Measures to combat climate change have affected most economic sectors; they are marked-based and designed to provide incentives for undertakings to stabilize and reduce emissions from the infrastructure and facilities they are using when carrying out their economic activities. Such measures flow from commitments undertaken by States and international organizations pursuant to provisions of the United Nations Framework Convention on Climate Change of 1992 (UNFCCC) and the Kyoto Protocol of 1997, implementing the UNFCCC provisions.

The drafters of the Kyoto Protocol requested the International Civil Aviation Organisation (ICAO) and the International Maritime Organisation (IMO) to set up a mechanism for reducing emissions produced by aircraft and maritime vessels operating \textit{international} services under regimes established by them, that is, ICAO and IMO, in a rather ambiguously formulated provision. The reason for isolating aviation and maritime operations from other economic activities is probably twofold:

1. They are carried out by \textit{moving objects}, as opposed to the other activities which are performed by stationary installations.
2. As a corollary, they are \textit{cross border operations}, affecting more than one if not many jurisdictions, again distinguishing them from stationary facilities which are subject to the laws of the State in whose territory they are sitting.

The above introduction shows that this subject is influenced by international regimes regulating the protection of the environment and international aviation. Hence, the relationship between the two areas, which is in turn, also governed by public international law, including but not limited to the Vienna on the Law of Treaties, is food for thought on international law.

Added to the above scheme concerned initiatives adopted by the European Union addressing climate change by creating a mechanism of its own, also affecting services operated by non-EU air carriers on flights starting in any point of the world when that service has an EU airport as its destination. Reference is
made to the Emission Trading Scheme of the EU which will be alluded to below. Obviously, the EU mechanism raised questions regarding its compatibility with international law.

Dr Alejandro Piera has picked up the ‘legal and policy challenges’ – which is the subtitle of his book – connected to the above questions in a PhD study which has been published by Eleven Publishers in the Series ‘Essential air and space law’ edited by Dr Marietta Benkö. He has done so in an admirable fashion, in which effort he made use of the academic training he received at the McGill Institute of Air and Space Law and his work as a representative of the United Arab Emirates (UAE) at the Council of ICAO in Montreal. He continues his professional activities in his law firm Guanes, Heisecke & Piera which is based in Asunción, Paraguay.

The author has divided his work in nine chapters in which he discusses the following subjects in the order indicated below:

1. Setting the Scene, where he explains the principal research questions, pictures the background of climate change and the aviation market, discusses measures to cope with the current problems, touches upon their political dimension and introduces the EU ETS.

2. Aviation and Climate Change: A case of Fragmentation of International Law in which he analyses the sensitive link between fundamental principles of the ‘climate change’ regime, that is, in particular the principle of Common But Differentiated Responsibilities (CBDR) which is formulated in the Kyoto Protocol, fostering the interest of the developing countries and their airlines, on the one hand, and the non-discrimination principle laid down in international aviation agreements, and concludes that the two ought to be reconciled by ‘accepting the proposition that norms are dynamic and not static’ (p. 83) and hence must be approached with an open mind.

3. The International Civil Aviation Organization, in which he basically describes the mandate of ICAO, and its efforts to make a meaningful contribution to set up Market Based Measures (MBMs) for reducing pollution cause by CO2 emissions which form the principal reason for concern. He pays tribute to the enormous efforts undertaken by ICAO in this field, and I believe rightly so.

In my view, Chapters (4), (5) and (6) should be read as one chapter as they mirror the complex relationship between the EU ETS against various instruments of international law, including, of course, the Chicago convention and the Kyoto Protocol, after having explained
the technical and operational features of the EU ETS. These chapters deal with:

(4) The Inclusion of International Aviation in the EU ETS, where he examines the fierce opposition which the EU ETS has received from third countries, both in court, namely in the ATA case handled by the Court of Justice of the EU (CJEU) and in policy declarations which were proclaimed in New Delhi and Moscow in 2012 and vehemently condemned the unilateral action of the EU.

(5) Legal Challenges against the EU ETS: Extranationality in which Dr Piera, proceeding from territorial jurisdiction as an essential principle of international law including international air law, fine-tunes his views on a prohibition of measures having an extraterritorial effect by relying on yet other principles of international law and decisions made by the International Court of Justice and other courts.

(6) Additional Legal Issues Involving the EU ETS in which he goes into justifications for unilateral actions made by States, and argues why, for instance, the EU ETS is not a tax by referring, among others, to a decision made by the CJEU (then ECJ, in the Braathens case); he also touches upon the compatibility of the EU ETS with World Trade Organization (WTO) regime, and asks the provoking question whether the Chicago Convention matters; on the first question – compatibility with the WTO – he responds that there is no conflict between them (EU ETS and WTO), whereas he, and I feel again rightly so, comes to the conclusion that the Chicago Convention does matter, for policy, comity and legal reasons.

(7) We Are All Ahead of the Curve, in which initiatives of various actors, including the International Air Transport Association (IATA), ICAO, the EU and the US are pictured as entrepreneurs establishing norms, or modifying them. After testing the value of the concept of ‘norm entrepreneurship’ against realities and results, he finds that, for instance, IATA, ICAO and the US have played a useful and stimulating role in this process.

(8) The Way Ahead: Key Considerations in Addressing of GHG\textsuperscript{1} Emissions from international aviation in the future in which he postulates a number of ideas for moving the subject forward. Not surprisingly, careful attention is paid to the legal instruments that ICAO has at its disposal, that is, Standards laid down in Annexes to the Chicago Convention, Resolutions adopted by the General Assembly and the

\textsuperscript{1} GHG stands for Greenhouse Gases.
treaty based approach, as these instruments may be most suitably equipped to reconcile the principles emanating from the environmental and aviation regimes as alluded to above.

(9) In his Concluding Remarks, Dr Piera summarizes his principal arguments put forward in the preceding chapters, and emphasizes, yet again, that he would strongly promote ‘the articulation of CBDR with non-discrimination in a manner compatible with international civil aviation’.

The above in-depth study will serve policy makers, lawyers, academics, experts of environmental and aviation problems, and especially those who are preparing themselves for the General Assembly of 2016 in which this subject has a high priority on the agenda, in a very stimulating and transparent manner. His proposals are constructive and his writing style is eloquent. The study is excellently documented, as it includes a useful list of abbreviations, meticulously presented footnotes, and an impressive bibliography, but not an index.

If I have to make one remark which would give evidence of a critical position as to this study, it would pertain to structure, and, related to that, methodology. I might have favoured a stricter approach following which general principles of international law are applied to the centre piece and main case study, namely the EU ETS, which is dealt with from various angles in every chapter. Admittedly, it would not have been an easy task to achieve this.

Having said that, this book is a must for all of the persons mentioned above. Its value lies in its multifaceted and intellectually stimulating way of addressing the complex questions raised in it.

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