Introduction: Climate change and trade law—challenges for governance and coordination

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Climate change has been identified as one of the biggest security threats nowadays and its threat-multiplying effect is now commonplace, negatively impacting both the developed and the developing world.¹ The scientific work accomplished within the Intergovernmental Panel on Climate Change (IPCC²) has led to the acknowledgement that climate change largely is human-made and thus cannot be effectively addressed without the imposition of constraints in human behaviour (notably in production and consumption patterns) globally. Such constraints will have to be immediate in view of the uncontrolled manner in which cross-border negative externalities spread.

However, the mixed experience with the implementation of the Kyoto Protocol and the repeated failures to agree on a successive global treaty have made clear that significant collective action challenges exist in this area that are associated with the supply of global public goods.³ In addition, the global and diffused nature of greenhouse gas (GHG) and other emissions and the long-term horizons involved undermine the mobilization of converging voices calling for common action. In the United States (US), one of the biggest global emitters, some still raise doubts regarding the otherwise established scientific consensus about soon irreversible climate changes and thus impose obstacles on immediate climate action.⁴ It is quite telling that over half of the US states have objected to the application of the Clean Power Plan by the Obama administration. This is one of the most ambitious plans ever put forward in the US, aiming at an over 32 per cent reduction of power plant emissions by 2030 (based on 2005 levels).⁵

¹ See M. McElroy and J. Baker, 'Climate Extremes: Recent Trends with Implications for National Security', October 2012. Available at: http://environment.harvard.edu/sites/default/files/climate_extremes_report_2012-12-04.pdf accessed 9 August 2016.

² See, for the most recent report (fifth assessment report – AR5), IPCC, 'Climate Change 2014 – Synthesis Report: Summary for Policymakers'. Available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf accessed 9 August 2016.

³ See D. Cole, 'Climate Change and Collective Action' (2008) 61:1 *Current Legal Problems* 229.

⁴ See P. Krugman, 'Republicans' Climate Change Denial Denial', New York Times, 4 December 2015. Available at: <http://www.nytimes.com/2015/12/04/opinion/republicans-climate-change-denial-denial.html> accessed 9 August 2016.

⁵ By a narrow 5-4 vote, the US Supreme Court recently accepted an application to issue a stay that blocks the implementation of the Plan sought by the US Environmental Protection Agency (EPA) until the US Court of Appeals for the District of Columbia Circuit decides on the merits of the case (that is, whether EPA has the regulatory authority to implement such a plan). See: http://www.supremecourt.gov/orders/courtorders/020916zr3_hf5m.pdf accessed 9 August 2016.

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The recent global agreement⁶ concluded in Paris in December 2015 made headlines—and rightly so.⁷ The Paris Agreement COP21 constitutes a turning point in the action against the deleterious effects of climate action and a much-needed positive outcome in the global arena of climate politics. Important EU leadership and a timely commonality of minds among the most important emitters in the world, notably US and China, led to what appears to be a diplomatic triumph and a very good basis for short-term effective action against climate change.

To start with, the 195 participating countries recognized that ‘climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires the widest possible cooperation by all countries ... with a view to accelerating the reduction of global greenhouse gas emissions’.⁸ In fact, the parties recognized the need for deep reductions in global emissions. This recognition may have two important repercussions: first, that significant, disruptive technologies in the area of energy efficiency, renewable energy and, more broadly, sustainability would need to be developed; second, and as a result of the first observation, a clear signal is given to private actors as to the irrevocable, for all practical purposes, commitment to cleaner energy sources, which in turn may bring about a wave of higher private-sector investment.

Having said this, the Paris Agreement is a voluntary, non-binding instrument whereby countries set their own national targets for carbon emissions. Contrary to the Kyoto Protocol, the Paris Agreement does not incorporate any preference for a mechanism that would lead to the reduction of emissions. Although there are proponents of carbon pricing as an effective and easy way to administer means to achieve climate change mitigation,⁹ the Paris Agreement did not show any clear preference regarding the instruments to be used. Countries are free to use cap-and-trade schemes, carbon taxes, or any other instrument as they deem fit, including carbon taxes. At least for the first five years of implementation, setting ambitious targets for curbing emissions will be at the discretion of the respective governments. The Paris Agreement acknowledges as much and calls for addressing the discrepancy between the relatively low level of pledges to curb emissions and the promise to limit the temperature below 2°C and ideally not more than 1.5°C.¹⁰

Associated with this endeavour is the call for reaching global peaking of GHG emissions as soon as possible and subsequent rapid reductions of such emissions in

2016. The US Supreme Court showed some (thin and controversial) climate change sensitivity in *Mass. v EPA*, 549 U.S. 497 (2007).

