do not choose which solar panel to buy based on the true cost of the solar panel. Rather, they compare the cost to themselves, including the government subsidy they receive for domestically-made panels. As a result, consumers (and the government) pay more for the same product, while more competitive sellers are deprived of market-share, a welfare-defeating result.

Indeed, local content requirements, and disputes about their legality, have become especially common in the renewable energy sector in the last several years. The most recent and prominent local content case is the WTO’s dispute in *Canada—Renewable Energy*. In that dispute, the European Union and Japan challenged Ontario’s Feed-in Tariff (“FIT”) Program.⁴⁰ The FIT Program paid generators of electricity produced from renewable sources a guaranteed rate for electricity.⁴¹ In order to qualify for the FIT Program, facilities had to meet a number of eligibility requirements, including “Minimum Required Domestic Content Levels” that required electricity generators to purchase locally-produced renewable energy equipment.⁴² Although *Canada—Renewable Energy* has been most widely discussed for its implications for renewable

³⁸ *Id.* ¶ 2.5. The complainants also challenged the “National Car” program, under which Indonesia exempted from taxation cars manufactured by Indonesian companies that satisfied certain requirements regarding ownership of facilities and local content, among others. *See id.* ¶¶ 2.16-2.17.

³⁹ Hestermeyer & Nielsen, *supra* note 31, at 562 (“Governments regularly prefer local over imported products in their procurement policies.”).

⁴⁰ *See Canada—Renewable Energy*, *supra* note 8, ¶ 1.1.

⁴¹ *Id.* ¶ 1.3. Participation in the program was limited to facilities located in Ontario generating electricity exclusively from wind, solar, renewable biomass, biogas, landfill gas, or hydro power. *Id.*

⁴² *Id.* ¶ 1.4. The Program was divided between the “FIT stream” and the “microFIT stream” based on generation capacity. *Id.* ¶ 1.3. The minimum domestic content requirements applied to the development and construction of windpower and solar facilities under the FIT stream, but only to solar facilities under the microFIT stream. *Id.* ¶ 1.4.

energy subsidies, as I explain below, its most important implications are for *local* government's ability to provide such subsidies under international law.

Japan and the European Union alleged that the FIT Program and the contracts issued thereunder imposed discriminatory LCRs.⁴³ Nondiscrimination rules are a core feature of international economic law. Indeed, the idea that states should not discriminate based on national origin when regulating trade in goods, services, or capital, is in many ways the key animating idea behind modern international economic law.⁴⁴ Both international trade and investment law contain a number of specific nondiscrimination rules, as well as rules that ban practices with discriminatory impact, such as subsidization, that are relevant to renewable energy LCRs.⁴⁵

The most important nondiscrimination rule—and the one on which Japan and the European Union ultimately prevailed—is the national treatment obligation.⁴⁶ In general, national treatment prohibits treating foreign products, services, or investments less favorably than “like” domestic products, services, or investments.⁴⁷ LCRs usually expressly link the provision of a benefit to the use of domestic products. Thus, determining that an LCR disadvantages “like”

⁴³ *Id.* ¶¶ 1.6-1.7.

⁴⁴ Cf. Joost Pauwelyn, *The Unbearable Lightness of Likeness*, in GATS AND THE REGULATION OF INTERNATIONAL TRADE IN SERVICES 358, 361 (Marion Panizzon et al. eds., 2008) (arguing that the WTO Appellate Body should focus “on the one and only impermissible criterion [for regulation], namely: national origin”).

⁴⁵ See GATT, *supra* note 22, art. III:2 (declaring that no foreign imports should be accorded less favorable treatment than their domestic counterparts); see also Agreement on Trade-Related Investment Measures art. 2, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 186 [hereinafter TRIMs Agreement] (applying the nondiscrimination requirements of GATT to trade-related investment measures).

⁴⁶ For example, GATT Article III provides that: “The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin” GATT, *supra* note 22, art. III:2.

⁴⁷ See Nicholas DiMascio & Joost Pauwelyn, *Nondiscrimination in Trade and Investment Treaties: Worlds Apart or Two Sides of the Same Coin?*, 102 AM. J. INT'L L. 48, 48 n.3 (2008) (“The obligation to provide national treatment essentially prohibits discriminating between foreign and domestic products, investments, or investors.”). I use “services” and “investments” as shorthand. In fact, IEL protects both “services” and “services suppliers,” as well as “investments” and “investors.” See, e.g., General Agreement on Trade in Services art. XVII, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183 [hereinafter GATS] (providing that foreign services and service suppliers should be treated the same as domestic services and service suppliers); 2012 U.S. Model Bilateral Investment Treaty art. 3 [hereinafter U.S. Model BIT], <http://www.state.gov/documents/organization/188371.pdf> [<http://perma.cc/6LRD-TBA2>] (affording protection to both “investors” and “investments”).

foreign products tends not to be difficult.⁴⁸ Some form of the national treatment obligation is found in virtually every IEL agreement, including the GATT,⁴⁹ the General Agreement on Trade in Services (“GATS”),⁵⁰ the Agreement on Trade-Related Investment Measures (“TRIMs Agreement”),⁵¹ the Agreement on Technical Barriers to Trade (“TBT Agreement”),⁵² preferential trade agreements such as NAFTA,⁵³ and bilateral investment treaties (“BITs”).⁵⁴ Outside of the trade context, investment treaties also typically ban “performance requirements,” a concept that includes local content requirements.⁵⁵ The U.S. Model Bilateral Investment Treaty, for example, prohibits parties from requiring, *inter alia*, investors “to achieve a given level or percentage of domestic content” or “to purchase, use or accord a preference to goods produced in its territory”⁵⁶ Depending on the relationship between the parties involved, LCRs may thus be vulnerable under WTO rules as well as regional trade rules and investment treaties.⁵⁷ In fact, the

⁴⁸ Hestermeyer & Nielson, *supra* note 31, at 572 (“In local content cases, the discrimination is always de jure as the measure discriminates on the basis of the origin of the product, explicitly conditioning the grant of a benefit on the use of local content and thereby treating the imported product less favourably than the local one.”).

⁴⁹ GATT, *supra* note 22, art. III.

⁵⁰ GATS, *supra* note 47, art. XVII.

⁵¹ The TRIMs Agreement subjects to GATT Article III measures that require as a condition of obtaining some advantage “the purchase or use . . . of products of domestic origin or from any domestic source” TRIMs Agreement, *supra* note 45 (providing LCRs as an illustration of a measure that violates the TRIMs Agreement); *see also id.* art. 2 (making GATT Article III’s national treatment obligation applicable to investment measures related to trade in goods).

⁵² Agreement on Technical Barriers to Trade art. 2, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120 [hereinafter TBT Agreement] (“Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.”).

⁵³ North American Free Trade Agreement, Can.-Mex.-U.S., art. 301, Dec. 17, 1992, 32 I.L.M. 289 (1993) [hereinafter NAFTA] (“Each Party shall accord national treatment to the goods of another Party”).

⁵⁴ *See, e.g.*, U.S. Model BIT, *supra* note 47, art. 3 (“Each Party shall accord to investors of the other Party treatment no less favorable than it accords, in like circumstances, to its own investors”). The other key nondiscrimination rule in IEL is the most-favored nation (“MFN”) obligation. The MFN obligation does not, however, figure prominently in renewable energy or LCR cases.

⁵⁵ *See id.* art. 8 (prohibiting parties from imposing or enforcing any commitment or undertaking “to achieve a given level or percentage of domestic content”).

⁵⁶ *Id.*

⁵⁷ For example, in *Cargill v. Mexico*, an American food company successfully challenged a Mexican tax on soft drinks containing high fructose corn syrup as both a violation of the national treatment obligation and an unlawful performance requirement.

Ontario measure at issue in *Canada—Renewable Energy* is itself the subject of an investment dispute under NAFTA Ch. 11.⁵⁸

Japan and the European Union alleged that Ontario's FIT Program violated Article III:4 of the 1994 GATT (national treatment for products) by treating foreign renewable energy generation equipment less favorably than like products originating in Ontario, and Article 2.1 of the TRIMs Agreement (national treatment in trade-related investment measures) for the same reason.⁵⁹ They also alleged that the FIT Program violated Articles 3.1(b) and 3.2 of the Agreement on Subsidies and Countervailing Measures ("SCM Agreement") by creating a subsidy "contingent upon the use of domestic over imported goods . . ."⁶⁰ The SCM Agreement prohibits such subsidies because they discriminate most directly against foreign competition, i.e., by providing a

Cargill, Inc. v. United Mexican States, ICSID Case No. ARB(AF)/05/2, Award, ¶ 2 (Sept. 18, 2009), http://www.italaw.com/sites/default/files/case-documents/ita0133_0.pdf [<http://perma.cc/7ANH-874C>]. In addition to the national treatment and performance requirement claims—violations of NAFTA Articles 1102 and 1106, respectively—Cargill also brought a claim for a violation of the obligation to provide fair and equitable treatment. *Id.* The principal difference between the national treatment provision and the ban on performance requirements is that demonstrating a national treatment violation requires finding a domestic investor in "like circumstances," while proving a violation of the ban on performance requirements does not. Dennis Clare, *The Final Award in Feldman v. Mexico*, in THE REASONS REQUIREMENT IN INTERNATIONAL INVESTMENT ARBITRATION: CRITICAL CASE STUDIES 63, 102 (Guillermo Aguilar Alvarez & W. Michael Reisman eds., 2008) ("[F]inding a violation of NAFTA's Article 1102 on national treatment requires demonstrating that a foreign investor was improperly discriminated against relative to domestic investors in 'like circumstances.'"). For example, in *ADF Group v. United States of America*, an investor brought a NAFTA challenge to the application of "Buy America" provisions to a construction project. *ADF Grp. Inc. v. United States of America*, ICSID Case No. ARB(AF)/00/1, Award, ¶ 61 (Jan. 9, 2003), 18 ICSID Rev. 195 (2003). The challenged provisions provided that federal transportation construction funds could not be spent "unless steel, iron, and manufactured products used in such project are manufactured in the United States." *Id.* ¶ 56. The tribunal held that the United States had not violated its national treatment obligation because U.S. investors were also required to produce their steel and iron in the United States for federally-funded transportation projects. *Id.* ¶ 156. The United States conceded, however, that the same provision would have been an unlawful performance requirement within the meaning of NAFTA Article 1106 were it not for certain exclusions applicable to government procurement. *Id.* ¶ 159.

⁵⁸ See Notice of Intent to Submit a Claim to Arbitration ¶ 23, *Mesa Power Grp. LLC v. Gov't of Can.* (2011), <http://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/disp-diff/mesa.aspx> [<http://perma.cc/9DUH-DHRD>] (complaining that Ontario's FIT Program violates NAFTA Chapter 11).

⁵⁹ *Canada—Renewable Energy*, *supra* note 8, ¶¶ 1.6-1.7.

⁶⁰ *Id.*

subsidy in one market (for example, electricity) contingent on discrimination by the recipient in another product market (for example, solar panels).⁶¹

The challenge caused great concern among environmentalists, who view renewable energy subsidies as critical to transitioning away from a carbon-based economy. To the initial relief of some, the WTO panel rejected the SCM Agreement claim, finding that Japan and the European Union could not demonstrate an unlawful subsidy.⁶² Showing a violation of the SCM Agreement requires the claimant to demonstrate that a financial contribution by the respondent confers a benefit on the recipient. A benefit, in turn, is measured by comparing the financial contribution—in this case the price paid for renewably-generated electricity—to some benchmark that reflects what the recipient would expect to receive in the absence of the subsidy. For example, a government purchase of a good at market price would constitute a financial contribution, but there would be no benefit because the price did not exceed the relevant benchmark—the market price. In *Canada—Renewable Energy*, the panel found that the claimants failed to establish a viable benchmark because Ontario does not have a free market for electricity, and other benchmark prices proposed by the claimants were similarly influenced by government intervention.⁶³

Nevertheless, the panel held that the Ontario FIT Program unlawfully discriminated against foreign renewable energy equipment. Specifically, the

⁶¹ See Agreement on Subsidies and Countervailing Measures art. 3.1(b), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14 [hereinafter SCM Agreement] (prohibiting “subsidies contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods”). The SCM Agreement also prohibits “subsidies contingent . . . upon export performance . . .” *Id.* art. 3.1(a). Subsidies that cause “adverse effects to the interests of other Members” are “actionable” under the SCM Agreement. *Id.* art. 5. Significantly, however, a state must provide a “specific subsidy” within the meaning of the SCM Agreement before a subsidy can either be deemed prohibited or actionable. *Id.* art. 1.2. In order to be a specific subsidy, a government must make a) a financial contribution; that b) confers a benefit above and beyond what the recipient could receive in the market; and c) that is either 1) targeted in some way at specific industries or enterprises, or 2) prohibited under Article 3. *Id.* arts. 1-2.

⁶² *Canada—Renewable Energy*, *supra* note 8, ¶ 5.147 (“The Panel found that Japan and the European Union failed to establish that the challenged measures confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement.”). Technically, the panel also declined to address the claimants’ stand-alone claim under GATT Article III:4 for reasons of judicial economy. That is, the panel found that the FIT Program’s minimum domestic content requirements constituted a discriminatory trade-related investment measure, which requires showing discrimination in violation of GATT Article III. *Id.* ¶ 2.76. Having found a TRIMs violation, the panel did not feel it necessary to also formally decide that the FIT Program directly violated GATT article III:4. *Id.* (“Having made this finding, the Panel declined Japan’s request to undertake a separate analysis of the elements of Article III:4.”).

⁶³ *Id.* ¶¶ 5.149-5.151. The panel also rejected benchmarks from other markets as insufficiently comparable to what prices in a free market in Ontario would be. *Id.* ¶ 5.152.

panel held that the FIT Program's minimum domestic content requirements constituted a discriminatory trade-related investment measure in violation of GATT Article III:4 and TRIMs Article 2.1.⁶⁴ This holding was so straightforward that Canada did not bother to challenge it during the ensuing appeal.⁶⁵

Canada—Renewable Energy thus created a WTO precedent holding what many observers had long believed—that LCRs are straightforward discrimination in violation of the national treatment obligation. In so doing, *Canada—Renewable Energy* lit the fuse on a trade conflict that had been brewing for some time. In the wake of the decision, governments initiated a wide variety of trade disputes challenging government support for the renewable sector. For example, both the United States and the European Union initiated domestic trade investigations (which can lead to the imposition of trade sanctions such as anti-dumping and countervailing duties) into Chinese support for the solar industry.⁶⁶ China responded with similar domestic trade investigations of its own into U.S. support for renewable energy, as well as into European Union and South Korean trade practices.⁶⁷ At the WTO, the United States, joined by the European Union and Japan, had challenged Chinese subsidies for wind energy.⁶⁸ China, for its part, challenged feed-in tariff programs maintained by several European states on the basis that these programs contain LCRs like that in *Canada—Renewable Energy*.⁶⁹ Indonesia

⁶⁴ *Id.* ¶¶ 1.23-1.24.

⁶⁵ Instead, Canada appealed the panel's finding that an exception in GATT Article III:8 for governmental procurement did not apply. *Id.* ¶ 2.1. The Appellate Body rejected this appeal, interpreting the exception to require that the product purchased by the government be the same as the product against which it discriminated. *Id.* ¶ 5.63. Ontario purchased electricity but discriminated against renewable energy generation equipment, two different products. *Id.* ¶ 5.75. The European Union and Japan cross-appealed the panel's findings under the SCM Agreement. Here, the Appellate Body reversed the panel's holdings that the claimants had not introduced sufficient evidence of a benchmark price against which a benefit could be measured. *Id.* ¶ 5.245 (“[W]e have found evidence on the Panel record that is relevant to a benefit analysis based on a benchmark that takes into account the Government of Ontario's definition of the energy supply-mix.”). However, the Appellate Body declined to complete the analysis of whether a benefit was in fact conferred due to the inadequacy of the evidentiary record. *Id.* ¶¶ 5.245-5.246.

⁶⁶ See Lewis, *supra* note 19, at 22 (documenting investigations initiated by the United States and the European Union into the Chinese solar panel industry). The United States ended up imposing duties on Chinese solar panels, while the European Union reached an agreement with China on an import quota and minimum price controls. *Id.*

⁶⁷ *Id.*

⁶⁸ Request for Consultations by the United States, *China—Measures Concerning Wind Power Equipment*, WTO Doc. WT/DS419/1 (Jan. 6, 2011) (stating that the Chinese wind power measures appear to be inconsistent with Article 3 of the SCM Agreement).

⁶⁹ Request for Consultations by China, *European Union and Certain Member States—Certain Measures Affecting the Renewable Energy Generation Sector*, WTO Doc. WT/DS452/1 (Nov. 5, 2012) (stating China's request for consultation with the European

and Argentina have challenged European Union trade sanctions on biodiesel that have severely curtailed those nations' access to the European market.⁷⁰ Finally, in 2013, the United States filed a request for consultations (the first stage in the WTO dispute settlement process) with India regarding its Jawaharlal Nehru National Solar Mission program.⁷¹ India responded by filing requests for information with the WTO Committees on Subsidies and Countervailing Measures and Trade-Related Investment Measures, requesting the United States to justify certain state and local renewable energy support programs.⁷²

While not all of these challenges focus on LCRs, a number—including the challenges involving the United States, the European Union, Japan, Canada, China, and India—do.⁷³ These disputes suggest that LCRs are a growing form of protectionism in the renewable energy sector. The use of LCRs and their legal status thus raises important questions about the viability of government support for renewable energy programs.

C. *The Importance of Local LCRs*

Overlooked in this debate has been the relative importance of truly local LCRs—those deployed by subnational governments. Critically, Ontario's FIT Program was not a national program. A bedrock rule of international law is that nations are internationally responsible for the actions of their subsidiary governments.⁷⁴ The International Law Commission's ("ILC") Draft Articles on

Union, Italy, and Greece due to inconsistencies under the GATT, SCM Agreement, and TRIMs Agreement).

⁷⁰ Request for Consultations by Indonesia, *European Union—Anti-Dumping Measures on Biodiesel from Indonesia*, WTO Doc. WT/DS480/1 (June 17, 2014); Request for Consultations by Argentina, *European Union—Anti-Dumping Measures on Biodiesel from Argentina*, WTO WT/DS473/1 (Jan. 8, 2014).

⁷¹ Request for Consultations by the United States, *India—Certain Measures Relating to Solar Cells and Solar Modules*, WTO Doc. WT/DS456/1 (Feb. 11, 2013).

⁷² Comm. on Subsidies and Countervailing Measures, *Minutes of the Regular Meeting Held on 22 April 2013*, ¶¶ 116–25, WTO Doc. G/SCM/M/85 (Aug. 5, 2013) [hereinafter *Minutes of the Regular Meeting*] (stating questions posed by India to the United States under Article 25.8 of the Agreement on Subsidies and Countervailing Measures); Questions by India to the United States, *Certain Local Content Requirements in Some of the Renewable Energy Sector Programs*, WTO Doc. G/TRIMS/W/117 (Apr. 17, 2013) (stating that some renewable energy programs in the United States "make the availability of incentives contingent upon the use of domestic or state specific products, which raises concerns about their compatibility with . . . Article 2 of the TRIMs Agreement read with Article III:4 of GATT 1994").

⁷³ In addition to the countries listed above, Lewis identifies renewable energy LCRs in Argentina, Brazil, Croatia, France, Italy, Malaysia, South Africa, Turkey, and Ukraine. Lewis, *supra* note 19, at 14.

⁷⁴ See Int'l Law Comm'n, Rep. on the Work of Its Fifty-Third Session, U.N. Doc. A/56/10, at 44 (2001), reprinted in [2001] 2 Y.B. Int'l L. Comm'n 1, U.N. Doc.

Responsibility of States for Internationally Wrongful Acts (“Draft Articles”), which to a large extent reflect customary international law,⁷⁵ provide that the “conduct of any State organ shall be considered an act of that State under international law . . . whatever its character as an organ of the central Government or of a territorial unit of the State.”⁷⁶ Moreover, the Draft Articles provide that whether a state has committed an internationally wrongful act “is not affected by the characterization of the same act as lawful by internal law.”⁷⁷ The result is that nation-states bear legal responsibility under international law for the actions of their local governments, even if the local government’s actions are made pursuant to an express allocation of authority between the national and local governments. Indeed, these provisions are uncontroversial, confirmed by dozens of cases.⁷⁸

Despite their equivalence under the international law of state responsibility, the distinction between local LCRs and national LCRs is important for two reasons. First, subnational governments today play a greater role in international affairs than they have in at least a century. For example, states within the United States carry on foreign policy activities that receive little check from the federal government, including entering into agreements with foreign governments⁷⁹ and the creation of transboundary carbon trading schemes.⁸⁰ The U.S. Conference of Mayors has produced a “Climate Protection Agreement,” under which hundreds of U.S. cities agree to take measures to combat climate change, including striving to meet or beat Kyoto Protocol targets within their own communities.⁸¹ Many nation-states have, for a variety of reasons, devolved authority onto localities. In the United States, a robust constitutional federalism—one that holds that the states should operate free from national interference across a wide range of issues—provides the basis for local action in areas in which the federal government has declined to

A/CN.4/SER.A/2001/Add.1 (Part 2) (“The conduct of any State organ shall be considered an act of that State under international law . . . whatever its character as an organ of the central Government or of a territorial unit of the State.”).

⁷⁵ See *id.* at 84.

⁷⁶ *Id.* at 44; see also *id.* at 84 (“[Article 4.1] includes an organ of any territorial governmental entity within the State on the same basis as the central governmental organs of that State . . .”).

⁷⁷ *Id.* at 43.

⁷⁸ *Id.* at 75-78 & nn.78-95, 80 n.96, 84-88 & nn.107-24 (citing cases and authorities upholding these two principles).

⁷⁹ See Duncan B. Hollis, *Unpacking the Compact Clause*, 88 TEX. L. REV. 741, 741 (2010) (describing an agreement between Kansas and Cuba).

⁸⁰ See Hari M. Osofsky & Jacqueline Peel, *Litigation’s Regulatory Pathways and the Administrative State: Lessons From U.S. and Australian Climate Change Governance*, 25 GEO. INT’L ENVTL. L. REV. 207, 235 (2013).

⁸¹ See U.S. Conference of Mayors, *The U.S. Mayors Climate Protection Agreement* (2005), <http://www.usmayors.org/climateprotection/documents/mcpAgreement.pdf> [<http://perma.cc/5L2F-EPCW>].

act aggressively, such as climate change.⁸² In other nations, a push for regional autonomy drives devolution. For example, in the United Kingdom, Scotland and Wales received a significant increase in home rule authority in the 1990s, including individual parliamentary bodies with authority over a variety of areas.⁸³ In September 2014, Scotland went so far as to hold a referendum on full independence.⁸⁴ While the referendum failed, an unexpectedly close vote resulted in promises from the United Kingdom for even further autonomy for Scotland.⁸⁵ Following Kosovo's declaration of independence in 2008, similar movements have gained traction in Spain and elsewhere.⁸⁶

Second, local action may differ systematically from national action. Scholars and advocates of local governments have long argued that allocating certain kinds of responsibility to the local level may improve governance because of the comparative advantage local governments may have in

⁸² See, e.g., Hari M. Osofsky, *Scaling "Local": The Implications of Greenhouse Gas Regulation in San Bernardino County*, 30 MICH. J. INT'L L. 689, 690 (2009) ("[California] used its power over [San Bernadino], through the California Environmental Quality Act and the San Bernadino County Superior Court, to push that local governmental unit to take action"); J.B. Ruhl & James Salzman, *Climate Change, Dead Zones, and Massive Problems in the Administrative State: A Guide for Whittling Away*, 98 CAL. L. REV. 59, 63 (2010) ("State and local energy, environmental, and land use agencies must consider how to account for climate change when planning infrastructure and regulating facilities.").

⁸³ The British Parliament "devolved" a range of authority onto the Scottish, Welsh, and Northern Irish governments it created. *Devolution of Powers to Scotland, Wales and Northern Ireland*, GOV.UK (Feb. 18, 2013), <https://www.gov.uk/guidance/devolution-of-powers-to-scotland-wales-and-northern-ireland> [<https://perma.cc/D9ES-JCL3>]. Scotland received the greatest range of authority, including administration of its own justice system, public works, and some powers over taxation. *What Powers Does Scotland Have?*, BBC (Jan. 13 2013), <http://www.bbc.com/news/uk-scotland-scotland-politics-20314150> [<http://perma.cc/9BN5-KBHC>]. Devolution differs from federalism in that the statutes devolving authority on local governments are ordinary statutes that can be changed by the central government. As a result, the state is technically still a unitary state, though the political costs of changing the allocation of authority between the center and localities may not differ significantly between a unitary state with devolved authority such as the UK, and a system of constitutional federalism, such as the United States.

