Voluntary Carbon Markets: how can they serve climate policies?

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Prerequisites

Voluntary carbon market (VCM)

• Created outside of governmental regulatory scheme by firms and individuals voluntarily buying carbon offsets to reduce their GHG emissions for learning, image management, regulation anticipation purposes (Bellassen V & Leguet B. 2007);

• Acquisition and retirement of carbon credits generated by projects reducing emissions at sources and/or enhancing removals by sinks. Inspired from the compliance market (CDM, JI);

• Limited in size despite significant growth over years: 3% of transactions in global carbon markets in 2008 (Hamilton & al. 2009).

Carbon offset standard

• Establishes a set of requirements, procedures, guidelines and tools to develop a project and verify its emission reductions/removals and eventual co-benefits;

• Number of standards available on the marketplace.

E.g.: Voluntary Carbon Standard (VCS), Gold Standard (GS), Panda Standard (PS)

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VCMs: their roles in international and domestic climate policies

VCMs provide innovative tools to address new challenges in existing carbon markets

Case study: the forestry sector

• Land Use, Land-use Change and Forestry (LULUCF) activities in Kyoto's CDM:

-1% total CDM pipelines (UNEP, April 2010), restricted to Afforestation/Reforestation (A/R) projects;

-Due to delays in the negotiation process on LULUCF, economical and technical barriers for the project developer, rejection form EU ETS, lack of interest from investors in temporary credits (tCERs/lCERs).

•VCMs more fertile ground for forestry:

-10% of transacted volumes in 2008 (Hamilton & al., 2009)

-Diversification of project categories: A/R, Improved Forest Management (IFM), Reduction of Emissions from Deforestation and Degradation (REDD).

-Market driven by pure voluntary demand, and pre-compliance market participants (post-2012 international market, US federal cap-and-trade)

-Experience gained from voluntary projects contributed to the progression of forestry at the COP15

Integration of these private sector initiatives in future national REDD+ frameworks?

-VCMs also interesting at a domestic level within Annex I countries (Deheza et al., 2010)

Pave way to forestry in future domestic projects in the EU ETS (article 24a)

VCMs: their roles in international and domestic climate policies

Voluntary carbon markets provide capacity building to emerging carbon markets

The basis for future compliance carbon markets

	BENEFITS	EXAMPLES
Standards	-International standards : global price benchmark for voluntary credits. -Domestic standards: knowledge sharing, data collection and consolidation, national/regional regulatory framework adaptations	Voluntary Carbon Standard (international) Panda Standard (China)
Pilot activities	-Technical strengthening for emission measurement, reporting and verification (MRV); -Experience sharing, knowledge dissemination and consolidation; -Basis to be rolled out on a higher scale.	Panda Standard's pilot projects (China)
Audits	Allow for local businesses or local governmental agencies to develop the capacity to conduct independent audits of carbon projects.	Climate Action Reserve's Verification Training (US);
Carbon registry	-Market integrity: traceability (serial number) and transparency (transfers) -Long term hedging: registration of credits ahead of their issuance;	Market infrastructure providers (CDC, APX , Markit) or administration of standards (ACR)
Exchange platforms	-Security of transactions and non-discrimination -Liquidity and price discovery efficiency -As regulated entities, their emergence necessitates adaptations in the national regulatory framework.	Exchange groups: NYSE Euronext, China Bejing Equity Exchange, Climate Exchange pLC

VCMs: their roles in international and domestic climate policies

Voluntary carbon markets provide capacity building to emerging carbon markets

Case study: China

•Submission of proposed mitigations actions under the Copenhagen Accord (January 2010):

-Reducing its carbon dioxide emissions by 40-45% per unit of GDP by 2020 (ref.2005 levels);

-Increasing non-fossil fuels share in primary energy consumption to around 15% by 2020;

-Increasing forest coverage by 40 Mha and forest stock volume by 1.3 Gm^3 by 2020 (ref. 2005 levels).

•Translation into low carbon economy development plan in the 12^{th} 5-year plan (2011-2015):

-11^{th} National People's Congress (March 2010): 10 % of proposals focused on environmental measures;

-Expected phase in of carbon market mechanisms from pilot projects (central government or provinces)

•Two main market-based initiatives to support China's capacity building in carbon markets:

-Panda Standard: First voluntary standard for domestic Chinese projects with focus on agriculture and forestry; Founded by China Beijing Environment Exchange (CBEEX), BlueNext, Winrock Int., and China Forestry Exchange (CFEX);

-Tianjin Municipal Government cap-and-trade scheme: heat suppliers in residential building; Market Operated by the Tianjin Climate Exchange (TCX).

