3. MARKET-BASED MEASURES

CARBON MARKETS, THE SIMPLE REALITY

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Carbon markets around the world received a boost from the new Paris Climate Change Agreement, adopted by Parties to the United Nations Framework on Climate Change (UNFCCC) in December 2015. Article 6 of the historic Agreement allows for the cross-border trade of greenhouse gas (GHG) reduction units, as well as establishing a new international crediting mechanism to encourage sustainable development. Accompanying decisions will see experiences and lessons from existing market mechanisms used in developing the rules for this new global system — including the Kyoto Protocol's Clean Development Mechanism (CDM), the regulatory body that has been gearing-up to potentially serve the aviation sector¹.

The Paris Agreement's inclusion of market provisions was made possible by a groundswell of carbon market support and action around the world. Whereas at the last major UNFCCC climate talks, in 2009 in Copenhagen, the EU Emissions Trading System (ETS) was the only major game in town, the intervening six years have seen other carbon markets sprout across the globe.

According to the World Bank's Carbon Pricing Watch 2016², approximately 40 countries now put a price on carbon, with over half using some form of ETS. At the sub-national level, over 20 states and provinces have implemented, or are planning to implement, trading and offset crediting programs. When China's seven existing pilot cap-and-trade programmes transition to a national ETS from 2017, the world's annual value of implemented carbon pricing initiatives will potentially double to USD 100 billion from today's USD 50 billion year. These figures and trends tell the story, and the message is clear: markets are here to stay.

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With the spread of emissions trading more broadly, time is running out for sectors to remain exempt from compulsory actions to cut their emissions.

The 1997 Kyoto Protocol tasked both the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) with tackling their respective sectoral emissions, given the global nature of aviation and shipping. However, after minimal progress by 2009, the EU took matters

into its own hands and passed legislation extending its ETS to aviation, applicable to all planes taking off or landing in an EU nation from 2012, regardless of its destination or point of origin — or where it is flagged. Cue uproar, legal challenges and a diplomatic row.

But it was not until the airlines had received their allocations, priced in compliance costs to fares and were well into the first year of compliance that a détente was reached. At the end of 2012, the EU agreed to temporarily suspend the aviation provisions for one year (i.e., for 2012), to allow the ICAO Assembly to reach a deal on a plan at its 2013 triennial General Assembly. The provisions were later amended in 2013 to only apply to flights between airports in the European Economic Area region until 2016. The rationale behind idea was the understanding that, by the end of 2016, ICAO would have a decision to implement a global Market-Based Mechanism (MBM) to ensure carbon neutral growth from 2020.

Meanwhile, at ICAO's 2013 Assembly, governments endorsed a proposal to decide on a global MBM for aviation at the next triennial Assembly meeting in 2016, to take effect from 2020. Given the temporary derogation in the EU ETS, along with the momentum for climate action globally, this year's 39th Session of the ICAO Assembly is crucial.

To ensure the programme is of high environmental integrity, this last criteria – emission reductions that are beyond business-as-usual (i.e., they would not have occurred without the programme) is crucial. This concept, known as *additionality*, is integral to existing offset programmes, such as the CDM, Gold Standard, and Verified Carbon Standard (VCS), and other similar voluntary and compliance systems. Independent verification of claimed reductions is also important, which would measure the reductions against an accepted baseline.

Bringing a market to the aviation sector makes sense. Since 1999, IETA has championed the use of well-designed market-based mechanisms – trading and offsets – to curb greenhouse gas emissions, ensure certainty in environmental outcomes, and achieve these goals at least cost to business, consumers and society at large.

Markets and the use of offsets are also a good way to bridge borders and encourage wider participation in a global response to the global environmental challenge – an especially important



Figure 1. IETA carbon pricing map, June 2016

feature for an international sector like aviation. Offsets are also proven and powerful cost-containment tools. The opportunities for low-cost 'internal' reductions for aviation are limited, and are already being pursued as part of the carbon neutral growth strategy. Thus, access to a broad and robust pool of low-cost offsets can help the sector go further, faster, and cheaper enroute to reaching its climate goals.

With several offset programmes already in operation, there is a wealth of experiences and tools that an ICAO MBM can draw upon. Rather than start anew, there is nothing to stop ICAO's programme from deciding to use one or more of these existing systems. This would ensure that a 2020 start date could be met – particularly then as the amount of institutional and technical architecture needed, not to mention MBM design features, would be greatly reduced.

Tapping existing offset markets and programmes, with all the accompanying methodologies, rules and procedures, would also allow for more energy to be spent on the political question of obligations: who will do how much, and by when. These questions are pivotal to the successful design and implementation of market-based mechanisms in general, and gain more attention in the context of international aviation. Indeed, international aviation is the first-ever sector to consider the adoption of a

global MBM, thus crystallizing expectations. Being a pioneer means that new pathways have to be created but international aviation has demonstrated on numerous occasions that it can respond to this type of challenge.

Since the 2013 Assembly, ICAO has actively engaged with its Member States and relevant international organizations in the development of a global MBM scheme. To this end, the ICAO Council established the Environment Advisory Group (EAG), composed of 17 Council Representatives, in March 2014. The EAG, under the direction of the Council, was to oversee all the work related to the development of a global MBM scheme and based on the results of its deliberations, to make recommendations to the Council. The Council was supported in its technical and analytical work by the Global MBM Technical Task Force (GMTF) of the ICAO Committee on Aviation Environmental Protection (CAEP). The current proposal would create a global offsetting system for the aviation sector, whereby operators can acquire or trade emissions units from approved programmes, projects or emissions trading scheme which reduce emissions beyond business-as-usual.

References:

- 1. In November 2015, the CDM Executive Board approved the first methodology to credit GHG reductions from aviation, for the installation of electric motors to the landing gear of aircraft to reduce emissions from taxiing.
- 2. World Bank Group, Ecofys "Carbon Pricing Watch 2016" (May 2016)