⁸⁴ Kenan Malik, Opinion, *United Kingdom, Divided People*, N.Y. TIMES (Sept. 26, 2014), <http://www.nytimes.com/2014/09/27/opinion/kenan-malik-united-kingdom-divided-people.html> [<http://perma.cc/K54E-KXLH>] (discussing referendum for Scotland's independence).

⁸⁵ *Id.*

⁸⁶ Alejandro López, *Spain: Regional Catalan President Calls Early Elections*, WORLD SOCIALIST WEB SITE (Jan. 26, 2015), <http://www.wsws.org/en/articles/2015/01/26/cata-j26.html> [<http://perma.cc/49TQ-DJTE>] (discussing pressure for a secessionist vote in the Catalan region of Spain).

regulating based on local circumstances.⁸⁷ The U.S. Supreme Court has emphasized that local governments may be more directly accountable to voters than more distant national governments⁸⁸—a concern echoed in debates about the legitimacy of international institutions such as the European Union.⁸⁹ Moreover, local governments may be more nimble in certain respects than national governments, while being hampered by their small size in other respects. The literature on international organizations has long recognized benefits to increasing the scale of governance to take advantage of greater linkages.⁹⁰ Scholars have also noted, though, that with greater scale comes greater transaction costs.⁹¹ At some point, greater size becomes a vice rather than a virtue.

Twenty-first century trends in international governance reflect this view. In place of multilateral international governance, nations are increasingly empowering institutions with narrower scope, notwithstanding the fact that regulatory decisions made by these institutions create externalities. At the international level, nations increasingly turn to regional or “mini-lateral” institutions, such as the Trans-Pacific Partnership, a free trade agreement among Pacific Rim countries that may eclipse the WTO as a site of international trade lawmaking.⁹² Nations also fragment jurisdiction for related issues among different international institutions. For example, in 2009, states created a stand-alone International Renewable Energy Agency (“IRENA”) in large part because they feared that linking the Agency to existing climate

⁸⁷ See, e.g., Richard Briffault, *The Role of Local Control In School Finance Reform*, 24 CONN. L. REV. 773, 785-804 (1992) (reviewing the benefits of local control in the context of education).

⁸⁸ See *New York v. United States*, 505 U.S. 144, 168 (1992) (“Where Congress encourages state regulation rather than compelling it, state governments remain responsive to the local electorate’s preferences; state officials remain accountable to the people.”).

⁸⁹ Sophie Meunier, *Trade Policy and Political Legitimacy in the European Union*, 1 COMP. EUR. POL. 67, 70-74 (2003) (discussing concerns about legitimacy in international trade organizations and the lack of democracy and accountability in the European Union).

⁹⁰ See, e.g., Andrew Guzman, *International Organizations and the Frankenstein Problem*, 24 EURO. J. INT’L L. 999, 1004 (2013) (“There are at least three reasons why states may . . . enlarge rather than shrink the scope of an [international organization] . . . effectiveness, linkage, and efficiency.”).

⁹¹ See, e.g., COOTER, *supra* note 21, at 361; Guzman, *supra* note 90, at 1000 & n.2 (describing how international organizations can grow beyond their optimal size); Barbara Koremenos, Charles Lipson & Duncan Snidal, *The Rational Design of International Institutions*, 55 INT’L ORG. 761, 787 (2001) (arguing that international organizations face increasing transaction costs as the scope of their jurisdiction gets wider); Timothy L. Meyer, *Epistemic Institutions and Epistemic Cooperation in International Environmental Governance*, 2 TRANSNAT’L ENVTL. L. 15, 37-40 (2013) (describing how transaction costs may limit the optimal size of international institutions).

⁹² CHRIS BRUMMER, *MINILATERALISM: HOW TRADE ALLIANCES, SOFT LAW AND FINANCIAL ENGINEERING ARE REDEFINING ECONOMIC STATECRAFT* 77-83 (2014).

change or energy institutions, such as the United Nations Framework Convention on Climate Change (“UNFCCC”) or the International Energy Agency, would lead to IRENA’s capture or paralysis.⁹³

Yet international law has not adapted to this insight where local versus national responsibility is concerned. As I show below, many more programs like Ontario’s—and millions of dollars in renewable energy subsidies from local governments—may now be at risk.

II. STATE RENEWABLE ENERGY LCRS

Indian and Chinese challenges to the U.S. renewable energy subsidies are especially significant in evaluating the future of renewable energy LCRs. Rather than target federal measures, these investigations have raised questions about a handful of state and local programs within the United States that China and India allege contain unlawful LCRs, including programs in Connecticut; Michigan; Minnesota; Austin, Texas; and Los Angeles, California.⁹⁴ Local efforts to address climate change—and by extension, provide other kinds of global public goods—may thus be especially vulnerable to challenge.

In this Part, I present the results of a fifty state survey aimed at identifying as many state-level renewable energy LCRs within the United States as possible. An influential report on LCRs implemented since the Great Recession found only twenty new LCRs on renewable energy globally.⁹⁵ As detailed below, my findings suggest that looking subnationally for LCRs reveals a very different picture. Twenty-three states within the United States collectively have forty-four programs with renewable energy LCRs. Moreover, as I discuss in Section II.B, an investigation into several of these programs suggests that, as a political matter, the use of LCRs is critical to passing renewable energy support programs.

A. *The Programs*

The programs identified by China and India are only the tip of the iceberg. I conducted a search to locate U.S. state renewable energy programs that contain LCRs. I relied principally on West’s database(s) of state statutes and

⁹³ *The Case for an International Renewable Energy Agency*, WORLD COUNCIL FOR RENEWABLE ENERGY 7 (Apr. 10-11, 2008), http://www.wcre.de/images/stories/The_case_for_IRENA.pdf [<http://perma.cc/8UWB-H6FK>] (stating that IRENA will “constitute an independent driving force in the political process with the goal of creating a level playing field for the development of renewable energy”).

⁹⁴ *Minutes of the Regular Meeting*, *supra* note 72, ¶¶ 118, 122; Lewis, *supra* note 19, at 20 (explaining that China’s “petition claimed that several state-level renewable energy incentives violated provisions specified in Foreign Trade Law of the People’s Republic of China and Investigation Rules of Foreign Trade Barriers”).

⁹⁵ STEPHENSON, *supra* note 19, at 3 (“[I]t appears that perhaps 20 new LCRs affect the renewable energy sector.”). Other estimates for LCRs globally are similar. *See* Lewis, *supra* note 19, at 14 (listing fourteen renewable energy LCRs).

regulations, searching initially for all statutes or regulations that contained LCRs.⁹⁶ I then focused on those statutes that involved renewable energy by searching for the terms “renewable,” “biodiesel,” “solar,” “wind,” “hydro,” and “biomass.” To ensure that I did not miss relevant statutes, I also searched databases specifically for state renewable energy incentive programs, such as the Database of State Incentives for Renewables & Efficiency (“DSIRE”).⁹⁷

I next reviewed each statute or regulation in greater detail to determine whether it conditioned a benefit on the use of local products or services.⁹⁸ My objective was to determine whether the text of the statute imposed an LCR that appeared *prima facie* to violate the national treatment rule.⁹⁹ Significantly, not every local content requirement—understood as a provision that conditions the receipt of a benefit upon the use of local *factors of production* or on the recipient taking some local action—necessarily violates the ban on local content requirements contained in IEL treaties. The ban on local content requirements applies most straightforwardly to requirements that a recipient use local *products* or local service providers.¹⁰⁰ As a general matter, the ban may not apply to measures that condition receipt of a benefit on use of, for example, local labor.¹⁰¹ While these forty-four statutes are not necessarily unlawful, they constitute the most vulnerable LCR programs.

⁹⁶ Searching for local content requirements involved searching for combinations of phrases, such as “manufactured in [NAME OF STATE]” or “made in [NAME OF STATE].” I reviewed the results to determine whether each statute actually contained an LCR. Some, for example, were statutes that simply provided support for business located in the state, but did not condition the receipt of a benefit on the use of local content.

⁹⁷ DATABASE STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, www.dsireusa.org [<http://perma.cc/HD2S-WK3V>]. DSIRE is maintained by the U.S. Department of Energy and the North Carolina Clean Energy Technology Center. *Id.*

⁹⁸ Where a regulation merely echoed an LCR also found in a statute, I report the statute only.

⁹⁹ My search terms, for example, yielded a number of subsidy programs under which location in the state—but not the use of in-state products or services—was a criterion. GATT Article III:8 makes clear, however, that “[t]he provisions of this Article shall not prevent the payment of subsidies exclusively to domestic producers.” Thus, paying a production subsidy to in-state producers is not itself a national treatment violation unless coupled with an LCR or other discriminatory provision.

¹⁰⁰ Not all service sectors are covered by, for example, the GATS. Thus, whether a preference for in-state services violated IEL rules could depend on the particular service at issue.

¹⁰¹ NAFTA Chapter 11’s ban on performance requirements, for example, expressly permits situations in which a party conditions receipt of a benefit upon “compliance with a requirement to locate production, provide a service, train or employ workers, construct or expand particular facilities, or carry out research and development, in its territory.” NAFTA, *supra* note 53, art. 1106(4). More recently, in several BITs, the United States has entered a blanket reservation for “[a]ll existing non-conforming measures of all states of the United States, the District of Columbia, and Puerto Rico.” *See, e.g.*, Treaty Between the United States of America and the Oriental Republic of Uruguay Concerning the Encouragement

To illustrate the distinction, consider Kansas's Solar and Wind Manufacturing Incentive, which provides eligible wind or solar projects loans funded by state bonding measures.¹⁰² The criteria for eligibility state that recipients must 1) make a minimum investment in Kansas of \$30 million, 2) employ at least 200 workers, and 3) engage in activity that might include the "acquisition of real or personal property and modernization and retooling of existing property in Kansas . . ."¹⁰³ These first two conditions would not violate the national treatment obligation in any WTO Agreement,¹⁰⁴ nor would they likely violate the provisions in most investment agreements bearing on LCRs.¹⁰⁵ I would therefore not report a program that contained only these first two conditions. The third condition, however, might well violate the national treatment obligation in certain instances. For example, if a business qualified for the program by acquiring and using personal property produced in Kansas in its manufacturing processes, this would arguably constitute discrimination in the market for the relevant item of personal property. For this reason, I report the Kansas program.

This process generated a list of forty-four state programs in twenty-three states that contain local content requirements—defined broadly to include any measure that conditions a benefit on the use of any local input, including products, property, or labor—for renewable energy support programs. Notably, this list does not include sub-state local programs like the Austin, Texas or Los

and Reciprocal Protection of Investment, U.S.-Uru., Annex I, Nov. 4, 2004, T.I.A.S. No. 06-1101 [hereinafter U.S.-Uruguay BIT]. The United States has also attempted to contract out of international responsibility for state actions in non-economic areas through so-called "federalism reservations." These reservations purport to exclude from the United States' obligations any actions for which the U.S. Constitution allocates authority to the states. *See* U.S. Ratification of United Nations Convention Against Transnational Organized Crime, *ratified* Nov. 3, 2005, 2346 U.N.T.S. 440 ("The United States of America reserves the right to assume obligations under the Convention in a manner consistent with its fundamental principles of federalism . . .").

¹⁰² KAN. STAT. ANN. § 74-50,136(e) (2012) ("[T]he secretary may enter into an agreement with the . . . eligible wind or solar energy business for benefits under this act.").

¹⁰³ *Id.* § 74-50,136(c)(7).

¹⁰⁴ The loans also might not qualify as subsidies within the meaning of the SCM Agreement, though more information would be necessary. The state raises the money for the loans through a state bonding measure, and the applicant must repay the principal plus interest. *Id.* § 74-50,136(e). A subsidy within the meaning of the SCM Agreement requires that a benefit be conferred on the private party. SCM Agreement, *supra* note 61, art. 1.1(b). In the case of loans, the benefit is typically a discounted interest rate or cost of capital. Thus, whether the businesses received an actionable subsidy within the meaning of the SCM Agreement would depend, *inter alia*, on the relationship between the interest rates Kansas charges (based presumably on the interest rates it receives) and the interest rates otherwise available to those receiving the state loans.

¹⁰⁵ Investment treaties to which the United States is not a party might not include an exemption for employment requirements.

Angeles, California programs identified by India.¹⁰⁶ Nor does it include general subsidy programs that contain LCRs that *might* be used for renewable energy unless I identified such a use.¹⁰⁷ The complete list of statutes can be found in the Appendix.

To give a bit more context, thirty-two statutes out of the total forty-four involve a requirement that to qualify for the benefit, the beneficiary must make use of local renewable energy-related products. Of these thirty-two, eighteen relate to renewable energy generation equipment (e.g., solar photovoltaic panels or wind turbines), while fourteen relate to feedstocks for biofuels. Fourteen involve renewable energy portfolio requirements (“RPSs”)—requirements that utility companies purchase or generate a significant portion of their electricity from renewable sources. Many of these RPSs require that a utility company purchase electricity generated in the state (thus applying purely to electricity) while at least two—Michigan’s and Delaware’s—go further and require that the electricity be generated with locally-produced equipment.¹⁰⁸ Finally, twenty-four measures are fiscal measures, meaning that the benefit comes in the form of either a cash payment or, very often, a tax credit. The remaining twenty measures are regulatory measures.

Significantly, this list of statutes is likely to be both under- and over-inclusive. The list is likely under-inclusive because I likely failed to identify all the renewable energy LCRs that exist at the state level. First, I principally reviewed statutes and regulations. If state agencies impose LCRs in their administration of government programs without codifying the LCRs in regulations, I would likely not locate them. For example, the Appendix identifies Massachusetts’s Commonwealth Solar II program, which includes a renewable energy LCR. My search terms did not discover this program, however, because the LCR does not appear to be located in a statute or regulation, but rather only in the administering agency’s program manual. I only identified the program based on India’s notification of the program to the WTO. Second, in some cases determining that an LCR exists is only possible by reading multiple parts of a state’s code together. For example, Utah has a program that requires that “[w]ithin a reasonable time after receiving a request from a contract customer . . . a qualified utility shall enter into a renewable energy contract . . . to supply some or all of the contract customer’s electric service from one or more *renewable energy facilities* selected by the contract customer.”¹⁰⁹ Read on its own, this text does not appear to contain an LCR.

¹⁰⁶ Questions by India to the United States, *supra* note 72 (identifying LCRs in government programs in Los Angeles, California, and Austin, Texas).

¹⁰⁷ For example, Mississippi’s Industry Incentive Revolving Finance Fund is a general program that has been used to provide significant subsidies to renewable energy companies. *See infra* Section II.B.

¹⁰⁸ Consequently, I count Michigan’s and Delaware’s RPS programs as both an equipment measure and an RPS.

¹⁰⁹ UTAH CODE ANN. § 54-17-802 (LexisNexis 2015) (emphasis added).

However, a “renewable energy facility” is by definition located in Utah,¹¹⁰ meaning that the statute requires a utility to purchase in-state electricity rather than out-of-state electricity. I identified these two provisions because they were located sufficiently close to each other in the statute, but I may have failed to locate other similar provisions or ones where the statutory scheme is more convoluted.¹¹¹

My findings may also be over-inclusive in the sense that a WTO panel (or investment law tribunal) might not find unlawful all of those programs that I report. For example, some of the programs I report, such as Minnesota’s “Solar Energy in State Buildings” program,¹¹² involve government procurement. GATT Article III:8 contains an exception for government procurement that might save these measures.¹¹³ I nevertheless report them because 1) their economic and environmental effects do not depend on the fact that they involve government procurement; 2) the GATT Article III:8 exception is read narrowly, as in *Canada—Renewable Energy*,¹¹⁴ and 3) the WTO has a plurilateral Agreement on Government Procurement that aims to liberalize procurement policies and could be a vehicle for covering these kinds of programs.¹¹⁵ Similarly, RPSs that apply only to the purchase of electricity may technically violate national treatment rules, and hence I report them. However, some states in the United States may be so far from a national border that no

¹¹⁰ *Id.* § 54-17-801(4).

¹¹¹ I also do not report in the Appendix other renewable energy support provisions that may well violate the national treatment obligation for reasons other than containing an LCR. For example, Iowa and Oklahoma both provide tax credits for energy produced in-state and sold in an arms-length transaction. *See* IOWA CODE § 476B.2 (2015); OKLA. STAT. tit. 68, § 2357.32A (2014). These provisions arguably establish a discriminatory taxation system in violation of GATT Article III:2. *See* GATT, *supra* note 22, art. III:2. If all sellers of energy pay sales tax on the sale of energy in Iowa or Oklahoma, and only those who sold energy produced in-state receive a tax credit, effectively in-state energy is taxed at a lower rate than out-of-state energy. On the other hand, if the credits are conceived of as production credits for in-state producers, they might survive under the exception for such production credits established by GATT Article III:8. *See* GATT, *supra* note 22, art. III:8.

¹¹² MINN. STAT. § 16B.323 (2014).

¹¹³ *See* GATT, *supra* note 22, art. III:8.

¹¹⁴ The exception did not, for example, save Ontario’s FIT Program in *Canada—Renewable Energy*. *See supra* note 65.

¹¹⁵ Similarly, some products might be subject to somewhat specialized rules. For example, ethanol is subject to the Agreement on Agriculture. *See* Alan Yanovich, *WTO Rules and the Energy Sector*, in REGULATION OF ENERGY IN INTERNATIONAL TRADE LAW 23 (Yulia Selivanova ed., 2011). The Agreement on Agriculture takes precedence over the GATT in the event of a conflict. Agreement on Agriculture art. 21.1, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 410 (“The provisions of GATT 1994 and of other Multilateral Trade Agreements in Annex 1A to the WTO Agreement shall apply subject to the provisions of this Agreement.”).

foreign producer of electricity tries to serve the market, meaning that at least in the United States, such measures, while unlawful, may go unchallenged.

Finally, I also report budgetary data where available. Collecting such information proved considerably more difficult than identifying the programs. Regulatory measures such as RPSs lack financial provisions. Even where available, the budgetary data is difficult to compare across programs. Some programs report budgetary allocations, but very few report actual expenditures, the more interesting metric. Allocations and expenditures also vary, with some having annual program caps while others only cap how much individual claimants can receive. Many tax credit programs do not have express limits on the size of the credit that recipients may claim. In total, I located annual budgetary information for only twelve of the forty-four programs. These twelve programs provide approximately \$200 million annually.

B. *The Role of Economic Protectionism in State-Level Programs*

Discrimination against foreign products in the renewable energy sector thus seems rampant at the state level in the United States. In order to get a sense of the political causes of protectionism, I examined several of the particularly significant state programs, significant either in terms of dollars or in terms of number of programs within a single state. I found that renewable energy support programs containing LCRs typically resulted from a coalition among environmentally-minded constituencies and local economic interests seeking support and protection from the government. In most instances, the environmental case for renewable energy programs seems to have been insufficient as a political matter to generate sufficient legislative effort. Only when framed also, or even primarily, as an economic development issue did renewable energy programs gain the necessary traction to become viable legislative programs. This finding tracks similar international efforts—most notably the founding of the IRENA in 2009—to reframe the spread of renewable energy as an economic development opportunity, rather than principally as an environmental issue linked to the fight against climate change.¹¹⁶

The key insight is thus that support for environmental programs, such as renewable energy, may not be easily disentangled from discrimination. While the law may make a distinction between the two, they seem to be close traveling companions in local politics. In short, because of the political economy of renewable energy programs, passing green energy programs may require more economic discrimination than international economic law has traditionally been willing to tolerate.

California's Self-Generation Incentive Program ("SGIP") provides an illustrative example. SGIP began in 2001 as a program to provide an incentive

¹¹⁶ See Meyer, *supra* note 91, at 20 (describing a deliberate decision to decouple the IRENA from the international climate change architecture in order to free it from the political deadlock prevailing in climate change negotiations).

for the development and installation of “distributed energy resources that the commission . . . determines will achieve reductions in emissions of greenhouse gases”¹¹⁷ Funding for the program comes from Californians, though in their capacity as “ratepayers” (people who buy electricity) rather than taxpayers.¹¹⁸ The funds are disbursed as rebates to ratepayers who install government-approved equipment.¹¹⁹ One estimate puts the total disbursed under the program at \$523.1 million since the program’s inception.¹²⁰

In 2008, the California legislature added a provision providing for an additional twenty percent incentive for the installation of eligible energy equipment manufactured in California.¹²¹ The “manufactured in California” provision is a local content requirement similar to that at issue in *Canada—Renewable Energy*. Like Ontario’s purpose in enacting the FIT Program, California’s purpose is to stimulate alternative ways of generating electricity. Also like Ontario, California does not pursue this purpose by intervening directly in the market for electricity. Instead, it provides a subsidy in the electricity-generating equipment market for locally-produced products.¹²²

¹¹⁷ CAL. PUB. UTIL. CODE § 379.6(b)(1) (West 2015).

¹¹⁸ *Id.* § 379.6(a)(2).

¹¹⁹ *Id.*

¹²⁰ Dan Morain, Opinion, *Bloom Energy and Déjà Vu All Over Again*, SACRAMENTO BEE (June 2, 2014), <http://www.sacbee.com/opinion/opn-columns-blogs/danmorain/article/2600181.html> [<http://perma.cc/BT4Z-KNY4>] (“[T]he program has been extended at least a half-dozen times, and the Public Utilities Commission has paid or intends to pay \$521.3 million to companies that meet its criteria.”).

¹²¹ In its original incarnation, the legislation provided an additional incentive for equipment from a “California supplier.” CAL. PUB. UTIL. CODE § 379.6(g)(1) (West 2013) (“In administering the self-generation incentive program, the commission shall provide an additional incentive of 20 percent from existing program funds for the installation of eligible distributed generation resources from a California supplier.”). The definition of a “California supplier” was convoluted, however, and created the possibility that an out-of-state company that wished to manufacture equipment in California would not constitute a California supplier, while a company headquartered in California, but which manufactured its equipment outside of the state, would. *See Morain, supra* note 120. As a consequence, in 2014 the legislature amended the provision to give the benefit to eligible equipment “manufactured in California.” CAL. PUB. UTIL. CODE § 379.6(j) (West 2015) (“In administering the self-generation incentive program, the commission shall provide an additional incentive of 20 percent from existing program funds for the installation of eligible distributed generation resources manufactured in California.”).

¹²² The entire subsidy program does not necessarily offend nondiscrimination rules, particularly the national treatment obligation in the GATT or TRIMs Agreement. The offending part of the SGIP program is the twenty percent additional incentive available only for installation of equipment manufactured in California. This financial incentive distorts the market for electricity-generating equipment (“distributed generation resources” in the language of the statute). The entire subsidy could conceivably be actionable under the SCM Agreement, however.

The effects of this protectionist legislation are not lost on the firms that benefit. Indeed, their support was critical to passing the measure. Bloom, a Silicon Valley company that produces “Bloom Boxes, black cubes fueled by natural gas that produce [on-site] electricity . . .” has received \$286.7 million under SGIP, including the “manufactured in California” bonus.¹²³ In 2014, it was a major backer—along with SolarCity (Elon Musk’s solar company) and Facebook—of extending the program.¹²⁴ These efforts resulted in the program’s extension through 2021.¹²⁵ California Governor Jerry Brown, in providing additional funding for the program in 2011, touted it as designed to “create jobs, lower electric bills and clean up the air we breathe.”¹²⁶ These statements, linking job creation and other economic benefits to environmental concerns, are typical of energy-related LCR measures. The CEO of FlexEnergy, a company poised to benefit from SGIP through incentives for its on-site heating and power plants and biogas technology, stated that the decision to extend the program “will help California maintain its leadership in the clean technology industry and will create jobs for many Californians. . . . FlexEnergy technology is available today and will help to improve our environment and energy independence.”¹²⁷

The political link between economic and environmental objectives can be traced directly to the process of building a legislative coalition to pass the measure. Felipe Fuentes, the bill’s sponsor, alluded to the role of vote trading in building a coalition to pass the measure.¹²⁸ When asked about the origins of the “California supplier” provision, he stated that he could not remember adding the LCR provision to Assembly Bill 2267,¹²⁹ a larger omnibus bill that dealt with various provisions of the Public Resources and Utilities Code.¹³⁰ He

¹²³ Morain, *supra* note 120. These amounts represent the total disbursed under the program, not just the twenty percent “manufactured in California” incentive. If one assumes that the total amount paid is equal to the normal rebate plus an additional twenty percent of the rebate, then the additional incentive would be \$47.78 million.