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The role of public institutions in the emergence of the "pre-compliance" market

Pre-compliance: seeking early investments in climate actions ahead of legislation with hopes to gain a return in the future compliance market.

Providing predictable and reliable government actions

Case study: the US

•A market for domestic offsets in US compliance carbon markets?

-Federal: climate bills introduced by 111^{th} US Congress: H.R. 2454 (passed in House), S. 1733 and S. 2729 (unlikely to be passed in Senate).

-Regional: Regional Greenhouse gas initiatives (RGGI, 2009), Western Climate Initiative (WCI, 2012).

•State of the US voluntary carbon market in 2009 (Point Carbon 2010):

-19.4 $MtCO_2e$ transacted, +37% from 2008, +63% from 2007;

-Forecast if passage of federal cap-and-trade program in 2010: +263% in volumes, 321% in value;

-Pre-compliance as the main driver of the 2009 growth.

•What to look at for reducing risks over pre-compliance bets?

-If the bill features early actions provisions, engage in a voluntary program (standard) which credits will be exchangeable for compliance credits;

-If not, engage in project activities that will be eligible for crediting in the cap-and-trade. The voluntary programs provide a tool box by to develop the project and speed up its implementation when the compliance standard and their methodologies are available.

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The role of public institutions in the emergence of the “pre-compliance” market

Providing predictable and reliable government actions

Case study: the US

<table>
<tr><th colspan="4">Domestic offsets in federal and regional Cap and Trade initiatives</th><th colspan="7">Pre-emption of the voluntary offset programs and eligibility of their project activities</th></tr>
<tr><td>Scope</td><td>Ref.</td><td>Domestic offsets</td><td>Early offset supply provisions:</td><td>Eligibility</td><td>CAR</td><td>VCS</td><td>ACR</td><td>EPA</td><td>CCX</td><td>GS</td></tr>
<tr><td rowspan="6">Federal (start date?)</td><td rowspan="2">H.R. 2454</td><td rowspan="2">1 Gt</td><td rowspan="4">-Qualified program: regulatory or voluntary program established bef. 2009 (+ qualitative requirements)
-Early offset issuance: 2009 to 3 years after enactment of at exchange rate 1:1. 2001 to 2008 at exchange rate equal to average value of 2006-2009 (money H.R. 2454 or allowances S.1733)</td><td>Early program</td><td>Very likely</td><td colspan="5">Maybe, subject to EPA and/or USDA Approval</td></tr>
<tr><td>Number of activities matching</td><td>6</td><td>9</td><td>9</td><td>2</td><td>7</td><td>0</td></tr>
<tr><td rowspan="2">S.1733</td><td rowspan="2">1.5 Gt</td><td>Program</td><td>YES</td><td colspan="5">NO</td></tr>
<tr><td>Activities</td><td>7</td><td>11</td><td>11</td><td>3</td><td>9</td><td>2</td></tr>
<tr><td rowspan="2">S.2729</td><td rowspan="2">N/A</td><td rowspan="2">-Qualified program: regulatory or voluntary offset program established bef. 2009 (+ qualitative requirements)
- Early offset issuance: January 1, 2001 up to the date official methodologies</td><td>Program</td><td colspan="6">Maybe, subject to EPA/USDA approval</td></tr>
<tr><td>Activities</td><td>8</td><td>14</td><td>14</td><td>4</td><td>11</td><td>3</td></tr>
<tr><td rowspan="2">CA (2012)</td><td rowspan="2">A.B. 32</td><td rowspan="2">16 Mt</td><td rowspan="2">-Qualified program: the CARB shall incorporate the standards and protocols developed by CAR where appropriate and to the maximum extent feasible</td><td>Program</td><td>YES</td><td colspan="5">NO</td></tr>
<tr><td>Activities</td><td colspan="6">Eligible project activities not mentioned in A.B 32</td></tr>
</table>

