

Prospects for China-Japan Cooperation on development of Carbon Market in China

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Overview of Japanese carbon schemes

- Kyoto mechanisms (Kyoto Units transactions)(2001 -)
- Domestic emissions trading at national level
 - Voluntary cap-and-trade: JVETS (2005 -)
- Voluntary carbon offset market
 - J-VER (2008 -)
- Domestic emissions trading at local level
 - Tokyo Metropolitan Gov. ETS (2010 -)
 - Saitama Pref. ETS (2011 -)

Kyoto mechanisms

- Japan is the biggest buyer of the Kyoto Units in the world for 1st CP of KP
- Japan was a leading position to establish the national registry system under UNFCCC which was actually operated for the first time in the world in 2008
- Since then, none of system problem has occurred, proving Japanese registry system is reliable

Domestic emissions trading at national level

- Japan's Voluntary Emission Trading Scheme (JVETS) (launched in 2005)
 - Comprehensive rules/modalities
 - Monitoring Reporting Guideline based on ISO14064-1 and -3
 - Verification Guideline based on ISO14065
 - Registry system for accurate tracking of allowance
 - Emission reporting system
 - Emission reporting format

Voluntary carbon offset market

- J-VER scheme (launched in 2008)
 - Positive list for selected technologies leading to GHG reduction/removal
 - A series of MRV methodologies based on ISO14064-2 and -3
 - Monitoring reporting guideline based on ISO14064-2 and -3
 - Verification guideline based on ISO14065
 - Emission reduction/removal reporting format

Local government initiative for emission trading

- Tokyo Metropolitan Government ETS (launched in 2010)
- Saitama prefecture ETS (launched in 2011)
 - Comprehensive rules/modalities
 - Monitoring reporting guideline
 - Verification guideline
 - Accreditation of GHG verifier
 - Emission Reductions Registry
 - Detailed emission calculation sheets

Lessons from Japanese experiences for Chinese carbon market (positive-side)

- Comprehensive rules and modalities
- Systematic MRV guideline
- MRV at entity-basis (not installation-basis)
- “Scope 2” MRV for electricity use
 - Incentive for electricity saving measure at end-user
- Detailed GHG calculation sheet (TMG)
- Reliable IT system such as national registry system and emission reporting system
 - Secure data management
 - International connection to ITL

Lessons from Japanese experiences for Chinese carbon market (negative-side)

- Lack of coherent national policy to establish domestic carbon market
 - Fragmented carbon markets
- Limitation of voluntary scheme
 - Limited number of participants
 - Lower market liquidity
 - Lesser impact on national GHG emissions
 - Imbalance of supply-demand in carbon market (Excess supply of allowances/credits)

What can NOT be learnt from Japanese experiences for Chinese carbon market?

- “Full scale cap-and-trade” at national level
 - Allocation methods of allowances (free allocation or auction)
- MRV of power sector GHG (due to “Scope 2” MRV for electricity use)
- MRV at installation-basis
- MRV of Non-CO2 GHGs (CH₄, N₂O, PFC,,,))

Background

- 40-45% reduction of carbon intensity by 2020 compare with 2005; 17% reduction of carbon intensity by 2015 in 12 FYP; Binding target has been allocated to sub-national government;
- Low carbon pilot projects in 5 provinces and 8 cities: implementing accountability of local governments to control GHG emissions, exploring effective policies combining government guiding and economic incentives, and studying the feasibility of utilizing market mechanisms in helping achieve emission reduction objectives.
- Establish statistical and verification system for GHG emissions, gradually establish a carbon emission trading system; from command and control to market mechanisms;

Plans

- Start from promoting trading of voluntary credits generated on a project-by-project basis;
- Establishing pilot emission trading systems in relative provinces and municipalities: 4 cities and 2 provinces.
- The goal is to establish carbon emissions trading schemes in some pilot regions, and try to establish a unified national system in 2015.

