

Promoting Carbon Pricing Internationally – Over-supply in the Market of Institutions?

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Abstract

International initiatives to promote carbon pricing and carbon markets (including carbon taxation, emissions trading and offsets) constitute a rapidly growing alphabet soup of acronyms straddling the boundaries between public and private organisations. The different initiatives perform rather different roles. While several of the private initiatives set standards and commitments regulating how private actors should trade emission allowances and offset emissions, public and public-private initiatives tend to perform information dissemination and networking roles focused on the pricing of emissions. Importantly, the public and public-private initiatives mainly support political decisions to implement carbon pricing (e.g. the Carbon Pricing Leadership Coalition), whereas the private initiatives tend to support the trading of the emissions (e.g. the International Emissions Trading Association). While the public and public-private initiatives centred around the World Bank share a normative belief in pricing all carbon emissions based on the polluter-pays principle, the private initiatives tend to work to provide low-cost abatement options for industry and represent the interest of the emissions trading sector.

Introduction

The last ten years have seen a surge in international and transnational institutions aimed at promoting carbon pricing and carbon markets. A couple of such institutions have existed since the Nineties (most notably the International Emissions Trading Association, IETA), but most have appeared since 2007 (Sanderink et al. 2016). These institutions have promoted carbon taxes and emissions trading, as well as systems for off-setting of emissions. More specifically, this promotion has taken the shape of setting standards and commitments, information-sharing and networking, operational activities such as pilot and demonstration projects, and to a lesser degree financing. Following Sanderink et al (2016), we argue that they constitute a micro-field focused on carbon-pricing and carbon markets. All institutions subscribe to the norm that climate change should be addressed through pricing the emission of greenhouse gasses (Newell & Paterson 2010), also the carbon market institutions, what we will refer to as the norm of carbon pricing. This norm is based on the notion that climate change mitigation is best addressed by giving emitters an incentive to reduce emissions in terms of a price signal, and that the decision of how to reduce emissions is best left to the market. However, there seems to be considerable differences in terms of how this has been interpreted in practice among the institutions as well as more generally. Whereas most environmental economists mainly have argued that the externality of climate change should be internalised by placing the costs of climate change on the polluters (Pigou 1932; Jacobs 1997), others have focused more on creating a system for allocating the right to emit greenhouse gasses and for trading these rights (Coase 1960; Felli 2015).

Research question:

1. How do the institutions promoting carbon pricing and carbon markets interpret the norm of carbon pricing?

The research question will be answered by first outlining our theoretical approach based on theories of (normative) fragmentation and interaction between institutions, followed by a review of the literature on carbon pricing and carbon markets. Finally, the international institutions promoting carbon pricing and carbon markets are mapped in terms of their membership (public, private or public-private), governance functions and their interpretation of the norm of carbon pricing.

Interaction between International Institutions

International issues including international environmental problems are increasingly governed by sets of institutions with different memberships, norms, principles, and decision-making procedures. Together, the institutions constitute what is regime complexes (Keohane & Victor 2011), international governance architectures (Biermann et al. 2009) or polycentric systems (Ostrom 2010). Although most of the literature on such complexes or governance architectures focus on international institutions with states as their members, transnational institutions with public and private members as well as purely non-state institutions are being studied to an increasing degree. Abbott (2012) maps the transnational regime complex for climate change in regard to explain aspects of climate governance by focusing on the diverse array of transnational schemes and actors from states, companies, and Civil Society Organisations (CSO). Through referring to a ‘Cambrian explosion’ of transnational institutions, implementation mechanisms, rules, financing arrangements and programs, he describes the development as an explosion of governance in the environmental sector (ibid.).

