The main thesis of this article is that the WTO need not be captured by one mode of expertise in its approach to the relation between trade and the environment. It should resist reducing the totality of the relationship to a win-win narrative as there may be certain areas of conflict where trade interests need to give in to environmental interests.

*Sadeq Bigdeli, LLM (Harv), PhD (Bern), Senior Lecturer, Te Piringa Faculty of Law, New Zealand. E-mail: s.bigdeli[at]waikato.ac.nz. The usual disclaimer applies.
Climate Change has found its way into the World Trade Organization through the backdoor of the profitable and contentious trade in solar and wind energy technologies. In addition to the Ontario FIT dispute critically examined in this article, there are at least five other active disputes in Geneva over aspects of trade in wind and solar technologies, with more on the horizon.1

Solar panels constitute a significant part of China’s total export sales in the EU2 and for more than two years its trade has overheated EU-China relations. The anti-

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dumping and anti-subsidy investigations\(^3\) that resulted have now culminated in a tentative settlement to bring Chinese solar panel prices to a “sustainable” level.\(^4\) Winds have been blowing more strongly on the other side of the Atlantic, though in a similar direction, where the US imposed record high rates of anti-dumping and countervailing duties on Chinese (and Vietnamese) wind towers, as well as silicon solar panels.\(^5\) The political economy unfolding in both cases has been quite similar: on one side - claiming unfair trade allegedly committed by the Chinese exporters\(^6\) - are the import-competing manufacturers of Renewable Energy (‘RE’) technology, and on the other side, the rest of the RE industry, particularly generators in whose interest it is to have access to the best and cheapest equipment, regardless of origin.\(^7\)

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\(^6\) In the case of solar panels, cases have been lodged against Chinese solar companies under the leadership of the same German company Solar World. On the US, the main petition was filed by the US subsidiary of the German Solar World. See Keith Bradsher, Trade War in Solar Takes Place, N.Y. TIMES, Nov. 10, 2011, at B1. On the EU side of the issue see Anneli Palmeen & Christoph Steitz, Solar World Files Anti-Dumping Complaint in EU, REUTERS, July 25, 2012.

The RE “trade wars” have not been a North-South one-way street. Although Chinese “state-capitalism” seems to be an easy target (especially when it comes to the language of “subsidies”), the rhetoric of “unfair trade” and the threat of anti-subsidy and antidumping tariffs has been turned against the EU member states (specifically local content measures in Greece and Italy), as well as an array of US Federal and State programmes. RE trade conflicts have also not remained limited to the Sino-EU-US trade nexus, as a pattern of disputes has also emerged between US and India.

The ongoing legal discourse in all these disputes contains the familiar tag of “unfair trade” on the one hand and “discrimination” on the other. Unfair trade (illegal subsidization and dumping) warrants a legitimate use of trade protection measures through the imposition of either antidumping duties, based on allegations of import prices being less than “normal value”, or anti-subsidy or countervailing duties where domestic RE industry suffers from “adverse effects” caused by the import of allegedly “subsidized” RE.

On the other hand are the allegations of an illegitimate use of trade protection measures with the rise of green industrial policy measures. These measures include not only import-displacing domestic subsidies but also more visibly local content requirements, or “buy-local” laws. The latter cases have so far given rise to three disputes based on alleged violation of the GATT non-discrimination provisions, one of which already settled.

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12. Id., art. 1 (on the definition of the term “subsidy”) and art. 2 (“specificity”).

The use of trade protection measures (antidumping and countervailing duties) have long been disputed by economists, especially in the excessive way they are normally implemented. However these measures are legitimized and legally endorsed in principle while procedurally regulated in the WTO. On the other hand, the case for green industrial policy is delegitimized and flatly rejected by the trade community as being outright “protectionist”, and not even worthy of carving out exceptions based on environmental protection.

This double standard and especially the mainstream views about the perceived illegitimacy of green industrialization *per se* are put to question in this article. The article argues that at the heart of the emerging trade-environment disputes on green industrial policy lie novel questions about the scope and legitimacy of the role of the state in the economy in general, and in environmental policy in particular. Thus, depending on how it unfolds in the WTO dispute settlement process; this debate will also have broader implications for trade and development inter-linkages.

Today, most of the dominant trade legal discourses do not draw a line between “protectionism” and “industrial policy”. Many, if not most, trade lawyers consider protectionism to include any domestic regulation intended to promote national industry at the expense of foreign competition, regardless of its potential merits. This should not be surprising given that the WTO was born in the mid-1980s during the post-Import Substitution Industrialization (‘ISI’) era. The neo-liberal spirit of that era was increasingly questioning the regulatory role of the state in managing the economy.

This is not to argue that neoliberal policy prescriptions were “encoded” into the WTO formal legal obligations. One can, however, clearly observe a regular

14 *Cf.* Bernard Hoekman & Michel Kostecki, *The Political Economic of the World Trading System, the WTO and Beyond* 322 (2nd ed., 2001). (“Research by economists has demonstrated that over 90 percent of all antidumping investigations would never have been launched if a competition standard – potential threat of injury to competition, as opposed to injury to competitors – had been used as a criterion.”)


16 For a recent example see David Hunter et al., *International Environmental Law And Policy* 1206, 1219-1220 (4th ed. 2011) which states that: “Certain violations, such as subsidies with local-content requirements, should be illegal *per se* because they always fundamentally violate the core principles and open the door to protectionism.”

resurfacing of a particular discourse of state-market relations (especially regarding the potential role of the state in economic development) largely dominating and forming the habitus\textsuperscript{18} of the trade legal community. Discursive elements such as 1) drawing sharp distinctions between state and the market, 2) a typical reliance on the notion of “distortion” and “competition” as neoclassical microeconomic analytic, and 3) a bias against the so-called “developmental state”\textsuperscript{19} (as a by-product of state scepticism of the rent seeking school within public choice theory)\textsuperscript{20}, all of which seem to have been “institutionalized” as the WTO system’s existing “rationality”\textsuperscript{21}.

At the same time, things have been developing in different directions in other circles of knowledge creation and policy discourse production, leading to what is described as the accelerated rise of “autonomous societal fragments”\textsuperscript{22} in transnational law.

In development policy circles, especially in the last two decades or so, there has been a revival of some form of industrial policy as a legitimate discourse in economic development expertise.\textsuperscript{23} The revival has occurred in light of the failure of the so-called Washington Consensus and the success of pro-active state policies in the emerging East Asian economies. This new trend in the mainstream

\textsuperscript{18} According to Bourdieu, habitus is composed of “[s]ystems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them.” See PIERRE BOURDIEU, THE LOGIC OF PRACTICE (1990).

\textsuperscript{19} P EVANS, EMBEDDED AUTONOMY: STATES AND INDUSTRIAL TRANSFORMATION (1995) [hereinafter P EVANS].

\textsuperscript{20} For the theoretical influence of Austrian economics especially Hayek on neoliberal thinking see C Thomas, Law and Neoclassical Economic Development In Theory and Practice: Toward an institutionalist critique of institutionalism, 96 CORNELL L. REV. 967, 974 (2010) [hereinafter Thomas]. (“Hayek’s influence over the rise of neoclassicism stemmed not from his economic theory but from his political and legal theory expounding a conception of liberty necessitating a minimal government defined by the rule of law.”)


development policy does not usually go as far as the old generation of ISI policies. However, the underlying theory behind this trend is akin to “infant industry” arguments — arguments widely regarded as having been “discredited” by the 1980s.24

The emerging trend envisages a much closer public-private interaction than public choice theorists would normally endorse. The interaction is one in which states would in certain cases support “activities” (rather than actors), and would cautiously create “rents” in the domestic economy under certain institutional constraints seeking to address certain information and coordination externalities.25

In this vein, WTO scholarship is increasingly paying attention to and critiquing Rodrik’s notion of the “policy space” to be carved out for developing countries.26

Energy and Environmental circles of expertise are also developing fragments of knowledge that are not consistent with the neoclassical microeconomic analytics. Studies are emerging on the circumstances under which industrial or localization policies might prove an effective way to promote environmental goals.28 That is paradigmatically different from purely “market-oriented” approaches to environmental policy in which the role of the state is limited at best to internalizing polluting activity (through pollution tax or emissions trading), and at worst by non-discriminatory subsidization of positive externalities such as the promotion of the consumption, rather than local production of clean energy. While such win-win approaches to the trade-environment relations hold a general bias against the use of subsidies for the production of clean energy, or any other localization policies (import-substituting subsidies, local content requirements, etc.), the emerging literature on energy/environmental policy has kept its toolbox open to empirical and institutional analysis with a view to what could work best under which circumstances.

