

**Issues on Competition Policies regarding Countermeasures Using Market-Based
Instruments in the Measures against Global Warming: Discussion Points in the
Japanese Emissions Trading Scheme
(Interim Report)**

Japan Fair Trade Commission

Introduction

Having the Kyoto Protocol enacted in February 2005, Japan is obliged to reduce greenhouse gases (GHGs) by 6% between 2008 and 2012 from the base year 1990. Further, the government stated that, as its mid-term target, it aims to reduce GHGs by 25% by 2020 compared with the base year 1990, provided that parties including all the major countries will agree on the ambitious target. Moreover, it has been decided that discussions regarding the next framework of the Kyoto Protocol will be continued, and thus the promotion of global warming countermeasures is considered to be important.

Among the countermeasures regarding global warming, domestic (regional) emissions trading scheme as one of the regulations by market-based instruments has been progressively introduced in various countries. Introduction of such schemes has been considered as an urgent concern also in our country, and in October 2008, the government began its effort toward Experimental introduction of an integrated domestic market for emissions trading, and in March 2010, it submitted to the Diet, the draft basic law on climate change countermeasures that integrates regulations regarding the establishment of the Japanese Emissions Trading Scheme. Upon such an action, it is expected that the discussion regarding the full scale introduction of the scheme will be promoted based on the peer review of the abovementioned trial implementation, etc.

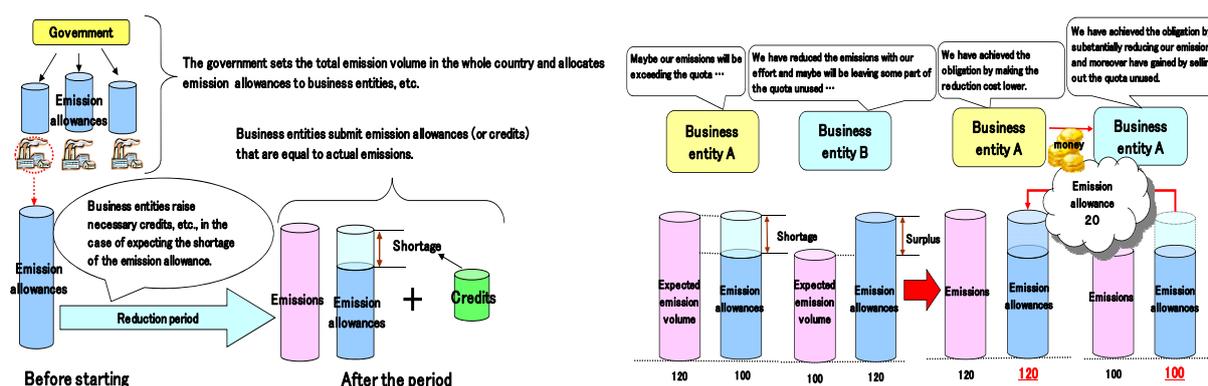
Considering that the scheme would influence competition between the business entities depending on its substance, the Japan Fair Trade Commission (JFTC) has recognized the importance of grasping and summarizing the discussion points, etc., of the competition policies before its introduction, regarding the substance of the scheme that is expected to be introduced and related private commercial transactions. JFTC has therefore reviewed the discussion points, etc., prior to the introduction from the viewpoint of the competition policies and since September 2009, has held Study Group on Government Regulations and Competition Policy to have opinions from the members about the peer reviews and compile an interim report.

Section 1. Commitment to global warming countermeasures through emissions control

Since the First Commitment Period of the Kyoto Protocol started in 2008, many countries and regions such as Europe and the United States have been committed to emissions trading scheme that utilizes market-based mechanisms, with the aim of achieving emissions reduction with the low costs as much as possible and high efficiency.