⁶ United Nations Framework Convention on Climate Change (UNFCCC), Conference of the Parties (COP21), Twenty-first session, ‘Adoption of the Paris Agreement’ (hereafter the ‘Paris Agreement’), FCCC/CP/2015/L.9/Rev.1, 12 December 2015.

⁷ C. Davenport, ‘Nations Approve Landmark Climate Accord in Paris’, New York Times, 12 December 2015.

⁸ Paris Agreement, Preamble.

⁹ M. Farid; M. Keen; M. Papaioannou; I. Perry; C. Pattillo; and A. Ter-Martirosyan. ‘After Paris: Fiscal, Macroeconomic, and Financial Implications of Climate Change’, IMF Staff Discussion Note SDN/16/01, January 2016.

¹⁰ *Ibid.*, para. 17.

accordance with the best available scientific methods, whilst recognizing that developing countries will need more flexibility in this regard. For some, this may be regarded as a message towards certain countries and fossil fuels industries that some of the world's reserves in coal, oil and gas will not be extracted for the sake of emission reductions, and advocating further development of renewable energy sources.¹¹ The Agreement suggests that a balance (but, crucially, no neutrality) needs to be achieved between emissions and removals by sinks such as new forests after 2050. With fossil fuel subsidies climbing at \$452 billion per year, more concerted and specific efforts would need to be taken for a real shift in energy production and sustainability to occur.¹²

Such efforts do not need to be as radical as one would think at first blush: recent work by economists suggests that temporary subsidies to clean inputs coupled with carbon taxes or profit taxes would suffice to redirect technical change and lead to cleaner forms of energy production, provided that they are implemented expeditiously.¹³ This would need to be accompanied by activist and aggressive policy choices that will lead to reductions in the consumption of fossil fuels because otherwise technological advances such as those relating to fracking, shale gas or methane hydrates render the extraction of additional fossil fuels virtually limitless.¹⁴

Finally, the Paris Agreement calls for the update of emission reduction targets every five years, depending on the level of development of a given country. Thus, it is expected that this regular monitoring would convince countries to ratchet up the stringency of their climate-related policies in the future. In addition, a global stock-taking exercise is set to take place no later than in 2023 and every five years thereafter, whereby countries have to report publicly on their achievements and failures based on their previous commitments. A global name-and-shame mechanism is thereby established. More crucially, a universal accounting system allowing for the monitoring and reporting of emission levels and reductions shall be put in place, but details are yet to be agreed upon. Additionally, a commitment by developed countries to mobilize \$100 billion per year until 2025 with a view to assisting developing countries in mitigation and adaptation is incorporated in the Agreement. Whereas the exact amount is only mentioned in the preamble, that recital is still linked to Article 9 specifically, which calls for the provision of 'financial resources'.

Even though the climate change agenda appears to progress at significant pace,¹⁵ the multilateral trade agenda at the WTO is in a never-ending stalemate. This does not mean that trade rules are irrelevant in the climate change discussion. Rather than

¹¹ Paris Agreement, Article 4.

¹² See E. Bast; A. Doukas; S. Pickard; L. van der Burg and S. Whitley, 'Empty Promises: G20 Subsidies to Oil, Gas and Coal Production', November 2015.

¹³ D. Acemoglu; P. Aghion; L. Bursztyn; and D. Hemous, 'The Environment and Directed Technical Change' (2012) 102:1 *American Economic Review* 131.

¹⁴ T. Covert; M. Greenstone; and C. Knittel, 'Will We Ever Stop Using Fossil Fuels?' (2016) 30:1 *Journal of Economic Perspectives* 117.