24 Infra Part III.

25 Most notably Harvard economist Dani Rodrik has renewed discussions on the possibility of designing sensible “industrial policies”. See DANI RODRIK, ONE ECONOMICS, TOO MANY RECIPES, GLOBALIZATION, INSTITUTIONS AND ECONOMIC GROWTH (2007) [hereinafter DANI RODRIK]. According to Rodrik (at 119), “[a]nytime, a government consciously favors some economic activity over others, it is conducting industrial policy.”


27 Bernard Hoekman, Operationalizing the Concept of Policy Space in the WTO: Beyond Special and Differential Treatment, 8(2) J. INT’L ECON. L. 405 (2005) [hereinafter Hoekman].

28 IPCC, IPCC SPECIAL REPORT ON RENEWABLE ENERGY SOURCES AND CLIMATE CHANGE MITIGATION 901-3 (O. Edenhofer et al., eds., 2012) [hereinafter IPCC Report].
This article uses a dispute that the EU and Japan brought against Canada (Canada – Renewable Energy and Canada – FIT) as it is the first case settled by the WTO Dispute Settlement Body in a streak of cases on trade and renewable energy. An analysis is provided to demonstrate the potential opportunities in the legal texts to open up a critical space for alternative and progressive modes of interpretations that could accommodate certain green industrial policies. The main thesis of this article is that the WTO need not be captured by one mode of expertise in its approach to the relation between trade and the environment. It should resist reducing the totality of the relationship to a win-win narrative as there may be certain areas of conflict where trade interests need to give in to environmental interests.

Part II will start with a description of Canada – Renewable Energy to demonstrate how the WTO panel and the Appellate Body (AB) deployed formal legal interpretation that amounted to avoiding directly addressing the policy issues at stake. While such “avoidance technique”, might obscure the “political” in the WTO judicial activity, it would nonetheless distribute stakes among various interests in a way similar to policy makers. Part III will highlight the rigidity of the idea of trade protectionism when compared to other circles of policy expertise where things have become much more complex in. After considering competing rationalities advanced in the areas of development, energy and environment, the article will re-examine the outright rejection of the so-called political feasibility rationale for green industrial policies. Part IV then concludes the article with a few notes on moving beyond the win-win narrative in WTO debates about trade and environment.

II. Ontario FIT: The Politics of Strategic Formalism

A. Feed-in Tariffs as an Emerging Global “Model” for RE Promotion

As of early 2013, RE deployment policies existed in 127 countries, more than two-thirds of which were developing countries or emerging economies. In the budget constraining post-financial crisis world, and in some cases due to perceived

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30 RENEWABLE ENERGY POLICY NETWORK FOR THE 21ST CENTURY (REN21), RENEWABLES 2013 GLOBAL STATUS REPORT, 14. (“[t]he BRICS nations accounted for 36% of total global renewable power capacity and almost 27% of non-hydro renewable capacity. The EU had the most non-hydro capacity at the end of 2012, with approximately 44% of the global total.”) [hereinafter Renewables 2010 Global Status Report].
maturity of RE markets, many countries undertook extensive revisions of existing laws while others maintained or even adopted ambitious new RE targets.\footnote{Id. at 14-5.}

<table>
<thead>
<tr>
<th>Solar PV</th>
<th>Solar PV per capita</th>
<th>Wind power</th>
<th>Solar water collector (heating)\textsuperscript{1}</th>
<th>Solar water collector (heating) per capita\textsuperscript{2}</th>
<th>Geothermal heat capacity</th>
<th>Geothermal direct heat use\textsuperscript{3}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Germany</td>
<td>Germany</td>
<td>China</td>
<td>China</td>
<td>Cyprus</td>
<td>United States</td>
</tr>
<tr>
<td>2.</td>
<td>Italy</td>
<td>Italy</td>
<td>United States</td>
<td>Germany</td>
<td>Israel</td>
<td>China</td>
</tr>
<tr>
<td>3.</td>
<td>United States</td>
<td>Belgium</td>
<td>Germany</td>
<td>Turkey</td>
<td>Austria</td>
<td>Sweden</td>
</tr>
<tr>
<td>4.</td>
<td>China</td>
<td>Czech Republic</td>
<td>Spain</td>
<td>Brazil</td>
<td>Barbados</td>
<td>Germany</td>
</tr>
<tr>
<td>5.</td>
<td>Japan</td>
<td>Greece</td>
<td>India</td>
<td>India</td>
<td>Greece</td>
<td>Japan</td>
</tr>
</tbody>
</table>

TOTAL CAPACITY AS OF END-2012\footnote{Id. at 17.}

While the US remains the largest wind market (thanks to a number of federal and state initiatives, including RE portfolio standards\footnote{The United States also “added more capacity from wind power than any other technology, and all renewables made up about half of total electric capacity additions during the year.” See id. at 14.}), China, with its complex regulatory web of feed-in tariff (’FIT”), fiscal and financial incentives and competitive bidding, has outperformed others in terms of total installed capacity.\footnote{In China, FIT model has been used for wind and biomass power plants, bidding procedures for offshore wind power plants and wind turbine purchases and increasingly for solar power plants. While PV systems have benefited from grants, a number of RE programmes gave been funded by a combination of national power surcharge and Kyoto Protocol’s Clean Development Mechanism (CDM). See J Lewis, The evolving role of carbon finance in promoting renewable energy development in China 38(6) ENERGY POL’Y 2875 (2010).} China is also by far the leading global market for solar hot water systems.\footnote{See Renewables 2010 Global Status Report, id note 28.}

Currently more than 61 countries and 26 regional jurisdictions have enacted FIT laws, which offer a fixed price for a guaranteed duration to RE generators. This creates certainty for investors, thereby reducing project development risks and often reducing financing costs.\footnote{See James Prest, The Future of Feed-in Tariffs: Capacity Caps, Scheme Closures and Looming Grid Parity, 1 RENEWABLE ENERGY L. & POL’Y (2012); Kanter & Bradsher, supra note 5.} These instruments are the favourite RE
deployment policy not only among environmental NGOs but also prominent scientists. Despite their popularity, the success of the FIT model in generating intended results entirely depends on a number of factors to be considered in its regulatory architecture. For instance, various approaches to compensation create higher or lower level of price risks to RE investors while having a different impact on the principle objective of avoiding “overcompensation” and “overstimulation” of the market, among others. This issue was significant in Canada – RE where adjudicators had to find whether FIT would confer benefit on beneficiaries and hence would constitute a “subsidy” under the WTO SCM Agreement. The part of the case that will be discussed in this article is on the GATT and Trade-related Investment Measures (TRIMs) consistency of the localization element of the FIT, which was in the form of buy-Ontario requirements coupled with favourable tariffs for RE producers.

B. Panel’s Strategy in GATT/TRIMs: Leaving only a Half-Step for the AB to Save the measures!

The highly contentious FIT regime in the Canada – RE case was implemented by the Government of the Province of Ontario and its agencies through the Green Energy and Green Economy Act of 2009. Under this law, generators of electricity produced from RE were paid a guaranteed price per kilowatt hour


38 For instance, Stanford and U California professors recommend the use of FITs in their study on a global 100 per cent renewables scenario. See Mark Z. Jacobson & Mark A. Delucchi, A Plan for a Sustainable Future: How to get all energy from wind, water and solar power by 2030, SCIENTIFIC AM. (Nov. 2009).

39 For a survey of recent studies on why this is the case, see IPCC Report, supra note 29.

40 Id. at 899. (“It is important to set the right price to avoid overpayment and over-stimulation of the market, as well as high costs that might result from supporting significant installation of more expensive RE technologies. To this end, some countries (e.g., Spain) have established caps on annual payments or set limits on capacity that can qualify for payment. The downside of caps is that they reduce investment stability and cause frequent stop-and-go in the market. Thus, some countries (e.g., Germany for PV) have established ‘growth corridors’ with continuous automatic adjustments of tariffs.”