One approach of the emissions trading schemes is that the country sets the total volume of allowable GHG emissions in the country and allocates emission allowances (cap) as the upper limit of allowable emissions to individual business entities and then, in the case that a business entity exceeds its emission allowance regardless of the emissions reduction by itself, it is allowed to trade the allowances with other business entities and utilize the Kyoto Credits (credits issued by the Kyoto Mechanism such as Joint Implementation introduced under the Kyoto Protocol; hereafter, the Cap and Trade)¹. This Cap and Trade approach is a mainstream of the emissions trading scheme introduced in many countries.

Figure 1. Picture of the Emissions Trading Scheme by the Cap and Trade approach



(Prepared by JFTC)

Section 2. Commitment toward global warming countermeasures in Japan

1. The Kyoto Protocol Target Achievement Plan

According to the provisions of the Act on Promotion of Global Warming Countermeasures (Act No. 117 of 1998), the government is required to set a plan to achieve the target necessary for fulfilling the reduction target based on the Kyoto Protocol, and upon this requirement, the Kyoto Protocol Target Achievement Plan (cabinet approval on April 28, 2005, whole revision on March 28, 2008) has been set for the achievement of the reduction target of the First Commitment Period.

The Kyoto Protocol Target Achievement Plan specifies concrete policies and measures to

¹ Other approaches include Baseline and Credits that does not initially set an emission allowance to each party but accredits emissions reduction of a business entity when it implements an emissions reduction operation, compared to the baseline with no such an operation and allows the entity to trade the credits.

be implemented hereafter and also states that it will immediately have a comprehensive review through taking into consideration the progress of each policy and measure, on what kinds of policies are required from the viewpoint of achieving multiple policy goals such as environmental conservation and economic growth.

(1) Policies and measures for reducing GHG emissions

Promotion and reinforcement of a voluntary action plan is a major countermeasure throughout the industrial sector. This plan is meant to voluntarily set targets regarding total CO₂ emissions, energy efficiency improvement (emission intensity), etc., in each industry sector in order to reduce GHG emissions, and to implement various engagements for achieving the targets.

Specifically, the Japan Business Federation (hereafter, Nippon Keidanren) developed the Voluntary Action Plan on the Environment in 1997, which stated that the industrial sector and energy conversion sector reduce the CO₂ emissions in fiscal year 2010 to the same level of emissions or lower in fiscal year 1990. The plan later has expanded the target sectors. Further, other industry sectors which are not affiliated to the Nippon Keidanren have developed similar action plans, and as of the end of March 2008, voluntary action plans have been introduced to 103 industry sectors and eventually cover about 80% of the total emission volume from the industrial sector and energy conversion sector and about 50% of those from the whole sectors.

(2) GHG emissions Calculating, Reporting and Announcing System of GHG emissions

Based on the provisions by the Act on Promotion of Global Warming Countermeasures, business entities, etc.,² which emit GHGs more than a certain level are obliged to calculate emissions and report them to the government and the government is to publicize the reported information.

(3) Experimental introduction of an integrated domestic market for emissions trading

The government started its commitment in October 2008 in Experimental introduction of an integrated domestic market for emissions trading. The trial implementation is aimed to allow business entities, etc., to participate in the scheme based on their voluntary decision and set a reduction target such as emission intensity (energy efficiency improvement target) or total emission target to achieve. It also allows

² Business entities include those that consume more than 1,500 kl of energy (oil equivalent) as a total amount of all the branches, or those that retain freight capacity of either 300 railway cars or more for freight transport, 200 vehicles (including trucks) or more, or ships of a total tonnage of 20,000 tons or more. Factories and operational sites that consume more than 1,500 kl of energy (oil equivalent) per year are required to report by factory or site as well.

participating entities to trade emission allowances unused due to surplus achievement of the target and utilize credits by the Kyoto Mechanism or the domestic CDM scheme.

The domestic CDM scheme is the scheme that accredits large-scale business entities for their commitment to CO₂ emissions reduction that small-to-medium scale business entities have achieved through technologies and funding provided by the large-scale business entities and enables the large-scale business entities to utilize the credits for achieving their emissions reduction targets.