Here, the focus is not on an entire regime complex. Rather, we argue that it makes sense to focus on a subset of the overarching climate regime complex, namely what we refer to the micro-field of institutions promoting carbon pricing and carbon markets. We focus on the relations between the institutions, particularly their normative relations (see Stokke 2001) concerning norms held by the institutions, more specifically their interpretation of the norm of carbon pricing. Such normative relations may range from the synergistic to the conflictive (Biermann et al 2009: 19). In this case, since the institutions subscribe to the same norm but may differ in their interpretation of it, it is difficult to characterise their normative relations as being outright conflictive, but the differences in interpretation may nevertheless lead to academically and politically significant disagreements.

Literature review

The pricing of greenhouse gas emissions is the fundamental solution to climate change according to the environmental economics literature (Pigou 1932; Jacobs 1997; Tol 2011; Sterner & Coria 2012). Such pricing is based on the notion that climate change is best mitigated by giving emitters an incentive to reduce emissions in terms of a price signal, and that the decision of how to reduce emissions is best left to the market. These notions are again underpinned by understandings of actors as economically rational and of the response to climate change as compatible with liberal and capitalist systems. Initiatives to adopt and promote such pricing of emissions fits nicely with the norm-complex of liberal

environmentalism (Bernstein 2001), and particularly carbon markets have been described as a key component of “climate capitalism” (Lane & Newell 2010). Consequently, these initiatives have been promoted by leading economists, economic organizations such as the IMF and the World Bank, influential journals such as the Economist or Financial Times, as well as environmental NGOs such as the WWF.

Such pricing can take place through carbon taxation or the trading of allowances to emit greenhouse in a carbon market. The term carbon market covers systems for trading with other entities covered by the same emissions trading or cap and trade system with an overarching cap, as well as systems for purchasing carbon credits (or “offsets”) from the entities outside of said target and which can be counted toward an emissions target, e.g. the Clean Development Mechanism (Paterson et al 2014). Conceptually, there is a key distinction between by placing the costs of the externality of climate change on the polluters (Pigou 1932; Jacobs 1997) – thus also adhering to the polluter pays principle (OECD 1975), and creating a system for allocating property rights to emit greenhouse gasses and for trading these rights (Coase 1960; Felli 2015). In practical terms, the key difference is whether polluters have to pay for all of their emissions – as they do in systems with a carbon tax and emissions trading systems in which all allowances are auctioned – or only those above a given baseline – as they do in emissions trading systems with free allocation (so called grandfathering; see Aldy et al 2010) and in case of voluntary offsets. These two options shall be seen as parts of a continuum with several of the carbon pricing and carbon market policies operating somewhere in between them, e.g. most of the world’s emissions trading systems combine grandfathering and auctioning of allowances.

There have been two ways in which carbon pricing has been adopted: as mandatory schemes covering all entities within particular sectors operating within the polity (states, subnational entities such as provinces and supranational entities such as the EU) adopting carbon pricing, and as voluntary schemes (mainly carbon markets) joined by companies who would like to commit to reducing or offsetting their emissions. Below, we will discuss the literature on the mandatory schemes first followed by the literature on the voluntary schemes, before turning to the (limited) literature on the international and transnational initiatives to promote carbon pricing.

Mandatory schemes

Unlike most other mitigation policies, mandatory carbon pricing provides revenue for the public budget, a characteristic appealing to powerful finance ministries and politicians facing budgetary constraints.

Studies of carbon pricing have mainly focused on the economic aspects and on single case studies of the adoption of carbon pricing on the national, provincial and European Union level (Skjærseth & Wettestad 2008; Harrison 2012; Sterner & Coria 2012; Cheon et al. 2015). Several studies of carbon markets have analysed them from a critical perspective emphasising their neoliberal underpinnings (Lane & Newell 2010; the contributions to Stephan and Paterson), while studies of carbon taxes tend to focus more on why such taxes were adopted and their implications (Andersen & Ekins 2009). Studies covering both carbon taxes and emissions trading are rare, as are comparative studies of the adoption of carbon pricing (Harrison 2010). Concerning the international level, there are a few studies of the diffusion of particular carbon pricing instruments such as carbon markets tend to focus on diffusion between peers in different polities, and pay less attention to the role of international institutions aimed at such diffusion (Stephan & Paterson 2012; Paterson et al. 2014). Likewise, Wettestad (2009) discusses the interaction and cross-scale effects between EU carbon trading

focused on companies, and the wider international climate regime focusing on national actors. He argues that although the ETS functioned as an inspirational model for global carbon trading under the UNFCCC, the complexity of the market and diversity of actors involved points to the need to study underlying mechanisms and factors shaping the trading initiatives.