41 Canada – Renewable Energy, supra note 1 at Part VII (C); Canada – Renewable Energy AB, supra note 30 at section 5.5.

(kWh) of electricity delivered into the Ontario electricity system under 20-year or 40-year contracts. The controversial aspect of the case from a trade law perspective related to the "Minimum Required Domestic Content Levels", which had to be satisfied in order for RE facilities to be eligible for FIT payments. These buy-local or “local content requirements” (‘LCRs’) were summarized in the AB report in the following table:

<table>
<thead>
<tr>
<th>Milestone Date for Commercial Operation</th>
<th>Wind (FIT)</th>
<th>Solar PV (FIT)</th>
<th>Solar PV (microFIT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2011</td>
<td>2012-</td>
<td>2009-2010</td>
<td>2011-</td>
</tr>
<tr>
<td>2009-2010*</td>
<td>2011-</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>2011-</td>
<td>100%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Minimum Required Domestic Content Level</td>
<td>40%</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

The key issue in the first part of the case was whether domestic content requirements of Ontario’s FIT Programme and the FIT and micro-FIT Contracts (‘FIT Programmes’) were in violation of the national treatment principle of GATT 1994 and the Agreement on TRIMs (‘TRIMs Agreement’). If they were in violation, they would possibly be harboured by the exceptions provided in GATT Article III:8(a). Under this exception, national treatment obligations (which by definition include buy-local provisions) do not apply to “laws, regulations or requirements governing the procurement by governmental agencies of products purchased..."
for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.”

The Panel faced little difficulty finding that the contested measures constituted TRIM. The very objective of the FIT Programmes was to promote local investment in renewable technologies (and hence “investment measures”). Domestic content requirements “by definition, always favour the use of domestic products over imported products, and therefore affect trade.” In fact, Canada submitted no argument to the contrary conceding that the FIT measures were TRIMs.

Moreover, when it was eventually found, as will be discussed below, that the measures were not covered under GATT III:8(a) exceptions, the rest of the case (on the violation of the TRIMs Agreement Article 2 and its Paragraph 1(a) of Illustrative List in the Annex to that Agreement) seemed straight forward. This was firstly because Ontario LCRs clearly “required” (as the text of Paragraph 1(a) of the Illustrative List as the FIT Programme provides) electricity generators using solar PV and wind power technology to purchase or use RE generation equipment and components that are of Canadian origin or from a Canadian source. According to evidence submitted by complainants, the effect of the Domestic Content Grids is to require that "for all projects", "at least some goods manufactured, formed, or assembled in Ontario must be utilized in order to satisfy the Minimum Required Domestic Content Levels". Secondly, it was considered almost self-evident that compliance with the LCR requirements was necessary in order to obtain an

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47 With respect to sequencing, the Panel, against all parties’ arguments, ruled that the TRIMs Agreement deals with the issue “most directly, specifically and in detail” (¶ 7.70). By doing so, it spared itself from independently examining the requirements of GATT Article III: 4 since, according to the Panel, consistency with GATT Article III was already implicated in the analysis under TRIMs Article 2. Referring to Appellate Body Report, EC – Bananas III, ¶ 204, the Panel did not accept the complainants’ arguments that the SCM is lex specialis with respect to the matter at hand and hence should be dealt with first. Although the Panel also rejected Canada’s argument for GATT Article III:4 to be the starting point of analysis, (Canada – Renewable Energy, supra note 1, ¶ 7.69) it served Canada’s purpose by deciding the applicability of GATT Article III:8 (a) exceptions to TRIMs.

48 Canada – Renewable Energy, supra note 1, ¶ 7.111.

49 First Written Submission of Japan, Canada – Certain Measures affecting the Renewable Energy Generation Sector, WT/DS412, ¶ 173.

50 The Panel considered it as “evident” that compliance with the "Minimum Required Domestic Content Level" was “a necessary condition and prerequisite for electricity generators to participate in the FIT Programme.” (¶ 7.165)
"advantage", i.e. FIT guaranteed rates.\textsuperscript{51} Finally, it was held that the FIT measures were TRIMs falling within the scope of Paragraph 1(a) of the Illustrative List, and that in the light of Article 2.2 and the chapeau to Paragraph 1(a) of the Illustrative List, it followed that they were also inconsistent with Article III:4 of the GATT 1994, and thereby also inconsistent with Article 2.1 of the TRIMs Agreement.\textsuperscript{52}

From a legal theory perspective, the illegality of local content requirements in principle or as a rule seemed to be “settled” given the widespread understanding in all corners of the WTO interpretive community to that effect. LCRs are a manifest case of \textit{de jure} discrimination (prohibited under GATT Article III) or TRIMS where LCRs are explicitly listed in Paragraph 1(a) of Illustrative List in the Annex.\textsuperscript{53} But what was far from clear was the scope of exceptions available under GATT in this regard.

Apart from GATT Article XX (b) or (g) environmental exceptions, which were never invoked by the respondent, GATT Article III:8 (a), cited above, was potentially available to exonerate the Ontario FIT Programmes. The Ontario/Canada FIT proceedings were the first instance in which a panel had been asked to interpret and apply GATT Article III:8 (a).\textsuperscript{54} The decisive issue centred around the \textit{applicability} and the \textit{scope} of the Article III:8 (a) exceptions – whether they could function as providing policy space for otherwise \textit{de jure} discriminatory LCRs. On the first issue, rejecting the EU’s argument, both the Panel and the AB agreed on the \textit{applicability} or potential \textit{availability} of GATT Article III:8 (a) exceptions regarding all TRIMS (regardless of what provision of the TRIMs Agreement they fall under).\textsuperscript{55} Their agreement

\textsuperscript{51} The Panel agreed with complainants that “\textit{mere participation} in FIT Programme may be viewed as obtaining an "advantage" within the meaning of the chapeau of Paragraph 1(a) of the Illustrative List. (See \textit{Canada – Renewable Energy}, \textit{supra} note 1, ¶ 7.157 on the test and ¶ 7.165 on its application to the FIT measures.)

\textsuperscript{52} \textit{Canada – Renewable Energy}, \textit{supra} note 1 at 7. 166.

\textsuperscript{53} Paragraph 1(a) of Illustrative List in the Annex to the TRIMs Agreement provides:

1. TRIMs that are inconsistent with the obligation of national treatment provided for in paragraph 4 of Article III of GATT 1994 include those which are mandatory or enforceable under domestic law or under administrative rulings, or compliance with which is necessary to obtain an advantage, and which require:

(a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production; or

... \textit{Canada – Renewable Energy}, \textit{supra} note 1 at ¶ 7.122.

\textsuperscript{54} The AB upheld the Panel’s finding that Paragraph 1(a) of the Illustrative List in the Annex to the TRIMs Agreement did not “obviate the need for [the Panel] to undertake an
however ceased at that point. While the Panel seemed to be moving towards widening the scope for exceptions, the AB flatly excluded the possibility of invoking procurement exceptions for FIT-LCR measures.

Breaking up the Article III:8 (a) into three distinct elements, the Panel had effectively ruled in favour of Canada in almost the first two-and-a-half steps; that is, (i) the challenged measures were to be characterized as "laws, regulations or requirements governing procurement" and (ii) the challenged measures involved "procurement by governmental agencies". By not being able to establish that procurement of electricity was not for “commercial resale” Canada only failed to satisfy the second half of element (iii) laid out by the Panel, namely “whether such "procurement" is undertaken "for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale". By doing this, Panel kept a glimmer of hope for Ontario/Canada to be vindicated at the appeal stage.

According to the Panel, because the Government of Ontario and the municipal governments made “profit” from the resale of electricity that was purchased under the FIT Programme, and also because electricity resales were made “in competition with licensed electricity retailers”, the FIT Programme was undertaken "with a view to commercial resale". It is beyond the scope of this article to discuss how the Panel’s finding, which led to Canada’s failure at the Panel stage, analysis of whether the challenged measures are outside of the scope of application of Article III:4 of the GATT 1994 by virtue of the operation of Article III:8(a) of the GATT 1994.” Canada – Renewable Energy, supra note 1 at ¶ 7.121; Canada – Renewable Energy AB, supra note 30 at ¶ 5.33.

56 Canada – Renewable Energy, supra note 1 at ¶ 7.122.
57 Id. at ¶¶ 7.122; 7.151.
58 Canada – Renewable Energy, supra note 1 at ¶ 7.151. The Panel provided two reasons why it was not persuaded by Canada’s arguments and sided with the complainants: firstly because of the fact that electricity purchased by the Government of Ontario under the FIT Programme was “bought from generators and sold to retail consumers through the same channels as all other electricity by Hydro One and LDCs [as state-owned enterprises] in competition with private sector electricity retailers.” (¶ 7. 148) Secondly, on the specific issue of “profit”, the Panel stated that, although the OPA did not profit from the resale of electricity through Hydro One and the LDCs, “it is evident that the Government of Ontario and Ontario’s municipal governments will profit from these operations.” (¶ 7. 150; emphasis added) The Panel was not convinced by Canada that the profit that was made by Ontario’s public transmission and distribution companies (Hydro One and LDCs) was from the service of “distributing electricity to the end-user rather than any on-sale of the renewable electricity.” (¶ 7. 150)
was the only plausible interpretation of the text.\textsuperscript{60} This debate is somewhat moot, however, in light of the fact that the AB eventually reversed the Panel’s finding on the very first stage of the above three-tier test, precluding use of the GATT Article III:8 (a) exceptions for FIT-LCR regimes of this type.