¹²⁴ *Id.*

¹²⁵ CAL. PUB. UTIL. CODE § 379.6(a)(2) (West 2015) (“The commission shall require the administration of the program for distributed energy resources originally established pursuant to Chapter 329 of the Statutes of 2000 until January 1, 2021.” (footnote omitted)); see Morain, *supra* note 120 (“[Y]ou can bet S-GIP will be extended.”).

¹²⁶ Dan McCue, *California Governor Revives Solar Incentive Program*, RENEWABLE ENERGY MAG. (Sept. 24, 2011), <http://www.renewableenergymagazine.com/article/california-governor-revives-solar-incentive-program> [<http://perma.cc/Q2XT-SA8D>].

¹²⁷ *FlexEnergy Supports California’s Decision on Proposed Self-Generation Incentive Program*, CLOSE-UP MEDIA (July 29, 2011), <http://closeupmedia.com/manufacturing/FlexEnergy-Supports-Californias-Decision-on-Proposed-Self-Generation-Incentive-Program.html> [<http://perma.cc/XR8W-6TB7>].

¹²⁸ See Morain, *supra* note 120.

¹²⁹ *Id.*

¹³⁰ 2008 Cal. Legis. Serv. 3158 (West).

said “‘I don’t know if someone said I had to take this amendment (to get the bill approved)’ Sometimes, he added, ‘you have to make the deal to get the bill out.’”¹³¹

Minnesota offers another example of the critical political role of economic discrimination in passing green energy bills at the state level. With at least five programs, Minnesota is among the most active states in terms of coupling support for renewable energy investments with LCRs.¹³² For example, the “Renewable Energy Production Incentive” provides payments to, *inter alia*, on-farm biogas recovery facilities in Minnesota that are owned by a qualified Minnesota entity.¹³³ From 2001 to 2007, the program paid for electricity produced from the biogas that was itself produced on the farm where the facility was located.¹³⁴ This mechanism is effectively an LCR because the payment for electricity hinged on the use of the locally-produced gas.¹³⁵ Similarly, Minnesota’s Community-Based Energy Development (“C-BED”) program requires utilities to put in place a tariff and give priority to certain “community-based renewable energy projects.”¹³⁶ One of the criteria to qualify as a C-BED project is that fifty-one percent of the project’s gross revenues are comprised of, among other things, payments for “components, materials, and services” purchased in Minnesota.¹³⁷ The program represents a decision by the

¹³¹ Morain, *supra* note 120.

¹³² The programs are “Solar Energy in State Buildings,” MINN. STAT. § 16B.323 (2015); “Rebates for Solar Photovoltaic Modules,” *id.* § 116C.7791; “Made in Minnesota Solar Installations,” *id.* § 174.187; “Community-Based Energy Development,” *id.* § 216B.1612; “Renewable Energy Production Incentive,” *id.* § 216C.41; “‘Made in Minnesota’ Solar Energy Production Incentive,” *id.* § 216C.414; and “Solar Thermal Rebates,” *id.* § 216C.416. The “Solar Energy in State Buildings” and “Made in Minnesota Solar Installations” both involve government contracting and thus could fall within the exception for government procurement in GATT Article III:8 even if they are deemed discriminatory. *See id.* §§ 16B.323, 174.187 (involving “project[s] for the construction or major renovation of a state building” and projects engaged in by the Commissioner of the Minnesota Department of Transportation, respectively); GATT, *supra* note 22, art. III:8(a).

¹³³ MINN. STAT. § 216C.41 subdiv. 1(d).

¹³⁴ *Id.* § 216C.41 subdiv. 3(a)(3) (stating payments can be made for electricity generated from “a qualified on-farm biogas recovery facility from July 1, 2001, through December 31, 2017”).

¹³⁵ From 2007 forward, Minnesota permitted the payments directly for the gas itself, eliminating the clearest impermissibly discriminatory provision. *Id.* § 216C.41 subdiv. 3(b) (stating payments may be made for “gas generated from a qualified on-farm biogas recovery facility from July 1, 2007, through December 31, 2017”).

¹³⁶ *Id.* § 216B.1612 (“A tariff shall be established to optimize local, regional, and state benefits from renewable energy development and to facilitate widespread development of community-based renewable energy projects throughout Minnesota.”).

¹³⁷ Specifically, a project must demonstrate that fifty-one percent of its gross revenues over the life of the project are qualifying revenues. *Id.* § 216B.1612 subdiv. 2(h)(2). Qualifying revenues include both “reasonable fees” paid to a variety of Minnesota entities for services, *id.* § 216B.1612 subdiv. 2(d)(2), and “the value-added portion of payments for

state to use its regulatory power over utilities to channel resources to certain local energy producers that source their components and services within Minnesota.

The politics behind the “Made in Minnesota” Solar Production Incentive program provides another clear illustration of the critical role that environmental and economic coalitions play in passing environmental programs. The “Made in Minnesota” program provides \$15 million per year for ten years.¹³⁸ The funding is used to provide incentive payments to consumers who install photovoltaic or solar thermal systems that are certified as “made in Minnesota.”¹³⁹ The program, initially passed in 2013, opened in 2014. By the end of 2013, only two companies, tenKsolar and Silicon Energy, had their products certified as “made in Minnesota.”¹⁴⁰ A companion program, the Made in Minnesota Solar Installations program, requires that the state use solar panels “made in Minnesota” on state-funded projects.¹⁴¹

Silicon Energy and tenKsolar actively pushed for these programs. In connection with the Made in Minnesota Solar Installations program, Silicon Energy argued expressly that it needed the LCR to compete with cheaper products from China.¹⁴² Legislators from the Iron Range area of Minnesota, where Silicon Energy’s facility is located, introduced the measure.¹⁴³ Although the bill garnered praise from environmentalists,¹⁴⁴ the bill’s sponsors urged the

goods manufactured in Minnesota,” *id.* § 216B.1612 subdiv. 2(d)(4). “Value-added portion,” in turn, is defined as “the difference between the total sales price and the total cost of components, materials, and services purchased from or provided outside of Minnesota.” *Id.* § 216B.1612 subdiv. 2(i).

¹³⁸ *Made in Minnesota First Incentive Amounts Set for 2014*, MINN. DEP’T COM. (Nov. 2013), <https://mn.gov/commerce/energy/media/Newsletters/Renewable-Energy/2013-Renewable-Energy-News/November-2013/made-in-minnesota-2014.jsp> [<https://perma.cc/5H3H-HW29>] (describing the program as a “10-year, \$15-million-a-year Made in Minnesota Solar Incentive Program”); *see also* MINN STAT. § 216C.414 (“[F]or the ten-year duration of the incentive payments.”).

¹³⁹ *Made in Minnesota First Incentive Amounts Set for 2014*, *supra* note 138 (“The incentives . . . from the Made in Minnesota Solar Incentive Program will be available to customers of investor-owned utilities who install solar electric, or solar photovoltaic (PV), systems using solar modules or collectors certified as manufactured in Minnesota.”).

¹⁴⁰ *Id.*

¹⁴¹ MINN STAT. § 174.187 subdiv. 2 (stating that if the commissioner of the department of transportation engages in a project involving real property owned or controlled by the department, and the project “involves installation of one or more solar photovoltaic modules, the commissioner must ensure that the solar photovoltaic modules purchased or installed are ‘Made in Minnesota’”).

¹⁴² Pat Doyle, *A Fight to Raise Truck Weights*, STAR TRIB., May 25, 2013, at 1B (“Silicon Energy of Mountain Iron said it needed the mandate to compete with cheaper panels made elsewhere in the United States and in China.”).

¹⁴³ Pat Doyle, *House Passes Perk for Solar Firms*, STAR TRIB., May 3, 2013, at 5B.

¹⁴⁴ Adam James, *The Three Best Things Minnesota Did for Solar in the Last Week*, THINKPROGRESS (May 28, 2013, 3:31 PM),

measure's passage expressly on the grounds that it would create jobs, "a really hard thing to do, and it's extra hard in northeast Minnesota."¹⁴⁵ Not coincidentally, the Iron Range legislators, as well as Minnesota's Governor, received thousands of dollars in political contributions from officials at the solar companies and their parent corporations.¹⁴⁶ In defending these contributions, a vice president of Silicon Energy's parent corporation explained, "[w]e're up against on onslaught of Chinese . . . solar modules. . . . Politics is part of the solar business. That's the reality."¹⁴⁷

Nor are the combination of LCRs and green tech support programs confined to states with liberal political climates such as California and Minnesota. Indeed, the connection to job creation and economic stimulus is even more important in conservative-leaning states that are leery of state support for the private sector, and may not put as high a value on the environmental benefits of supporting the renewable energy sector. Conservative-leaning states with renewable energy programs containing LCRs include Louisiana and Montana, both of which provide tax exemptions for biofuels made from in-state products.¹⁴⁸

Mississippi provides another reference point. In 2010, Mississippi established the Mississippi Industry Incentive Financing Revolving Fund.¹⁴⁹ Like Kansas's subsidies for wind turbines, Mississippi's program requires recipients to commit to creating a minimum number of jobs and/or investing a minimum amount of capital in the state.¹⁵⁰ As discussed above, these provisions, while possibly incompatible with the SCM Agreement, likely do not violate the straightforward national treatment rules. More problematic, though, is the fact that the statute directs the administering agency to give a preference to recipients who plan to contract with Mississippi companies.¹⁵¹ Although the details of how the state agency applies this statutory directive

<http://thinkprogress.org/climate/2013/05/28/2065681/the-three-best-things-minnesota-did-for-solar-energy-in-the-last-week/> [<http://perma.cc/L3WZ-EY5Z>] ("The Minnesota bill isn't perfect, but it's a great, replicable model for future legislation.").

¹⁴⁵ Doyle, *supra* note 143.

¹⁴⁶ See Pat Doyle, *Solar Firm Taps Political Allies*, STAR TRIB., Apr. 25, 2013, at 1B (describing political donations from executives at Silicon Energy and Newport Partners made to Iron Range politicians and Minnesota's Governor).

¹⁴⁷ *Id.*

¹⁴⁸ See *infra* appendix.

¹⁴⁹ MISS. CODE ANN. § 57-1-221 (2015) (establishing fund to provide grants and loans to local governments and approved businesses to encourage them "to construct or otherwise provide facilities related to" projects approved by the Mississippi Development Authority).

¹⁵⁰ *Id.* § 57-1-221(1)(a) (defining "approved business enterprise" based on size of capital investment in the state and number of jobs created, among other things).

¹⁵¹ *Id.* § 57-1-221(6) ("It is the policy of the [Mississippi Development Authority] and the MDA is authorized to accommodate and support any enterprise that receives a loan under this section . . . that wishes to do business with or cause its prime contractor to do business with Mississippi companies . . .").

matter, the text of the provision suggests that the program may well violate the GATT and/or the GATS by steering loans to recipients who purchase products or services from Mississippi companies.¹⁵²

The Mississippi program is especially notable for its size. In the program's first year under Republican Governor Haley Barbour, Mississippi disbursed nearly \$173 million to renewable energy manufacturers to induce them to relocate to and build factories in Mississippi.¹⁵³ Indeed, the fund has been so successful that the state needed to pass additional appropriations to allow it to make sizable loans to incoming renewable energy companies.¹⁵⁴ These special appropriations allowed for a \$54 million loan to a company called Twin Creeks Technologies in 2010, and a \$75 million loan for the firm Stion.¹⁵⁵ In announcing Twin Creeks Technologies' move to Mississippi, Governor Barbour "commend[ed] [Twin Creeks Technologies] for its commitment to doing business in the state and for creating over 500 jobs for the residents of Mississippi."¹⁵⁶

* * *

¹⁵² Oftentimes, the statutory language of the programs directs or gives the administering agency discretion to apply the statute in a way that discriminates in violation of the national treatment obligation. Determining whether impermissible discrimination actually occurs would require examining the administration of the program. In some cases, such as Massachusetts's Commonwealth Solar II program, agency documentation is readily available and provides evidence of a preference for local firms. In many other situations, however, state agency documents are more difficult to obtain.

¹⁵³ Michael Kanellos, *Mississippi Strikes Again: Stion to Open Manufacturing Facility*, GREENTECH MEDIA (Jan. 4, 2011), <http://www.greentechmedia.com/articles/read/mississippi-strikes-again-stion-to-open-manufacturing-facility> [<http://perma.cc/U3JU-DNQQ>] ("In 2010, [Mississippi] gave \$44 million in loans and grants to Soladigm (electrochromic windows), \$75 million to Kior (biofuels) and \$54 million to Twin Creeks Technologies (newfangled solar).").

¹⁵⁴ Michael Kanellos, *Tax Holidays, Cheap Loans: Why Mississippi is Attracting Greentech*, GREENTECH MEDIA (Jan. 6, 2011), <http://www.greentechmedia.com/articles/read/tax-holidays-cheap-loans-why-mississippi-is-attracting-greentech> [<http://perma.cc/YA24-XDFM>] (explaining that the loans made to Twin Creek Technologies and Stion were authorized through separate legislation and did not come from the original Mississippi Industry Incentive Finance Fund (IIF)).

¹⁵⁵ *Id.*

¹⁵⁶ *Renewable Solar Technology Company To Locate Manufacturing Facility in Senatobia, Miss.*, REALESTATERAMA (Apr. 6, 2010), <http://mississippi.realestaterama.com/2010/04/06/renewable-solar-technology-company-to-locate-manufacturing-facility-in-senatobia-miss-ID086.html> [<http://perma.cc/TSZ7-KAZC>]. Interestingly, the Senatobia facility closed in 2012 after Twin Creeks's assets were acquired by another company. See *Twin Creeks Technologies Leaves Mississippi, Prompting Lawsuit*, SOLAR INDUSTRY MAG. (Nov. 30, 2012), http://www.solarindustrymag.com/e107_plugins/content/content.php?content.11658 [<http://perma.cc/LK6P-4WTL>].

Renewable energy LCRs appear considerably more common at the local level than the national level. Far from the twenty renewable energy LCRs identified by recent studies, U.S. states alone have over forty such programs.¹⁵⁷ They exist in nearly half of the states in the United States.¹⁵⁸ Moreover, investigating the origins of these LCRs suggests that their inclusion in renewable energy support programs is often a critical component of the bill. In assembling legislative coalitions, LCRs broaden support for renewable energy support programs. They are thus common in practice and often politically necessary to pass environmental measures.

Yet LCRs remain unlawful on the grounds that they are discriminatory and therefore reduce welfare. This presents a puzzle and conundrum. The puzzle is whether renewable energy LCRs are, on balance, welfare-increasing, or decreasing. The conundrum for IEL is how to permit those renewable energy LCRs that are welfare-increasing while continuing to prohibit those that are not. I tackle these two issues in Parts III and IV, respectively.

III. THE POLITICAL ECONOMY OF LCRS

In this Part and Part IV that follows, I argue that economic discrimination, such as that contained in LCRs, when linked to programs that provide global public goods, is often welfare-increasing, especially when enacted by subnational governments. I begin in Section III.A by explaining the intuition behind this argument. Economic nondiscrimination rules aim to cause governments to internalize the costs of distortions created by economic discrimination. No legal rule, however, allows governments to internalize benefits created outside the enacting jurisdiction. The familiar result is that governments undersupply public goods. Under some conditions, allowing discrimination through LCRs can correct this imbalance, allowing governments to pass programs they would not otherwise be able to pass in order to provide global public goods. Discrimination can solve a political collective action problem by allowing governments that cannot capture the benefit of providing public goods to externalize the costs of doing so. Critically, discrimination is more likely to play this salutary role when local governments are trying to provide global public goods. Such governments—precisely because they are smaller and internalize fewer of the benefits of providing global public goods—need greater leeway to craft such measures.

After outlining this basic argument, I develop the theory in greater detail. Section III.B develops a theory of bargaining among lawmakers that explains the rationale for including discriminatory conditions in legislation. This section provides micro-foundations for the insight that discrimination against foreign economic interests is a product of political economy dynamics. Section III.C then explains how nondiscrimination rules increase the cost of lawmaking by narrowing the bargaining space. This argument is, to my knowledge, novel. In

¹⁵⁷ See *supra* notes 19-20 and accompanying text.

¹⁵⁸ See *supra* Section II.A.

Part IV, I turn to the welfare effects of nondiscrimination rules. I consider two circumstances that together make nondiscrimination rules more likely to reduce welfare: where local governments supply global public goods.

A. *Nondiscrimination and Collective Action Problems*

1. The Rationale for Nondiscrimination

International economic law, much like Madison's Constitution, is meant to constrain faction.¹⁵⁹ Government officials enact protectionist measures—using public authority to discriminate against foreign products, services, and capital—because they receive private benefits in the form of political support from the domestic constituencies that benefit from protectionism. Economists have shown that generally, these protectionist measures reduce welfare even in the protectionist country.¹⁶⁰ Consumers ultimately pay higher prices for goods, services, or access to capital than they would in a free market. In general, these losses to domestic consumers outweigh the gains to protected domestic interests.¹⁶¹ Additionally, of course, protectionism hurts foreign economic interests that lose market access. Protectionism thus causes economic losses to domestic consumers and foreign producers in order to benefit domestic producers with political access.

From a political economy point of view, combating economic protectionism is a collective action problem.¹⁶² Domestic producers tend to be well-organized groups that are relatively small in comparison to the population of a nation. Moreover, they internalize most of the benefit from protectionism. For example, U.S. tariffs on steel can make American-manufactured steel more competitive within the United States, leading to increased profits for American steel companies and more jobs for American steel workers.¹⁶³ The concentrated benefits from protectionism provide the incentive for domestic producers to seek protection from government officials.

¹⁵⁹ THE FEDERALIST NO. 10 (James Madison) (“Among the numerous advantages promised by a well-constructed Union, none deserves to be more accurately developed than its tendency to break and control the violence of faction.”).

¹⁶⁰ See, e.g., Gary C. Hufbauer & Ben Goodrich, *Steel Policy: The Good, the Bad, and the Ugly*, in INTERNATIONAL ECONOMICS AND INTERNATIONAL ECONOMIC POLICY 24, 25 (Philip King et al. eds., 4th ed. 2005) (estimating that the 2002 U.S. steel tariffs cost \$400,000 annually per steel job saved and resulted in net job losses within the United States).

¹⁶¹ See *id.* (“On balance, US steel policy in 2001 and 2002 has not been nearly as helpful to the US steel industry as partisans hoped.”).

¹⁶² See MANCUR OLSON JR., THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS 2 (1965) (explaining that absent incentives, large groups will fail to pursue their common or group objectives because of each member's personal interests).

¹⁶³ See Hufbauer & Goodrich, *supra* note 160, at 27 (explaining that the Section 201 tariffs helped increase steel prices).

The costs of protectionism, on the other hand, are diffuse. Individual consumers pay only a small amount extra for the products, services, or capital they acquire. Therefore, they have little incentive to organize to oppose protectionist measures by their governments.¹⁶⁴ Foreign producers hurt by the loss of market access may feel concentrated costs. By virtue of being foreigners though, they lack direct political recourse within the protected market. Consequently, no group within the protectionist jurisdiction has sufficient incentive to organize and lobby for liberalization.

International trade law corrects for this collective action problem through reciprocity.¹⁶⁵ A state agrees to, for example, reduce its tariffs (or other barriers to trade) in one sector of its economy, in exchange for similar reductions in another country's trade barriers. International economic law, and especially trade law, thus gives exporters an incentive to urge *their own government* to drop barriers to imports. Eliminating those barriers benefits exporters through the reciprocal reductions in trade barriers in other countries. Nondiscrimination rules reinforce this reciprocal structure by ensuring that exporters have an incentive to police their governments' import policies even after a trade agreement has been completed. A finding by the WTO Dispute Settlement Body that a state has violated its obligations can result in the suspension of reciprocal concessions.¹⁶⁶

In this sense, nondiscrimination rules aim to respect the internalization principle, which provides that governmental authority should be assigned to the smallest level of government that fully internalizes the effects of its

¹⁶⁴ Of course, if the costs are concentrated—as with a single large consumer of a product—there will be countervailing pressures to reduce barriers to trade.

¹⁶⁵ Investment law has not historically operated through this kind of reciprocity mechanism. BITs in particular have tended to be between capital-exporting countries and capital-importing countries, rather than between two or more capital exporting countries. The rationale for BITs was that allowing foreign investors market access was good for development in capital-importing countries and good for returns in capital-exporting countries. *THE EFFECT OF TREATIES ON FOREIGN DIRECT INVESTMENT: BILATERAL INVESTMENT TREATIES, DOUBLE TAXATION TREATIES AND INVESTMENT FLOWS*, at xli (Karl P. Sauvant & Lisa E. Sachs eds., 2009) (explaining the increased usage of BITs “as capital exports seek to benefit from investor protections and capital importers hope to benefit through increased [foreign direct investment] flows”). As preferential trade agreements that include investment chapters spread among developed, capital-exporting nations, however, investment is increasingly subject to the same reciprocal logic as trade.

¹⁶⁶ Understanding on Rules and Procedures Governing the Settlement of Disputes art. 22, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401 (providing for compensation or suspension of concessions in the event a state fails to fix a measure found to violate trade rules). In the investment context, costs for violations are created more directly. Although investment disputes between states are possible, most investment disputes are between private investors and states. The arbitrations that arise out of these disputes can result in direct financial liability for non-compliant governments. *See, e.g.,* NAFTA, *supra* note 53, art. 1110 (providing for compensation in the event of nationalization or expropriation of another party's investment).

exercise.¹⁶⁷ Because discriminatory trade policies have international costs, international solutions are necessary to ensure that government officials internalize both the costs and the benefits of their actions. By generating support for trade liberalization and solving the political action problem, these solutions facilitate better decision making by individual governments. Shifting governance of trade policy to the international plane thus increases welfare. This political logic of nondiscrimination in trade has been enormously successful. Global tariff rates have plummeted since the creation of the GATT.¹⁶⁸ The World Bank estimates that the average global applied tariff rate has fallen from 26.3% in 1986 to 8.1% in 2010.¹⁶⁹

2. Nondiscrimination and Public Goods

Unfortunately, while nondiscrimination rules cause government officials to internalize the costs of trade-distortions and the benefits of liberalizing trade, they do not allow the same government officials to capture the costs and benefits of measures that create other kinds of benefits in foreign jurisdictions, such as mitigating climate change. Neither trade law nor investment law creates an incentive for domestic groups to lobby officials to provide global public goods, such as transitions to green energy. Indeed, IEL rules reduce the ability of governments to solve collective action problems related to the provision of non-trade global public goods.

The most straightforward example of this difficulty is renewable energy support programs, such as the one at issue in *Canada—Renewable Energy* and those described in the Appendix to this Article. When a government enacts a renewable energy program, the program creates benefits that extend beyond the enacting jurisdiction. Reductions in greenhouse gas emissions benefit all countries that suffer from climate change. These diffuse benefits, however, do not necessarily translate into political benefits for the government officials supporting the measure. For the same reason that domestic consumers lack an incentive to lobby for reduced trade barriers even though these barriers are costly to them in the aggregate, they also lack a strong incentive to lobby for environmental measures even though these measures are beneficial to them in the aggregate. Just as with foreign exporters, the foreign interests that also

¹⁶⁷ See COOTER, *supra* note 21.

¹⁶⁸ ANDREW T. GUZMAN & JOOST H.B. PAUWELYN, INTERNATIONAL TRADE LAW 3-4 (2d ed. 2012) (stating that there have been “dramatic reductions in tariff rates between the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947 and 1980”).

¹⁶⁹ Francis K. T. Ng, *Trends in Average MFN Applied Tariff Rates in Developing and Industrial Countries, 1981-2010*, WORLD BANK (Dec. 2011), <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21051044~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html> [<http://perma.cc/Y8D9-QLAP>] (presenting most favored nation applied tariff rates from 1981 to 2010 for individual countries and groups of countries).

benefit from the environmental measures are unrepresented in the political process.