Voluntary carbon markets

Voluntary carbon markets refer to the institutionalised markets responsible for trading verified emissions reductions (VERs) which are not part of the regulatory schemes under the Kyoto Protocol and the EU ETS. The voluntary carbon trading actions of this sector thus refers to those activities of organisations or individuals that are taken outside of, in addition to, or beyond the existing environmental policies or basic environmental laws and regulations on carbon emission and trading. Operating independently from the UNFCCC, the voluntary carbon trading markets are led by various public and private actors and follow standards created by its industrial stakeholders. Besides offering opportunities to engage in emissions trading and to enable genuine reduction of carbon emission that could potentially exceed the goals set by mandatory carbon trading markets, there are a number of other motivational factors for engaging in voluntary carbon trading measures.

Due to the normative character of supporting emission reduction and the resulting pressure of NGOs or externally existing regulations, actors can use carbon trading measures to fulfil corporate social responsibility (CSR) goals, and to realise marketing opportunities in line with the 'green' image (Lyon & Maxwell 2007; Benwell 2009). The voluntary carbon market therefore plays an influential role for the private sector focusing on individual consumers and green consumerism (Lyon & Maxwell 2007; Choi 2015) as well as renewable energy markets (Bird et al. 2008).

The relative flexibility of voluntary carbon markets can have positive impacts on the relationship between various initiatives, as voluntary carbon pricing approaches may allow greater possibilities for collaboration between sectors or between regulators and polluters (Segerson 2013).

Further reasons to employ voluntary measures include the possibility to influence shareholder or institutional pressure from other companies or actors that therewith frame actor-relations in accordance with environmental goals, to avoid climate litigation, or to influence future mandatory regulations (Benwell 2009, Lyon & Maxwell 2007). Actors can therewith engage in, and directly influence, how relations between carbon emission initiatives change over time.

Besides this range of opportunities for economic growth, market influence, and cooperation, the voluntary market has been criticised as less effective and reliable (Lyon & Maxwell 2003) or undermining the process of establishing successful mandatory policies (Segerson 2013, Lyon & Maxwell 2003). It is important to also note the possible hurdles and downfalls of voluntary carbon markets. The fundamental goal of emissions trading is to bring concerns for the environment on the agenda of businesses and corporations that otherwise profit from production measures that are conducive of the very issues carbon cap and trade measures seek to solve.

Due to the categorisation of the carbon market into voluntary and mandatory, voluntary schemes are established in relation to existing regulatory schemes, which can have the effect

of either being ineffective (Lyon & Maxwell 2007) or undermining the process of establishing successful mandatory policies (Segerson 2013, Lyon & Maxwell 2003). Voluntary markets have moreover been criticised for misconduct, lacking transparency, or for offsetting emissions without changing the production measures and standards of life that causes high emission levels (Benwell 2009). Benwell makes an important point in arguing that the very distinction between mandatory and voluntary markets is creating a descriptive divide which may preclude market cooperation as it reinforces the normative divide of framing the voluntary sector implicitly as less effective simply due to it being unregulated, furthermore implying that mandatory market operators have nothing to learn from their voluntary counterparts (2009).

Beyond the Individual Institutions

The relation between the different carbon trading initiatives impacts how the market of carbon trading and emission transfer will develop over time. Generally, there are two major possible outcomes on how the market can be shaped: either, the various trading schemes will coalesce to form a global market with a set carbon price, or carbon trading schemes will continue to differ substantially, both in regard to the price of carbon and scheme designs (Hasselknippe 2003).