Overall, the AB’s interpretation of all three elements of GATT Article III:8 (a), were decidedly narrower than the Panel’s.\textsuperscript{61}

On the first element, the EU had argued at the panel stage that the domestic content requirements imposed by the Government of Ontario did not govern “the alleged procurement of electricity, within the meaning of Article III:8(a), because they are not requirements related to the subject-matter of the procurement, which is electricity”.\textsuperscript{62} In other words, the EU’s argument was that the FIT’s domestic content requirements directly related to the purchase of renewable energy technology and could not be conceived as “laws, …” governing procurement of electricity and hence should be excluded from the scope of this provision.\textsuperscript{63} The Panel disagreed with this seemingly overly formalistic argument. Siding with Canada, the Panel convincingly argued LCRs were “necessary prerequisite for the alleged procurement [of electricity] by the Government of Ontario to take place, and to this extent, such requirements “govern” the alleged procurement.”\textsuperscript{64} Interestingly Japan (one of the complaints) did not take issue with this finding but the EU asked the AB to reverse this finding.\textsuperscript{65}

The AB, taking side with the EU and reversing the Panel, narrowed the availability of GATT Article III:8(a) exceptions to situations where the subject of discrimination (RE equipment) was “like” (or in competitive relationship with) the subject of procurement (RE), which is clearly not the case in FIT-LCR measures.\textsuperscript{66}

\textsuperscript{60} If “profitization as an overall organization strategy” is accepted to be the core meaning of any “commercial activity” and hence “commercial (re-)sale”, it should have sufficed for Canada to establish that the setting up of the FIT Programmes as such are not profit-seeking activities. In this regard, the fact that the other agencies of the Government of Ontario make a profit through transmitting (via Hydro One) and distributing (via LDCs) electricity (including renewable and non-renewable energy) seems to be irrelevant to the issue of government’s “not-for-profit” policy of promoting clean energy generation through FIT Programmes. In fact there would have been no need for the Ontario Government to “subsidize” renewables – as complainants had argued in the second part of the case – in order to enable them to viably compete in the “marketplace”.

\textsuperscript{61} \textit{Canada – Renewable Energy AB}, supra note 30 at ¶ 5.54 -5.74.

\textsuperscript{62} \textit{European Union’s response to Panel question No. 22 (first set), ¶ 88. (emphasis added)}

\textsuperscript{63} \textit{Canada – Renewable Energy, supra note 1 at ¶ 7.125.}

\textsuperscript{64} \textit{Id. at ¶ 7.127.}

\textsuperscript{65} \textit{See European Union’s Notification of Appeal, WT/DS426/10 (Feb. 15, 2013).}

\textsuperscript{66} \textit{Id. at ¶ 5.79.}
The AB therefore found that Ontario LCRs “cannot be characterized as "laws, regulations or requirements governing the procurement by governmental agencies" of electricity within the meaning of Article III:8(a) of the GATT 1994.”

The requirement of the competitive relationship laid out by the AB narrows the availability of the procurement exceptions since it would only kick in if the government directly purchased the domestic products at the expense of imported like products. In other words, governments under certain conditions could discriminate in favour of their domestic products by excluding imported like products from the scope of their purchases, but cannot rely on these procurement exceptions if they instruct private buyers to do exactly the same (e.g. purchase domestic products like RE equipment) as a condition to receive a favourable treatment (FIT payment).

The same distinction is strikingly absent in the parallel subsidies agreement where a measure would will be covered under the state-constraining SCM provisions even if a financial contribution is provided by private bodies at the instruction of the state. The claim for such distinction was also one of the least elaborated arguments made in the EU submissions (and was not even invoked by Japan), amounted to an “avoidance technique”. But being among the most formalist venues to limit the availability of exceptions, this argument excused the AB from having to deal with the more substantive issues contentiously debated by all the parties relating to the scope of the GATT Article III:8 (a).

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67 Id.

68 Contrast this with Article 1.1 (a) (1) (iv) of the Subsidies (of the SCM) Agreement where a measure would still be regarded as a “financial contribution” by a government if the latter “entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments”.


70 What had occupied the vast majority of the submissions by both parties as well as the “friends of the court” was on the meaning of “procurement” in the context of Article III (whether it meant only government purchase for own use) and “commercial (re-)sale” (whether it necessarily involved gaining profit). See Amicus Curiae submissions by International Institute for Sustainable Development (IISD), Canadian Environmental Law Association (CELA), and Ecojustic Canada dated 10 May 2012. Also see Amicus Curiae submissions of Blue Green Canada, Canadian Auto Workers, Canadian Federation of Students, Canadian Union of Public Employees Communications, Energy and Paperworkers Union of Canada Council of Canadians Ontario Public Service Employees Union, May 2012.
Revisiting the issue from a legal realist lens, the formalistic legal arguments presented by all sides were a veneer over the complex web of internal and external forces fighting an ideological and a distributional battle in which the WTO verdict eventually played a definitive role. Internally, the Ontario FIT Programmes were a production of a Liberal government in the face of fierce Conservative opposition, on whose agenda a state-centred RE policy was not a priority.71 Such ideological conflict could also be traced in the broader context of Ontario’s costly and failed experience with “market restructuring”, which swung back towards a hybrid-regulated price system in 2002, where clean energy was designated as part and parcel of security of supply.72 There were also a number of concrete local distributional implications. These ranged from the question of higher retail prices impacting economically vulnerable or environmentally insensitive consumers, to the issue of disgruntled local municipalities and anti-wind groups regarding the siting of wind projects.73

At the centre of the external battle was a $7 billion deal signed by the Government of Ontario with a Korean consortium spearheaded by Samsung. The Korean consortium pledged to create green manufacturing jobs in Ontario in exchange for FIT payments and priority access to the electricity grid. The deal was of key importance in enticing the Japanese and Europeans to bring a case against Canada at the WTO.74 A further dynamic in the domestic constitutional sphere, was the fact that the Conservative Federal Government of Canada was put in an uncomfortable position of defending a Liberal law. Only half-heartedly making a case on behalf of Ontario, it decided not to invoke environmental exceptions of the GATT Article XX. The Canadian Government left it to other Members engaged in ongoing and future disputes to test the viability of environmentally-induced LCRs on those specific grounds.

73 Diane Bailey, Analysis - Policy upheaval fuels fears for future of Ontario wind market, WIND POWER MONTHLY (June 5, 2013), http://www.windpowermonthly.com/article/1185057/analysis---policy-upheaval-fuels-fears-future-ontario-wind-market (“One thing the new approach will do is give municipalities more control over where turbines are sited, added the spokesman. The wind industry in Ontario has run into sometimes fierce opposition in rural communities that felt sidelined by the current approvals process.”).
Given this background – which is present in different forms in all transnational legal disputes, including legal trade issues – one can hardly buy the formalist view that an international judicial body like the AB would always imagine its role as “discovering” the most accurate interpretation of the text with no regard the political implications of its decisions.75 There are circumstances in which judges feel less constrained than others both internally (the extent to which they personally view an interpretation to be superior) and externally with a view on their credibility within the interpretive community and how their decisions would be received by their “audience”. As stated at the outset, contrary to the scope of the rule (that Ontario LCRs violate of Article 2.2 and Para 1 (a) of the Illustrative list of the Annex of the TRIMs Agreement and Article III:4 of the GATT 1994), the scope of exceptions under GATT Article III:8(a) seemed to be reasonably open to opposing interpretations. In a broader sense, just as Canada made a “sovereign” decision not to invoke GATT Article XX environmental exceptions, the AB’s decision to limit the scope of GATT Article III:8 (a) exceptions to the exclusion of FIT-LCRs is akin to what Agamben describes as “the political”.76 This is not to reduce law to politics – as law is regarded in a Webern tradition as a relatively autonomous sphere with a distinct vocabulary and language – but to consider international law as a “continuation of politics” however in the legal terrain.77

In a strategically formalist78 method of adjudication, the AB decided to “split the difference” or stakes among various conflicting interests present in the disputes.79

75 Similarly in the case of the second and third elements cited above, one could argue that there were equally valid arguments on both sides. Without going into any detail, one could mention for instance, Canada’s reference to Sue Arrowsmith, Government Procurement in 16 THE WTO: STUDIES IN TRANSNATIONAL ECONOMIC LAW, 53 (2002), arguing that the EU had overlooked academic commentary, suggesting that "it is clear" that requirements imposed on the inputs into products purchased by the government fall within the scope of Article III:8(a) of the GATT 1994. See Appellate Body Report, Canada – Renewable Energy, supra note 1 at fn 253.