The role of public institutions in the emergence of the "pre-compliance" market

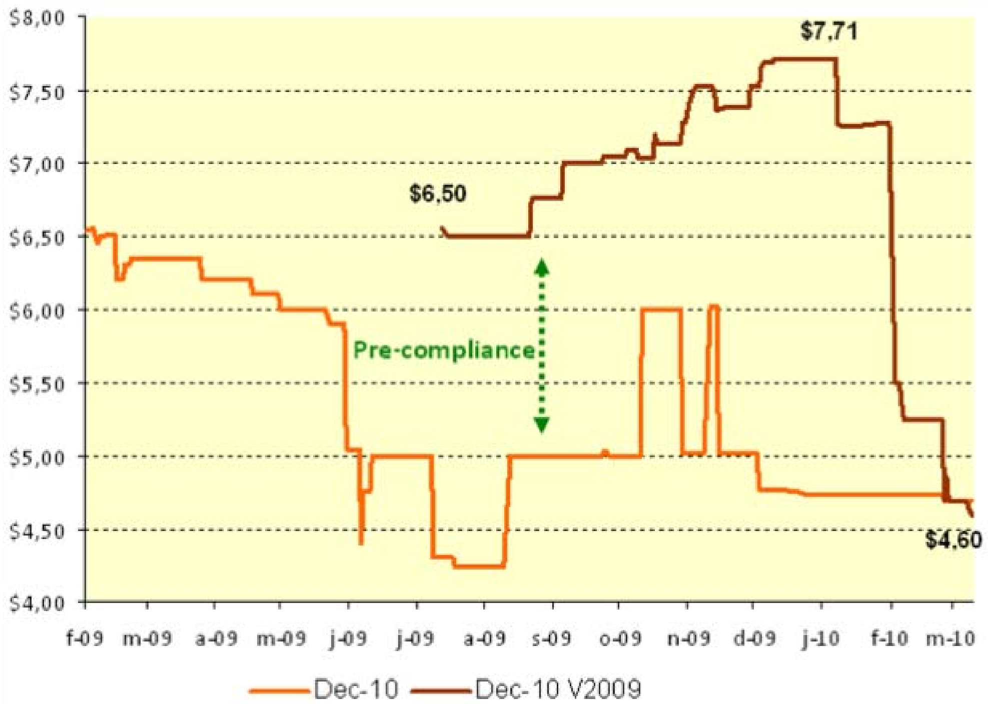
Providing predictable and reliable government actions

Case study: the US

•Price of CAR credits (CRTs) on the Chicago Climate Futures Exchange:

Feb09 –Jun09: CRTs Dec $6.50 to $4.50
H.R. 2454: early offsets (1:1) from 2009

Late Jun09: inception of new contract CRTs Dec V2009 at $6.50
Underlying only contains 09 issued credits



Jun09-Jan10: CRTs Dec 10 V09 $6.50 to $7.71
Introduction of S. 1733 (same provisions as H.R. 2454) and S. 2729 (supportive of domestic offsets)

Jan09 –March10: CRTs Dec 10 V09 $7.71 to $4.50
Pessimism over passage of a climate bill in 2010
Withdrawal of endorsement of 4 CAR protocols by CARB

The role of public institutions in the emergence of the "pre-compliance" market

Providing pre-compliance-grade developments

•Market-oriented instruments developed by public institutions:

-stimulate early actions and pre-compliance activities

-Regarded as pre-compliance grade

-Leverage private sector's profit-driven dynamism

•Rare participation of public institutions in such developments:

World Bank Biocarbon Fund:

-Development of methodologies for Agriculture, Forestry and Other Land-Uses (AFOLU) submitted to the VCS (under approval).

-Reduced emissions from mosaic deforestation (RED) and Agricultural Land Management (ALM)

US Environmental Protection Agency:

-Development of the EPA Climate Leaders Program (2002):

-To help companies manage their GHG inventory, establish long-term emission reduction goals

-Provides methodologies to develop offsets as an option.

-Not regarded as a carbon market driven initiative by US pre-compliance actors

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Conclusion

•Voluntary market have potential to bring valuable contributions to climate policies:

-Existing carbon markets: innovating tools (CDM Reform, forestry);

-Emerging carbon markets: capacity building;

•Pure voluntary demand is not sufficient to drive the growth of VCMs to levels at which their benefits maybe a replacement for future climate policies;

•Should public authorities wish to build on the experience gained by VCMs, “pre-compliance” is the main leverage of growth for VCMs;

•To stimulate the private sector’s innovation and investment capacity in early actions:

-Predictable and reliable visibility on planned government actions with regards to carbon market policies

-Initiative or developments undertaken by public institutions for the VCMs to restore market participants’ confidence with compliance-grade instruments.

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