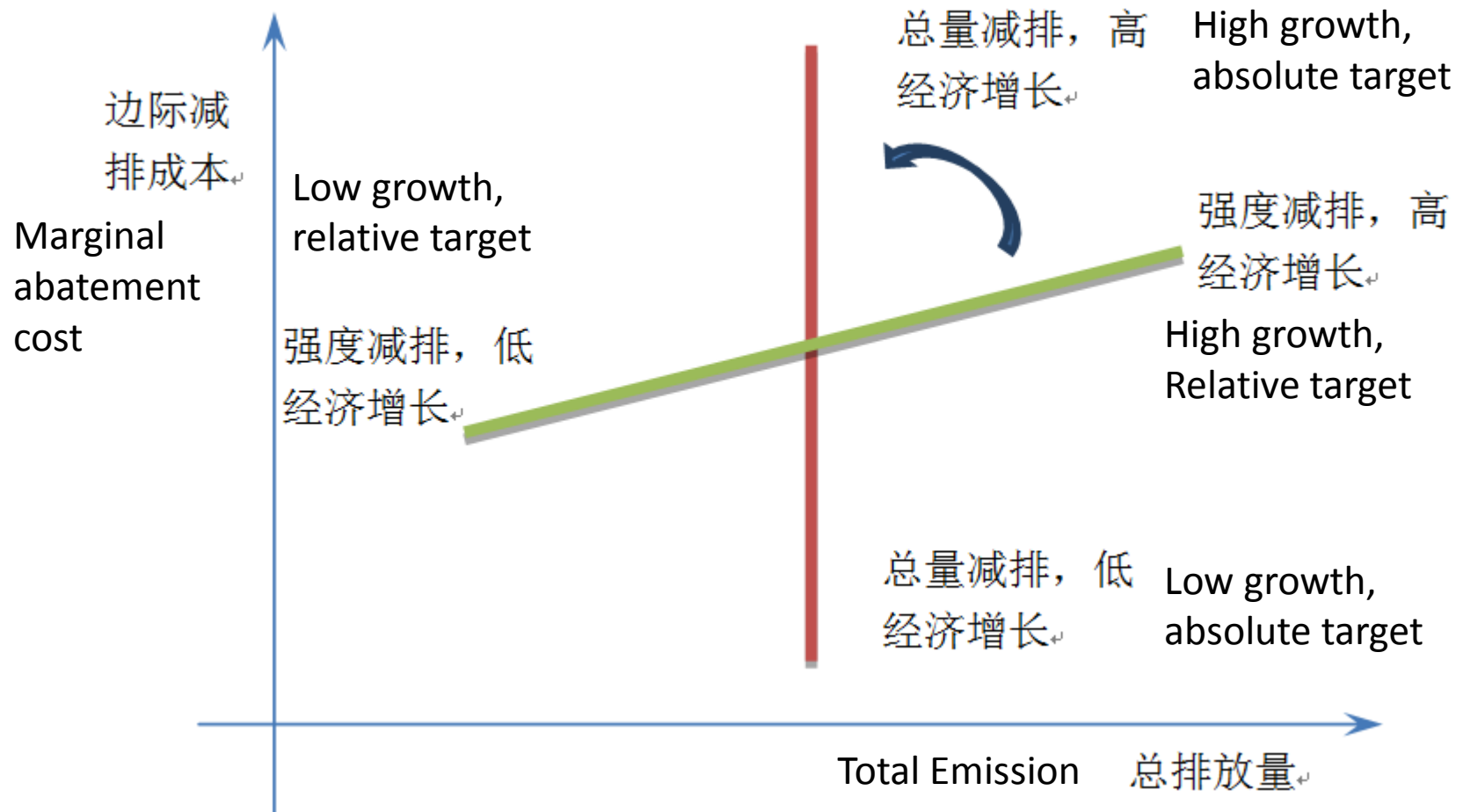
Key Issues

- Market Readiness: legislation, technology, infrastructure including registry and MRV
- Cap-and-Trade or intensity based?
- Trading entities: enterprise or government?
- Baseline setting and initial allocation of allowance;
- Carbon pricing and floor or ceiling of carbon price;
- Domestic offsetting;
- Relationship with energy intensity target;
- Linkage with international market;
- Pilot phase
 - Regional or sectoral or combine?

List of task

- The study and formulation of trading rules in pilot provinces and municipalities
- The study on the setting of emission caps in pilot provinces and municipalities
- The determination of entities to be included in ETS
- The formulation of a plan for emission allowances allocation
- The establishment of registries for local ETS
- The establishment of transaction platforms
- The establishment of reporting, monitoring and verification systems
- The establishment of regulatory systems
- Relevant capacity buildings
- Etc...

The biggest issue: CAT or Intensity based?



Lesson Learnt from Japan

- Carbon market readiness: technology, policy and legislation;
- Start from technology: MRV, registry and IT system;
- Confidence building among participants of ETS is important;
- Path dependence on key market design elements;
- A long-term roadmap towards a meaningful carbon market is essential;

Questions needs further consideration

- Trading entities: consumers or producers ? (Japan case vs EU ETS and other case);
- Allocation of allowance (no answer from Japan case);
- Hierarchical design of ETS?
- Review of pilot experience and translate into national design;
- Harmonize local pilot ETS into a uniform national scheme in the long run; (Japan case: TMG and Saitama);