76 GIORGIO AGAMBEN, STATE OF EXCEPTION (2005).

77 See generally M KOSKENNEIEMI, FROM APOLOGY TO UTOPIA: THE STRUCTURE OF INTERNATIONAL LEGAL ARGUMENT (2006) [hereinafter M KOSKENNEIEMI].


79 A difference-splitting judge is one who “works out what the “ideologues”, his constrained activist colleagues, would see as the optimal liberal and conservative rule interpretations, and then chooses an interpretation that lie in between.” See DUNCAN KENNEDY, CRITIQUE OF ADJUDICATION 184 (1998).
Based on this strategy, which politically might well have made sense under the circumstances, FIT-LCRs were declared illegal under the GATT and at the same time exonerated (at least tentatively) under the SCM Agreement, which is not discussed in this article. This way, the real decision about the eventual WTO legality of FIT-LCRs was postponed to when and if a Member would be willing to defend them on environmental grounds by invoking GATT Article XX.

III. “GREEN INDUSTRIALIZATION” AS TRADE PROTECTIONISM?

In order to understand “Green Industrialization”, it is pertinent to examine the competing rationales for the same. Green industrialization can be defined to include any measure of “industrial policies” intended to encourage local investment and production. These are policies not only in the clean energy sector but in any sector where the policy would create positive externalities for the local or the global environment. The regulatory instruments used as part of this green industrial policy might range from Pigouvian tax/subsidies to tariffs and LCRs, to any rent-creating measure that would temporarily and disproportionately shift “rents” inwards under certain conditions to create social spill-over effects.

There are two distinct questions here: an old question and a new one. The old question is the credibility of any rent-shifting trade policy, including the narrow case for “strategic trade” policies and the more controversial case of “infant industry”. The traditional arguments within mainstream trade and development policy circles rejecting rent-shifting trade policy are all well-rehearsed. The new question concerns the possibility of creating “additional” environmental benefits as a result of localization policies, as well as the implications of such policies for the law of international trade.

On the old question, it is no surprise that the WTO law should hold a generally hostile view towards “industrial policies” per se. This is reflected in its flat rejection of de jure discrimination, export and import-substituting subsidies, TRIMs, etc. The hostility is historically rooted in the fact that the WTO emerged in the mid-1980s post-ISI era. At that time the role of the “state” in inducing economic growth in general, and its ability to “pick winners” in particular, was largely discredited in the neo-liberal spirit of the era. Any measure aimed at “localizing” production of certain goods, was recast in this neo-liberal atmosphere as “protectionist” (unless it falls under the narrow category of Special and Differential


81 See generally J CYPHER & J DIETZ, THE PROCESS OF ECONOMIC DEVELOPMENT (2nd ed. 2006) [hereinafter CYPHER & DIETZ].
Treatment) and in breach of the spirit of the WTO’s constitution and the text of provisions such as paragraph 1 of Article III of the GATT and its various subsequent paragraphs, i.e. de jure discrimination under Para 2 if in the form of tax discrimination between domestic and imported “like products” or “treatment less favourable” in other cases of regulatory discrimination under Para 4.

In light of the anti-localization bias embedded in the WTO, it is little surprise that “industrialization” *per se* would never be thought of as a distinct legitimate ground for “policy exceptions”. This is in direct contrast with what Ruggie calls the “embedded liberal” spirit of the “Bretton Woods compromise” where the non-discrimination principle was balanced with a number of gaps and loopholes in the system. The gaps and loopholes included the notorious “grandfathering rights”, very loose subsidy disciplines, permissive safeguard mechanism, legally weak dispute settlement mechanism, and permissibility of cross country “arrangements” such as voluntary export restraints (VERs) which was prevalent in the 1980s, among others.82

In recent years, however, a new wave of economic development theories that warrant specific forms of “industrial policies” have gained traction.83 Most notably, Rodrik relies on new institutional economic approaches to devise what he perceives as sensible industrial policy.84 One should not forget however that neoclassical micro-analytic approaches were also not conclusive on the “efficiency” of “Strategic Trade Policy” (as a narrowly defined category which justifies trade intervention)85 and even the broader “infant industry” arguments, which could theoretically be justified on dynamic efficiency grounds.86 Despite the theoretically


83 See DANI RODRIK, *supra* note 26 at 119. According to Rodrik, “[a]nytime, a government consciously favors some economic activity over others, it is conducting industrial policy.”

84 For a critical overview of the contribution of New Institutional Economics to law and development expertise see Thomas, *supra* note 21.

85 Strategic trade policy was a controversial topic especially during the 1980s. While theorists such as J. Brander, B. Spencer, L. Throow, L. Tyson, among others, advocated strategic trade policy others such as A. Dixit, G. Grossman, J. Eaton, J. Bhagwati criticized this policy. For a rather nuanced view see PAUL KRUGMAN, *STRATEGIC TRADE POLICY AND INTERNATIONAL ECONOMICS* (1986).

86 For a classic text defining “protectionism” see J. BHAGWATI, *PROTECTIONISM* 127 (1988). As the most prominent critique of “protection-led infancy arguments”, Bhagwati has been clear that the question is not about whether but how state interventions best correct market failure. In “Protectionism” he not only emphasized the desirability of certain
plausible arguments in favour of a certain category of rent-shifting trade policies, there remains a generally dismissive attitude towards such cases of state intervention. This attitude can be explained by the dominance of public choice school theory as a lens through which to view the political economy of trade. According to the well-known state scepticism of public choice theory, governments are worse than the private sector at “picking winners” due to the lack of information, and more importantly, because of their vulnerability to capture by rent seeking special interests.87

The success of export-led growth strategies in high-performing East Asian economies has brought into question these two longstanding justifications for resisting intervention. In light of the new institutional economics, a fundamental revision of the mainstream trade and development theories is taking place. The revised theories rely on contextualized empirical evidence as well as the alternative political economic frameworks such as the one provided by Peter Evans.88 WTO law increasingly pays attention to Rodrik’s notion of “policy space” for developing countries,89 although the notion has not been accepted in dominant discourses of trade “protectionism”.

This brings us to the second question in the context of trade linkage with the environment: is it possible, or sensible, to defend certain industrial policies in the name of environmental protection as a legitimate policy exception within the current GATT/WTO system? This question may resurface in any future challenge of “localized” FITs where the member adopting the measure would be willing to invoke GATT XX exceptions (unlike Canada who did not invoke the exceptions). Would it be possible for a respondent to argue that domestic content requirements in a specific case are “relating”90 or even “necessary”91 to further environmental objectives?

Here one can initially distinguish distinct sets of externalities to be addressed by FIT as such on the one hand and LCRs on the other. By regulating higher fees for RE than for conventional energy, the FIT as such, aims to directly internalize

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88 See P Evans, supra note 20.
89 See Hoekman, supra note 28.
90 GATT, supra note 47, art. XX(g).
91 Id. at art. XX (b).
environmental externalities as well as promote energy security through diversification. The LCR provisions of the FIT, on the other hand, arguably aim at internalizing information and coordination externalities as typical justifications for Rodrikian industrial policy. In the end however, a successful industrial policy could be described as “green” to the extent that the industrial element of the programme makes additional contributions to the environmental objective pursued either by creating more dynamism in the sector leading to more competition and innovation in the long term or simply by making its very existence a political possibility. Before addressing the controversial question of political feasibility, I will examine the issue from the perspective of environmental and economic modes of thought as reflecting distinct sets of “institutionalized rationalities”.

A. The environmental rationale

Before returning to the familiar terrain of trade legal discourse it is necessary to examine the competing discourses propagated in environmental and energy circles of expertise.

There is a growing body of literature on how the complex regulatory landscape of green energy policy, which has developed over time in various parts of the world, should be mapped out to better facilitate learning from stories of success and failure. In one of the most comprehensive literature surveys undertaken as a “Special Report of the Intergovernmental Panel on Climate Change” (IPCC Special Report), the use of general criteria for policy evaluation (“effectiveness”, “efficiency”, “equity” and “institutional feasibility”) was balanced with a very nuanced language that reflects a conscious decision to avoid the pretence of “replicating success” in contextually divergent environments.

The IPCC Special Report explicitly asserts that there is no globally agreed list of RE policy options or even groupings. As a matter of practicality and based on numerous case studies, it moves on to investigate the pros and cons of diverse approaches to RE deployment policy under the banner of “regulation”. This includes “price-driven” policies with the prominent example of the general FIT model (which subject to certain policy requirements remains on the top of the list of successful RE policies worldwide), followed by “quantity driven” policies (e.g.