In the case of trade discrimination, the WTO provides concentrated benefits to domestic exporters—in the form of reciprocal trade concessions made in negotiations and enforced through the WTO dispute process—in order to overcome the collective action problem. Shifting governance upwards thus addresses the collective action problem for trade discrimination. Where environmental measures are concerned, however, shifting governance upwards does not create a countervailing concentrated benefit. Indeed, as the scale of governance becomes larger, the global public goods problem may become more severe; the benefits from providing the public good are diffuse and are spread among an ever-increasing number of nations. Bargaining among these nations involves significantly larger transaction costs than bargaining among smaller groups. Indeed, the transaction costs of governing in large institutions has caused many international negotiations to grind to a halt.¹⁷⁰ Within the WTO, the Doha Round of negotiations has stalled and seems unlikely to produce any major agreement.¹⁷¹ Trade negotiations have thus sought a smaller scale through regional and bilateral negotiations.¹⁷² Climate change negotiations, too, have pattered along for years without making meaningful progress.¹⁷³ The little progress that has been made often occurred in fora with either smaller membership—such as an agreement on limiting emissions from ships in the MARPOL Convention—or narrower issue jurisdiction—such as the Montreal Protocol.¹⁷⁴ Although the significant transaction costs associated with a larger governance scale are present in both the trade and environmental contexts, only in the case of trade discrimination are these costs offset by the WTO's enforcement of reciprocal trade concessions, allowing the international scale of governance to overcome the collective action problem.

Permitting discrimination is a second-best way to solve the collective action problem plaguing global public goods. Discriminatory measures, like LCRs, in

¹⁷⁰ See Ben Otto, *Hard-Won Deal Points to WTO's Struggle*, WALL STREET J., Dec. 9, 2013, at A12 (“[T]alks under the WTO, established in 1995, have been bogged down in disputes among a larger number of participants . . .”).

¹⁷¹ See Editorial, *Modi's Trade Barricade*, WALL STREET J., Aug. 4, 2014, at A12 (“[India's veto of a trade facilitation agreement] is also a disaster for the WTO, which needed the accord to revive the stalled Doha Round of talks, underway since 2001.”).

¹⁷² Otto, *supra* note 170.

¹⁷³ Nations seem poised to reach agreement in December 2015 at the Paris Conference of the Parties of the UNFCCC. However, climate experts continue to express skepticism that the terms under discussion will make sufficient progress to avert the worst damage from climate change. Rebecca Morelle, *Paris Climate Summit: UN Negotiations 'Need Redesign'*, BBC (Oct. 12, 2015), <http://www.bbc.com/news/science-environment-34489266> [<http://perma.cc/AY3A-UGE4>] (“The UN climate negotiations are heading for failure and need a major redesign if they are to succeed, scientists say.”).

¹⁷⁴ See Timothy Meyer, *From Contract to Legislation: The Logic of Modern International Lawmaking*, 14 CHI. J. INT'L L. 559, 586-87, 600-01 (2014).

environmental support programs create a domestic constituency that receives concentrated benefits from supporting the program. Of course, such discrimination may not be welfare-increasing. In any given context, demonstrating the welfare effects of discrimination would require weighing the trade losses from discrimination against the long-term benefits from the public goods. Policymakers and international adjudicators thus need to consider how to distinguish welfare-increasing discrimination from non-welfare-increasing discrimination—a task I turn to in Part IV.

In general, though, LCRs are more likely beneficial at smaller levels of government. As a jurisdiction gets smaller, it internalizes fewer of the benefits from producing global public goods. It is therefore unlikely to adopt global public goods programs absent a countervailing benefit. National governments, by contrast, internalize more of the benefits from tackling global public goods and have more issues around which they can construct coalitions to enact laws. Therefore, as a political matter, LCRs are much less likely to be necessary to pass global public goods programs at the national level, while they are more likely essential at the local level.

Moreover, facilitating local measures aimed at tackling global public goods is critical. International institutions have, as noted above, slowed dramatically in their responsiveness to global problems. The transaction costs of negotiating among so many countries with such diverse interests increasingly pushes governance into smaller fora. Therefore, the provision of global public goods by local governments is an important part of strategies to provide global public goods.¹⁷⁵

¹⁷⁵ Although I focus on renewable energy in this Article, other kinds of global public goods might profitably be addressed by local government action that requires discrimination as a matter of political economy. Examples might include public health programs—linking a public health measure to an economically discriminatory measure might provide the spur needed to pass proactive measures addressing public health crises.

Compulsory licensing schemes in developing countries offer one such example. “Compulsory licensing empowers a government to compel a patent-holder to license his or her rights to generic manufacturers in exchange for monetary compensation.” Naomi A. Bass, *Implications of the TRIPs Agreement for Developing Countries: Pharmaceutical Patent Laws in Brazil and South Africa in the 21st Century*, 34 GEO. WASH. INT’L L. REV. 191, 198 (2002). Compulsory licensing schemes are typically justified on the grounds that developing countries cannot afford retail prices for pharmaceuticals that they need to address public health crises. *See id.* at 198-200. Compulsory licensing schemes represent a handout to the local economic interests that receive the license to produce the generic drug. These schemes thus represent a measure that links the provision of a public good—stopping the spread of a disease—to a discriminatory economic action—transferring intellectual property rights from foreign owners to local licensees.

B. *Economic Discrimination Facilitates Lawmaking*

In this section and the next, I unpack the argument set out above by explaining how discrimination lubricates coalition building among lawmakers and, therefore, how nondiscrimination rules make lawmaking costlier.

Lawmakers typically require support from multiple actors in order to enact a measure. This dynamic is easiest to see in legislatures, in which a majority or supermajority of legislators must support a bill in order for it to pass. Because many individual measures would not command the requisite legislative support, legislators build coalitions by packaging multiple measures together into a single bill or by trading votes across separate bills. These practices are known as logrolling or vote-trading. The possibility of trading support across multiple issues is often thought of as one of the key advantages (and sometimes disadvantages) of legislative lawmaking.¹⁷⁶ As I explain below, protectionist policies are especially attractive to lawmakers engaged in logrolling. Although I focus on a model of legislative bargaining, regulators and members of administrative agencies, international organizations, and political parties frequently have to bargain with each other to enact their priorities. The basic insights of the model I present would apply to any situation in which lawmakers or regulators have to bargain with each other over competing priorities.

To begin, consider a simple model of bargaining among lawmakers. I assume that legislators are rational and utility-maximizing. They vote for any measure that improves their chances of reelection. A legislator's odds of being reelected are presumably improved by measures that provide their constituents with an incentive to reward the legislator with financial or political support. Measures that increase the economic welfare of a legislator's constituents meet this condition. For example, a legislator may vote for a renewable energy subsidy because the subsidy goes to a company in her district. Legislators may also become better off by enacting a non-economic measure for which their constituents have a preference—e.g., a legislator might vote for the same subsidy, absent any economic benefit, because her constituents support green energy programs on environmental grounds. In either case, inducing the politician to support the bill requires that the benefits be sufficient enough to encourage a constituency to mobilize in support of the politician.

In deciding whether to support a bill, each legislator weighs these economic and non-economic benefits—or, more accurately, the political support resulting from these benefits—against her district's share of the costs of the program. Obviously, programs that call for direct expenditures by the government create a tax burden that is distributed among constituents. Other kinds of measures may also create costs for constituents by raising prices for consumers. For example, RPSs—which require electricity generators to produce a certain amount of their energy from renewable sources—may

¹⁷⁶ Cf. COOTER, *supra* note 21, at 52-53 (“Although external effects prevent markets for votes from approximating perfect competition, bargaining can still achieve efficiency.”).

increase energy costs for consumers.¹⁷⁷ Similarly, trade barriers, like the 2002 steel tariffs, increase the cost of goods for consumers.¹⁷⁸ I assume legislators take both these direct costs (taxation) and indirect costs (price increases) into account.¹⁷⁹

In order to pass, I assume a measure must command majority support in the legislature.¹⁸⁰ Many measures will not, however, deliver net benefits for a majority of legislators.¹⁸¹ Consider a subsidy program, such as Louisiana's tax exemption for the sale or consumption of Louisiana-produced "gasohol," a motor fuel that contains at least ten percent alcohol.¹⁸² The tax exemption benefits legislators representing districts in which gasohol is sold or consumed. It also benefits legislators representing districts that favor the development of alternative fuels on environmental grounds. But it comes at a cost in terms of reducing tax revenue. By eliminating tax revenue from gasohol, legislators either must raise taxes elsewhere (holding expenditures constant) or reduce expenditures elsewhere. Either decision imposes costs on some legislators in the form of an increased tax burden elsewhere or the reduction in funding for

¹⁷⁷ ROBERT BRYCE, *The High Cost of Renewable-Electricity Mandates*, 10 ENERGY POL'Y & ENV'T REP. 1, 1-2 (2012) (explaining how renewable portfolio standards can raise electricity rates for consumers).

¹⁷⁸ See Hufbauer & Goodrich, *supra* note 160, at 27 ("[T]hanks in part to the Section 201 tariffs, steel prices are up, which is good for steel producers but bad for steel consumers.").

¹⁷⁹ The extent to which legislators and voters actually do take indirect costs into account is unclear. One explanation of protectionism is that consumers, and therefore government officials, do not consider protectionist measures that raise prices as equivalent to protectionist measures that raise taxes. See Arthur Dunkel & Frieder Roessler, *The Ranking of Trade Policy Instruments Under the GATT Legal System*, in INTERNATIONAL TRADE LAW, *supra* note 168, at 224-25. Assuming that politicians do not take into account indirect costs caused by protectionist policies would, however, make protectionism even cheaper, reinforcing the conclusion that protectionist policies are ideal for building coalitions.

¹⁸⁰ In fact, passing a measure may require supermajority support, even in situations in which passage only formally requires a majority. Procedural rules such as cloture may require supermajority votes even if passage technically requires only a simple majority. The addition of veto points, such as committees, may also effectively increase the burden of passing a measure. Kenneth A. Shepsle & Barry R. Weingast, *Political Preferences for the Pork Barrel: A Generalization*, 25 AM. J. POL. SCI. 96, 97-98 (1981) ("The more widely distributed these relative vetoes are, the more inclusive the final winning coalition must be.").

¹⁸¹ Research in political science has demonstrated that pork projects rarely proceed with a simple minimum winning coalition. See *id.* at 96. Shepsle and Weingast argue that the reason for this is reciprocity—legislators face long-term consequences from imposing costs on losing legislators in pork projects, and thus work to avoid creating chronic losers in the pork process. *Id.* at 109 (reasoning that legislators will support pork projects due to uncertainty over the composition of winning coalitions).

¹⁸² LA. STAT. ANN. § 47:305.28 (2015) (creating a tax exemption for the sale, use, consumption distribution, and storage of gasohol).

some programs. If these costs outweigh the benefits for a majority of legislators, then the gasohol tax exemption will not pass.¹⁸³

A legislator proposing a measure such as the gasohol tax exemption thus has to put together a coalition of legislators to support her measure. In particular, the legislator has to change the balance of costs and benefits for enough legislators such that a majority is willing to vote for the measure.

The legislator does this through logrolling or vote-trading across measures. She attempts to assemble a bill that includes measures that increase the benefits other legislators will receive from voting in favor. Legislators now must evaluate their overall benefits from the bill, including the costs and benefits of each included program. Imagine, for example, that our legislator links her gasohol tax exemption to pork infrastructure projects in districts of key members. The benefits from those infrastructure projects outweigh the costs of the gasohol tax exemption, prompting the targeted members to support the omnibus bill.

Critically, however, increasing the benefits to other legislators also typically involves increasing the costs of the total bill to the original sponsor. For example, a bridge project requires the expenditure of additional government funds that either have to be raised through taxes or cut from other programs. Our original sponsor sees her utility from passing the gasohol tax exemption decline by the increased tax burden on her district as a result of the bridge project. Logrolling thus involves redistributing the benefits created by a measure from its sponsors to other legislators in order to attract support for the measure's passage.

As a consequence, our rational, welfare-maximizing legislator should begin by adding additional measures to her bill that are the cheapest to include. By keeping the costs of additional measures down, she maximizes her benefits. Our legislator's strategy is to build a coalition to pass her measure at the lowest possible cost to herself.

Discriminatory protectionist measures, such as LCRs, are ideal instruments for cheap coalition building. Because I assume legislators are primarily motivated by their interest in being re-elected, they consider only their individual costs and benefits. As a result, they do not take into account the costs and benefits of the measure to constituencies outside their jurisdiction. Consequently, the cross-border effects of a measure are not considered in the legislative process (absent some corrective, such as liability imposed under trade law, which I turn to below).

Discriminatory protectionist measures shift the bulk of their costs outside of the relevant jurisdiction, while delivering benefits to some constituency within

¹⁸³ For certain kinds of taxes, one might imagine that the benefits are evenly distributed throughout the districts, while the costs are concentrated in particular districts. For example, a tax break such as the one for gasohol might benefit gasohol distributors in a large number of districts and be offset by cuts to programs in only a few districts. In these types of cases, the measure would pass relatively easily.

the legislature's jurisdiction. Such a measure would thus allow our legislator to build support for her measure without significantly increasing the costs of the overall bill to its backers. For example, in enacting a "made in Minnesota" requirement for solar panels, the Minnesota legislature imposed costs on Chinese solar panel manufacturers that lost market share in Minnesota. At the same time, the measure delivered psychic benefits to Minnesota residents who want their state to support green energy and may have contributed to job creation in Minnesota. Minnesota lawmakers do not care about the economic costs borne by Chinese manufacturers. Likewise, they do not care about the benefits in terms of job creation in California, where one of the companies benefitting from the "Made in Minnesota" program is headquartered.¹⁸⁴ Nor do they consider the benefits from reducing greenhouse gas emissions, except to the extent that their constituents in Minnesota consider them in awarding political support.

Compare, for instance, the costs to our legislator of adding the bridge program in another district versus adding a discriminatory measure such as an LCR. The bridge program produces a direct cost to our legislator. Constructing a bridge requires direct expenditures by the government, which increases the tax burden on our legislator's constituents. By contrast, foreign producers absorb much of the cost of a discriminatory measure such as an LCR. Of course, domestic consumers pay a cost as well, in terms of increased prices. But the domestic share of the total cost of the LCR will be less as a percentage than its percentage share of the total cost of the bridge project. Moreover, constituents may in fact be less aware of these indirect costs, further lowering the cost of discriminatory measures to our legislator.¹⁸⁵

To give a more concrete example, consider again Louisiana's gasohol exemption, which only applies if the alcohol used in the blend "has been produced, fermented, and distilled in Louisiana."¹⁸⁶ Coupling the tax exemption for gasohol, which benefits gasohol producers, with the LCR, which benefits Louisiana brewers, appeals to legislators with constituents who benefit from either provision. At the same time, the LCR has lower costs for Louisiana legislators than would a simple pork measure funded directly from the state fisc. In order to claim the tax exemption, gasohol producers must buy their alcohol from local brewers. As a result, they are likely to pay higher prices because they cannot go out and purchase the cheapest or best product available to them. This price increase, in turn, may be passed on to consumers of

¹⁸⁴ Doyle, *supra* note 146.

¹⁸⁵ See GUZMAN & PAUWELYN, *supra* note 168, at 224 ("It can reasonably be assumed that the domestic political resistance to protection depends on how clearly the costs of protection are perceived.").

¹⁸⁶ LA. STAT. ANN. § 47:305.28 (2015).

gasohol. Gasohol producers and consumers thus pay more than they would with a tax exemption that did not include the LCR.¹⁸⁷

The real losers, however, are alcohol producers outside of Louisiana.¹⁸⁸ The tax exemption and LCR operate to make their alcohol more expensive for Louisiana gasohol producers to use. These alcohol producers may lose sales and market share. In effect, the protectionist measure adjusts costs in a way that alters the competitive environment for alcohol, giving an edge to locally-produced alcohol. As discussed in Part I, this kind of measure is a straightforward violation of the national treatment obligation contained in the WTO agreements and investment treaties. Nevertheless, it is attractive to legislators because it allows them to shift some of the costs of legislative coalition-building on to foreign jurisdictions.

The result is a thumb on the legislative scale in favor of using measures that discriminate against foreign producers as a tool to build legislative coalitions. Economic discrimination against foreigners lubricates domestic lawmaking. International trade lawyers and scholars have long noted that economic protectionism is a practice nations engage in precisely because some of its costs are thrust onto foreign actors unrepresented in the domestic political process.¹⁸⁹ The model presented above provides micro-foundations for this insight, explaining economic discrimination as a function of lawmaking processes. This explanation also provides an additional reason to expect lawmakers to deploy protectionist measures. They do so not only to protect some domestic constituency, but because from their perspective, discrimination is especially efficient at generating coalitions to pass a package of measures.

¹⁸⁷ Consumers of gasohol may also pay more than they would in the absence of the tax exemption entirely. If the market allows gasohol producers to pass the added cost of the LCR along to consumers, the producers will do so. Moreover, if the tax exemption does not reduce the market price of gasohol—perhaps because local gasohol competes with imported fuels—then consumers will see no cost reduction from the production subsidy and may in fact see a cost increase. But presumably the benefit to gasohol producers and consumers in the form of the tax exemption, outweigh these costs, garnering their support for such a bill.

¹⁸⁸ Of course, U.S. producers located outside of Louisiana face the same protectionist dynamic as non-U.S. producers. U.S. producers outside of Louisiana could conceivably challenge such a local content measure under the Dormant Commerce Clause. *See* Gen. Motors Corp. v. Tracy, 519 U.S. 278, 287 (1997) (“The negative or dormant implication of the Commerce Clause prohibits state taxation . . . or regulation . . . that discriminates against or unduly burdens interstate commerce and thereby impedes free private trade in the national marketplace.” (citations and internal quotation marks omitted)).

¹⁸⁹ *See, e.g.*, John O. McGinnis & Mark L. Movsesian, *The World Trade Constitution*, 114 HARV. L. REV. 511, 574-75 (2000) (discussing how interest groups may try to capture the legislative process as a way to impose measures that are costly for foreign producers but not domestic producers).

C. *Nondiscrimination Rules Increase the Costs of Lawmaking*

If discriminatory protectionist measures lubricate lawmaking, rules limiting economic discrimination must increase the cost of lawmaking. More specifically, nondiscrimination rules—such as IEL’s national treatment obligation—increase the costs of logrolling by creating international responsibility for using cheap discriminatory measures to build legislative coalitions.

To see how nondiscrimination rules increase the cost of lawmaking, consider the model of legislative bargaining described above. The sponsor of a measure, such as a renewable energy subsidy, will try to generate support for her measure by including additional measures up until the point at which the marginal cost of the additional measure outweighs the marginal benefit in terms of passing the sponsor’s preferred measure. The marginal cost of including an additional measure might be greater than the marginal benefit for at least two reasons. First, it could be that the measure will pass without additional support.¹⁹⁰ In such a situation, the members of the winning coalition may see little benefit to including an additional costly measure. Second, it could be that the costs of the additional measure make the package bill a net loss for the measure’s initial supporters. For example, if passing a renewable energy subsidy requires the measure’s backers to agree to a significant tax increase that could reduce their reelection prospects, the subsidy’s supporters may decide simply to drop the subsidy proposal.

It follows that rules increasing the cost of otherwise cheap methods of building coalitions will mean that some bills no longer create enough welfare for legislators to support the bill’s passage. Another simple example illustrates the point. Imagine our legislator wishes to couple her renewable energy subsidy program with another measure in order to ensure its passage. Imagine she only has two options: a tax increase or an LCR. To use concrete numbers, imagine that the legislator believes passing the renewable energy subsidy program is worth a 5% increase in her likelihood of being reelected. Support for the tax increase is worth a 7% decrease in her likelihood of reelection, while the LCR on balance does not affect her chances of reelection. In this scenario, our legislator will drop her subsidy proposal rather than couple it with the tax increase because a combined bill would reduce her reelection

¹⁹⁰ In the political science literature on legislatures, this once led to the prediction that legislators will seek to form minimum winning coalitions. See Barry R. Weingast, *A Rational Choice Perspective on Congressional Norms*, 23 AM. J. POL. SCI. 245, 245 (1979) (“Theoretical work by several authors suggests that a minimum winning coalition (MWC) will determine the decisions of a legislature making distributive policy.”). Empirically, however, legislators often try for consensus in passing pork projects despite the additional costs of doing so. *Id.* The explanation for this seeming anomaly is that legislators are repeat players; they include as many other legislators as possible in the winning coalition to minimize the chances of being personally excluded in the future. *Id.* at 245-50 (arguing that legislators seeking reelection will prefer a system of universalism for pork legislation).

prospects by 2%. The subsidy proposal thus passes only if coupled with the LCR. Therefore, if the LCR is not an available option due to nondiscrimination rules, then the subsidy measure will not pass.

One can refer to the universe of possible issues around which legislators might negotiate as the legislative bargaining space. In the example above, the bargaining space consists only of the tax increase and the LCR. In real life, of course, a lawmaking body will have a significantly larger bargaining space; one that includes a larger number of issues from which legislators might try to craft a package of measures that creates enough welfare to command majority support. A number of factors can affect the size of the legislative bargaining space. Perhaps most obviously, legislatures with larger budgets at their disposal have greater bargaining space. In jurisdictions with smaller budgets, legislators may be under greater pressure to make dollars “work twice”—once as a subsidy to the renewable energy providers and once as a subsidy to the local content provider. In jurisdictions with larger budgets, such financial constraints will be less severe.¹⁹¹

Lawmaking bodies with virtually plenary issue jurisdiction, such as the U.S. Congress, will also have considerably greater bargaining space than lawmaking bodies with narrower issue jurisdiction, such as commissions or boards governing utilities regulation. Likewise, the geographic size of a jurisdiction can influence the scope of a lawmaking body’s bargaining space. For example, the U.S. Congress has considerably more issues at its disposal than does the Connecticut State Legislature.

Nondiscrimination rules narrow the bargaining space by removing discriminatory measures from the list of possible measures available to legislators, or, more accurately, they increase the cost of such measures by creating international responsibility for violating the nondiscrimination rules. Practically speaking, they do so by creating a series of pressures and costs for legislators that enact discriminatory measures. Legislators may face pressure from international organizations, foreign governments, their own foreign ministries, their own national governments (in the case of subnational governments) and even tribunals and courts, to remove unlawful discriminatory measures. Following *Canada—Renewable Energy*, for example, Canada responded to the adverse WTO ruling and the possibility of sanctions

¹⁹¹ The GATT explicitly permits domestic production subsidies. See GATT, *supra* note 22, art. III:8(b) (“The provisions of this Article shall not prevent the payment of subsidies exclusively to domestic producers . . .”). Providing the local content provider with a production subsidy, rather than embedding the subsidy in a discriminatory LCR, would thus not run afoul of the national treatment rule. As a matter of political economy, wealthy jurisdictions may thus have little problem dispensing with LCRs and providing direct production subsidies. Resource constrained states, on the other hand, will face greater political pressure to make scarce dollars generate as much political support as possible—a task for which LCRs are well-suited.

by having Ontario change its subsidy program to remove the unlawful condition.¹⁹²

The takeaway point is that because discriminatory measures are cheap ways to build coalitions, increasing the costs of discriminatory measures can decrease the size of the legislative bargaining space, forcing legislators to build coalitions with more expensive measures. As the hypothetical example above with a two-issue bargaining space demonstrates, in some instances, reducing the bargaining space may mean that a measure cannot pass at all. Of course, IEL's nondiscrimination rules are justified precisely because they cause governments to internalize the costs their actions impose on foreign economic interests. As I explain in Part IV, however, where local governments produce global public goods, the aggregate welfare effects of internalization are less clear.

IV. NONDISCRIMINATION AND THE LOCAL PRODUCTION OF GLOBAL PUBLIC GOODS

In this Part, I advance two hypotheses. First, discriminatory provisions are more likely at the local level of government and, therefore, nondiscrimination rules will constrain local lawmaking more than national lawmaking. Second, nondiscrimination rules can have negative welfare effects when local governments attempt to supply global public goods. In general, nondiscrimination rules are welfare-increasing when applied to any level of government because they properly align a government's private benefits with the public costs of its actions. The adverse impact of nondiscrimination rules on lawmaking is only problematic when it prevents the passage of public goods measures—laws that create benefits outside the enacting jurisdiction. Nondiscrimination rules, however, are more likely to have this negative effect at the local level.

A. *Nondiscrimination Constrains Local Lawmaking More than National Lawmaking*

Nondiscrimination rules constrain lawmaking in accordance with two variables. First, nondiscrimination rules become more constraining as a lawmaking body's bargaining space narrows. Second, nondiscrimination rules hamper lawmaking more when fewer interest groups are present. Local government has both a smaller bargaining space and fewer interest groups than national government. Hence, nondiscrimination rules constrain local lawmaking more than national lawmaking. I unpack these arguments below.

