EXECUTIVE SUMMARY

Both the trading system and the environment provide a public good with very large positive externalities — which is to say that there is a global commons in both spheres. There has been very little success in managing any global commons outside the framework of effective multilateral instruments. Today, climate change and trade are colliding without agreed rules to sort out the problems at their intersection due to the failure of two multilateral processes: the Doha Round of WTO trade negotiations and the UN-led process on climate change, the most recent failure of which also came in the city of Doha.

These failures of collective action expose both of these two critical commons to risk. Nature is already sending warning shots over the bow in the form of an increased frequency of extreme weather events. With minimal progress in arresting global warming, and a more rapid onset of consequences than had been imagined, planning scenarios are now seriously considering double the 2°C of warming deemed to be "safe." For comparison, a global mean temperature increase of 4°C approaches the difference between temperatures today and those of the last ice age – it is not the small deal that mainstream economic modelling estimates suggest (a loss equivalent to a bad day on global stock markets) and has profound implications for the biosphere.

The trading system is also sending warning shots over the bow in the form of a mounting caseload of trade-remedy actions and trade disputes in climate-related areas. Since the trade conflict is a spillover from the unsettled conflict over who is to foot the bill for the unfunded liability that is the cost of climate change, the scale of the trade conflict is geared to the scale of the costs of climate change and thus may become very large indeed.

In the absence of a multilateral consensus on climate change, unilateral mitigation measures are being implemented, including in systemically important economies, with varying levels of ambition and conditions, and in differing technical forms. Disciplines being imposed on business differ in terms of the costs imposed. Subsidies for renewable-energy development are being made both for industrial policy reasons and to meet sustainability objectives. The approaches being followed by the major jurisdictions

cannot easily be rendered coherent: the United States is using existing environmental legislation; the EU, a climate-change-specific framework centered on cap-and-trade; and China, a development framework heavy on technological development aimed at reducing the carbon intensity of GDP.

Absent concerted action at the nation-state level, much of the public-sector action on climate change has moved to sub-national/municipal levels increasing the fragmentation of the response. The corporate world is also placing its bets — as it must — with some companies fighting rear-guard actions to delay climate change measures (and lobbying governments to support them) and others moving to respond to both activist boards and consumer preferences, and/or to take commercial advantage of the massive public investment that is required to address climate change. Mainstream business has implemented strategic plans to increase environmental sustainability; although the pace of improvement has been modest, the tracing of carbon footprints in supply chains is likely to reshape market access based on the purchasing decisions of major multinationals. And private actions have been mounted in the courts to force public sector responses.

Trade and trade rules are not helping and arguably are hurting the efforts on climate change mitigation.

Competitiveness concerns are increasingly significant in a global economy that has reached an advanced stage of integration, with products increasingly "made in the world" and trade competition reaching ever deeper into production processes ("the great unbundling"). This is clearly constraining unilateral action. For example, the EU has delayed implementing carbon charges on international flights landing in the EU under pressure from trading partners, and Australia is about to abandon its carbon tax — the measure that economists almost universally deem most appropriate — following a political campaign based on competitiveness concerns.

In solar technology, climate-change-mitigation efforts have fuelled industrial wars over new energy technology with the usual results of a battlefield littered with fallen bankrupts, distorted markets and inefficient use of public funds, and recourse to trade

measures (including tit-for-tat retaliation) consistent with the predictions of strategic trade theory.

Moreover, the WTO decision in the *Canada – FIT* case, which ruled out local content requirements, will constrain local-tax-funded unilateral action on climate change since the industrial benefits cannot be captured locally but must be shared globally, including with firms in jurisdictions that may be free-riding on climate mitigation. Arguably, this goes in the wrong direction.

As a thought experiment, suppose that the Appellate Body's reasoning in *Canada – FIT* regarding the creation of new industries had been reflected in a WTO carve-out for local content restrictions in situations where

- governments support the establishment of a new industry that would otherwise not take root, in a context where
- there are significant positive externalities associated with the new industry and significant negative externalities associated with the industry that it would eventually supplant, and where
- there is no multilateral agreement in place to support the establishment of the new industry and to appropriately allocate burdens to ensure that all have a fair opportunity to share in the industrial benefits through trade.

Such a carve-out would have allowed the EU and U.S. solar-panel industries to develop on the basis of EU and U.S. domestic-consumption subsidies, without risk of leakage to third jurisdictions. Logically, as the risk of leakage rises, so does the propensity to shift the subsidy from consumption to production, since a consumption subsidy can be exploited by third countries, whereas a producer subsidy cannot. Accordingly, the local content requirement (a bad thing in and of itself in a first-best world) would encourage a good thing (avoiding producer subsidies, which generally turn out badly).

The pluralization of the local content requirements through WTO-sanctioned preferential agreements would then have allowed trade within the burden-sharing group to enable the usual gains from trade, while excluding non-burden-sharing parties. In such circumstances, if China were to be considered a non-burden-sharing party, its ambitions

on solar panels would have been channeled in the first instance into supporting adoption of solar panels in its own domestic market and secondarily would have led it to seek entry into an agreement with the other major burden-sharing jurisdictions in order to gain access to their markets in a manner analogous to the way the trade restrictions in the Montreal Protocol worked to promote membership in the agreement. The novel element here is that, in place of an MEA, we hypothesize an approved derogation from an existing WTO restriction on local content requirements. We offer as a conjecture that this might have largely spared the global community the negative aspects of the rivalry for domination of the solar-panel field.

The central thesis of this paper is that failure to reach a co-operative burden-sharing agreement creates a classic "second-best" problem in that a "first-best" outcome on trade, given the current trade rules, may have decidedly negative effects in terms of inhibiting action of climate change, because it forbids discrimination against free riders on climate change mitigation. At the same time, this feeds back onto the trading system in terms of generating trade conflicts. The solution, we argue, is to bend the trade rules.