92 DANI RODRIK, supra note 26 at 99-153. Rodrik’s theory of industrial policy is based on internalization of information and coordination externalities.

93 Cosbey and Mavroidis construct an environmental additionality argument based on the Bastable test provided by Kent (1960). According to the Bastable test “an industrial policy measure is worthwhile if the total costs of support are outweighed by the present discounted value of the benefits derived.” See Cosbey & Mavroidis supra note 16 at 15.

94 IPCC Report, supra note 29.

95 See id. at 883.
RE portfolio standards), as well as access issues (priority or guaranteed access, priority dispatch, etc.). Other “deployment policies”, which, depending on local contextual elements, complement the big regulatory picture are “fiscal incentives” (e.g. grant, tax credit, tax reduction or exemption, etc.) and “public finance” (e.g. loans, loan guarantees, public procurement). The relevant inquiry is not which of these measures are “better”, but, which combination of measures is more likely to work (or not) under what circumstances.

In an increasingly context-specific fashion and a humble tone, RE policy terminology is becoming very similar to what Rodrik describes as learning through mistakes (and yes, governments will inevitably pick losers such as Solyndra) as an essential part of any sensible industrial policy. Like Rodrik’s emphasis on institutions, a group of studies on RE deployment policies cite a number of broader elements of an “enabling environment” that would create synergy for RE specific policies rendering them more effective.

More significantly for our problem here, the studies show that the localization of RE energy production, one way or another, has been historically present in major RE deployment programmes worldwide. For instance, Denmark and Germany, as first movers in the wind industry, provided “soft loans” for wind projects that had significant local content. They also created customs duties that favoured the import of components over fully assembled wind turbines. On the export side,

96 See id. Table 11.2 at 890-1.
97 See id. For instance, the effectiveness of fiscal incentives such as tax reductions or exemptions depends on the level of applicable tax rate (de Jager and Rathmann, 2008). “In the Nordic countries, which apply relatively high energy tax rates, such tax exemptions can be sufficient to stimulate the use of renewable electricity; however, in countries with relatively low energy tax rates, they must be combined with other measures” (European Commission, 2005). See id. at 891 and citations therein.
98 Solyndra was a US solar cell manufacturer that went bankrupt after having received more than a half-billion dollars in government loan guarantees. Rodrik however argues that “the Solyndra case cannot be properly evaluated without taking into account the many successes that the program has spawned. Tesla Motors, which received a $465 million loan guarantee in 2009, has seen its shares soar and has repaid its loan early. An evaluation of US Department of Energy efficiency programs found that the net benefits amounted to $30 billion — an excellent return for an investment of roughly $7 billion over 22 years (in 1999 dollars).” See Rodrik, The Right Green Industrial Policies, PROJECT SYNDICATE (July 11, 2013), http://www.project-syndicate.org/commentary/the-right-green-industrial-policies-by-dani-rodrick [hereinafter Rodrik].
99 “If governments make no mistakes, they are not trying hard enough.” See DANI RODRIK, supra note 26 at 116.
100 See id. Table 11.4 at 918-9.
101 Oliver Johnson, Exploring the Effectiveness of Local Content Requirements in Promoting Solar PV Manufacturing in India 9 (German Development Institute, Discussion Paper 11/2013)
provision of export credit assistance and development aid has been prevalent not only in Denmark and Germany but also the US.\footnote{Domestic content requirements for renewable energy manufacturing 12 (Sustainable Prosperity Policy Brief, 2012).} It is interesting to note that today, at the same time that the US deploys the rhetoric of “protectionism” in its dispute against the Indian RE scheme, the US Export-Import Bank and the Overseas Private Investment Corporation are effectively subsidizing “American content” in Indian solar projects. The “American content” is thin film, which is not included in the Indian LCR and is also subject to US export credits, leading to its large exports to the Indian market.\footnote{“The Jawaharlal Nehru National Solar Mission (JNNSM) initiative mandates a domestic content requirement, however, only for crystalline PV and not for thin-film.” See Nilima Choudhury, Update: Indian solar industry suffocated by US thin-film manufacturers, PV TECH, (Aug. 20 2012), http://www.pv-tech.org/news/indian_solar_industry_suffocated_by_us_thin_film_manufacturers.}

As a general rule, the role of LCRs in impeding the environmental objectives of RE deployment policies is less than conclusive. Trying to learn from the Chinese experience thus far in promoting a successful wind industry using LCRs, Kuntze and Moerenhout offer a framework for the effectiveness of these measures in terms of spurring learning by doing. This includes providing additional subsidies to neutralize the additional short run costs created by the localization policy.\footnote{Jan-Christoph Kuntze & Tom Moerenhout, Local Content Requirements and the Renewable Energy Industry - A Good Match? (ICTSD, May 2013) [hereinafter Kuntze & Moerenhout].} In this vein, Veloso also suggest that LCRs are more likely to generate positive welfare effects if they are prepared in coordination with local businesses before implementation and are coupled with some form of subsidy.\footnote{Francisco Veloso, Local content requirements and industrial development: Economic analysis and cost modeling of the automotive supply chain, Engineering Systems Division, Massachusetts Institute of Technology 216 (2001) cited in id. at 10.} Johnson also cites a number of studies to conclude that LCRs must be “linked with other policies that support and catalyse learning”.\footnote{Oliver Johnson, supra note 104 at 12.} In the context of examining the conditions for achieving successful localization in wind power, Lewis and Wiser conclude that “policy incentives may need to be designed and targeted differently depending on the specific goals for localization.”\footnote{Lewis & Wiser, Fostering a renewable energy technology industry: An international comparison of wind industry policy support mechanisms 35(3) ENERGY POL’Y 1844, 1846 (2007).} While pointing to the complexity of designing a successful RE localization model, these studies clearly do not rule out LCRs as tools for achieving such a goal.
B. The indeterminacy of the efficiency rationale

Let’s turn back to the “toolbox” that the economic rationalities provide. This part argues that the efficiency arguments are indeterminate as to the potential of localization policies in making additional contribution to environmental objectives.

As discussed at the outset, there are two conflicting modes of reasoning regarding the overall efficiency of green industrial policies: Static efficiency considerations coupled with public choice theory are highly sceptic of the potential “green-ness” of any industrial policy. Dynamic efficiency grounds, on the other hand, coupled with insights from institutionalism and alternative political economic frameworks, as well as other modes of argument, make a case for the plausibility of certain green industrial policies.

The anti-localization mode of argument is straightforward: domestic content laws would undermine the objective of environmental protection since they would impede access to the most efficient environmental technology.

From this “static” efficiency perspective, subsidies or any other localization policies ought to be least trade restrictive, that is, promotion of the environmental activity with the least distortion on intra-green-industry competition. For instance, non-discriminatory subsidization of the “consumption” of environmentally friendly goods (such as clean energy or energy efficient products) would not distort trade and it would promote the environment by encouraging cost-reducing and innovation-enhancing competition. FIT programmes promoting the use of renewable technology (wind turbines, solar panels, etc.) regardless of their domestic origin are cited as examples in point.108

The static efficiency perspective views adding any elements to industrialize clean energy (such as FIT-LCRs), that aim to produce “environmental public goods”, or the so-called green collar jobs at home, as “protectionist”. These policies would only increase the “cost” of desired goods or services, which would in turn inhibit their wide deployment.109

This win-win narrative of “free trade” and environment is dominant in what radical critics label as “neoliberal environmentalism”.110 It seems politically

109 For the notions of static and dynamic efficiency see Cypher & Dietz, supra note 84, chapter 4.
appealing and may in fact work well in certain cases, such as free trade agreements on environmental goods and services.\footnote{For ongoing WTO debates on the Eliminating trade barriers on environmental goods and services see http://www.wto.org/english/tratop_e/envir_e/envir_neg_serv_e.htm.} However there is a growing appreciation, even within the mainstream economists, for some forms of infant industry policy to be applied in the RE context. Apart from Rodrik’s vigorous defense of green industrialization,\footnote{Rodrik, supra note 101.} Frankel, for instance has also argued that “temporary moderate subsidies” might expand the industry. This would create economies of scale and the opportunity for learning-by-doing, which could then bring down costs sharply.\footnote{See Jeffery Frankel, Protectionist Shadows over Solar Power, PROJECT SYNDICATE Aug. 1, 2013, http://www.project-syndicate.org/commentary/a-damaging-end-to-the-eu-china-dumping-dispute-by-jeffrey-frankel.}

