



MARKET MECHANISMS AND THE PARIS AGREEMENT

Harvard Project on Climate Agreements

With the support of
The Harvard University Climate Change Solutions Fund

October 2017

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October 2017

The Paris Market Mechanisms' Contribution to Global Greenhouse Gas Mitigation: Complementarities and Tensions between Article 6.2 and Article 6.4¹

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Key Points

- The Paris Agreement's Article 6 market mechanisms may provide governments with access to less costly mitigation options than would be available domestically and therefore could provide an important incentive to increase the ambition of Nationally Determined Contributions (NDCs) over time.
- There are, however, critical issues to be resolved if market participants are to have confidence in the new regime and the potential of the Paris Mechanisms is to be realized. Among these:
 - Additionality must be defined carefully in the Paris-Agreement context, especially if applied to policy instruments — in part through application of cost-benefit analysis.
 - The Article 6.4 mechanism should build on the strengths of the Clean Development Mechanism (CDM), applying CDM rules and accepting CDM projects and certified emission reductions (CERs) as far as possible.
- Resolution of these and other issues—and realizing Article 6's potential—depends heavily on formulating sound accounting rules and processes in the context of heterogeneous NDCs.

The legacies of the Kyoto Mechanisms

A key innovation of the Kyoto Protocol agreed in 1997 was the set of three market mechanisms made available to countries with national emission commitments — the CDM, Joint Implementation (JI), and International Emissions Trading (IET). The CDM enabled greenhouse gas mitigation projects in countries without commitments to generate emissions credits, while JI was limited to projects in countries with commitments. IET allowed governments to directly transfer emissions units from their national emissions budgets.

1 I would like to thank the German Ministry of Education and Research for funding the project “Transformative Ambitionssteigerung – Der Beitrag effektiver Klimapolitikinstrumente (TABEK)” (01LS1621A) in whose context this article has been written.

The CDM became the most heavily used of the three Kyoto Mechanisms. Until the end of the Kyoto Protocol's first commitment period, over 1.8 billion CERs were issued from projects in over 90 developing countries. Over 8,000 projects and activities under programs have been formally registered to date. A critical aspect of the CDM's success was the monetary incentive it created for private sector players, coupled with limited interference by government agencies. JI suffered from governance challenges in countries in transition, while the IET faced a lack of demand due to the unwillingness of governments in Western Europe to buy emissions units perceived as "hot air" (i.e., emission reductions that were surplus in the sense that they were not due to specific mitigation efforts).

The ambition of the Paris Agreement and how market mechanisms can contribute

Although it relies on a "bottom up" regime of voluntary individual country commitments, the Paris Agreement of 2015 is noteworthy for its high ambition. It seeks to limit the increase in global average temperature from preindustrial levels to "well below" 2° C, and specifies that a balance of emissions and sinks is to be achieved in the second half of the century.

Given that each country has full freedom to determine its NDC under the Paris Agreement, it is crucial to allow full access to all globally available mitigation options. If governments develop trust that they can access cheap mitigation worldwide, they may be willing to increase the ambition of their NDCs over time. Thus, market mechanisms are even more important under the Paris-Agreement architecture than they were under Kyoto. The negotiators in Paris realized this, and, against all expectations, put an entire article on market mechanisms in the text of the Agreement.

The skeleton of the rulebook for mechanisms in Articles 6.2 and 6.4

As was the case under the Kyoto Protocol, the Paris Agreement only provides key principles for market mechanisms; the detailed rulebook is still under negotiation with a deadline of 2018. The Agreement defines two mechanisms: one under international oversight ("sustainable development mechanism" [SDM], Article 6.4) and one based on agreement between governments ("cooperative approaches" [CA], Article 6.2). Common principles include environmental integrity, transparency, and prevention of double counting. The latter is important as, in contrast with the Kyoto regime, all countries contribute to mitigation under the Paris Agreement. This necessitates a clear allocation of mitigation outcomes to the host and the buyer country's NDC. It is likely that the Paris mechanisms will allow crediting on the scale of policy instruments or entire sectors, thus going beyond projects and programs.

Critical issues to be resolved in the UNFCCC negotiations

Market mechanisms have often been criticized as generating emission credits that do not reflect real mitigation. In this context, the concept of “additionality” is paramount. Any credit generated by an activity that only reflects “business-as-usual” dilutes overall mitigation ambition. While tests for additionality have been refined and made robust for projects and programs in the context of the CDM, efforts to develop such tests for policy instruments are still in their infancy. The issue becomes challenging in the context of the Paris Agreement, where there is no international oversight for the baselines used in the context of NDCs. This makes it likely that a number of NDCs will generate “hot air” because their mitigation scenario is actually less ambitious than the real “business-as-usual” scenario.

Also, the issue of how far CDM projects and programs, as well as already issued CERs, are to be brought into the Paris mechanisms is of considerable importance (Michaelowa 2016 and Michaelowa and Hoch 2016). Due to the crash of CER prices to extremely low levels after 2012, a large volume of CERs has piled up. Between 2012 and 2020, over 9 billion CERs could accrue, while the decade 2020–2030 could generate another 8 billion CERs. These volumes could provide a kick-start to the first round of NDC strengthening from 2018 onwards.

Accounting rules with regard to the nature of units that can be transferred, types of registries, and eventual buyer or seller liability need to be specified. Positive experiences with accounting under the Kyoto Protocol would call for a continuation of that system, while significant differences between NDCs will make it difficult to agree on a common unit and approach.

Recommendations to maximize the contribution of market mechanisms

Additionality determinations for policy instruments should theoretically be based on a cost-benefit analysis. Only policies whose costs exceed their benefits should be seen as additional. A pragmatic approach would be to deem all carbon pricing policies additional once the carbon price exceeds a threshold value. This value would ideally reflect the social cost of carbon²; in practice, it should be differentiated according to the development status of the host country. For regulatory policy instruments, additionality could depend on the payback period of the technologies that need to be applied due to the regulation; a level of 3–4 years would reflect industrial reality.

Pilot activities for upscaled crediting should put an emphasis on testing such additionality approaches, supported by political and economic research regarding choice of policy instru-

2 See also briefs by Joseph Aldy and James Stock in this volume.

ments. To ensure that CAs under Article 6.2 do not function as generic loopholes,³ minimum rules for demonstrating additionality should be the same for Article 6.4 and Article 6.2.

Article 6.4 should apply CDM rules and accept CDM projects and CERs as far as possible. This sustains the trust of participants in the CDM market who might otherwise be alienated from market mechanisms and thus maximizes the mitigation contribution of market mechanisms.

With regard to accounting, basic eligibility criteria for the use of credits from market mechanisms could be envisaged. Universal adjustments for transfers, cancellations, and banking, and common reporting rules on cooperation, systems, and annual transactions, would increase trust in market mechanisms.

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3 The experience from JI shows that available loopholes will be found and exploited. When the direct sale of “hot air” through IET was prohibited at the Doha conference in 2012, Russia and Ukraine used Track 1 of JI, which was devoid of international oversight, to create several hundred million JI credits from doubtful projects within a few weeks.

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