(4) *Visualization of CO₂*

CO₂ emissions can be *visualized* by indicating GHG emissions in a CO₂ equivalent scale in the lifecycle of products and services from procurement of raw materials to discharge and recycling. A guideline for the scheme, carbon footprint scheme, regarding the emission calculation method, its reliability, and the labeling method, etc., was compiled in fiscal year 2008 by the Ministry of Economy, Trade and Industry (METI), and the trial project for market introduction has been implemented since fiscal year 2009.

Section 3. Emission regulation regarding GHGs

1. General evaluation toward the introduction of emission control

The Emissions Trading Scheme, which is a market-based instrument utilizing the market mechanism, is expected to steadily facilitate emissions reduction at lower cost as a whole society compared with a simple regulation to reduce the emissions to business entities, etc., and also to enable business entities to take diverse approaches toward achieving the emissions reduction obligation.

Upon introducing the Emissions Trading Scheme that expects emission control, however, concerns regarding the emissions allowance allocation method have been raised even in the advisory committee of the Ministry of the Environment, which quoted as “This scheme may be disturbing the free activities of business entities due to the economy-governed characteristics of the emission allowances.” Further, the business sector has raised its concern that the Emissions Trading Scheme would have many adverse effects and thus the scheme should not be introduced in Japan, where the voluntary commitments by the industrial sector have shown satisfactory results.

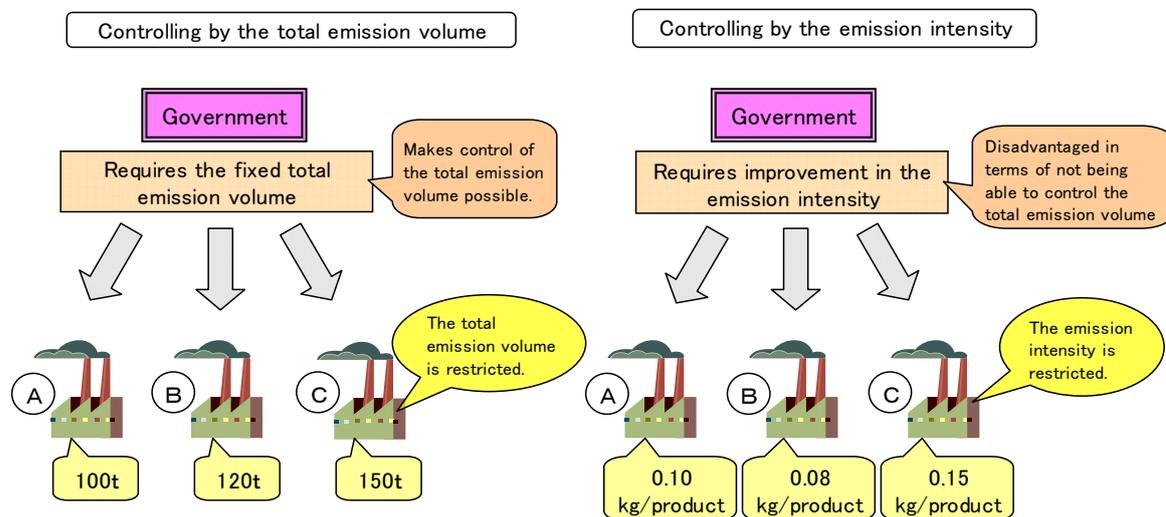
2. Mechanism of the emission control

(1) Method of the emission control

In general, there can be two methods of the GHG emission control from the viewpoint of restriction on business entities, etc., (targets of business entities, etc.): restricting by the total emission volume and by emission intensity (GHG emissions per unit of

production).

Figure 2. Picture of emission control



(Prepared by JFTC)

The method of Controlling by the total emission volume is expected that emissions reduction is to be certainly made as long as the control is abided as assumption. It is said, however, that it could often lead to the control on the supply volume and that this could disturb free business activities and also incur the issues of international unfairness or carbon leakage³.