Moreover, a wholly different dynamic will emerge when the discourse changes from “subsidies” aimed at creating or boosting a domestic industry, to “subsidized” solar panels, glass and wind towers sweeping export markets (such as the Chinese case). In many of those cases, a win-win case might be made for eliminating anti-subsidy tariffs (countervailing duties) as well as antidumping measures, rather than by “subsidies” or “dumping”.\footnote{Cf. id.} In any event, there is a constant battle, at both policy and discursive level, regarding green industrial policy, with “success” and “failure” stories to corroborate each case.\footnote{For a recent general account on success and failure stories claiming overall positive performance of green industrial policy see Rodrik supra note 101. For an overly sceptic account of all kinds of renewable energy subsidies see Bjørn Lomborg, The Decline of Renewable Energy, PROJECT SYNDICATE, http://www.project-syndicate.org/commentary/the-falling-share-of-renewables-in-global-energy-production-by-bj-rn-lomborg.}

Given the indeterminacy of economic arguments overall and in light of the growing consciousness in energy and environmental studies regarding the potential merits of green industrial policy, it is most reasonable to accommodate a green industrial “policy space” as part of country’s “right to regulate”.\footnote{See Appellate Body Report, China — Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audio-visual Entertainment Products, ¶ 233, WT/DS363/AB/R (Dec. 21, 2009).} This must be one case in which environmental concerns would trump trade interests and hence
be justifiable under GATT Article XX (b) – measures “necessary” to protect public life or health.\textsuperscript{117}

The consistency of localized FITs could meet the requirements of Article XX (b) under the existing paradigms. The \textit{EC – Retreaded Tyres} is relevant as the AB indicated that in cases where the interest at stake is high (in that case climate change), it is easier for members to pass the XX (b) threshold.\textsuperscript{118} The second and third elements stated by the AB are also present: localized RE promotion policies could potentially contribute to the objective pursued, as indicated above. Finally, these measures are typically part of any broader strategies to tackle climate change.\textsuperscript{119} In interpreting scope of application of all these elements, adjudicators should look beyond the WTO’s traditional lens (win-win) and open up to competing economic and environmental rationalities developed elsewhere in the some mainstream and heterodox circles of development and environment expertise.

GATT Article XX (b) exceptions should be available regardless of the choice of localization instrument. That would include the invocation of policy exceptions for GATT Article II if tariffs were instrument of choice, GATT Article III paragraph 2 in the case of tax discrimination, as well as paragraph 4 in the case of regulatory discrimination including LCRs. However, this proposition regarding the neutrality of instrumental choice is not shared by many micro-economists who are more averse to LCRs than to subsidies.

In a recent study cutting across various sectors including RE, Hufbaer et al (from the Institute for International Economics) discovered \textsuperscript{120} LCR measures proposed or implemented since 2008. LCRs in particular have rarely been used until recently as instruments of RE localization. One prominent exception is the case of China, however, which has long used them as part and parcel of its successful mixed policy approach to developing a strong local wind industry. This recent trend, which transcends the developed and developing countries divide, has led to

\textsuperscript{117} They may also be justifiable under item (g) although with measures relating to the conservation of natural resources, there is an additional condition of even-handedness (“if such measures are made effective in conjunction with restrictions on domestic production or consumption”) that needs to be met before one can jump into the Chapeau requirements. See Appellate Body Report, \textit{United States – Standards for Reformulated and Conventional Gasoline}, ¶ 20, WT/DS2/AB/R (Apr. 29, 1996).


\textsuperscript{119} \textit{Id.} at ¶¶ 154-5.

\textsuperscript{120} GARY CLYDE HUFBAUER, JEFFREY J. SCHOTT, CATHLEEN CIMINO, MARTIN VIEIRO & ERIKA WADA, \textit{LOCAL CONTENT REQUIREMENTS: A GLOBAL PROBLEM} xxi (2013) [hereinafter \textit{HUFBAUER ET AL.}].
a string of WTO cases and seems to have raised alarms within the trade/economic circle as rising “protectionism”.

Reviewing the economics literature on LCRs, which falls well short of a theoretical consensus on the subject\textsuperscript{121}, Hufbauer et al voices a deep scepticism about the utility of LCRs in effectively achieving their multiple objectives, which include employment, infant industry, development and, in the case of RE technology, protecting the environment.\textsuperscript{122} Relying largely on a microeconomic efficiency analysis and rent seeking theory, their conclusion is that \textit{tariffs} and \textit{subsidies} constitute a “less bad economic choice”.\textsuperscript{123}

Between tariffs and subsidies, the literature has historically been more favourable towards the latter as “second best” (or less bad) instruments.\textsuperscript{124} From a micro efficiency perspective, tariffs are considered to be more “distortive” because there are equivalent to a tax on consumers (as they increase prices) \textit{as well as} a subsidy on local producers.\textsuperscript{125} However, from a transparency perspective, it can be argued that tariffs are more visible than subsidies and should therefore be preferred.\textsuperscript{126}

But in weighing and balancing these alternative measures which have certain unique \textit{formal} characteristics and \textit{political} implications, it should not be forgotten that each of these measures play a similar rent-creating role. They are all measures of “local preference” that could even have an identical rent or “protectionist impact” measured through a single figure of tariff incidence.\textsuperscript{127} These alternative measures of rent creation span a much longer list. They include the more obvious cases such as various forms of fiscal or financial incentives and government procurement as well as the so-called “contingent” measures of protection such as anti-subsidy and anti-dumping. They equally include less visible cases of rent creation such as the use of foreign aid to buy donating-country products, extraterritorial application of domestic jurisdiction or the (over-) protection of intellectual property. Many of these measures (or a combination of them) could amount to pure protectionism or a sensible policy depending on their architectural details and political and contextual circumstances.

\textsuperscript{121} Cf. \textit{id.} at 9 citing literature on the conditions for effectiveness of LCRs in achieving their goals.

\textsuperscript{122} \textit{Id.} at 1-11.

\textsuperscript{123} \textit{Id.} at xx.


\textsuperscript{125} KRUGMAN & OBSTFELD, supra note 90.


\textsuperscript{127} Hufbauer et al. estimate that the tariff equivalent of reduced trade as a result of LCRs is 10 percent ad valorem. \textit{See HUFBAUER ET AL.}, supra note 123 at xxi.
Moreover, at the implementation level, concerns raised by Hufbauer et al about lack of transparency, cost-benefit efficiency\textsuperscript{128} and most importantly the need for sunset provisions requiring these “protective” measures to phase out over time, could be raised with respect to other forms of rents (tariffs, quotas, subsidies). Rather than providing justification for their rejection outright, these concerns could be addressed directly, for instance by enhancing transparency, or enforcing sunset provisions, \textit{if} LCRs prove to be the right tool for achieving declared objectives.\textsuperscript{129}

In fact, in the case of Ontario FIT programme, one could come up with a long list of possible other shortcomings that could be rectified including, (1) the lack of setting specific installation or generation targets in Ontario’s significant RE market,\textsuperscript{130} (2) the steep level of high content requirements in a short period of time partially contributing to an estimated 17\% rise in retail electricity in one year,\textsuperscript{131} and, more importantly, (3) the fact that the Green Energy and Green Economy Act entirely overlooked training and education as arguably “two crucial components for building know-how to increase the pace of learning-by-doing and innovation.”\textsuperscript{132}

Rather than scrapping the whole FIT-LCR regime, which seems to have largely occurred after Canada lost the case in the WTO, these possible architectural defects could be amended to reflect the lessons learned in the world of RE policy making. None of these debates and considerations, however, currently figures in the one-dimensional lens of the WTO where the system is skewed in favor of the “least trade restrictive” environmental measures (win-win discourse of trade and environment).

\textbf{C. Political feasibility rationale}

Efficiency and environmental rationales of localization policies aside, one could argue that in a lot of cases, politically costly environmental policies will never see

\textsuperscript{128} Hufbauer et al. roughly estimate that in the case of wind turbines in Canada, Ontario paid an extra $300 million and Quebec paid an extra $200 million as a result of their LCRs. See id. at xxii.

\textsuperscript{129} This is an important “\textit{if}” – and the larger the amount of rent created through LCRs (e.g. mandatory high percentage of local content), the bigger the need for them to be deeply scrutinized.

\textsuperscript{130} See Kuntze and Moerenhout, \textit{supra} note 107 at 21.

\textsuperscript{131} \textit{Id.} at 22.

\textsuperscript{132} \textit{Id.} at 33. There are also questions whether the jobs created as a result of LCR aspect of the programme were sustainable (in terms of the number of temporary construction jobs as opposed to more permanent jobs), and whether there were worth the extra millions it added to the cost of the FIT policy.
the light of the day without carving out some rents for affected domestic constituencies. Could this political feasibility rationale justify an exception to trade rules?

