

Cap-and-Trade: Does It Fit Japan?

A trial implementation of an integrated domestic market for emissions trading—so-called cap-and-trade—commenced in Japan in October 2008, under the auspices of the Cabinet Secretariat, Ministry of the Environment and Ministry of Economy, Trade and Industry. *The Japan Journal* investigates.

The trial implementation of an integrated domestic market for emissions trading (hereafter, trial implementation) aims to create a market based on effective rules and vigorous actual demand that places a market price on CO₂. The aim is to utilize the experience gained from the trial implementation to clarify the requisite conditions, system design challenges, and so forth in the case of a full-scale introduction of emissions trading. A further aim of the trial implementation is to consider what type of system would be a good fit for Japanese industry, which is centered on technology and monodzukuri, and to demonstrate leadership in the arena of international rule-making.

2008 saw the beginning of a heightened interest in respect of the framework for greenhouse gas emissions reduction from 2013, when the Kyoto Protocol ends. At the Hokkaido Toyako Summit the need for substantial emissions reductions in the future emerged, and a joint declaration was even made to halve emissions by 2050. Debate flourished on the subject of the need to consider emissions trading as a domestic countermeasure.

Emissions trading is a method that uses capping to keep down total greenhouse gas emissions, thus keeping expenditure on countermeasures low, and as such is a policy instrument that reduces total emissions steadily and efficiently.

The first to introduce emissions trading was the European Union in 2005, followed by partial introduction by New Zealand, then Australia, and Canada, with some states in the United

States adopting it from 2009. Speeches and other messages delivered by President Barack Obama indicate that emissions trading in the form of cap-and-trade will in the future be rolled out throughout the entire United States, and the scheme is in the process of being adopted by all countries as a countermeasure for the reduction of domestic emissions.

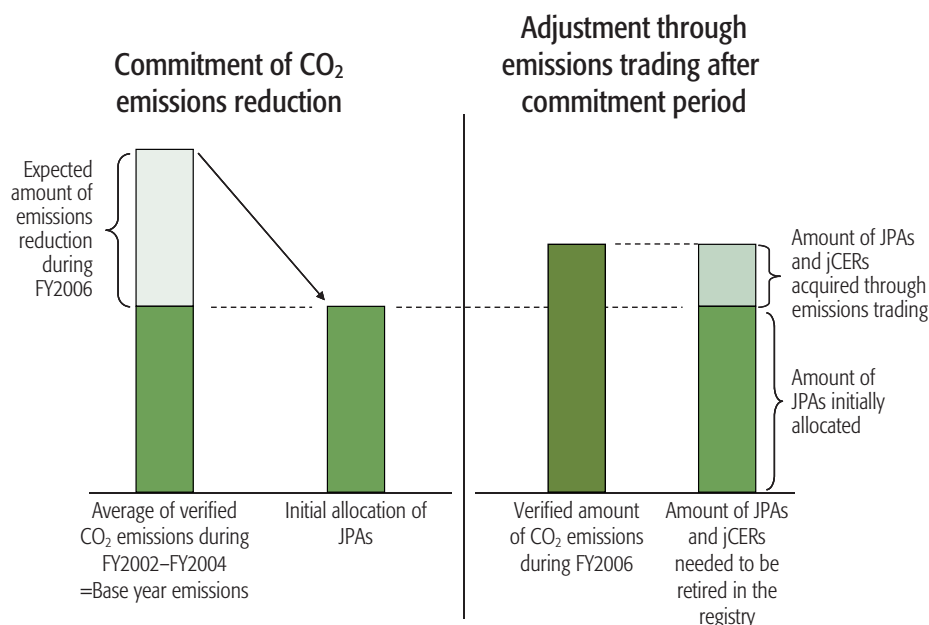
Implementation Mechanism

The trial implementation comprises two mechanisms. One is where participating firms and so forth set reduction targets, and achieve emissions quotas

in excess of those targets or achieve those targets by utilizing credit transactions; the other is the mechanism whereby those credits are generated and traded. Credits are generated as additional reduction parts by reduction activity involving small and medium-sized enterprises, forestry biomass, and so forth. In order to form an integrated domestic market, each type of emissions quota or credit can be appropriated as equivalent to an achieved target, and a price index or such like in respect of trading provided.