¹⁹² Communication from Canada, *Canada—Certain Measures Affecting the Renewable Energy Generation Sector*, WTO Doc. WT/DS412/19, WT/DS426/19 (June 6, 2014) (informing the delegations of Japan and the European Union, as well as the WTO's Dispute Settlement Body, that "the Government of Ontario has complied with the recommendations and rulings of the [Dispute Settlement Body] . . . by: [n]o longer subjecting large renewable electricity procurements to domestic content requirements").

To begin, nondiscrimination rules will inhibit lawmaking to a greater extent when the lawmaking body's bargaining space is narrow. In such jurisdictions, there are simply not as many cheap measures available to construct a coalition. As a lawmaking body's bargaining space narrows, all else equal, the lawmaking body will rely increasingly on discrimination as a means of constructing coalitions. Removing discriminatory measures as a tool for coalition-building will thus have a much greater impact on the probability of assembling a package of measures that can pass. In larger jurisdictions, by contrast, the presence of more issues increases the possibility of assembling a coalition even if some measures are ruled legally out of bounds. Put differently, the marginal burden on bargaining of eliminating a class of measures over which lawmakers can negotiate is greater when the issues that remain are fewer.

This effect is easiest to see by looking at fiscal matters. All else equal, jurisdictions with smaller budgets will not be able to enact as many measures with budgetary impacts as jurisdictions with larger budgets. Consequently, pork spending may not be as readily available to construct lawmaking coalitions in smaller jurisdictions. In terms of the model developed in Part III, a smaller jurisdiction may not have the resources for a bridge project necessary to woo a reluctant lawmaker. Removing the cheaper means of coalition building—protectionism at the expense of foreign producers—is thus more likely to prevent a coalition from forming.

The same effect follows from narrowing the scope of issues under a lawmaking body's jurisdiction. Local governments have both smaller territorial jurisdiction and, often, narrower issue jurisdiction. Scholars have long recognized that expanding the issue jurisdiction of an institution can lubricate bargaining by expanding the possible issue linkages.¹⁹³ My hypothesis extends this argument. If expanding the jurisdiction of a lawmaking body lubricates bargaining, shrinking it should, at least in some circumstances, inhibit lawmaking. Nondiscrimination rules are more constraining at the local level because they further narrow an already small set of issues around which lawmakers can bargain.

While they have smaller bargaining spaces, local governments also tend to have fewer interest groups contesting prospective legislation. The transaction costs of lawmaking also rise with the number of interest groups present. Thus, fewer interest groups means lower transaction costs to lawmaking at the local

¹⁹³ See JOEL P. TRACHTMAN, *THE FUTURE OF INTERNATIONAL LAW: GLOBAL GOVERNMENT* 154 (2013) ("Broadening bargaining [in the international system] through linkage should expand the range of potential agreements."); Barbara Koremenos, Charles Lipson & Duncan Snidal, *The Rational Design of International Institutions*, 55 INT'L ORG. 761, 785-87 (2001) ("As the number of actors increases, however, the heterogeneity within the group will typically also increase."); Paul Poast, *Does Issue Linkage Work? Evidence from European Alliance Negotiations, 1860 to 1945*, 66 INT'L ORG. 277, 282-83 (2012) ("[A]dding issues creates more opportunities for each actor to experience some gain.").

level, while national governments will tend to have more interest groups and hence higher transaction costs.

The presence of fewer interest groups reduces transaction costs in three similar ways. First, fewer interest groups reduces the cost of prevailing in legislative contests by reducing the number of possible opponents to prospective measures, or by simply reducing the number of other groups clamoring for lawmakers' attention. As described in Section III.A above, discriminatory conditions mobilize legislative support for a measure by providing a benefit to a domestic constituency. This mobilization is more effective at generating lawmaking activity in the absence of multiple countervailing groups. For example, renewable energy subsidy programs that contain LCRs create a coalition between environmentalists and local companies and workers that benefit from the LCR. In a state such as Minnesota, this coalition may be enough to overcome lawmakers' opposition to "handouts" to political donors.¹⁹⁴ Move the same contest to the national level, however, and another raft of interest groups not present in Minnesota politics—such as coal and oil producers—may decide to oppose federal subsidization of competing energy sources.

Second, building legislative coalitions is subject to cycling, in which priorities are amended, added, or removed in response to counter-proposals from other groups. Cycling is a major transaction cost of democratic governance.¹⁹⁵ Laws become more difficult and time-consuming to enact because legislative coalitions are unstable. The transaction costs of cycling will be higher at larger levels of government; more interest groups involved mean that more groups are trying to break apart existing legislative coalitions so as to redistribute the legislative benefits to themselves.

Third, increasing the scope of governance may increase the number of veto points, making it more likely that the multitude of interest groups will capture at least one veto point. The existence of veto points can be a function of legal rules. For example, the UNFCCC operates by consensus, formally giving all states a veto over the adoption of any particular measure. It can also be the function of norms and rules of an institution. The U.S. Senate allows individual senators extraordinary leeway to hold up the progress of legislation.¹⁹⁶ The system of committee chairs and the possibility of overlapping jurisdiction

¹⁹⁴ See Doyle, *supra* note 146, at 1B ("Other[] [legislators] object to special treatment they say could shortchange taxpayers. 'If government is going to be investing in solar, they should be . . . finding what's the best value,' said Rep. Pat Garofalo, R-Farmington, urging the state to invite competitive bidding from any manufacturer.").

¹⁹⁵ Neil Siegel, *Intransitivities Protect Minorities: Interpreting Madison's Theory of the Extended Republic* (2001) (unpublished Ph.D. dissertation, University of California, Berkeley) (on file with UMI/ProQuest Dissertations and Theses) ("[G]overning coalitions are subject to the threat of intransitive cycling.").

¹⁹⁶ See Dan T. Coenen, *The Originalist Case Against Congressional Supermajority Voting Rules*, 106 NW. U. L. REV. 1091, 1096 (2012) (describing U.S. Senate filibuster procedures and how they effectively create a supermajority voting rule).

among committees—features that are more likely to exist at larger levels of government—can also introduce multiple veto points in the legislation.¹⁹⁷ The point is that as the number of veto points grows, the transaction costs of passing legislation grow as well. To stop a bill one merely needs to capture one of the veto players. Building a successful coalition, by contrast, requires securing the acquiescence of all veto players. In smaller levels of government where fewer interest groups are present, it is less likely that there will be multiple veto points and less likely that interest groups will capture the veto points. Consequently, the transaction costs will be lower.

All else equal, adding a motivated interest group through the use of a discriminatory condition will be more effective when that group has fewer additional interest groups to compete with. At the same time, the issue linkages created by discriminatory conditions—politically linking the protected local interest with the interest of those backing the initial measure—are more important to the lawmaking process because fewer issue linkages are available. On the other hand, as the scale of governance grows, discriminatory conditions are both less necessary to the passage of legislation—because the bargaining space is larger—and less effective because there are so many more players. Thus, IEL’s nondiscrimination rules are a greater burden on lawmaking at the local level because discrimination is a more effective tactic for coalition building there.

The relative efficacy of economic discrimination as a lawmaking tool at local levels suggests two further points. First, one might predict that we would observe discriminatory conditions more frequently at local levels of government or in smaller jurisdictions, as compared with national governments or larger jurisdictions.¹⁹⁸ The evidence presented in Part III along with findings of national renewable energy LCRs, supports this thesis. As discussed above, recent studies have identified only around twenty renewable energy LCRs at the nation-state level in the world, of which only a handful are U.S. federal measures.¹⁹⁹ On the other hand, I identify forty-four at the state level alone within the United States.²⁰⁰ Thus, there appears to be a relatively strong

¹⁹⁷ See Kenneth A. Shepsle & Barry R. Weingast, *The Institutional Foundations of Committee Power*, 81 AM. POL. SCI. REV. 85, 88-89 (1987) (“[V]eto groups are pervasive in legislatures; committees are but one example.”).

¹⁹⁸ Such a proposition should, in principle, be empirically testable. In future work I hope to test this hypothesis, as well as the more general claim that nondiscrimination rules inhibit lawmaking. One might, for example, compare the rates of economic discrimination in laws across jurisdictions of varying GDPs. In such a test, one would focus on size as measured by GDP, rather than the level of government. For example, though it is a subnational government, California is more properly compared to larger European nations than it is to small U.S. states such as Connecticut. Alternatively, one might collect data on the rates of discriminatory conditions at the national and subnational level in other federal systems, such as Brazil or India.

¹⁹⁹ STEPHENSON, *supra* note 19, at 3; Lewis, *supra* note 19, at 14.

²⁰⁰ See *supra* Section II.A.

correlation between the smaller scales of government and the use of LCRs in renewable energy support programs. While one cannot draw strong causal inferences from this correlation, it at least suggests that LCRs are in fact more important for legislative coalition building at the state level than at the federal level within the United States.

Second, nondiscrimination rules have much more mixed welfare effects at smaller, i.e., local, levels of government than they do at larger levels of government, where they are more unequivocally positive. This point is independent of whether discrimination actually occurs at variable rates depending on the size of the jurisdiction. The claim here is that IEL's nondiscrimination rules affect the ability of smaller jurisdictions to enact laws more than they affect larger jurisdictions' lawmaking efforts. Nondiscrimination rules increase the costs of the following kinds of laws: 1) those that do not require a discriminatory measure to pass, and 2) those that do require a discriminatory measure to pass.

Nondiscrimination rules have their greatest welfare effects when most of the laws they invalidate fall into the first category. Protectionism provides no offsetting benefit to this category and eliminating protectionism here provides all of the gains from trade that justify IEL's nondiscrimination rules. As more laws fall into the second category, though, the welfare effects of nondiscrimination rules start to become more mixed. Nondiscrimination rules eliminate the beneficial effects of all of the laws that are not passed because protectionism is not available. For the reasons explained previously, we would expect smaller levels of government to have more laws that fall into the second category as compared to larger levels of government. Although it is difficult to estimate how many laws fall into the second category, one state senator reported that in voting on renewable energy subsidies, it would be "politically unthinkable" not to include an LCR to benefit local industry, rather than allow some of the benefits from the subsidy to leak out of the state.²⁰¹

B. *Nondiscrimination Rules Are Especially Likely to Discourage Local Action Providing Global Public Goods*

The constraints nondiscrimination rules impose on local lawmaking have their most negative consequences when local governments try to provide public goods. Absent correctives such as nondiscrimination rules, rational lawmakers do not consider costs felt outside of their jurisdiction. The same is true, however, of externalized benefits; rational legislators do not take into account the benefits from the measures they pass that are felt outside their jurisdiction. For example, Minnesota legislators do not directly consider the beneficial climate change ramifications of subsidizing green energy on constituencies outside of Minnesota. They may care about these effects, but only to the extent that their constituents care about them. In other words, the

²⁰¹ Interview with Edward Meyer, Conn. State Senator, in Guilford, Conn. (Dec. 29, 2013). In the interest of full disclosure, I note that Senator Meyer is my father.

utility that a rational legislator, motivated principally by her reelection prospects, derives from benefits outside of her district depends on voters within her district having other-regarding preferences.

The most obvious ramification of this point is that bargaining among lawmakers will not only over-supply protectionist policies but it will also under-supply policies that produce public goods. Indeed, public goods laws will be especially disadvantaged in the local lawmaking process precisely because lawmakers are already not capturing the full benefits of such measures. We can temper this prediction in light of citizens' other-regarding preferences. Jurisdictions that have large numbers of citizens who care about environmental causes like climate change, will internalize to a greater degree the global benefits of policies aimed at reducing climate change. Such jurisdictions will therefore have an easier time passing measures that produce global public goods. In general, though, measures that produce global public goods will be supplied at suboptimal levels.

In keeping with the internalization principle, the first-best solution is to shift decision-making to the level of government that internalizes the benefits from providing the public good and thus does not require discrimination to pass the measure.²⁰² Where national governments can so act, welfare is indeed improved. As a political economy matter, national governments are more likely to be able to produce measures free from discriminatory conditions when they pass measures at all.

But in some cases, local governments may be more able to provide global public goods, or may fill the gap in an undersupply of global public goods left by national governments and international institutions. In other words, the first-best solution may not be available.²⁰³ First, governments may find it impossible for political or other reasons to shift governance upwards. Politicians may have concerns about sovereignty, concerns that American lawmakers have sometimes expressed in regard to the United Nations.²⁰⁴ Constitutional limits may also constrain the alienation of authority to international institutions, as U.S. courts have sometimes held.²⁰⁵

²⁰² See COOTER, *supra* note 21, at 107 (arguing that the internalization prescription means that authority over a matter should be allocated to the smallest level of government that fully internalizes the costs and benefits of the relevant policy).

²⁰³ See PAUL KRUGMAN & MAURICE OBSTFELD, *INTERNATIONAL ECONOMICS: THEORY & POLICY* 214-17 (7th ed. 2005) (discussing market failures and the theory of the second-best).

²⁰⁴ See, e.g., Sean Lenggell, *U.N. Disabilities Treaty Blocked; U.S. Sovereignty Issue Raised*, WASH. TIMES, Dec. 5, 2012, at 6 (describing Senator Mike Lee's concern that ratifying the Convention on the Rights of Persons with Disabilities could lead to a U.N. committee denying American parents the right to home-school their children, and quoting the Senator stating "I applaud the Senate for preserving our sovereignty").

²⁰⁵ *Defs. of Wildlife v. Gutierrez*, 532 F.3d 913, 926-27 (D.C. Cir. 2008) (holding that the U.S. Coast Guard could not delegate its "congressionally given authority" to the International Maritime Organization); *Nat. Res. Def. Council v. EPA*, 464 F.3d 1, 8 (D.C.

Second, even when an institution with appropriate authority exists, it may be unable to use that authority as a practical matter. The transaction costs of lawmaking in international institutions (and some national institutions, such as the U.S. Congress) may simply be too high to permit decisive action on the provision of global public goods. Where the transaction costs of bargaining increase faster than the scope for bargaining, larger levels of government may be rendered unable to act for reasons that have nothing to do with the availability of discriminatory measures. In these situations, local action plays an especially important role in providing global public goods. The reduced transaction costs of local government free it to act when national government cannot.

The United States' approach to climate change for much of the 21st century illustrates this point. As recently as January 2015, the U.S. Senate defeated a resolution that provided: "It is the sense of Congress that 1) climate change is real, and 2) human activity significantly contributes to climate change."²⁰⁶ This resistance to acknowledging climate change has made it difficult for the federal government to take measures to address climate change.²⁰⁷ Although the federal government does provide renewable energy subsidies²⁰⁸ and has more recently begun to take administrative action to combat climate change,²⁰⁹ subnational measures—including efforts to establish carbon trading markets,²¹⁰ as well as the renewable energy subsidies described in this Article—have been an important supplement to federal action. In such situations, IEL's nondiscrimination rules pose a major challenge to local action to supply global public goods left undersupplied by national governments.

Cir. 2006) (holding that treating decisions of the Parties to the Montreal Protocol as legally binding commitments would raise constitutional issues under the nondelegation doctrine).

²⁰⁶ Eric Holthaus, *Senate Votes 98-1 that Climate Change is Real but Splits on That Pesky Cause*, SLATE: FUTURE TENSE (Jan. 21, 2015, 6:33 PM), http://www.slate.com/blogs/future_tense/2015/01/21/senate_votes_that_climate_change_is_real_but_doesn_t_agree_on_cause.html [<http://perma.cc/7C2B-CWRX>].

²⁰⁷ In response to Congressional resistance, President Obama in his second term began using administrative means that do not require congressional action to address climate change. John M. Broder, *Obama Ready to Emissions Limits on Power Plants*, N.Y. TIMES, June 20, 2013, at A1 ("[N]one of the [climate change] initiatives being considered by the [Obama] administration required legislative action or new financing from Congress.").

²⁰⁸ *Federal Financial Support for Fuels and Energy Technologies: Hearing Before the Subcomm. on Energy of the H. Comm. on Sci., Space & Tech.*, 113th Cong. 2 (2013) (statement of Terry M. Dinan, Senior Advisor, Cong. Budget Office) ("The federal government supports the production and use of . . . renewable energy and encourages increased energy efficiency through provisions of law that reduce the amount of taxes paid by producers and consumer of energy . . .").

²⁰⁹ Broder, *supra* note 207.

²¹⁰ Osofsky & Peel, *supra* note 80, at 235 ("[L]egislation for the introduction of a national carbon pricing mechanism was successfully passed in 2011.").

Put differently, the internalization prescription implicitly assumes that transaction costs do not vary as the scale of governance increases.²¹¹ If this prescription is correct, aligning incentives would have a net beneficial impact on welfare. But when increasing the scale of governance increases the transaction costs of lawmaking, the likelihood of action may decline. Increasing the scale of governance may thus increase the likelihood of the first-best outcome—non-discriminatory provision of the global public good—but decrease the likelihood of any action at all.

Discriminatory conditions offer a second-best solution to the internalization dilemma. If lawmaking authority cannot be allocated to an effective body that internalizes the benefits of providing a global public good, smaller levels of government can be incentivized to provide the benefit either through side payments or by allowing them to externalize some of the political costs of providing the public good. In other words, if full internalization of the costs and benefits is not an option for public goods, externalizing both some costs and some benefits may be the best available option.

To be clear, I am not arguing that IEL's nondiscrimination rules are, on the whole, welfare-decreasing or unjustified. To the contrary, most discriminatory measures, even at the local level, are welfare-reducing, and prohibitions on discrimination are thus welfare-increasing. My point is more targeted; a narrow class of measures exists where discriminatory conditions actually promote welfare by facilitating the provision of global public goods. As I discuss in Part V, international economic law needs to evolve to permit this narrow, but vitally important, range of measures.

C. *Limitations*

The theory presented here is a generalizable theory on the effect of nondiscrimination rules on local versus national governance. It is worth considering, however, several possible objections. First, one might object that the model of bargaining here only applies to democracies. I have framed the argument expressly as one about legislative bargaining based on legislators' desire for reelection, but many countries—including economic powerhouses such as China—are not democracies. Moreover, Westminster-style parliamentary governments, in which the legislature is not independent of the executive, may alleviate the need for bargaining among lawmakers.²¹² Second, many countries are not organized as federal systems, and countries like China

²¹¹ Cf. COOTER, *supra* note 21, at 108 (“Assuming zero transaction costs of bargaining, the supply of public goods is efficient regardless of the number of governments.”).

²¹² Elhanan Helpman & Torsten Persson, *Lobbying and Legislative Bargaining*, ADVANCES ECON. ANALYSIS & POL'Y, Nov. 3, 2001, article 3 at 3 (explaining how the agenda-setting powers and the effective veto powers of “the coalition supporting the executive in parliamentary systems . . . produce greater legislative cohesion in parliamentary systems, which affects the strategic interaction between lobbies as well as lawmakers”).

have strong central control of decision-making. The model's implications may thus be limited.

Third, the theory may be too American-centric. Of course, the data on which I draw in Part II is from local polities in the United States and so the empirical part of the Article is necessarily focused on the United States. One might object further that the legislative gridlock that would prevent lawmakers from enacting public-minded legislation without handouts to domestic interests may characterize the American Congress, but does not accurately reflect conditions in other democracies, let alone non-democracies.

The first two concerns are really concerns about the extent to which the model applies only to a particular form of government: a federal democracy with separated powers. Bargaining dynamics among lawmakers are, however, a generalizable phenomenon. Studies have shown that administrative agencies and judges on collegial courts engage in bargaining with one another.²¹³ To be sure, the institutional environment in which bargaining occurs affects outcomes. Parties bargaining under a majority rule will often reach different outcomes than those bargaining under a unanimity rule—i.e., a rule in which each player has a veto, as might arise in certain administrative contexts. However, the general bargaining dynamic described above—one in which a law's sponsor must attract support from other parties who must sign off—need not be limited to legislatures. Such a dynamic can occur across or within administrative agencies or other governmental entities.²¹⁴ The absence of a legislature, in other words, does not eliminate bargaining among government officials.

The distinction between formally federal states and formally unitary states can also be overstated. Of course, many states in the world, including major greenhouse gas emitters, are federal states: Australia, Brazil, Canada, Germany, India, Mexico, Russia, and the United States. The European Union also bears a considerable resemblance to a federal state with its members constituting the "local" governments. Many formally unitary states also devolve authority over various issues onto local actors. The United Kingdom's policy of devolving authority onto Scotland and Wales provides an illustrative example.²¹⁵ Likewise, Spain is formally a unitary state, but it grants substantial authority, including, in some cases, full control over taxing and spending, to its various autonomous regions.²¹⁶ Even in countries like China, which are often thought to be strongly centralized, the complexity of regulatory affairs and the size of the country necessitate a role for local actors in environmental

²¹³ See, e.g., Jeffrey R. Lax & Charles M. Cameron, *Bargaining and Opinion Assignment on the U.S. Supreme Court*, 23 J.L. ECON. & ORG. 276, 276-78 (2007).

²¹⁴ See, e.g., *id.*

²¹⁵ See *supra* note 83 and accompanying text.

²¹⁶ Cf. Enrique Guillén López, *Judicial Review in Spain: The Constitutional Court*, 41 LOY. L.A. L. REV. 529, 543-44 (2008) (explaining the evolution of the autonomy of Spain's regions, and their similarity to individual states in the United States).

policymaking and economic development.²¹⁷ Indeed, the functional difference between a federal state and a unitary state may not be terribly significant when it comes to local policymaking. National governments in both kinds of states can typically overturn action taken at the local level. What differs is the cost of supervising local action. Formal legal structures—federalism versus a unitary state—may affect those costs, but so too do a wide variety of other factors such as politics, the size of the nation, and legal doctrine governing the center-local relationship.²¹⁸

Finally, some may object that political polarization and resulting legislative gridlock might affect the United States more than other countries. But many other nations have been slow to embrace climate change measures at the national level, leading to a vibrant movement among cities around the world to address climate change.²¹⁹ Indeed, as noted in the introduction, the United States and China have made local action the centerpiece of their joint efforts to tackle climate change.²²⁰ Perhaps more importantly, many public goods cannot be provided without contributions from key players.²²¹ Climate change is arguably such a good.²²² The United States remains the second largest emitter of greenhouse gases, after China.²²³ Beyond its own contributions to climate change, U.S. efforts to fight climate change are critical to convincing China to tackle its own emissions. Thus, even if legislative gridlock is a particularly American phenomenon, as far as climate change is concerned, the fact that nondiscrimination rules may inhibit U.S. efforts to combat climate change is alone enough cause for worry. Solving climate change requires U.S.

²¹⁷ See YANG ZHONG, LOCAL GOVERNMENT AND POLITICS IN CHINA: CHALLENGES FROM BELOW 3-5 (2003) (“[A]fter close to two decades of economic reform, the power of the once mighty center (*zhongyang*) is believed to be severely weakened. . . . [L]ocal government officials are more interested in building ‘dukedom economies’ (*zhuhou jingji*) than carrying out centrally directed economic plans, and the central government is losing fiscal control.”).

²¹⁸ For example, the expansive interpretation of the Commerce Clause in U.S. constitutional jurisprudence means that the costs of policing local action may increasingly fall on Congress as opposed to the judiciary. See Herbert Wechsler, *The Political Safeguards of Federalism: The Role of the States in the Composition and Selection of the National Government*, 54 COLUM. L. REV. 543, 559-60 (1954).

²¹⁹ See, e.g., U.S. Conference of Mayors, *supra* note 81 (urging the federal government and state governments to take action against climate change).

²²⁰ See *supra* note 6.

²²¹ See SCOTT BARRETT, WHY COOPERATE? THE INCENTIVE TO SUPPLY GLOBAL PUBLIC GOODS 3-7 (2007) (explaining that “weakest link” public goods “can only be provided with the active participation of every country” and that action to address climate change “depends on the aggregate effort of all countries”).

²²² *Id.*

²²³ Tom Boden, Bob Andres & Gregg Marland, RANKING OF THE WORLD’S COUNTRIES BY 2011 TOTAL CO₂ EMISSIONS, CARBON DIOXIDE INFO. ANALYSIS CTR., <http://cdiac.ornl.gov/trends/emis/top2011.tot> [<http://perma.cc/9RNP-KKQU>].

leadership, which very often comes from the local level. The question is thus when and how international law should enable local leadership.