The method of Controlling by the emission intensity⁴, on the other hand, has its advantage that it has less negative impact in terms of carbon leakage. However, it does not necessarily secure the reduction of the total emission volume if the scale of business activities has grown more than initially expected and consequently increased the emissions. Controlling by emission intensity has been adopted in the emissions trading scheme plan which is to be introduced in Canada (the country indicates that it aims for shifting from controlling by emission intensity to controlling by the total emission volume during 2020 and 2025), and also in Experimental introduction of an integrated domestic market for emissions trading operated since October 2008, where participating business entities, etc., can choose controlling by emission intensity as well

³ Carbon leakage is defined as a case where GHG emissions leak to the regions with less severe global warming countermeasures as a result of introducing regulations, etc.

⁴ In the method of controlling by emission intensity, in the case of not having achieved the emission intensity required, business entities, etc., are required to observe the target as ex-post commitment by acquiring credits from other business entities, etc., for the emission volume that is calculated as the activity volume multiplied by the deduction of the emission intensity required from the actual emission intensity.

as controlling by the total emission volume⁵.

There are some considerations, however, namely that (1) controlling by emission intensity is not necessarily perfect *per se* as an environmental policy in terms of not being able to guarantee the necessary reductions from the total emission volume as a whole country and (2) the Cap and Trade is the mainstream scheme as a method of emission control in other countries, and thus, this report discusses the total emission control by the Cap and Trade Scheme⁶.

(2) Emission allowances allocation under the total emission control

In the total emission control, emission allowances are allocated to business entities, etc., without charge, such as grandfathering and benchmarking, or with charge by auction.

i. Grandfathering

Grandfathering is to allocate emission allowances to business entities without charge based on past record emissions. This scheme is relatively well accepted by business entities because it does not charge them any cost to acquire emission allowances and they can easily expect how much emission allowance they can acquire. Moreover, it is said that it has an advantage in that the administration cost of operating the scheme is small because the emission allowances could be settled with the past actual emission data.

ii. Benchmarking

Benchmarking is to settle emission allowance to each business entity based on the standard benchmark (intensity) such as GHG emissions per unit of production that is as specified by the business section, and to allocate the allowances to business entities without charge. Specifically, the scheme sets an allowance calculation formula such as “emission allowance = activity volume * benchmark (intensity)” in order to set an emission allowance to each allocated entity after the consideration of emission intensity by each allocated entity⁷. This scheme is considered to keep fairness among business

⁵ Participants who have chosen the controlling by emission intensity settle the balance of the target and actual achievement ex-post commitment. On the other hand, those who have chosen the controlling by the total emission volume choose either of the following options:

1) Prior issue of the emission allowance (trading before the end of the target year is also possible.)
2) Settle the balance of the target and actual achievement ex-post commitment (trading is possible after the target year upon having the emission allowance for the excess achievement issued.)

⁶ Discussion points on competition policies upon the introduction of controlling by emission intensity are, for example, how to settle the emission intensities and give consideration for new participants, and basically all such points that also apply to the case of introducing total emission control.

⁷ Activity volume is measured using data which are highly correlated with emissions and also highly

sections and business entities compared with grandfathering because the emission efficiencies by each business section and business entity are taken into account.

However, it is considered to be difficult under the benchmark scheme to settle sensible benchmarks to all the business sections because a uniform benchmark is not necessarily relevant in the business section in which products in the multiple product categories are manufactured or in which different manufacturing technologies are applied in the same category of product.

iii. Auction

In the auction scheme, emission allowances are allocated to business entities when they purchase the allowances from the government depending on their needs.

Because the allocation is made by the market price, auction has its advantage in terms of fairness (in that business entities have equal opportunities to state their intention to purchase the amount they want at the desirable price) and transparency. Further, the government gains sales profits of emission allowances, which can be utilized for global warming countermeasures.

