

BOOK REVIEW

Emissions Trading Schemes Under International Economic Law. By JAMES MUNRO, Oxford: Oxford University Press, 2018. ISBN 9780198828709, 224 pp.

To limit global warming to 1.5 degrees, global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45% from 2010 levels by 2030, reaching ‘net zero’ around 2050.¹ Any remaining emissions would need to be balanced by removing CO₂ from the air, and urgent and unprecedented changes are needed to reach the target. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate. Anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term changes in the climate system.

Climate-related risks for natural and human systems depend on the magnitude and rate of warming, geographic location, levels of development and vulnerability, and choices and implementation of adaptation and mitigation options. Climate models project differences in regional climate characteristics, including increases in mean temperature in most land and ocean regions, hot extremes in most inhabited regions, heavy precipitation in several regions, and the probability of drought and precipitation deficits in some regions. Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C. Estimates of the global emissions outcome of current nationally stated mitigation ambitions as submitted under the Paris Agreement will result in a global warming of about 3°C by 2100, with warming continuing afterwards. However, those ambitions are not being met.

The traditional approach to reduce pollution had been ‘command and control’ regulation until the creation of the US SO₂ market in 1995. This SO₂ market became the first cap-and-trade market to operate successfully in the world. The lesson from the SO₂ market is that emissions trading schemes hold great promise for the CO₂ market. The program spurred innovation in the technology of power plants, which installed scrubbers to reduce SO₂ emissions. The technology also reduced other harmful emissions such as NO_x, mercury, lead, and microscopic particles. Overall SO₂ emissions were reduced from about 23,000 tons per year in 1990 to less than 7000 tons per year

1 United Nations Intergovernmental Panel on Climate Change, Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, 8 October 2018, <http://www.ipcc.ch/report/sr15/>.

in 2011. The Acid Rain Program, directed at power utilities, was the catalyst for this change. Sulfate deposits dropped by at least half in most Midwestern and Northeastern states of the USA. In some states, the reduction has been over 70%. As a result of this reduction in pollution, large benefits have accrued from better health, higher land value for agriculture, and ecological impacts. The Environmental Protection Agency (EPA) has measured the value of such benefits in terms of reduction of lost lives, reduction of respiratory diseases, improved recreational facilities, and ecological improvement. The estimated median value of these gains for 2000 was 700 billion dollars, rising to 1300 billion dollars in 2010, and to 2000 billion dollars in 2020. To get an idea of the magnitude of these gains, the US Gross Domestic Product (GDP) for the year 2011 was estimated at 15,000 billion dollars. This experience with SO₂ shows how effective emissions trading schemes can be.²

Emissions Trading Schemes under International Economic Law is a well-written and timely book, which addresses many important issues regarding the application of the international economic law regime to a crucial component of the climate regime. It is a welcome contribution to the literature on climate change and international economic law.

Chapter 1 does a superb job of explaining the importance of the book from a legal perspective, in particular with respect to the need for more legal certainty for trade and investment in carbon units. This is not merely a legal issue, however. With the planet likely headed towards warming of 5°C above pre-industrial levels by the end of this century, mitigating climate change has become an existential issue.

In Chapter 2, regarding treaty interpretation and the Paris Agreement, Munro lays the interpretative foundation. Relevant rules of international law, in this case those of the international climate regime, can help a treaty interpreter to establish the ordinary meaning of treaty terms in their context. However, 'they cannot displace or operate as a defence to what would otherwise constitute. . . ordinary meaning' (p. 21). Climate change measures are not exempt from the international economic law regime, an argument that is supported by the incorporation of General Agreement on Tariffs and Trade (GATT) Article XX and General Agreement on Trade in Services (GATS) Article XIV chapeau language in the United Nations Framework Convention on Climate Change (UNFCCC) and the Rio Declaration. These points are well argued and are a necessary foundation for the author to set out up front.

Munro presents an interesting discussion regarding the manner in which equity is reflected in the UNFCCC, Kyoto Protocol, and Paris Agreement, for example with respect to common but differentiated responsibilities. He also notes two key points regarding the climate regime's interaction with the international economic law regime. First, since countries are not bound by their levels of ambition under the Paris Agreement, emissions trading schemes are not adopted in pursuance of legally binding obligations. Second, norms for apportioning the burden of addressing climate change

2 Bradley J. Condon and Tapen Sinha, *The Role of Climate Change in Global Economic Governance* (Oxford: Oxford University Press, 2013), Chapter 7.

are largely undefined. ‘This limits their potential to “interact” in any meaningful sense with the norms of international economic law’ (p. 17).