V. DISTINGUISHING WELFARE-INCREASING LCRS FROM WELFARE-DECREASING LCRS

Demonstrating that permitting discriminatory LCRs at the local level can facilitate the provision of public goods leaves unanswered the question of how states and international tribunals should distinguish those LCRs that increase welfare by contributing to the provision of a public good from those that do not. Creating greater space for local governments to use discriminatory measures to provide global public goods will cause governments to adjust their behavior. Governments may pass measures that fall within the exception but pursue welfare-reducing protectionist ends. The trade-related costs of these measures may be higher than the non-trade-related benefits. Ideally, legal rules should continue to prohibit these welfare-reducing measures—i.e., the majority of discriminatory measures—while allowing bona fide welfare-increasing measures to go forward. In this Part, I assess how trade law can separate these two very different kinds of measures. My focus is on providing some scope for discrimination that is politically necessary to pass public goods programs, while minimizing the possibility that states will abuse the opportunity.²²⁴

To begin, I explain why existing law is inadequate to the task. Throughout this Part, I focus predominantly on the GATT. Of course, LCRs may be

²²⁴ Another potential objection is that allowing economic discrimination will undermine the value of the public good provided by distorting the markets that provide the public good. For example, subsidization may allow an inferior solar panel to capture market share, crowding out the development of a more efficient solar panel that would have reduced greenhouse gases to a greater extent. This concern is a serious one in situations where the market that provides the public good is relatively free of government interference. In such situations, discriminatory subsidization could indeed limit the production and value of the public good in the long run by distorting the market's development.

Such a concern seems misplaced, however, when analyzing public goods measures connected to renewable energy. Renewable energy must compete for market share with traditional fossil fuels, which are subsidized to a considerably higher degree. See Timothy Meyer, *Energy Subsidies and the World Trade Organization*, AM. SOC'Y INT'L L. INSIGHTS (Sept. 10, 2013), <http://www.asil.org/insights/volume/17/issue/22/energy-subsidies-and-world-trade-organization> [<http://perma.cc/K4PN-GZWT>] (explaining that globally renewable energy subsidies amount to a small fraction of fossil fuel subsidies). Moreover, nations like China heavily subsidize their renewable energy sectors, often putting foreign competition at a significant disadvantage. See Keith Bradsher, *Strategy of Solar Dominance Now Poses a Threat to China*, N.Y. TIMES, Oct. 5, 2012, at B1. Indeed, the backers of some of the discriminatory measures described in Part II conceived of them as counter-subsidies to Chinese subsidies. See *supra* note 147. It is difficult to see how the subsidies involved in these discriminatory programs will distort the market substantially more than the massive subsidies that already exist but are perhaps framed in ways that do not expressly violate the national treatment rule.

challenged under a variety of WTO agreements, but space constraints prevent a comprehensive evaluation of how the days reflected herein would play out under each agreement. The approach presented here is intended to be illustrative and could be applied under other WTO disciplines—such as the TBT Agreement or Agreement on the Application of Sanitary and Phytosanitary Measures (“SPS Agreement”)—as well as investment law.²²⁵ I then present two proposals: a doctrinal solution and a negotiated resolution. Both proposals involve trying to ensure that any exception for local public goods measures is narrow in scope. At the outset, I concede that no proposal can *ex ante* ensure that only those programs that increase overall welfare survive and only those that reduce welfare are struck down. Rather, the choice is between different degrees of over- and under-inclusivity. The task is to design legal mechanisms that maximize welfare *ex ante*, given the strategic behavior of governments and the inability to perfectly identify the welfare effects of various programs.

A. *The Existing Doctrine*

Existing GATT/WTO case law is inadequate to the task of facilitating local provision of global public goods for at least two reasons. First, as discussed in Section I.C, the international law of state responsibility makes national governments liable for the actions of their subsidiary governments.²²⁶ Consequently, tribunals assess local action in the exact same way they assess national government action, ignoring the differences between local and national action identified in this Article.

Second, GATT/WTO case law systematically disfavors nations’ pursuits of non-trade objectives when they conflict with the objective of liberalizing trade. The GATT/WTO, and indeed IEL more generally, has long provided that states may engage in economic discrimination in pursuit of certain legitimate non-trade objectives.²²⁷ Article XX of the GATT, originally adopted in 1947, codified a set of non-trade objectives that can excuse a state’s violation of its GATT commitments.²²⁸ Moreover, over time the GATT/WTO has become increasingly sensitive to the importance of non-trade objectives. This rising sensitivity is reflected in agreements such as the TBT and SPS Agreements, which expressly permit measures that may have protectionist effects when they

²²⁵ Although similar doctrines exist under the TBT Agreement, SPS Agreement, and investment agreements, tribunals apply the doctrines somewhat differently, reflecting in part variation in the exact drafting of the provisions.

²²⁶ See *infra* note 74 and accompanying text.

²²⁷ See GATT, *supra* note 22, art. XX (listing exceptions such as measures that are necessary to protect public morals; secure compliance with domestic laws; protect human, animal, or plant life or health; or measures that are related to the conservation of exhaustible natural resources).

²²⁸ *Id.*

are supported by a scientific risk assessment.²²⁹ The WTO Appellate Body has also recognized greater space for states to pursue non-trade objectives in its application of the GATT Article XX exceptions.²³⁰ In the investment context

²²⁹ TBT Agreement, *supra* note 52, art. 2 (listing permissible objectives and stating that in assessing the risks of non-fulfillment of the objective, “relevant elements of consideration are, *inter alia*: available scientific and technical information”); Agreement on the Application of Sanitary and Phytosanitary Measures art. 3, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 493 [hereinafter SPS Agreement] (“Members may introduce or maintain sanitary or phytosanitary measures which result in a higher level of . . . protection . . . if there is a scientific justification . . .”). The SPS and TBT Agreements protect states imposing discriminatory measures in part by flipping the burden of proof. Under GATT Article XX, the respondent (the state enacting the challenged measure) bears the burden of demonstrating that the measure advances a permissible non-economic objective. Panel Report, *United States—Restrictions on Imports of Tuna*, WTO Doc. DS21/R-39S/155 (Sept. 3, 1991) (not adopted) [hereinafter *U.S.—Tuna*] (“[T]he practice of panels has been to interpret Article XX narrowly, to place the burden on the party invoking Article XX to justify its invocation . . .”). Under the SPS or TBT Agreements, the complainant bears the burden. *E.g.*, Appellate Body Report, *United States—Measures Concerning the Importation, Marketing, and Sale of Tuna and Tuna Products*, ¶ 323, WTO Doc. WT/DS381/AB/R (adopted June 13, 2012) [hereinafter *U.S.—Tuna II*] (“With respect to the burden of proof in showing that a technical regulation is inconsistent with Article 2.2 [of the TBT Agreement], the complainant must prove its claim that the challenged measure . . . is more trade restrictive than necessary to achieve the contribution it makes to the legitimate

objectives . . .”). The Agreement on Safeguards might also be understood to protect non-trade interests. That Agreement governs when states may impose “safeguards,” or temporary trade restrictions designed to protect a domestic market during rapid and dislocating transitions. Agreement on Safeguards art. 2, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 154 (providing that a member state “may apply a safeguard measure to a product only if that member has determined . . . that such product is being imported into its territory in such increased quantities . . . and under such conditions as to cause or threaten to cause serious injury to the domestic industry”). The Agreement on Safeguards is not meant to permanently protect a domestic market. *Id.* art. 7 (“A Member shall apply safeguard measures only for such period of time as may be necessary to prevent or remedy serious injury and to facilitate adjustment.”). Rather, it ideally allows a country to manage a transition in a way that reduces the costs, many of which are social, that come with rapid economic transitions.

²³⁰ Compare Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WTO Doc. WT/DS58/AB/R (adopted Nov. 6, 1998) [hereinafter *U.S.—Shrimp-Turtle*] (finding that the United States’ measure was “within the scope of measures permitted under the chapeau of Article XX of the GATT 1994,” but failed to meet the requirements), with *U.S.—Tuna*, *supra* note 229 (finding that the United States’ direct import prohibition could not be justified under GATT Article XX(b), (d), or (g)).

too, states and investment tribunals have made clear that IEL is not an absolute constraint on a state's ability to pursue non-economic objectives.²³¹

The difficulty with the GATT's approach to non-trade welfare is thus not an unwillingness to recognize its existence or importance. Indeed, clean air has already been held to be an exhaustible natural resource, and thus measures protecting it fall within the scope of GATT Article XX(g).²³² Rather, the difficulty is that WTO tribunals tend to administer these exceptions in a technocratic way that ignores the political economy considerations at work in the lawmaking process.²³³ The tribunals first decide whether a challenged measure furthers a permissible non-trade objective, and then assess whether the chosen means of attaining the non-trade objective is more trade restrictive than necessary.²³⁴ In so doing, they ignore the political and related legal costs of different kinds of measures, focusing instead on technical feasibility and cost.

Focusing on the application of the GATT, these rules contemplate a three-part analysis.²³⁵ First, a tribunal asks whether the policy pursued by the challenged measure "fell within the range of policies" designed to attain an

²³¹ See, e.g., *Glamis Gold Ltd. v. United States*, ICSID, Award, ¶ 24 (NAFTA Ch. 11 Arb. Trib. June 8, 2009), <http://www.state.gov/documents/organization/125798.pdf> [<http://perma.cc/G4WM-ANGY>] ("[T]he Tribunal finds that the acts of the federal government and the State of California . . . do not . . . violate the Article 1105 obligations of the United States."); *Methanex Corp. v. United States*, ICSID, Award, (NAFTA Ch. 11 Arb. Trib. Aug. 3, 2005), <http://www.state.gov/documents/organization/51052.pdf> [<http://perma.cc/U5L5-885Q>] (finding that Methanex's claim under NAFTA Article 1110 failed because "as a matter of general international law, a non-discriminatory regulation for a public purpose . . . is not deemed expropriatory and compensable unless specific commitments had been given by the regulating government").

²³² Panel Report, *United States—Standards for Reformulated and Conventional Gasoline*, ¶ 6.37, WTO Doc. WT/DS2/R (adopted May 20, 1996) [hereinafter *U.S.—Gasoline*] (finding that clean air could be considered an exhaustible natural resource and thus, "a policy to reduce the depletion of clean air was a policy to conserve a natural resource within the meaning of Article XX(g)"). Brazil and Venezuela did not properly appeal whether clean air constitutes an exhaustible natural resource, so the Appellate Body did not address this issue on appeal. Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, WTO Doc. WT/DS2/AB/R (adopted May 20, 1996).

²³³ See OREN PEREZ, *ECOLOGICAL SENSITIVITY AND GLOBAL LEGAL PLURALISM* 54-64 (2004) ("The law of the GATT ignored, completely, the acute *institutional asymmetry* between the trade and environmental systems.").

²³⁴ See *id.* at 62.

²³⁵ Similar, though not identical, rules exist under the TBT and SPS Agreements. See TBT Agreement, *supra* note 52, art. 2.2 ("[T]echnical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create."); SPS Agreement, *supra* note 229, art. 5.6 (requiring that measures taken pursuant to the agreement to protect health and safety "are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility").

authorized non-trade end, such as the protection of human, animal, or plant life or health.²³⁶ Put differently, the first prong asks nothing about the trade costs of the measure. It merely asks whether the objective identified is a “legitimate” non-trade objective, and whether the challenged measure can be characterized as pursuing the legitimate objective.²³⁷

At the third stage (review under the chapeau of GATT Article XX), the tribunal asks whether the measure constitutes “arbitrary or unjustifiable discrimination between countries where the same conditions prevail,” or whether it constitutes “a disguised restriction on international trade.”²³⁸ At this stage, tribunals consider larger dynamics such as the extent to which governments tried to mitigate the discriminatory impact of their measures, whether through negotiations with other governments or by building in flexibility in administering the discriminatory measure.²³⁹ Review under the chapeau should catch pretextual invocations of GATT Article XX’s exceptions.

In the middle, the tribunal assesses the means-ends relationship between the challenged measure and its stated purpose. For most of the GATT Article XX exceptions, tribunals ask whether the challenged measure is more trade restrictive than necessary to fulfill the legitimate objective.²⁴⁰ In making this assessment, WTO tribunals assess “the extent of the contribution to the achievement of a measure’s objective and its trade restrictiveness, in the light of the importance of the interests or values at stake.”²⁴¹ A favorable determination under these criteria is “confirmed by comparing the measure with its possible alternatives, which may be less trade restrictive while providing an equivalent contribution to the achievement of the objective pursued.”²⁴² Additionally, this comparison is limited to “genuine” and

²³⁶ See *U.S.—Gasoline*, *supra* note 232, ¶ 6.20 (explaining that the United States bore the burden of proving “that the *policy* . . . fell within the range of policies designed to protect human, animal or plant life or health . . .”).

²³⁷ *U.S.—Tuna II*, *supra* note 229, ¶¶ 313-14, 317 (considering the meaning of the term “‘legitimate objective’ in the sense of Article 2.2 of the *TBT Agreement*,” and comparing the panel’s job to “determining the contribution of a measure to the achievement of a particular objective in the context of Article XX of the GATT 1994”).

²³⁸ GATT, *supra* note 22, art. XX; *U.S.—Gasoline*, *supra* note 232, ¶ 6.20 (explaining the requirements of Article XX).

²³⁹ *U.S.—Shrimp-Turtle*, *supra* note 230, ¶¶ 161-66 (analyzing whether the measure constitutes “unjustifiable discrimination” and criticizing the United States for establishing a “rigid and unbending standard” and failing to engage other states in negotiations).

²⁴⁰ *U.S.—Gasoline*, *supra* note 232, ¶ 6.20 (explaining that the United States had to establish “that the inconsistent measures for which the exception was being invoked were *necessary* to fulfil the policy objective”). Other means-ends formulations are used elsewhere in the GATT, but necessity is the most prevalent standard.

²⁴¹ Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶ 156, WTO Doc. WT/DS332/AB/R (adopted Dec. 17, 2007) [hereinafter *Brazil—Tyres*].

²⁴² *Id.*

“reasonably available” alternatives.²⁴³ Alternatives are not “reasonably available” if they are prohibitively costly or involve “substantial technical difficulties.”²⁴⁴ Tribunals thus assess, *inter alia*, the scientific and technical information related to the measure and its possible alternatives.²⁴⁵

Throughout this inquiry, it is undisputed that “it is within the authority of a WTO Member to set the public health or environmental objectives it seeks to achieve, as well as the level of protection that it wants to obtain, through the measure or the policy it chooses to adopt.”²⁴⁶ In other words, if an objective is legitimate, a WTO panel should not, in principle, second-guess or evaluate the non-trade objective or the level of protection chosen by the member state. If the member state decides to completely eliminate the risk from a known carcinogen, a WTO panel may not evaluate the non-trade welfare benefits from such a choice.²⁴⁷ At most, the tribunal can ask about the extent to which the measure *actually* succeeds in obtaining the objective and weigh that against the trade restrictiveness of the measure.²⁴⁸

This jumble of standards offers little guidance into how to actually evaluate trade restrictions that pursue legitimate non-trade objectives. Commentators themselves do not agree on what kind of analysis the WTO Appellate Body employs for Article XX. Most agree that at a minimum, the “necessity” standard used at the second stage of most Article XX disputes requires that a

²⁴³ *Id.* (explaining that an alternative is not genuine if it does not “preserve for the responding Member its right to achieve its desired level of protection” and is not reasonably available if “it is merely theoretical in nature, for instance, where the responding Member is not capable of taking it, or where the measure imposes an undue burden on that Member, such as prohibitive costs or substantial technical difficulties” (quoting Appellate Body Report, *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 308, WTO Doc. WT/DS285/AB/R (adopted Apr. 20, 2005)); see also *United States—Tuna II*, *supra* note 229, ¶ 320 (explaining that the measures at issue must be compared to “possible alternative measures that may be reasonably available and less trade restrictive than the challenged measure . . .”).

²⁴⁴ *Brazil—Tyres*, *supra* note 241 (quoting *U.S.—Gambling*, *supra* note 243).

²⁴⁵ *United States—Tuna II*, *supra* note 229, ¶ 321 (“Article 2.2 of the *TBT Agreement* further stipulates that the risks non-fulfilment of the objective would create shall be taken into account, and that, in assessing such risks, relevant elements of consideration are ‘*inter alia*: available scientific and technical information’” (citation omitted)).

²⁴⁶ *Brazil—Tyres*, *supra* note 241, ¶ 140.

²⁴⁷ Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶¶ 167-68, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001) [hereinafter *EC—Asbestos*] (“[W]e note that it is undisputed that WTO Members have the right to determine the level of protection of health that they consider appropriate in a given situation.”).

²⁴⁸ *Brazil—Tyres*, *supra* note 241, ¶ 143 (stating that necessity analysis involves “‘an assessment of the ‘relative importance’ of the interests or values furthered by the challenged measure,’ . . . ‘the contribution of the measure to the realization of the ends pursued by it’ and ‘the restrictive impact of the measure on international commerce’” (quoting *U.S.—Gambling*, *supra* note 243, ¶ 306)).

state employ the least restrictive means.²⁴⁹ Others, however, have argued that the WTO has adopted a “proportionality” analysis (under either the second or third step of the analysis) that requires weighing the trade restrictiveness of the challenged measure against the benefits of the non-trade objective.²⁵⁰

How proportionality analysis would work in the context of Article XX is unclear. At a minimum, using proportionality analysis undermines the claim that a WTO member may select its own level of protection. The least restrictive trade measure might still be struck down under a proportionality analysis on the grounds that its trade-related costs are disproportionate to its non-trade benefits.²⁵¹ Moreover, a blending of a least restrictive means test with a subsequent proportionality review is a one-way ratchet that stacks the deck against non-trade interests; states must choose the least trade restrictive means of pursuing their non-trade objectives, and even then their actions may be disallowed. Because of this, some commentators have urged the adoption of proportionality analysis without a least restrictive means component.²⁵² Other views require both that a measure be the least restrictive and that it be “appropriate” in the sense that the costs do not outweigh the benefits.²⁵³

Beyond the confusion about what the Appellate Body is doing and should do in these cases, its analysis is insufficiently engaged with the dynamics of lawmaking. The means-ends evaluations undertaken as part of the GATT Article XX analysis occur in a vacuum. They fail to account for political economy dynamics that, as a practical matter, determine the set of feasible alternatives. In particular, local governments may differ systematically in how they make law, rendering the set of politically feasible alternatives at the local level different from that at the national level. As a consequence, WTO tribunals risk holding a welfare-increasing measure unlawful on the grounds

²⁴⁹ See, e.g., Jeffrey L. Dunoff, *Reconciling International Trade With Preservation of the Global Commons: Can We Prosper and Protect?*, 49 WASH. & LEE L. REV. 1407, 1448 (1992) (discussing GATT panels’ requirement that states employ the least trade restrictive measure); Ingo Venzke, *Making General Exceptions: The Spell of Precedents in Developing Article XX GATT into Standards for Domestic Regulatory Policy*, 12 GERMAN L.J. 1111, 1132-33 (2011).

²⁵⁰ See Venzke *supra* note 249, at 1132-36 (analyzing the Appellate Body’s conflation of a “least restrictive means” test with a proportionality analysis in a line of cases including *Korea—Beef*, *European Communities—Asbestos*, and *Brazil—Tyres*); Meinhard Hilf, *Power, Rules and Principles – Which Orientation for WTO/GATT Law?*, 4 J. INT’L ECON. L. 111, 120-21 (2001) (arguing that proportionality is already a principle of WTO law); Axel Desmedt, *Proportionality in WTO Law*, 4 J. INT’L ECON. L. 441 *passim* (2001) (discussing where WTO law has or could incorporate proportionality).

²⁵¹ See Venzke, *supra* note 249, at 1131 (arguing that proportionality analysis “demands a weighing and balancing of competing interests with the possible consequence that a measure may be found illegal because it imposes an undue disadvantage even if no alternative was available that could achieve the stated objective to the same extent”).

²⁵² Dunoff, *supra* note 249, at 1447-49.

²⁵³ See Venzke, *supra* note 249, at 1131.

that a less trade restrictive alternative that is politically impossible exists and is “reasonably available” when judged in terms of cost and technical feasibility.

Thai—Cigarettes illustrates how the tribunals adjudicating cases under the GATT ignore political economy considerations in assessing trade restrictiveness.²⁵⁴ There, the United States challenged a ban on the importation of cigarettes into Thailand.²⁵⁵ While banning foreign imports, Thailand permitted local cigarette sales to continue.²⁵⁶ Thailand sought to justify its import ban on the grounds that it was necessary to protect human health within the meaning of GATT Article XX(b).²⁵⁷ The panel ruled against Thailand on the grounds that the import ban was not “necessary” because labeling measures could address the same issue in a less trade restrictive fashion.²⁵⁸ As a political matter, however, it appears that the Thai regulation represented a compromise between domestic cigarette producers who opposed more stringent domestic

²⁵⁴ Report of the Panel, *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes*, DS10/R (Oct. 5, 1990), GATT B.I.S.D. (37th Supp.), at 1 (1991) [hereinafter *Thai—Cigarettes*]. Outside of the GATT/WTO context, *Ethyl Corp. v. Canada* provides another illustration. There, an American manufacturer of the gasoline additive MMT brought a NAFTA claim challenging a Canadian law banning the import and inter-provincial transport of MMT. *Ethyl Corp. v. Canada*, Award on Jurisdiction, 38 I.L.M. 708 (NAFTA Ch. 11 Arb. Trib. 1998). Ethyl challenged the Canadian measure as, *inter alia*, a violation of national treatment obligations and as creating performance requirements in violation of NAFTA’s nondiscrimination rules. *Id.* The essence of the claim was that Canada’s measure permitted the intra-provincial production and use of MMT, but not trade in MMT that crossed provincial or international borders. *Id.* As a consequence, the measure would have favored Canadian manufacturers (in violation of the national treatment obligation) or required Ethyl to establish local Canadian manufacturing plants to produce its MMT (an LCR in violation of the ban on performance requirements). Canada objected to the merits of this claim because Canadian law did not permit it to ban the domestic, intra-provincial production and use of MMT. *Id.*; see also DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 1297 (4th ed. 2011). The form of the law was thus a function of what Canada could practically accomplish domestically. Moreover, no Canadian firms manufactured MMT, so the discrimination was, in Canada’s view, entirely hypothetical. See Statement of Defence by Canada ¶ 81, *Ethyl Corp.*, 38 I.L.M. 708 (arguing that Canadian business cannot be favored because Canadians are not a part of the market). But, because the measure discriminated against Ethyl Corp. as compared to the hypothetical ban on production, use, and trade, Canada faced a likely defeat. After the NAFTA tribunal rejected Canada’s jurisdictional defenses, Canada settled the case, paid \$13 million in damages and withdrew the legislation. HUNTER ET AL., *supra*.

²⁵⁵ *Thai—Cigarettes*, *supra* note 254, at 1.

²⁵⁶ *Id.* ¶ 12 (“[T]he restrictions operated as an import prohibition, they were not imposed in conjunction with domestic supply restrictions and they had a disproportionate effect on imports.”).

²⁵⁷ *Id.* ¶ 14 (arguing that their restrictions were justified under Article XX(b) because the measures to control smoking “could only be effective if cigarette imports were prohibited”).

²⁵⁸ *Id.* ¶¶ 75-77 (finding that the measure was not necessary because “non-discriminatory labelling [sic] and ingredient disclosure regulations” were available).

regulations of their products, and health authorities looking for a way to reduce smoking rates.²⁵⁹ In effect, efforts to restrict smoking in Thailand required the support of the Thai cigarette industry. Health officials garnered this support through discriminating against foreign cigarettes. Notwithstanding this discrimination, it appears that the health benefits of the Thai measure would have been significant. After losing the case, Thailand opened its market to cigarettes.²⁶⁰ Within four years of opening its markets, smoking had increased by ten percent on a per capita basis, an increase likely attributable in part to the opening of the Thai markets.²⁶¹

Thai—Cigarettes highlights the critical role of political economy considerations in evaluating reasonably available alternatives. It involved a health measure that, due to political constraints, included discriminatory conditions. Specifically, the measure banned the import of foreign cigarettes on health grounds, while permitting the sale of domestic cigarettes. This discrimination in favor of domestic cigarettes was necessary to pass the overall ban on foreign cigarettes in an effort to reduce smoking, but was not “necessary” for the measure to achieve its non-trade objective once the measure had been enacted. For this reason, the measure fell. Estimates suggest that smoking rates in Thailand (and other Asian countries that faced pressure from the United States to liberalize their cigarette markets) resulted in significant increases in smoking, especially among the young.²⁶²

The same basic problem applies to renewable energy LCRs or any discriminatory provision appended to a public goods program for the purpose of attracting political support. Under existing doctrine, the necessity of the discriminatory condition is evaluated *at the implementation stage*. A renewable energy LCR passed by a legislature that forces electricity generators to buy more expensive, locally-produced solar panels does not necessarily further the objective of reducing greenhouse gases, if one assumes that the subsidy to which the LCR is attached can pass without the LCR. As a consequence, any renewable energy support program with an LCR has a less trade restrictive alternative—the same program without the LCR. The LCR (or other discriminatory condition) only furthers the non-trade objective if one looks not only at *implementation*, but also at *lawmaking*.