On the other hand, some demerits have been pointed out that, because business entities are required to pay the cost of purchasing emission allowances, those with large volume of emissions will have to take heavy economic burden and entities will have difficulties in predicting how much emission allowances they can secure.

(3) Other cost containment measures, etc.

i. Use limitation of external credits

For achieving emission reduction obligation based on the given emission allowances, use of external credits such as credits obtained through the Kyoto Mechanism can be allowed as a flexible settlement for compliance in addition to emissions trading with other participants. The use of these credits, however, is only supplementary for achieving emission reduction obligation, and thus in some cases, a certain limitation is set for the use of credits in order to promote the emission reduction of each participant.

objective and for which monitoring and review is possible. For the service sector, for example, gross floor space and operation hours etc. are used as the data.

Further, according to the Approach to Japanese Emissions Trading Scheme Interim Report by the Ministry of the Environment, the followings are representative methods to settle benchmark (emission intensity)

1) Using the BAT (Best Available Technology) (Calculate cumulative emissions in case of introducing best available energy-saving technologies)

2) Utilize actual emission data (Set relevant levels based on the actual data of emissions, activity volumes, and facility capacities per enterprise and office)

3) Utilize the average emission intensity by business section (Settle the level from the average emission efficiency in the business section)

ii. Banking and borrowing

Banking is a mechanism that allows participants to use the surplus of the emission reductions they achieved compared with the emission allowance given in one operational period to achieve the emission reduction obligation in the following period. Borrowing, on the other hand, is a mechanism that allows participants to use a part of the emission allowances in the following period to achieve the emission reduction obligation in one period in case actual achievement is not possible.

iii. Price limitation regarding emission allowances and external credits

From the viewpoint of protecting profitability of business entities obliged with emission reductions, some measures can be considered such as the scheme that sets a specific price for emission allowances in advance so that business entities can purchase additional emission allowances from the government at the fixed price anytime as needed, and the scheme that sets the maximum price of trading for emission allowances and external credits, etc.

iv. Monitoring, accounting and reporting emission volume

It is important in the emissions trading scheme to comprehend GHG emission volume accurately and in a uniform scale in operating the scheme from the viewpoint of securing reliability and stability of the emissions trading market.

v. Environmental quality threshold

In the emissions trading scheme, an environmental quality threshold is generally used toward participants as regulation targets in order to limit the participants to business entities with a certain volume of GHG emissions or more.

Section 4. Discussion points on competitive policies regarding emission control

1. Introduction

By introducing an emissions trading scheme as a global warming countermeasure and thus allowing the trading of emission allowances, etc., it is expected to steadily achieve emissions reduction at a lower cost as a whole society through the market mechanism, compared with the case of simply imposing business entities obligations regarding emission volume. Further, business entities can flexibly achieve emissions reduction obligation by trading emission allowances with other business entities as well as reducing their own emissions.

The introduction of the emissions trading scheme is therefore basically desirable in terms of competitive policies.

The emissions trading scheme, however, could have negative impacts on competition

among business entities in case the specific scheme is not well designed to fully activate the trading of emission allowance, etc. When introducing the scheme, therefore, it is important to implement emissions allowance allocation as an assumption of trading in order to not give negative impacts on fair and free competition among business entities from emissions allowance allocation, as well as to design the scheme from the viewpoint of the activation of trading.

Basic issues of scheme designing regarding the emissions trading scheme are summarized as follows from the viewpoint of competition policies, and impacts and concerns on competition.

2. Impacts that emissions allowance allocation method has on competition

Emissions allowance allocation method, i.e., which method and whether just one method or a combined method is adopted, is to be considered based on various policy goals including environmental policy. On the other hand, since the impact that each allocation method could have on competition among business entities is considered to be different, the choice of the emissions allowance allocation method is an important concern in terms of competition policies. For the choice of allocation method, therefore, it is appropriate to take into full consideration the following possible impacts, etc., on competition in order to design the scheme.