According to the Ministry of the Environment, a total of 528 firms and organizations (as of February 2009) are participating in this trial, of which 455 are participating by setting emission quota targets, 60 by credit transactions, and 13 in some other way. Of these, the 455 firms who have set reduction targets include steel, automobile manufacture, chemistry, rubber, electrical and electronic, trading companies and convenience stores, paper manufacture, cement, electricity, and oil refining. With approximately 70 per cent of the industrial sector participating, this constitutes a large-scale implementation in terms of overall emissions. Sixty companies participate through transactions, such as banks, trading companies, and such like, as-

Outline of Japan's Voluntary Emissions Trading Scheme (JVETS)



Note: JPAs = Japan Allowances; initially purchased from other participating corporations
jCERs = Certified Emissions Reductions under the JVETS scheme

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suming the role of balancing supply and demand. The remaining thirteen companies, for example sectors and companies that have no Voluntary Action Plan, are participating in order to redeploy the reduction effect itself to companies that have declared targets. While Nippon Keidanren has established a Voluntary Action Plan, individual firms do not necessarily have their own targets. The players in emissions trading are, in principle, individual firms. The Ministry of the Environment is appealing to Nippon Keidanren to hand over the targets of the Voluntary Action Plan to individual firms, in other words, to participate in the trial implementation. The government will intermittently call for the participation of companies and organizations each year until the end of the trial period in 2012.

Evaluation and Follow-up

Regarding the initiatives of companies participating in the trial implementation, the government considers and evaluates the following points: (1) Was it effective in leading to reduction efforts and technological development, in terms of an appropriate fit with Japanese industry, which centers on technology and monozukuri? (2) Did the market mechanism function appropriately, for example smooth transactions and price discovery? At the same time, were there no adverse effects as a result of money games? (3) Did the system function securely and smoothly in respect of, for example, the issue and control of emissions quotas and credits, and confirmation of voluntary targets met? (4) What was the level of implementation costs for participants (transactions, monitoring, verification, etc.)? and, (5) Was any knowledge gained that could contribute to international rule-making?

In March, the first year of the trial

implementation will end. The government will determine emissions until the summer, then will take follow-up action from early fall onward. The above points for evaluation are based on the Fukuda Vision announced by Prime Minister Fukuda in June 2008, prior to the Hokkaido Toyako Summit, and on the content of specific countermeasures for Toward Japan as a Low-Carbon Society declared at the Summit.

JVETS

The JVETS (Japan's Voluntary Emissions Trading Scheme) is an initiative that preceded and led to the current trial implementation. Begun in 2005, it is a subsidy scheme, and does not seek to disseminate emissions trading nationwide. Nevertheless to date a total of 222 companies have participated, and in FY2007 reductions in emissions of approximately 25% (280,192 t-CO₂) compared with the base year (average value for past three years) were achieved. The Ministry of the Environment provides subsidies for companies and organizations that participate in JVETS, while companies declare their total emissions targets, and take practical measures to advance the introduction of facilities to combat global warming. Since it is a subsidy scheme, participating companies have a duty to meet their commitment. Should they fail to meet their commitment, it is possible to offset this using transactions between participating companies.

The aim of this initiative is to enable participating companies to train and experiment in the area of emissions trading, and to enable the government to put in place environmental infrastructure, establish emissions measurement guidelines, and establish emissions quota controls (registry) that will be required when it is introduced full-scale in the future. In order


to create a mechanism with international currency, efforts have been made to ensure its compatibility with ISO and other international specifications. By drawing up guidelines based in particular on ISO regulations, having verifications carried out by third party verifying bodies, and so forth, Japan has achieved through JVETS over and above regular results. The Ministry of the Environment has in its own right accumulated knowledge as one option for the future.

There Is More than One Path

Regarding the points of emissions trading, one is target-setting, that is who is it aimed at and what the target level should be. The second is how to ascertain emissions, in other words how to accurately measure emissions, for which a credible mechanism is required for monitoring and verification. And the third is, in the case auctions are used, how the revenue is to be used.

Currently, both JVETS and the trial implementation are initiatives for which participation and target setting is voluntary, and the government imposes no obligations. Should Japan wish to introduce cap-and-trade, further debate is necessary. However, if it does, the technical preparations have been put in place.

Ultimately, the means are not important. Both cap-and-trade and a sectoral approach would work, as would an environmental tax. Globally, the trend is toward cap-and-trade, but in Japan numerous approaches exist. This is a trial implementation to discern what conditions need to be in place in the case of a full-scale implementation of cap-and-trade, as expressed in the Fukuda Vision, and the challenges to be overcome when designing the system.

Globally, the goal is to halve greenhouse gas emissions by the year 2050, while in Japan the goal is a reduction of 60–80%. Japan is currently attempting to explore a number of routes toward this goal, and ensure the security of those routes. 

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