Inquiring which level of harmonisation between the market schemes is necessary to enable mutual recognition or linking of trading systems, Hasselknippe (2003) presents an overview over regional, national, and international systems for carbon trading. While mutual recognition on a common unit of trade is effectively needed as baseline to reach linked markets, effective monitoring, reporting and verification systems need to be operating consistently to ensure accountability and countervail current fragmentation of carbon trading markets (ibid.).

Lyon and Maxwell (2007) reconsidered the overall effects and success of environmental ‘public voluntary programs’ (PVPs) which provide information and networking services as well as technical consulting. While a range of empirical studies pointed to inefficiencies in PVPs impact, the authors argue that it is difficult to assess environmental improvement channeled through PVPs as it depends on a range of factors such as otherwise existing policy instruments or political opposition (Lyon & Maxwell 2007). After analysing a range of studies on the effectiveness of PVPs, they suggest that assessed conclusions of PVPs having a low impact or operating only symbolically to greenwash production were premature. Since voluntary measures are often placed outside of strong political regulations, expected impacts have to be located within frames that reflect the overall market situation and relation between involved actors.

Mapping the institutional complex for the micro-field

The carbon pricing issue area consists of 12 initiatives (see table 1), covering public, private, and public-private constituencies. While a few of them date back to the late Nineties, most have been established since 2007. Business and public actors (states, IOs and subnational governments) are the main constituents, while CSOs are only involved in the Carbon Pricing Leadership Coalition (CPLC), the UN Global Compact Caring for Climate (C4C) and the Networked Carbon Markets Initiative (NCM).

Table 1: Overview of the carbon pricing and carbon market institutions

Name	Governance function
UN Global Compact Caring for Climate (C4C)	<i>Standards and commitments.</i>
CarbonNeutral Protocol (CNP)	<i>Standards and commitments</i>
Carbon Pricing Leadership Coalition (CPLC)	<i>Information & networking</i>
International Air Transport Association Carbon Offset Program (IATA_COP)	<i>Operational activities Standards and commitments</i>
International Carbon Action Partnership (ICAP)	<i>Information & networking</i>
International Emissions Trading Association (IETA)	<i>Information & networking</i>
Networked Carbon Markets Initiative (NCM)	<i>Information & networking</i>
Partnership for Market Readiness (PMR)	<i>Information & networking Financing</i>
Verified Carbon Standard (VCS)	<i>Standards and commitments</i>
Ver Plus (VER+)	<i>Standards and commitments</i>
Western Climate Initiative (WCI)	<i>Operational activities</i>
Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)	<i>Standards and commitments Operational activities</i>

Grey: Public institutions; yellow: public-private; red: private.

Although all of the 12 initiatives work towards the goal of approaching a carbon neutral economy and mitigate climate change caused by carbon emissions, they do differ in their approaches. Broadly speaking, the public and public-private initiatives mainly focus on supporting political decisions to implement carbon pricing and to link mandatory carbon markets, whereas the private initiatives tend to support the *trading* of the emissions. Mapping out the core focal points and governance functions of the 12 initiatives shows that they can be situated on a spectrum, signalling their stance on carbon market activities. Two clusters are present within the issue area: one centred around the public and public-private initiatives anchored in the World Bank, and another consisting of private initiatives, particularly the Carbon Neutral Protocol (CNP) and the International Emissions Trading Association (IETA).

The overall difference in the interest-based approaches and governance functions provided of the two sectors can be explained by differing perspectives taken on global environmental change, whereas the private actors focus on bridging their interest in furthering the economic growth, and the public and public-private actors approach the issue more through their interest and commitment to governance to strengthen political institutions and further sustainable development in order to mitigate climate change (Clapp and Dauvergne 2005).