(1) Free allocation

Grandfathering and benchmarking are among free allocation methods of emissions allowance allocation. Following is a summary of impacts on competition that commonly applies to these methods or to each method.

i. Impacts on competition that commonly applies to both methods

a) Newly participating business entities

In free allocation, how to treat newly participating business entities is an issue as they do not have past emission data, which would be required in order to decide allowances to business entities in the scheme.

If newly participating business entities without such data were required to purchase emission allowances whereas existing entities were allocated allowances, entry to the scheme might be hindered because newly participating business entities would have disadvantage in the competition with existing entities. In the case of introducing free allocation, therefore, a certain consideration will be necessary from the viewpoint of equalizing the competition condition between newly participating and existing entities. For example, a mechanism that allocates a certain volume of emission allowances to

newly participating business entities can be set in the scheme⁸.

b) Emissions allowance allocation to trade associations by the government

One of the possible emissions allowance allocation methods would be that the government allocates emission allowances to certain trade associations and then the organizations allocate a certain volume of emission allowances to each member business entity. Such an allocation scheme to trade associations, however, could incur a few concerns, namely, (1) trade associations would determine the emission volumes and consequently production volumes of individual member entities, (2) business activities of specific member entities could be restricted by unfair allocation of the emission allowances by the trade associations, and (3) business activities of member entities could be restricted by possible restriction on member entities regarding emission obligation achievement methods. It is considered therefore that emissions allowance allocation through trade associations could highly possibly distort competition among member entities.

c) Closure of business establishments

In the case that business establishments with emission allowances allocated have been closed, two options are possible, namely, (1) the emission allowances once allocated can be kept by the business entity and transferred to the other establishments and (2) exceeding emission allowances that have been caused due to the closure of the existing establishments must be returned to the government⁹. In the case that business entities close establishments with lower production efficiency and shift their production to the establishments with higher efficiency, option 1 gives incentives to business entities to proactively close and consolidate the establishments, whereas option 2 could give adverse incentives to business entities to continue operation at establishments with lower efficiency in order to avoid handover of the emission allowances given.

d) Securement of transparency in allocation procedures

Since emissions allowance allocation could influence activities of business entities, it is important to secure the transparency in the procedures from the viewpoint of securing conditions for fair competition by enabling external examinations on the process and result of allocation through making allocation criteria and used data, etc., as public as possible.

⁸ EU-ETS also reserves a certain volume of emission allowances to newly participating business entities and allocates the allowances to them as free allocation.

⁹ In option 2, the business entity could sell out before the closure the emission allowances allocated to the establishments. In that case, however, the entity is to purchase the allowances through the market and return them to the government. (In the EU, Germany adopted this method.)

ii. Influence of each allocation method on the competition

a) Grandfathering

- a. There is a concern of fairness regarding grandfathering that emissions allowance allocation is favored to business entities with lower energy efficiency rather than those with higher efficiency because the differences in energy efficiencies caused by the past energy saving efforts, etc., are not reflected in the allocation. Since business entities with higher energy efficiency perform higher productivity in general, the allocation by this method will result in favoring business entities with lower energy efficiency and thus such a favor to business entities with lower productivity could be a factor to distort competition among business entities.
- b. In response to the issue mentioned above, a special arrangement called “early action“ could be set in order to allocate a certain volume of additional allowance with no charge to business entities that have made energy saving efforts, etc. In actually implementing such a special arrangement, however, decision making regarding at what time point to implement energy saving efforts, etc., can be taken into consideration and how these efforts can be examined, etc., could be a matter of arbitrariness and unfairness. Therefore careful consideration is needed when this kind of special arrangement is introduced.
- c. In the emissions allowance allocation in grandfathering, a baseline year (baseline period) needs to be set in order to calculate actual emissions¹⁰. Depending on the setting of the period, for example, the scheme could incur a negative reaction in that at the time of scheme introduction or shifting to the next scheme period, business entities intentionally do not reduce their emissions in order to secure the emission allowances initially given, regardless of their actual capability of reducing emissions. Upon the institutional designing, it is therefore important to carefully consider to not give incentives to business entities to continue inefficient production in order to secure their emission allowances.
- d. In the business sections where technology for emission reduction is almost marginal and additional emission reduction costs are relatively high, business entities would need to purchase emission allowances in order to increase their production, and competition would be based on the assumption that there are some constraints in production in the case that business entities would not gain profits even though increasing in production, due to the financial burden of purchasing emission allowances. In such a case, production plans of each business entities are expected to be easily estimated if the allocated emission volumes, etc., are made public for the purpose of transparency in the allocation process under the circumstance of inactive