The challenge for GATT/WTO case law is thus to adjust its understanding of “necessity” to allow discrimination that is necessary for a measure to pass. As I argue below, in practice this inquiry still requires looking at proxies to identify situations in which discriminatory conditions are politically

²⁵⁹ See Perez, *supra* note 233, at 83 n.264 (“While there can be little doubt that the Thai ban was also motivated by a desire to protect the local tobacco industry one should not ignore, then, the undeniable health benefits of this ban.”).

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² F.J. Chaloupka & A. Laixuthai, *Do Trade Pressures Lead to Market Expansion?*, in TOBACCO: THE GROWING EPIDEMIC 389 (Rushan Lu et al. eds., 2000).

“necessary,” as well as if alternatives are “reasonably available” from a technical implementation standpoint.

B. *Doctrinal Solutions*

Providing space for the use of local welfare-enhancing discrimination under the GATT requires a three-part approach. This approach follows the ordinary Article XX analysis, but modifies each step to take into account the distinct features of local efforts to provide global public goods.

First, in assessing whether the challenged local measure falls within the scope of one of the Article XX exceptions, WTO tribunals should also determine whether the measure provides a global public good. Second, when evaluating whether a measure is “necessary” (the means-ends portion of the test), panels should use a *political necessity* test, in lieu of a least restrictive means test. This test modifies the set of “reasonably available” alternatives that a challenged measure is judged against. It does so by comparing the challenged measure only to those alternatives that are “politically available.” Panels should undertake this inquiry by assessing whether objective evidence tends to show that the discriminatory measure was necessary to the passage of the otherwise permissible public goods measure.

Finally, if the measure both falls within the scope of an exception and provides a global public good, the tribunal should ask whether the costs of the measure are proportional to the *multilateral* benefits created by the measure. Where a local measure contributes to a global public good, it creates benefits beyond the borders of the jurisdiction in question. In such situations, tribunals should weigh the trade restrictiveness of the measure in light of these multilateral benefits. Such an analysis allows the local government to internalize the benefits of its program felt elsewhere. This analysis is particularly important for local governments because they are by definition smaller than their national governments, and thus internalize even less of the benefit from providing global public goods.²⁶³

If the respondent can meet these three tests, the measure should survive review under Article XX. Furthermore, the presence of politically necessary discrimination should not, by itself, be a reason to strike down a measure under the chapeau.²⁶⁴ Taken together, this modified Article XX analysis will continue

²⁶³ This test resembles a “proportionality test.” Although the term “proportionality” has a variety of meanings, it often refers to a test under which a measure must 1) pursue a legitimate aim, 2) be suitable or effective at achieving that aim, 3) be necessary in the sense that no less restrictive alternative is available, and 4) be appropriate in the sense that the costs are not excessive when weighed against the benefits. See Venzke, *supra* note 249, at 1131. The chief difference is that in the test I propose, necessity is evaluated in light of politically available alternatives, rather than merely technically available ones.

²⁶⁴ Politically necessary discrimination that passes balancing and proportionality can still be struck down under the chapeau if, for example, the measure discriminated *among* foreign

to invalidate most discriminatory provisions, while also correctly aligning local government incentives to provide global public goods by permitting welfare-increasing measures.

1. In Order to Qualify for Balancing, a Measure Must Pursue a Global Public Good Protected by a Multilateral Agreement

In applying the GATT Article XX exceptions to local measures, tribunals should ask a two-fold question at the outset. They should ask, as they currently do, whether the challenged measure pursues a permissible objective authorized by one of the Article XX exceptions. Second, they should identify whether the measure's purpose is the pursuit of a global public good protected by a multilateral international regime with membership that substantially overlaps that of the WTO.²⁶⁵ For example, contributing to climate change mitigation is a global public good of the highest importance that falls within the scope of GATT Article XX(b) and XX(g).²⁶⁶ Moreover, nations have moved to protect against climate change within the UNFCCC, the Kyoto Protocol, and increasingly within the Montreal Protocol as well. The existence of these climate change treaties, which have virtually universal membership, attest to the multilateral nature of the problem.²⁶⁷

Identifying a global public good protected by an international regime limits the scope of the balancing and proportionality review I am proposing. The review thus allows the WTO to continue to aggressively enforce its nondiscrimination rules, while taking into account the multilateral benefits that discrimination can—in very narrow circumstances—create. The requirement that a measure pursue a global public good recognized by a multilateral regime that falls within the scope of one of the Article XX exceptions, also limits the scope for gamesmanship by states in two ways.

products, rather than just against foreign products in order to protect a particular local economic interest.

²⁶⁵ The approach I describe here bears much in common with Jeffrey Dunoff's proposal, though I would allow greater discrimination in the name of providing public goods than I believe Dunoff would. See Dunoff, *supra* note 249, at 1441-50 ("One approach would involve a determination of whether the specific environmental interest at stake is protected by customary or treaty law.").

²⁶⁶ See, e.g., *U.S.—Gasoline*, *supra* note 232 ("[A] policy to reduce the depletion of clean air was a policy to conserve a natural resource within the meaning of Article XX(g)."); see also GATT, *supra* note 22, art. XX (providing exceptions for measures "(b) necessary to protect human, animal or plant life or health," and "(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption").

²⁶⁷ See, e.g., *Status of Ratification of the Kyoto Protocol*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php [<http://perma.cc/EJX7-XR3A>] (listing the 192 parties to the Kyoto Protocol to the UNFCCC).

First, the requirement that the measure provide a global public good limits possible abuse. Global public goods are multilateral objectives that the multilateral system is not especially good at providing; states have little incentive to provide a good if other nations are already providing it. The WTO parties thus have a special reason to encourage each other to unilaterally provide those public goods. Unilateral provision of public goods provides a shortcut around the bargaining problems that can bedevil multilateral negotiations.²⁶⁸ This difficulty is particularly acute at the local level, where the relatively smaller size of the jurisdiction means that a greater portion of the benefits from providing global public goods will be externalized.

To demonstrate the existence of a global public good, a respondent state must come forward with evidence that its measure creates benefits *outside* its own jurisdiction. It would not be sufficient, for example, to claim that a measure protects public morals as defined within the enacting jurisdiction. Instead, the respondent would have to come forward with evidence of a concrete cross-border spillover.

Many measures governments might seek to justify under Article XX do not involve these kinds of cross-border spillovers. Rather, they attempt to protect some objective specific to the enacting nation. This is almost by definition true of Article XX(d) measures that are justified as necessary to the enforcement of a nation's otherwise GATT-consistent laws.²⁶⁹ It is also true of many Article XX(a) exceptions for measures necessary to protect public morals, given that public morals will often be relative to the community that shares the norm.²⁷⁰ It also might be true for the conservation of exhaustible natural resources located in a single country (such as China's supply of rare earths),²⁷¹ as well as country-specific health risks,²⁷² under Article XX(b) and (g) respectively.

²⁶⁸ See Gregory Shaffer, *International Law and Global Public Goods in a Legal Pluralist World*, 23 EUR. J. INT'L L. 669, 683-89 (2012) (discussing international law's approach to global public goods); cf. Timothy Meyer, *Soft Law as Delegation*, 32 FORDHAM INT'L L.J. 888, 892-94 (2009) (discussing how states design international agreements to facilitate welfare-enhancing unilateral renegotiation).

²⁶⁹ See GATT, *supra* note 22, art. XX(d) (allowing measures that are "necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies . . . the protection of patents, trade marks and copyrights, and the prevention of deceptive practices"). The objective of these measures is to protect the laws specific to the enacting nation.

²⁷⁰ See GATT, *supra* note 22, art. XX(a); *U.S.—Gambling*, *supra* note 243, ¶¶ 291-96 ("[T]he term 'public morals' denotes standards of right and wrong conduct maintained by or on behalf of a community or nation.").

²⁷¹ See, e.g., Appellate Body Report, *China—Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum*, ¶¶ 5.76, 5.207, WTO Doc. WT/DS431/AB/R, WT/DS432/AB/R, WT/DS433/AB/R (adopted Aug. 29, 2014) ("The Panel accepts China's argument that encouraging foreign users and investors to explore alternative sources of supply could relate to the goal of conserving China's exhaustible natural resources");

At the same time, the public good must be one that falls within the scope of one of the GATT Article XX exceptions. Many public goods, such as preserving global financial stability or the production of knowledge, would not fall within the scope of any of the Article XX exceptions. As a consequence, limiting balancing and proportionality review to measures supplying global public goods that fall within the scope of GATT Article XX provides a narrow exception.

Second, even those public goods that create cross-border spillovers and fall within an Article XX exception must be protected by a multilateral regime with widespread membership to qualify for balancing and proportionality review. Many issues might be described as public goods, insofar as many people care about them. For example, animal welfare might be seen as a global concern that falls within the scope of the GATT Article XX(a) exception for the protection of public morals.²⁷³ Unlike climate change, though, animal welfare is not protected by an international treaty with wide membership. The range of measures qualifying for balancing and proportionality review is thus further limited. Looking to other international agreements in this way also has precedent within the WTO. For example, in the famous *U.S.—Shrimp-Turtle* case, the Appellate Body used the fact that parties to the Convention on the International Trade in Endangered Species (“CITES”) had protected sea turtles to determine that sea turtles constitute an exhaustible natural resource.²⁷⁴

Requiring that a public good be protected by other multilateral institutions serves two other important purposes. First, it ensures that WTO panels do not have to make difficult value judgments about what kinds of values the global community should protect. Instead, they would apply the balancing and proportionality test only to those public goods that member states have already chosen to protect through both GATT Article XX and a multilateral agreement.

Appellate Body Report, *China—Measures Related to the Exportation of Various Raw Materials*, ¶ 360, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R (adopted Feb. 22, 2012) (holding that measures to conserve exhaustible natural resources are permitted if such measures “work together with restrictions on domestic production or consumption, which operate so as to conserve an exhaustible natural resource”).

²⁷² For example, smoking could pose a more acute health risk in certain countries. See Perez, *supra* note 233, at 83 n.264 (“From 1975 to 1995 consumption of cigarettes in developing countries has doubled (while in the developed countries it has actually fallen).” (citation omitted)).

²⁷³ Appellate Body Report, *European Communities—Measures Prohibiting the Importation and Marketing of Seal Products*, ¶¶ 5.179, 5.199-5.201, WT/DS400/AB/R, WT/DS401/AB/R (adopted June 18, 2014) (affirming the Panel’s finding that “the policy objective pursued by the European Union, namely, addressing EU public moral concerns on seal welfare, fell within the scope of Article XX(a) on the protection of public morals”).

²⁷⁴ See *U.S.—Shrimp-Turtle*, *supra* note 230, at ¶ 132 (“The exhaustibility of sea turtles would in fact have been very difficult to controvert since all of the seven recognized species of sea turtles are today listed in . . . the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”).”).

Second, such an approach would grant states more leeway in situations of conflict between international regimes. For example, the relationship between environmental treaties such as the UNFCCC or CITES and the GATT has never been expressly defined. This leaves states with obligations under both agreements that may be difficult to square. Providing deferential review to state action taken under a GATT Article XX exception in pursuit of values protected by another transnational agreement gives states the space to determine how to satisfy their obligations under both agreements, rather than having the Appellate Body potentially determine that the state cannot comply with its environmental commitments due to its trade commitments.

2. Assessing the Political Necessity of Discriminatory Measures to the Passage of Local Public Goods Measures

If a measure falls within the scope of an Article XX exception and provides a global public good, the measure would qualify for balancing and proportionality review at the second stage of the Article XX analysis. This analysis involves two steps. First, in lieu of a least restrictive means test, panels should ask whether the discriminatory condition was necessary to the measure's passage in light of the *reasonably and politically available alternatives*. If the panel determines that the condition was necessary, then the panel should evaluate whether the benefits from the challenged measure are proportional to its costs. I discuss "political necessity" here and balancing and proportionality in Section 3 below.

GATT Article XX textually supports consideration of political economy dynamics: "[N]othing in this Agreement shall be construed to prevent *the adoption* or enforcement by any contracting party of measures . . ." ²⁷⁵ As the italicized portion of the text indicates, the chapeau of Article XX expressly distinguishes between the process of lawmaking (adoption) and implementation (enforcement). ²⁷⁶ The GATT exceptions should thus apply to both processes separately. The same distinction can be found in other IEL agreements, such as the TBT Agreement. ²⁷⁷

The political necessity test has two elements. First, tribunals should inquire into political necessity only where local government measures are involved. The analysis above supports this distinction, showing that national governments—with wider scope for bargaining—will not need to employ discriminatory conditions to pass public goods measures. Second, tribunals should not require that local governments employ the least restrictive means, as that test is conventionally understood. As described above, the consideration of less restrictive trade alternatives currently employed by the WTO Appellate

²⁷⁵ GATT, *supra* note 22, art. XX (emphasis added).

²⁷⁶ *Id.*

²⁷⁷ See TBT Agreement, *supra* note 52, art. 2.2 ("Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade.").

Body focuses almost entirely on identifying alternatives that are “reasonably available” only when viewed from an implementation (i.e., enforcement) perspective. In the case of discriminatory conditions, such as renewable energy LCRs, the identical measure without the discriminatory condition will always be available as a less restrictive alternative when viewed in this technocratic manner. The effect of this cramped reading is to prohibit the adoption of measures that are necessary when viewed in light of the process of adoption, i.e., lawmaking. In effect, GATT and WTO panels have conflated the adoption and enforcement prongs, whereas the GATT itself distinguishes between lawmaking and enforcement processes and protects each separately.²⁷⁸

What kinds of evidence should tribunals look to in evaluating the political necessity of local discriminatory measures? Historically, WTO tribunals are reluctant to inquire into the subjective intent of legislators.²⁷⁹ Thus, tribunals have to look to other kinds of evidence demonstrating that the discriminatory condition is necessary to the adoption of the measure.

First, tribunals should look to objective evidence that tends to demonstrate that the challenged local government does not regularly make use of discriminatory conditions. Such evidence could include a survey of the use of discriminatory conditions elsewhere in its laws. Regular use of unlawful discriminatory conditions tends to show that local governments are not selectively employing discrimination to advance global public goods. By contrast, if the government’s use of discriminatory conditions appears connected to measures that provide public goods, that tends to show that discrimination is used to offset the externalized benefits associated with public goods. On the other hand, if a jurisdiction regularly enacts similar global public goods measures *without* discriminatory conditions, that tends to show that discrimination is unnecessary.²⁸⁰ Finally, consideration of such evidence is consistent with the WTO tribunals’ emphasis on objective, rather than subjective, evidence.²⁸¹ Local governments are unlikely to manipulate their entire code for purposes of passing particular discriminatory measures. This evidence is thus a reliable indication that the local governments are selective in deploying discriminatory measures only when they are welfare enhancing.

²⁷⁸ See GATT, *supra* note 22, art. XX.

²⁷⁹ See, e.g., Appellate Body Report, *Japan—Taxes on Alcoholic Beverages*, WTO Doc. WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (adopted Nov. 1, 1996) [hereinafter *Japan—Beverages*] (“It is not necessary for a panel to sort through the many reasons legislators and regulators often have for what they do and weigh the relative significant of those reasons to establish legislative or regulatory intent. . . . [I]t does not matter that there may not have been any desire to engage in protectionism in the minds of the legislators or the regulators who imposed the measure. It is irrelevant that protectionism was not an intended objective . . .”).

²⁸⁰ Of course, one has to compare like programs, e.g., a subsidy program would be compared to other subsidy programs, not regulatory schemes.

²⁸¹ See *Japan—Beverages*, *supra* note 279 (rejecting a subjective inquiry into legislative intent in favor of an objective analysis of how the measure is actually applied).

Second, borrowing from investment law and European jurisprudence, this analysis might include a procedural component. Governments considering adopting discriminatory conditions linked to public goods measures should have to demonstrate that they considered the adverse trade consequences in a public forum during their deliberations. They would be required to show that they gathered and considered the same kind of evidence that a tribunal would examine in determining the relationship between the costs of discrimination and the benefits of the program. Moreover, examining this evidence in transparent public fora, where domestic and foreign interests would be able to participate, would make it more difficult for government officials to feign ignorance about the welfare effects of truly discriminatory conditions. Instead, they would be forced to mount a public defense of the need for the discriminatory condition. This public debate, and the possibility of public sanction for acting adversely to the interests of one's own constituents, should act as some brake on lawmakers' protectionist instincts.

To be sure, legislators are capable of complying with procedural requirements while only paying lip service to the underlying substantive concerns. However, because local governments are not directly responsible under international law, many of them may be unaware of international law's requirements. At the least, a procedural requirement would require legislators to educate themselves and would create the conditions—which may not exist in local governments today—for them to consider the cross-border effects of their measures and international trade rules.²⁸²

3. Balancing and Proportionality

If the panel determines that the measure is politically necessary, it should then consider whether the benefits of the measure in terms of providing the global public good, are proportional to the costs in terms of trade restrictiveness. Such a test requires the tribunal to balance the challenging government's interests and rights in trade liberalization against the respondent government's right to protect its environment or population.²⁸³ On top of that, the tribunal would also inquire into the benefits to the multilateral system as a whole. This test would allow a panel to strike down a discriminatory measure that was politically necessary but did not create sufficient benefits to justify the costs in terms of trade restrictiveness. In this way, the test provides another important limiting principle.

²⁸² As I discuss in note 299 *infra*, another possible solution would be to allow direct liability for local governments. Such a suggestion goes beyond simply changing existing WTO doctrine, however, so I defer its consideration to future work.

²⁸³ See Venzke, *supra* note 249, at 1130 (explaining that applying the chapeau of Article XX requires “marking out a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions” (quoting *U.S.—Shrimp-Turtle*, *supra* note 230, ¶ 159)).

A respondent government might be able to produce quantitative evidence showing the trade distortions and benefits (e.g., greenhouse gas emissions reductions) caused by its measure. The test should look at the specifics of the program in question. For example, subsidizing certain renewable energy technologies (solar) may produce more benefits in terms of greenhouse gas reductions than other technologies (biofuels). Local discriminatory programs that support the solar sector could thus create greater costs compared to biofuels and still seek shelter in Article XX.

This proportionality review should also include analysis of the size of the government enacting the program. The theory of local discrimination and global public goods suggests that the size of a jurisdiction—not just whether a government is local or national—influences whether discriminatory conditions are necessary to pass public goods measures.²⁸⁴ As a jurisdiction gets larger, discriminatory conditions are less likely to be beneficial because they are less likely to be politically necessary.²⁸⁵ Therefore, panels should require greater benefits in relation to costs as the size of a jurisdiction increases. This test ensures that large subnational governments, like California, are treated more like nations of comparable size.²⁸⁶

* * *

Taken together, this inquiry would allow tribunals to feel sufficiently confident that a local government did indeed need the discriminatory condition to muster political support for the adoption of the public goods measure. For a measure to survive, the tribunal must find that the discriminatory measure was politically necessary to the passage of the public goods measure, that the discriminatory costs are proportional to the benefits created by the program, and that those costs and benefits were considered in the process of adopting the measure. Of course, this test is far from perfect. Inevitably, some protectionist, welfare-decreasing measures will survive under this test. Overall, however, this test would increase welfare by permitting local governments to tackle global public goods issues more aggressively through the use of discriminatory conditions when political constraints warrant those conditions.

Finally, it is worth noting that adopting these proposals would not likely result in a host of new opportunistic or pretextual discriminatory actions by local governments. Both national and local governments already engage in actions that violate WTO rules on a regular basis.²⁸⁷ Many of these actions go

²⁸⁴ See *supra* Section III.C.

²⁸⁵ See *supra* Section III.C.

²⁸⁶ See *supra* note 198.

²⁸⁷ See Don Ikenson, *U.S. Abides Global Trade Rules . . . Just Ignore The Steel Protectionism, Antidumping Abuse, WTO Violations, Etc.*, FORBES (July 16, 2014, 8:59 PM), <http://www.forbes.com/sites/danikenson/2014/07/16/u-s-abides-global-trade-rules-just-ignore-the-steel-protectionism-antidumping-abuse-wto-violations-etc/print/> [<http://perma.cc/E5KZ-JV6Z>] (stating that the United States has “run afoul of the [WTO

unchallenged because the trade impacts of the unlawful measures do not justify a challenge.²⁸⁸ This is especially true of many local measures. Only those local programs that target high-value, politically important industries prompt challenges to local measures. The European Union, for example, has challenged Washington State's support of Boeing because of its effects on the European aircraft industry, specifically Airbus.²⁸⁹ Thus, permitting the proposed type of review for public goods measures would not encourage more discriminatory measures in part because international law already does not do much to deter them.

Renewable energy presents a special problem, however. Governments expect renewable energy to be a growth sector, one that provides jobs in technology and manufacturing. As the Chinese and Indian action against the United States, as well *Canada—Renewable Energy*, indicate, nations are more likely to bring challenges to local measures because of the expected high value of the sector involved and its political importance. We thus need a solution that deals with those measures that are likely to actually face challenges, like renewable energy LCRs, rather than worrying about the wide-range of local measures that will not be challenged regardless of the state of the law.

C. *Negotiated Solutions*

Nations can also use international agreements to protect local welfare-enhancing discriminatory measures. Rules on national responsibility for local measure are default rules only. States have the ability to craft exemptions for local conduct into their agreements.²⁹⁰ Moreover, they increasingly do so in agreements ranging from the WTO's Agreement on Government Procurement to bilateral investment treaties.²⁹¹ Governments are not consistent when they create these exemptions. They appear ad hoc in some multilateral agreements, but not other similar agreements. In bilateral agreements, some states, such as the United States, have taken to exempting non-conforming local measures across the board.²⁹²

Antidumping Agreement] more often than any other WTO member and has been found in violation of its broader WTO obligations more frequently than any other member").

²⁸⁸ Leslie Johns & Krzysztof J. Pelc, Free-Riding on Enforcement in the WTO 1 (July 8, 2015) (unpublished paper), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2628441 [<http://perma.cc/VAJ8-RFP7>] ("Yet the WTO's dispute settlement system sometimes appears ineffective, with trade violations going unchallenged for years.").

²⁸⁹ See Request for the Establishment of a Panel, *United States—Measures Affecting Trade in Large Civil Aircraft (Second Complaint)*, ¶ 29, WTO Doc. WT/DS353/18 (Oct. 12, 2012) (stating that the subsidies to Boeing "cause present adverse effects, in the form of serious prejudice, and the threat thereof, to EU interests").

²⁹⁰ See *supra* note 101.

²⁹¹ See *supra* note 101.

²⁹² See *supra* note 101.

States should refine this practice by including narrow exculpatory provisions in their agreements. First, states should exempt renewable energy subsidy programs maintained by subnational governments from review under IEL agreements. This could include an agreement within the WTO to protect local measures that pursue renewable energy programs. A sufficient number of states seem to have such measures, including the United States, India, Canada, and the European Union (through member states such as Italy), that a deal protecting local action might be possible.²⁹³ Seventeen WTO members, including many of these countries, are currently negotiating a plurilateral Environmental Goods Agreement.²⁹⁴ While the emphasis of the negotiations seems to be reducing tariffs, the European Union in particular has pushed for reducing barriers to renewable energy.²⁹⁵ One could imagine future negotiating rounds expanding beyond reductions in tariffs to facilitating renewable energy through exemptions from other WTO rules.

Although I focus predominantly on the WTO here, negotiated solutions could also play a role in investment law. The situation in investment is somewhat different, however. Currently, investment treaties, especially recent U.S. bilateral investment treaties, are much more protective of exemptions. Article 14.5 of the U.S. Model BIT, for example, provides that the agreement's nondiscrimination rules do not apply to "subsidies or grants provided by a Party, including government-supported loans, guarantees, and insurance."²⁹⁶ Moreover, recent U.S. BITs include blanket exemptions for "[a]ll existing non-conforming measures of all states of the United States, the District of Columbia, and Puerto Rico."²⁹⁷

Taken together, these provisions likely insulate the narrow class of potentially welfare-increasing discriminatory subsidy programs from challenge under investment agreements. Unfortunately, these provisions are overly broad, exempting from liability all existing local measures and all subsidies—local or national, predating or post-dating the treaty—without any consideration of the welfare effects of the exemption. The United States does not include these provisions out of a desire to craft legal rules that permit welfare-enhancing measures but discourage welfare-decreasing measures. The U.S. approach is driven by a defense counsel mentality. The U.S. government

²⁹³ See HUFBAUER, *supra* note 26, app'x.