Cosbey and Mavroidis flatly dismiss such justifications. They argue that “[P]rotectionist measures are inherently politically popular, so it would be unwise to open a door for measures on the grounds that they were a necessary evil to enable the passage of some good policy.”\(^{133}\) However, debates around how to build a constituency of support for an otherwise unpopular measure have always been a fact of life in everyday policy making especially in an environment where political stakes are high. On the other hand, what appears as a “good policy” – say in terms of efficiency – on paper is worth nothing if it does not have a chance of materializing. Therefore, providing free carbon allowances to energy intensive industries might prove a “necessary evil” for building a successful cap and trade system.\(^{134}\) Or politicians will prefer production subsidies over Pareto superior “direct payments” to farmers because subsidies are politically less costly, although less efficient means of agricultural support.\(^{135}\)

In this sense, could one argue for “trade protection” being a necessary cost of an environmental policy? Here once again, deconstructing the dominant discourse of “trade protectionism” in this specific context provides insight. The notorious notion of protectionism has been historically associated with rent-seeking industries such as steel and farm sectors in the US and the EU, in situations where the measure in question (tariff, subsidy, etc.) benefited a very small segment of a population at the expense of taxpayers and consumers. One could argue, however, that the context of green industrial policy is a different situation. The state’s creation of new rents in the form of lucrative RE markets could not only benefit the

\(^{133}\) See Cosbey & Mavroidis, supra note 15 at 17.

\(^{134}\) In a cap and trade system, efficiency considerations would dictate that all polluters pay the same price per ton of carbon emissions leaving carbon-intensive industries worse off. Political considerations, on the other hand, would lead to carving out some sort of exemptions for these industries for instance through provision of free carbon allowances. To balance efficiency with political (re-distributitional) considerations, Hahn et al argue that “the government can set the overall emissions cap—whether on the basis of economic efficiency or, more likely, some other grounds—and then leave it up to the legislature to allocate the available number of allowances among sources (locations) to build a constituency of support for the initiative without reducing the system’s environmental performance or driving up its cost.” See Robert W. Hahn & Robert N. Stavins, The Effect of Allowance Allocations on Cap-and-Trade System Performance, 54(4) J. L. & ECON. S267-S294 (2011).

environment as discussed before (through making additional contributions if a right policy framework is in place), but also muster political support for a measure which would otherwise not be there.

The politics of domestic preference is increasingly becoming an inherent part of any effective environmental policy. While the effectiveness of LCRs in spurring green innovation in the long run is still suggested to be in need of standing the test of time, Kuntze and Moerenhout, among others, point to the importance of viewing LCRs through a political lens – i.e. LCRs or other forms of local preference being a political necessity for the very existence of RE deployment policies. The case of Italian government is illustrative. It decided to slow down on PV instalments because the bulk of Italian tax money, due to EU-wide non-discrimination laws, was effectively boosting Spanish and German companies, rather than fostering nascent local industry. It is one thing to reject the long term vitality of the local industry and its worthiness of “protection”, as was the case for example in the failure story of Solyndra. It is yet another to examine whether the political capital behind an environmental measure would essentially falter if all the possibilities of an inclusion of the domestic industry is outlawed. Moreover, advocates of indiscriminate “subsidization” of environmental goods have to seriously rethink the fairness of situations in which developing countries, or financially squeezed nations such as Greece, would end up subsidizing first movers in the global RE industry.

On the other hand, it is vital that climate and environmental policies are not stuck in a web of endless trade conflicts. But one should not overstate the case. In many occasions, practical compromises are reached as domestic politicians and bureaucrats become increasingly wary of frustrating global players “too much” by providing an unequal yet sizable share of the rent. In the case of China, for instance, the government avoided a trade conflict, at least in its early stages, with the EU by keeping the Spanish player (Gamesa) on the market for the purposes of training Chinese companies and transferring technology. For vulnerable developing nations, the sheer pressure of realpolitik exerted on them by industrialized countries not to exclude them from the riches of environmental policy might well prove a sufficiently “balanced” approach to localization. Bigger

136 See Kuntze and Moerenhout, supra note 107 at 33, 44.
137 Id. at 24.
138 Rodrik, supra note 101.
139 This line of argument is forcefully made in a joint article by an unusual pair of co-authors coming from two institutions (Peterson Institute for International Economics and Public Citizen) at the opposite ends of the debate over trade agreements. See C. Fred Bergsten & Lori Wallach, Cooling the planet without chilling trade, WASHINGTON POST, Nov. 13, 2009.
140 Id. at 14.
players such as US, China, EU, India or Brazil might also choose to avoid a standoff by entering into *ad hoc* agreements along the lines of the recently agreed solar deal between China and EU\(^{141}\) or the one proposed by the Solar Energy Industries Association (SEIA) offering an industry compromise between the US and Chinese solar industries.\(^{142}\) A group of countries might also decide to rule out the use of certain measures LCRs in their RE policies via a regional\(^{143}\) or international agreement.\(^{144}\)

In this heavily political context, WTO adjudicators should be conscious of the role they play by widening or shutting the window of “rules” through interpretation (e.g. prohibition of LCRs) or defining what “exceptions” mean (GATT III.8 GP exceptions or GATT XX although never invoked). In this sense, WTO legal discourses on protectionism, subsidies, etc. remain inherently political (in the sense of “distributional”). WTO becomes a “continuation of politics” in the international economic relations however extended in the legal-formal sphere.\(^{145}\)

### IV. CONCLUDING THOUGHTS: BEYOND THE WIN-WIN NARRATIVE

The central concern within the dominant trade legal agenda seems to be how to rely on world trade law as a platform through which global players could claim a share in the rents (lucrative profits) created in a domestic clean energy policy. Exclusion of foreign players under such scenario amounts to trade protectionism and is dismissed out of hand. The win-win narrative of the trade-environment debate, relying on static micro economic efficiency coloured with the dispositions of public choice school, provides a suitable rationale providing support for distributing political stakes in favour of first movers in the global RE industry.

Revisiting the issue of green industrial policy from the perspective of competing rationalities, things become much more complex. One would still consider (foreign) competition as a public good reducing the cost of environmental

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\(^{141}\) Kanter & Bradsher, *supra* note 5.


\(^{143}\) For ongoing discussions at APEC see Ministerial Statements, Surabaya, Indonesia, 20 - 21 Apr 2013, Meeting of APEC Ministers Responsible for Trade, ¶ 13 available at http://www.apec.org/Meeting-Papers/Ministerial-Statements/Trade/2013_trade.aspx. (“We welcome the trade policy dialogue to discuss the economic impact of local content requirements in promoting economic growth and employment. We take note of the initiative to continue discussion among officials aimed at enhancing better understanding of the issues and formulating a way forward.”)

\(^{144}\) The possibility for such an agreement is proposed in Kuntze and Moerenhout, *supra* note 107 at 40-1.

\(^{145}\) See M Koskenneimi, *supra* note 79.
measures, and yet examine that along with the multiplicity of other considerations with a view to do what is best for the environment in the long run. Creating some form of a rent (through a subsidy, tariff or an LCR) coupled with a sunset clause, among many other details of architectural design which have to be adapted to the regulatory context, are considered as tools to achieve that goal.

It is in the interest of the environment that the door should not be closed on democratic experimentation with different tools suitable for each context. The debate should not be dominated by narrow trade interests, which conveniently appropriates the win-win rationale as the only rational to dictate a one-size-fits-all policy. The trade law community needs to avoid being captured in the wrong binaries in their legal imagination and not place too much faith in the role of the WTO in “checking” protectionism, sweepingly defined as everything that is about localization or industrialization. Instead it should start appreciating the emergence of competing rationalities beyond the predominant win-win narrative.

With respect to the case of Ontario FIT Programmes, the provincial government may have failed on all fronts. It may not only have failed in terms of designing a sensible policy of green industrialization (structure), but also in terms of balancing political interests to best galvanize support for FIT measures. But this does not exonerate the win-win narrative, which tells a very one-dimensional story of this multifaceted question.

Current discourses of “trade protectionism” are ill equipped to address the contemporary problems of green industrial policy so far as we accept that some form of localization is regarded an essential part of any successful RE wide deployment policy. There is an accelerated rise of “autonomous societal fragments” in transnational law each of which has its own mode of knowledge creation. In such a complex world of competing and conflicting rationalities, the WTO would be better placed if it maintained the door of GATT Article XX open in order to save some of these measures of industrial policy.

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146 Teubner & Fischer-Lescano, supra note 23 at 1006.