The discussion of VCLT Article 31(3)(c) is provocative. Munro appears to accept the view that relevant rules of international law must bind all of the parties to the treaty under consideration, even though the context of VCLT Article 31 does not support this conclusion. When VCLT Article 31 means ‘all the parties’, that is what it says (in VCLT Article 31(2)(a)). Thus, when VCLT Article 31(3)(c) refers merely to ‘the parties’, why would this mean ‘all the parties’? This view seems to be incongruous, particularly with respect to climate treaties that the author characterizes as some of the most widely ratified treaties in existence and that address existential issues.

Given the subject matter, it would have been useful to further develop the discussion of VCLT Article 33. For example, Munro notes that ‘the use of different terms might indicate an intended difference in meaning’ (p. 22). While this is correct, it is worth noting that discrepancies between authentic treaty texts, such as the English, French, and Spanish texts of WTO agreements, can be misleading in this regard.

Chapter 3 provides a necessary discussion of the nature of carbon units and emissions trading schemes. The key point is that inconsistent legal classification under municipal law complicates the classification of carbon units in international economic law. Chapter 4 critically assesses the literature on whether carbon units may be considered goods or products under GATT 1994. Munro concludes that these terms are used interchangeably to some extent and that neither requires tangibility. This point is well argued, as is his argument regarding evolutive interpretation of generic treaty terms. However, some might disagree with his characterization of greenhouse gases as ‘waste’, given the advent of technology that extracts CO₂ from the atmosphere and converts it into fuel.

Chapter 5 takes an original approach to analyzing whether measures regarding carbon units can qualify as measures that affect trade in services under GATS. He concludes that offset units (used to offset emissions) are likely to fall under the purview of GATS, but that allowance units (used to allow emissions) are not. He recognizes that this result is somewhat incongruous and concludes that the same conclusion applies to free trade agreements. In contrast, Chapter 6 concludes that the supply or trading of carbon units more generally would qualify as financial services under the GATS Annex on Financial Services and would also be regulated by financial services-related obligations under free trade agreements.

Chapter 7 casts doubt over the view that carbon units qualify as investments, taking an independent and more nuanced approach to this issue. Munro persuasively argues that this issue must be decided on a case-by-case basis. In his view, while carbon units are capable of constituting investments under international investment law, much will depend on a tribunal’s view on the role of municipal law and the application of economic criteria in different international investment agreements.

Chapter 8 makes a valuable contribution to the literature, which previously assessed the application of non-discrimination rules to differential treatment of carbon units based on hypothetical scenarios. In contrast, Munro undertakes a comprehensive review of the types of differential treatment found in a range of existing emissions trading schemes in order to create a taxonomy for ordering this treatment. Chapter 9 then analyzes the exceptions in GATT Article XX, paragraphs a, b, d, and g, and

GATS Article XIV, paragraphs a, b, and c, as well as their respective chapeaux. His discussion of the characterization of a measure, as well as his discussion of GATT Article XX(d) and GATS Article XIV(c), is particularly insightful. He concludes that the ability of these exceptions to justify emissions trading schemes will likely turn on the availability of evidence and the allocation of the burden of proof. Chapter 9 also briefly considers other possible exceptions, such as prudential measures for financial services and security exceptions for nuclear energy.

Chapter 10 concludes with the observation that there is a tension between the need for certainty and predictability in the markets for carbon units and the need for flexibility for governments or regulators to intervene. Munro notes the importance of these issues for countries, traders, and investors who seek access for their carbon units in as many markets as possible. However, the disciplines of international economic law apply to carbon units in complex and asymmetrical ways. Importantly, he concludes that many emissions trading schemes fail to be designed and administered in a manner consistent with international economic law, even though the possibility exists.

We are unlikely to solve the existential problem of climate change without dramatic innovations in technology and regulation. The experience with SO₂ markets demonstrates how emissions trading schemes can succeed in addressing serious environmental problems, both as part of a regulatory framework and as a catalyst for technological innovation. For CO₂ markets to succeed, they have to function well at the global level. The importance of this book is that it takes us a step further towards making that happen.

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