There is thus a tension between primarily public and public/private initiatives. The different involvement in either regulatory or voluntary carbon pricing creates and strengthens the divide between public actors such as the UN, the World Bank Group and closely related state

regulations and policies, and the private actors referring to business corporations and individual consumers. As can be seen in the description of the various outlooks and governance functions of the initiatives, the public-private initiatives may play a vital role in bridging this gap.

1.2. Which governance functions do they perform?

The **private actors** are mainly centred around the International Emissions Trading Association (IETA), and their main interests lie in furthering emissions trading to uphold its' members interests in economic growth and steady supply and demand standards in the carbon markets. In order to facilitate successful and validated GHG emissions trading, actors such as the Carbon Neutral Protocol (CNP), the Verified Carbon Standard (VCS) and Ver Plus (VER+) offer businesses, organisations, and technical partners a global standard framework for achieving carbon neutrality through internal reduction measures and emission offsetting.

The goal of these private initiatives is to achieve carbon neutral economic growth. IATA_COP for example, a leading carbon offset program for the aviation industry, endorses voluntary offset schemes in which passengers pay to offset the emissions caused by their share of the flight's emissions. The passenger's monetary contribution then goes to carbon offset projects which invest in renewable energies and generate carbon credits. Polluters can thus use CNP's guidance and certification to interlink their production and marketing with sustainable action schemes and standards. Investing in such voluntary efforts to combat climate change with a focus on the individual customers allows businesses to address the CO₂ emissions impact of their industry without having to suppress the demand for air travel.

Public actors hold a different perspective focusing mainly on strong governance and institutions instead of their economic costs and benefits. Their governance functions lie mainly in providing platforms for collaboration to achieve global networks for decarbonisation. The aim of ICAP, for instance, is to provide a platform to strengthen the compatibility and effectiveness of the regulated carbon trading market in order to promote innovation and allow for ambitious global reductions of global warming emissions. With this focus, ICAP constitutes an important link between government-led regulatory markets and private initiatives primarily focused on voluntary carbon trading schemes. The interest of public initiatives like ICAP, PMR, VCS and WCI is thus to provide a platform to strengthen the compatibility and effectiveness of the regulated carbon trading market in order to promote innovation and allow for ambitious global reductions of global warming emissions. PMR-led programs, for instance, provide countries with grant funding to support the implementation of carbon pricing instruments and also include programs for technical and policy work. The most recently established institution, CORSIA, has been created by the public aviation institution (ICAO) to ensure that emissions above a given level (total emissions of global aviation in 2020) will be offset. CORSIA is voluntary until 2027, after which participation becomes mandatory for all countries except for the poorest, most vulnerable countries and those countries with a very low share of global aviation activities.

Public-private actors perform governance actions and services that are more directed at bridging the gap between the public regulatory and the private voluntary markets to achieve broader and globally applicable schemes of engaging in both political decision-making and emission trading. The Networked Carbon Markets Initiative (NCM), for instance, aims to support various actors from civil society, governments, and the private sector to interlink their climate change actions *within* jurisdiction. Their goal is thus to facilitate cross-border trade

and link carbon markets to explore needed services and institutions to enable transparency and comparability of the existing markets so as to allow for greater global involvement in carbon trading (NCM 2017). The CPLC, too, offers voluntary partnership for leaders across government, the private business sector, and civil society who agree to advance the carbon pricing agenda with the long-term goal of achieving a global carbon pricing economy. Governance functions include information-sharing, networking, capacity building and knowledge sharing, which are viewed as necessary instruments to connect strong institutions and regulations with the workings of the market economy. Carbon pricing is therefore the approach most endorsed by the public-private actors. The CPLC and C4C for example view carbon pricing as an essential step to approach zero net emissions and both institutions view their function in their ability to form coalitions to approach a global carbon pricing economy. Polluters operating under these initiatives pay for emissions in accordance to carbon pricing goals they set themselves, yet under the overall frame of the respective initiative. The provided platforms and services are thus aimed at providing rule-making and implementation schemes for political decision-makers to help actors of the private business sector and civil society to put carbon pricing commitments into action.

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