²⁹⁴ *Environmental Goods Agreement Talks Review Product List*, INT'L CTR. FOR TRADE & SUSTAINABLE DEV. (May 13, 2015), <http://www.ictsd.org/bridges-news/biores/news/environmental-goods-agreement-talks-review-product-list> [<http://perma.cc/XW6Y-FJA8>] (explaining the results of the sixth round of talks between the seventeen WTO members).

²⁹⁵ *Cf. id.* (stating that the list of product proposals "addressed products related to ten categories of environmental goods, ranging from cleaner and renewable energy to water and wastewater treatment").

²⁹⁶ U.S. Model BIT, *supra* note 47, art. 14:5.

²⁹⁷ See U.S.-Uruguay BIT, *supra* note 101.

includes these exemptions to deter challenges to measures that are widespread and likely otherwise incompatible with the general nondiscrimination provisions of IEL agreements. It does so because, as a practical matter, the executive branch lacks the ability to identify all existing non-conforming measures. Moreover, in many cases, changing these measures would require legislative action at the local level or a Congressional statute to preempt inconsistent state or local laws, both of which can be hard to obtain. The executive branch thus includes broad exculpatory provisions as a way to minimize the government's potential liability and its obligation to defend noncompliant measures.

These overly broad exemptions should be eliminated and replaced with narrow reservations that protect existing and future renewable energy subsidy programs, such as those enumerated in the Appendix to this Article.²⁹⁸ Eliminating these overly-broad exemptions and replacing them with more narrowly-tailored ones will increase welfare by allowing challenges to generic discriminatory programs while shielding those that create non-trade, e.g., environmental, benefits. This elimination would thus match the exemption from IEL's nondiscrimination rules with the justification for discrimination.²⁹⁹

Thus, this proposal is not one that expands the scope of exemptions from IEL's rules. Rather, it narrows the scope of the exemption to areas in which providing the exemption would deliver positive benefits outside the national jurisdiction that are not accounted for within the ordinary trade calculus. In short, this proposal makes it more likely, relative to the status quo, that

²⁹⁸ Formally, existing measures would be protected by listing all such measures, including those identified in the Appendix of this Article, as well as any similar programs at the state or truly local level, in Annex I or III of U.S. investment agreements. Annex I and III of recent U.S. bilateral investment treaties provide a list of existing measures that are exempted from the nondiscrimination provisions of the agreement. *See id.* ("The Schedule of a Party to this Annex sets out, pursuant to Article 14 (Non-Conforming Measures), a Party's existing measures that are not subject to some or all of the obligations imposed by: (a) Article 3 (National Treatment); (b) Article 4 (Most-Favored-Nation Treatment); (c) Article 8 (Performance Requirements) . . ."). Future subnational renewable energy support programs would be protected through inclusion in what is currently Annex II of recent U.S. investment agreements. Future measures described in each country's schedule to Annex II are exempt from the treaty's nondiscrimination rules. *See id.* art. 14.2 (providing that national treatment rules, most favored nation rules, and the ban on performance requirements "do not apply to any measure that a Party adopts or maintains with respect to sectors, subsectors, or activities, as set out in its Schedule to Annex II").

²⁹⁹ Another possible approach would be to consider allowing direct liability for local governments. The U.S. government prefers broad exemptions for local programs because local governments largely shift the costs of their unlawful action to the federal government, which is required to defend the suit and deal with any resulting judgments (either financial or reciprocal in the case of the WTO). Direct liability for local governments would cause them to internalize the costs of their unlawful actions. Direct liability would, of course, have to be coupled with substantive rules that allow local governments to internalize the externalized benefits their actions sometimes create, as discussed in this Article.

national governments will be liable for local government action that has harmful international consequences, but not for local government action that has beneficial international consequences.

* * *

International legal rules must differentiate between discriminatory provisions that are welfare-enhancing and those that are not. To date, however, international rules have created two competing and ultimately unsatisfying trends for local discriminatory measures that support public goods programs. On the one hand, international rules on state responsibility have not evolved to take into account the increased role of local governments in international affairs and the different dynamics that animate local decision-making. As a consequence, governments such as the United States' have increasingly pushed for an overbroad exemption for all local measures that are inconsistent with IEL rules. On the other hand, IEL rules hold local measures that pursue permissible non-trade objectives to the same standard as national measures, with the potential to significantly curtail the large number of state renewable energy support programs identified in this Article. To avoid both the over-exclusion of local programs emerging in treaty practice and the under-exclusion evident in IEL doctrine, I propose reforming treaty practice and case law to recognize the narrow but important role discrimination can play at the local level in solving collective action problems related to the provision of global public goods.

CONCLUSION

International economic law has long sought to stamp out discrimination among nations in the name of boosting economic welfare. The logic of the international trade regime has long been that IEL's nondiscrimination rules allow governments to solve domestic collective action problems that prevent them from liberalizing trade. But not all problems are better solved at the national or international level. The twenty-first century is one of disillusionment with global institutions. No longer do commentators and politicians hold out hope that the WTO, the UNFCCC, or the UN Security Council will serve as the primary fora in which to resolve global challenges. World leaders increasingly hedge their bets, pursuing their global objectives in smaller fora.

This trend has trickled all the way down to local governments, which increasingly participate in international politics. Yet local governments do not, and cannot, tackle global problems in the same way that national governments do. As I have shown in the Article, their constraints and decision-making environments differ considerably from national governments. International rules thus have to evolve to create space for the role that local governments have already assumed.

APPENDIX: STATE-LEVEL RENEWABLE ENERGY LCRS

State	Program Name	Code or Program Location	Domestic Content Requirement	Costs
California	Self Generation Incentive Program	CAL. PUB. UTIL. CODE § 379.6(j)	“In administering the self-generation incentive program, the commission shall provide an additional incentive of 20 percent from existing program funds for the installation of eligible distributed generation resources manufactured in California.”	\$83 million annually through 2019
Connecticut	Standard Service (renewable portfolio requirement)	CONN. GEN. STAT. § 16-244c(h)(2)	“[A]n electric distribution company providing . . . standard service . . . shall . . . file with the Public Utilities Regulatory Authority for its approval one or more long-term power purchase contracts from Class I renewable energy source projects with a preference for projects located in Connecticut that receive funding from the Clean Energy Fund”	No Budgetary Data Found
	Renewable Energy and Efficient Energy Finance Program	CONN. GEN. STAT. § 16-245aa	Requires the Connecticut Green Bank to “establish a renewable energy and efficient energy finance program Said bank shall give priority to applications for grants, investments, loans or other forms of financial assistance to projects that use major system components manufactured or assembled in Connecticut.”	No Budgetary Data Found

	Residential Solar Investment Program	CONN. GEN. STAT. § 16-245ff	“The Public Utilities Regulatory Authority shall provide an additional incentive of up to five per cent of the then-applicable incentive provided pursuant to this section for the use of major system components manufactured or assembled in Connecticut, and another additional incentive of up to five per cent of the then-applicable incentive provided pursuant to this section for the use of major system components manufactured or assembled in a distressed municipality”	No Budgetary Data Found
Delaware	Renewable Energy Portfolio Standard Credit	DEL. CODE ANN. tit. 26, § 356	Provides additional credit toward satisfying renewable energy portfolio standards to retail electricity suppliers or municipal energy companies for purchasing certain kinds renewable energy from facilities located in Delaware.	No Budgetary Data Found
	Administration of RPS	3.2.15 DEL. ADMIN. CODE § 3008	“A Retail Electricity Supplier or a Rural Electric Cooperative shall receive an additional 10% credit toward meeting the RPS for solar or wind energy installations sited in Delaware, provided that a minimum of 50% of the cost of the renewable energy equipment, inclusive of mounting components, relates to Delaware manufactured equipment.”	No Budgetary Data Found
Illinois	Illinois Power Agency Renewable Energy Resources Fund	20 ILL. COMP. STAT. 3855/1-56(b)	“The Illinois Power Agency Renewable Energy Resources Fund shall be administered by the Agency to procure renewable energy resources. Prior to June 1, 2011, resources procured pursuant to this Section shall be procured from facilities located in Illinois Beginning June 1, 2011, resources procured pursuant to this Section shall be procured from facilities located in Illinois or in states that adjoin Illinois.”	No Budgetary Data Found

	Renewable Portfolio Standard	20 ILL. COMP. STAT. 3855/1-75(c)	“Renewable energy resources shall be counted for the purpose of meeting the renewable energy standards set forth in paragraph (1) of this subsection (c) only if they are generated from facilities located in the State”	No Budgetary Data Found
Indiana	Clean Energy Vehicles	IND. CODE § 5-22-5-8.5(f)	“The Indiana department of administration shall adopt rules or guidelines to provide a preference for the purchase or lease by state entities of clean energy vehicles manufactured wholly or partially in Indiana or containing parts manufactured in Indiana.”	No Budgetary Data Found
	Qualifications for Financial Incentives	IND. CODE § 8-1-37-12(b)	Providing for a higher regulated rate of return to electricity providers, provided that, <i>inter alia</i> , “at least fifty percent (50%) of the megawatt hours of clean energy obtained by the participating electricity supplier to meet the energy requirements of its Indiana retail electric customers during the CPS goal period under consideration must originate from clean energy resources located in Indiana.”	No Budgetary Data Found
Iowa	Rates for Alternate Energy Production Facilities	IOWA CODE § 476.43	“[T]he board shall require electric utilities to . . . own alternate energy production facilities or small hydro facilities located in this state [or e]nter into long-term contracts to purchase or wheel electricity from alternate energy production facilities or small hydro facilities located in the utility’s service area.”	No Budgetary Data Found
	Renewable Energy Tax Credit	IOWA CODE § 476C.1-2	“A . . . purchaser of renewable energy may receive renewable energy tax credits in an amount equal to . . . one dollar and forty-four cents per one thousand standard cubic feet of hydrogen fuel generated by and purchased from an eligible renewable energy facility,” where an “eligible renewable energy facility” is one “located in this state.”	No Budgetary Data Found

Kansas	Solar and Wind Manufacturing Incentive	KAN. STAT. ANN. § 74-50, 136	Provides state-backed financing for “eligible wind or solar energy projects,” which include “product development and design, applied research, manufacturing, improvement, replacement or acquisition of real or personal property and modernization and retooling of existing property in Kansas.”	“[N]ot to exceed \$150 [million] for all eligible aviation, wind or solar energy projects.”
Louisiana	Purchase of Feedstock by Operators of Renewable Fuel Manufacturing Facilities; Notice Requirements; Annual Report	LA. STAT. ANN. § 3:3712	Designed “to assure that Louisiana farmers have the opportunity to have Louisiana harvested crops purchased as feedstock by operators of renewable fuels manufacturing facilities in Louisiana . . . Beginning July 1, 2006, there will be a presumption that renewable fuel plants operating in Louisiana and deriving ethanol from the distillation of corn shall use as feedstock at least twenty percent of the corn crop harvested in Louisiana. In succeeding years, the minimum percentage of Louisiana harvested corn used to produce renewable fuel in Louisiana facilities shall be at least the same percentage of corn used nationally to produce renewable fuel as reported by the United States Department of Agriculture’s Office of the Chief Economist. . . . [Providing similar provisions for biodiesel].”	No Budgetary Data Found

	Exclusions and Exemptions; Gasohol	LA. STAT. ANN. § 47:305.28(A)	“The sales or use taxes imposed by the state of Louisiana or any such taxes imposed by any parish or municipality or other local entity within the state shall not apply to the sale at retail, the use, the consumption, the distribution, and the storage, to be used or consumed in this state, of any motor fuel known as gasohol, containing a blend of at least ten percent alcohol, if the alcohol therein has been produced, fermented, and distilled in Louisiana from agricultural commodities.”	No Budgetary Data Found
	Tax Credit for “Green Job Industries”	LA. STAT. ANN. § 47:6037 (A)(4)	“‘Green job industry’ or ‘green job industries’ shall mean energy efficiency and renewable energy industries, energy-efficient building, construction, and retrofit industries, the renewable electric power industry, the energy efficient and advanced drive train vehicle industry, the biofuels industry, the deconstruction and materials use industries, the energy efficiency assessment industry serving the residential, commercial, or industrial sectors, and manufacturers that produce sustainable products using environmentally sustainable processes and materials approved by a nationally recognized high performance environmental building rating system, or that have the ENERGY STAR designation from the United States Environmental Protection Agency. <i>However, any such rating system that uses a material or product-based credit system which is disadvantageous to materials or products manufactured or produced in the state of Louisiana shall not be utilized.</i> ” (emphasis added).	No Budgetary Data Found

Maine	Capacity Resource Adequacy	ME. STAT. tit. 35-A § 3210-C	Providing that the state may direct “utilities to enter into long-term contracts for capacity resources.” In selecting capacity resources for contracting, the state shall give priority to, <i>inter alia</i> , new energy efficient and renewable resources located in the state.	No Budgetary Data Found
Maryland	Production Credits for Renewable Fuels	MD. CODE ANN., AGRIC. § 10-1506	Providing that the recipients of credits for the production in Maryland of ethanol and biodiesel must report to the state “the number of bushels of Maryland-grown small grains” and “Maryland-produced soybean oil and other bio-based oils” used.	\$3 million.
Massachusetts	Renewable Energy Portfolio Standard	Mass. Gen. Laws ch. 25A § 11F	“In satisfying its annual obligations under subsection (a) [the renewable portfolio requirement], each retail supplier shall provide a portion of the required minimum percentage of kilowatt-hours sales from new on-site renewable energy generating sources local in the commonwealth”	No Budgetary Data Found
	Commonwealth Solar II	Mass. Clean Energy Center: http://perma.cc/YW5R-AC35	“Massachusetts Company Components Adder: To qualify for this adder, the System Owner must provide evidence that the modules, the inverter(s), and any other significant component which is important to the electricity production of the project are manufactured by a company with a significant Massachusetts presence, as determined at the sole discretion of MassCEC.”	\$6 million
Michigan	Basis for Granting Michigan Incentive Renewable Energy Credits	MICH. COMP. LAWS § 460.1039(d)	“[T]he following additional renewable energy credits, to be known as Michigan incentive renewable energy credits, shall be granted under the following circumstances . . . 1/10 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system constructed using equipment made in this state as determined by the commission.”	No Budgetary Data Found

Minnesota	Made in Minnesota Solar Installations	MINN. STAT. § 174.187(2)	“Notwithstanding any other law to the contrary, if the commissioner engages in any project for the construction, improvement, maintenance, or repair of any building, highway, road, bridge, or land owned or controlled by the department and the construction, improvement, maintenance, or repair involves installation of one or more solar photovoltaic modules, the commissioner must ensure that the solar photovoltaic modules purchased and installed are ‘Made in Minnesota.’”	\$15 million for ten years
	Renewable energy production incentive	MINN. STAT. § 216C.41	Provides incentive payments to qualified renewable energy generation facilities located in Minnesota, including “anaerobic digester system that is located at the site of an agricultural operation [and thus uses feedstock generated on-site].”	Total: up to \$10.9 mil. annually Wind: \$9.4 mil. Hydro, Anaerobic Digesters: \$1.5 mil.
	Solar Energy Production Incentive	MINN. STAT. § 216C.411-415	“Incentive payments may be made under this section only to an owner of grid-connected solar photovoltaic modules . . . who . . . has received a ‘Made in Minnesota’ certificate.”	No Budgetary Data Found
	Solar Thermal Rebates	MINN. STAT. § 216C.416	Provides rebates “for the installation of ‘Made in Minnesota’ solar thermal systems in the state.”	\$250,000 per year for ten years (2014-23)
	Rebates for Solar Photovoltaic Modules	MINN. STAT. § 116C.7791	“Rebate eligibility. (a) To be eligible for a rebate under this section, a solar photovoltaic module: (1) must be manufactured in Minnesota.”	\$2 mil. in fiscal year 2011; \$4 mil. in 2012; \$5 mil. in each 2013-15
	Community-Based Energy Development; Tariff	MINN. STAT. § 216B.1612	Providing for “a community-based energy development tariff” for which entities qualify in part based upon the “value-added portion of payments for goods manufactured in Minnesota.”	No Budgetary Data Found

	Solar Energy in State Buildings	MINN. STAT. § 16B. 323	“As provided in paragraphs (b) and (c), a project for the construction or major renovation of a state building, after the completion of a cost-benefit analysis, may include installation of ‘Made in Minnesota’ solar energy systems of 40 kilowatts capacity on, adjacent, or in proximity to the state building.”	No Budgetary Data Found
Mississippi	Mississippi Industry Incentive Finance Fund	MISS. CODE. ANN. § 57-1- 221	“‘Approved business enterprise’ means any project that: (i) Locates or expands in this state and creates a minimum of two hundred fifty (250) new, full-time jobs with a total capital investment in the state of a minimum of Thirty Million Dollars (\$30,000,000.00) in Tier 1 or Tier 2 counties; (ii) Locates or expands in this state and creates a minimum of one hundred fifty (150) new, full-time jobs with a total capital investment in the state of a minimum of Fifteen Million Dollars (\$15,000,000.00) in areas federally designated as low-income census tracts; (iii) Locates or expands in this state and creates a minimum of one thousand (1,000) new, full-time jobs; or (iv) Locates or expands in this state with significant regional impact as determined by MDA . . . <i>It is the policy of the MDA and the MDA is authorized to accommodate and support any enterprise that receives a loan under this section for a project defined in Section 17-25-23 that wishes to have a program of diversity in contracting, and/or that wishes to do business with or cause its prime contractor to do business with Mississippi companies.</i> ” (emphasis added).	No Budgetary Data Found

Missouri	Wood Energy Credit	MO. CODE REGS. ANN. tit. 4, § 340-4.010 (1)(A)	“Only the pure charcoal or raw charcoal produced from Missouri forest industry residue by a Missouri wood energy producer is eligible for the wood energy tax credit. . . . The tax credit to the wood energy producer shall be five dollars (\$5) per ton of processed Missouri forestry industry residue. The calculation of the tax credit shall be five dollars (\$5) per ton of wood pellets sold and for charcoal shall be five dollars (\$5) per ton of charcoal sold, adjusted by a multiplier of four (4).”	In 2007—\$28.6 million in credits had been issued and \$26.4 million redeemed
	Missouri Qualified Fuel Ethanol Producer Incentive Program	MO. CODE REGS. ANN. tit. 2, § 110-1.010	A Missouri Qualified Fuel Ethanol Producer (“MQFEP”) is eligible for a grant based in part on the “number of bushels of Missouri agricultural products used by the MQFEP in the production of fuel ethanol . . . [and] the number of bushels of Missouri agricultural products to be used by the MQFEP in the production of fuel ethanol.”	Maximum annual grant of \$3.125 million
	Missouri Qualified Biodiesel Producer Incentive Program	MO. CODE REGS. ANN. tit. 2, § 110-2.010	Allows MQBPs to seek grants from the state, where an MQBP is defined in part 1) as a producer that uses only feedstock originating the United States, and 2) that is either 51% owned by a Missouri resident or uses at least 80% feedstock from Missouri.	Maximum annual grant of \$6 million

	Biomass Facilities	MO. REV. STAT. § 620. 2300 (3)	<p>“[U]pon receipt of an application and approval from the department, the commission shall assign double credit to any electric power, renewable energy, renewable energy credits, or any successor credit generated from:</p> <p>(1) Renewable energy resources purchased from the biomass facility located in the park [which is located in MO] by an electric power supplier;</p> <p>(2) Electric power generated off-site by utilizing biomass fuel sold by the biomass facility located at the park; or</p> <p>(3) Electric power generated off-site by renewable energy resources utilizing storage equipment manufactured at the park that increases the quantity of electricity delivered to the electric power supplier.”</p>	No Budgetary Data Found
Montana	Biodiesel Tax Credit	MONT. CODE ANN. § 15-32-703(4)	<p>“The following requirements must also be met for a taxpayer to be entitled to a tax credit under this section: (a) The investment must be for depreciable property used primarily to blend petroleum diesel with biodiesel made entirely from Montana-produced feedstocks.”</p>	No Budgetary Data Found
	Ethanol Production Credit	MONT. CODE ANN. § 15-70-522(2)	<p>“Except as provided in subsections (3) and (4), the tax incentive on each gallon of ethanol distilled in accordance with subsection (1) is 20 cents a gallon for each gallon that is 100% produced from Montana products, with the amount of the tax incentive for each gallon reduced proportionately, based upon the amount of agricultural or wood products not produced in Montana that is used in the production of the ethanol.”</p>	The program limits individual facility payments to \$2 mil. annually, and \$6 mil. over the life of a facility.

	Biodiesel Tax Credit	MONT. CODE ANN. § 15-70-369(1)	“A licensed distributor who pays the special fuel tax under 15-70-343 on biodiesel, as defined in 15-70-301, may claim a refund equal to 2 cents a gallon on biodiesel sold during the previous calendar quarter if the biodiesel is produced entirely from biodiesel ingredients produced in Montana.”	No Budgetary Data Found
Oregon	Electricity Produced by Qualifying Systems	OR. REV. STAT. § 757-375(1)	“Any electricity produced from a qualifying system under ORS 757.370 [solar PV systems] that is physically located in this state may be used by an electric company to comply with the renewable portfolio standard established under ORS 469A.005 to 469A.210.”	No Budgetary Data Found
	Renewable Portfolio Standard	OR. REV. STAT. § 469A.025(6)(a)	“Direct combustion of municipal solid waste in a generating facility located in this state may be used to comply with a renewable portfolio standard. The qualification of a municipal solid waste facility for use in compliance with a renewable portfolio standard has no effect on the qualification of the facility for a tax credit under ORS 469B.130 to 469B.169.”	No Budgetary Data Found
South Carolina	Distributed Energy Resource Program	S.C. CODE ANN. § 58-39-130	“Upon approval of its application, an electrical utility shall be permitted to recover its costs related to the approved distributed energy resource program An electric utility may implement a distributed energy resource program by . . . purchase of power from renewable energy facilities located in South Carolina.”	No Budgetary Data Found

Texas	Agricultural Biomass and Landfill Diversion Incentive Program	TEX. AGRIC. CODE ANN. § 22.003(b)	“[A] farmer, logger, diverter, or renewable biomass aggregator and bio-coal fuel producer is entitled to receive a grant in the amount of \$20 for each bone-dry ton of qualified agricultural biomass, forest wood waste, urban wood waste, co-firing biomass, or storm-generated biomass debris provided by the farmer, logger, diverter, or renewable biomass aggregator and bio-coal fuel producer in a form suitable for generating electric energy to a facility that: (1) is located in this state”	Total grants awarded may not exceed \$30 million per year, or \$6 million per facility per year.
Utah	Contracts for the Purchase of Electricity from a Renewable Energy Facility	UTAH CODE ANN. § 54-17-801 to 802	“Within a reasonable time after receiving a request from a contract customer . . . a qualified utility shall enter into a renewable energy contract . . . to supply some or all of the contract customer’s electric service from one or more <i>renewable energy facilities</i> selected by the contract customer.” § 54-17-802. To qualify as a ‘renewable energy facility,’ a facility must be located in Utah.”	No Budgetary Data Found
Virginia	Generation, Distribution, and Transmission Rates After Capped Rates Expire	VA CODE ANN. § 56-585.1(6)	Providing preferential treatment in the regulation of rates to any “utility that constructs or purchases any such generation facility consisting of at least one megawatt of generating capacity using energy derived from sunlight and located in the Commonwealth and that utilizes goods or services sourced, in whole or in part, from one or more Virginia businesses.”	No Budgetary Data Found

Washington	Renewable Energy System Cost Recovery	WASH. REV. CODE § 82.16.120	Provides investment cost recovery incentive for: "(A) Any solar inverters and solar modules manufactured in Washington state; (B) A wind generator powered by blades manufactured in Washington state; (C) A solar inverter manufactured in Washington state; (D) A solar module manufactured in Washington state; (E) A stirling converter manufactured in Washington state; or (F) Solar or wind equipment manufactured outside of Washington state"	\$1,929,196 in 2012
Wyoming	Ethanol Tax Credit	WYO. STAT. ANN. § 39-17-109(d)(iv)	"To qualify to redeem tax credits under this subsection, an ethanol producer shall purchase at least twenty-five percent (25%) of Wyoming origin products used in the distillation process, excluding water, during the calendar year in which the tax credits were earned. Each ethanol producer shall verify the origin of the products."	\$4,000,000 per year