¹⁵ The Paris Agreement entered into force on 4 November 2016, after the recent ratifications by China and the US, as well as Brazil, India, Canada and the EU.

constituting a tale of two solitudes, trade and climate change are inextricably linked and sometimes clash, as compliance with trade rules may lead to deficient environmental protection. The same applies to environment-related obligations, as acting in conformity with such obligations may contravene trade obligations previously undertaken.

Needless to say, both the WTO agreements and environmental treaties recognize the potential for conflict and fragmentation and occasionally attempt to alleviate it by emphasizing the complementarities and the importance of the values that the two regimes enunciate. The WTO Agreement, for instance, recognizes the importance of sustainable development nowadays,¹⁶ whereas Principle 12 of the Rio Declaration on Environment and Development appears to suggest that there is a positive relationship between an open (that is, non-protectionist) international economic system and the efforts to avoid environmental degradation.¹⁷ While anything but new, the discussion on so-called 'trade and issues'¹⁸ becomes more interesting as climate law evolves because it goes beyond the narrow boundaries of Article XX GATT¹⁹ to include issues relating to subsidization, food security and agriculture, industrial policy and investment, carbon-footprint-based discrimination, standard-setting with a sustainability touch and so on.

This edited volume is indeed the result of this recognition: a more multifaceted analysis of the interaction between trade law and climate change-related issues becomes increasingly necessary. Studies of this interaction between climate change and trade have grown in prominence in recent years. This is not only because of the now uncontested links between economic activity and possible deterioration of the environment, but also because of the institutional efforts for more efficient cooperation and coordination among international and regional organizations and domestic agencies dealing with trade and environmental issues.

The present book attempts to fill a gap in the literature on climate law by discussing the most pressing questions at the interface between climate change and trade. Part I identifies the main theoretical foundations on the trade and climate change nexus, focusing on the legitimacy of WTO law in dealing with climate change, the concept of common but differentiated responsibilities and its meaning for the WTO regime and, finally, the emerging concept of a duty to protect, very much linked to issues of trade and development.

Part II of the book addresses some of the most important conundrums for trade law when climate change policies are in place. Contributors eloquently discuss various

¹⁶ Famously underlined in the *US–Shrimp* Appellate Body Report. The importance of climate change as a concern to be addressed was first coined in the *Brazil–Retreaded Tyres* Appellate Body Report.

¹⁷ See also M. Young, 'Principle 12: The Environment and Trade', in J. Viñuales (ed), *The Rio Declaration on Environment and Development—A Commentary*, Oxford University Press, 2015.

¹⁸ J. Trachtman, 'Trade and ... Problems, Cost-Benefit Analysis and Subsidiarity' (1998) 9(1) *European Journal of International Law* 32.

¹⁹ For a good summary of the early GATT case law on the trade/environment nexus, see WTO, Committee on Trade and Environment, 'GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g)', WT/CTE/W/203, 8 March 2002.

climate-related policies and examine their consistency with existing WTO rules. These cover carbon taxes; carbon credit mechanisms and border tax adjustments (BTAs); feed-in-tariffs (FITs), private-driven technical standard-setting that serves sustainability purposes; trade in environmental (or 'green') services; or the challenge of technology transfer; and the role of the TRIPS.

In Part III, we choose some of the most topical challenges relating to the interaction between economic activity and climate change mitigation as well as adaptation: energy and food security; the currently discussed environmental goods agreement within the WTO; the concept of green paradox; and how WTO law can affect energy production patterns.

Part IV offers a detailed examination of regional initiatives and paradigms with a view to identifying possible best practices when dealing with climate change and trade. After an analysis of the importance of territory when addressing climate change concerns through trade measures, we discuss the stance of the EU on these issues as well as the take on the trade and climate change *problématique* of the next generation of mega-regional/preferential trade agreements: the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP).

Finally, Part V focuses on the interplay between trade and investment when climate change policies are adopted by governments. Complex investor-State disputes may result from stringent performance requirements, expropriation on environmental grounds, or other governmental policies that may hamper reasonable expectations about returns to a given investment. A concluding contribution attempts to summarize the ideas that are developed throughout this Volume with a view to identifying the contours of a potential WTO framework that would display certain climate change-friendly traits.