¹⁰ The national allocation plan of member states in EU-ETS generally sets a three- to five- year period as a base year.

trading of emission allowances, and this could consequently induce noncompetitive actions that could be subject to issues under the Antimonopoly Act, such as allocation of production, etc., between business entities.

b) Benchmarking

- a. In benchmarking, emission allowances are determined based on benchmarks (emission intensities), or so-called emission efficiencies, such as standard “GHG emission volumes per unit of production,” which are set by business section. Therefore, this scheme is basically expected to provide allocation according to production efficiencies of business entities more than grandfathering since, in general, business entities that perform with high energy efficiency perform with high production efficiency as well.
- b. As the mechanism of this method grants reward to business entities who retain emission efficiencies higher than the average, there is an incentive toward business entities functions to promote further emission reduction above the average level. Therefore, it is expected to create impacts to promote competition regarding production efficiency in the case that higher emission efficiency would lead to increasing production efficiency.
- c. There is an issue when allocating emission allowances in the benchmarking method, that is, whether a uniform benchmark should be set for one business section or different benchmarks should be set even for one business section in order to reflect actual conditions of each business entity, if the production technologies, etc., are different. It is considered that setting a benchmark for each production technology would result in giving less incentive to shifting to a production technology with higher production efficiency¹¹.
- d. In general, emission allowances by benchmarking are calculated by multiplying activity volume by the benchmark. In the case of using production volume as the activity volume here, the same concern rises as in grandfathering, i.e., it could induce negative actions in that business entities intentionally keep the production volume at the time of the renewal of the scheme period, etc., as in the baseline period in order to secure more emission allowances¹².
- e. Benchmarks are usually set based on the average emission intensity by business section, etc. If business entities in different business sections are in competitive

¹¹ For example, if different benchmarks are set for individual technologies with different emission efficiency in the power generation sector, such as coal power generation, natural gas power generation and coal power generation which performs less efficient will be allocated more allowances, and here incentive to shifting from low efficient technology to high efficient one would not work.

¹² The same concern rises also in the case of calculating the activity volume by multiplying facility capacity by an operation rate. In this calculation method, however, it is still expected to give incentive to improving the facility capacity because such a negative factor can be eliminated by applying a standardized operation rate.

relationships, however, there might occur an issue of securing equal footing among these entities since room for reducing emissions is different in each section¹³.

f. In general, past activity volume for a certain period is used as the activity volume of a business entity when determining emission allowances by benchmarking. In the case that expected production volume is used instead of the past activity, production plans of each business entities are expected to be easily estimated if the allocated emission volumes, etc., are made public for the purpose of transparency in the allocation process under the circumstance of inactive trading of emission allowances, and this could consequently induce noncompetitive actions that could be subject to issues under the Antimonopoly Act, such as allocation of production, etc., between business entities.

(2) auction

- i. Efficient allocation is expected in auction since the scheme allocates emission allowances using the market mechanisms, in which each business entity purchases emission allowances by auction only as necessary from the government.
- ii. It can secure transparency in the process of obtaining emission allowances as well as fairness of opportunities to obtain emission allowances between newly participating business entities and existing entities.
- iii. Because business entities will have to burden the costs to purchase emission allowances, this scheme could induce a daunting impact on business entities that cannot make profits if having additional burden to purchase emission allowances.
- iv. In terms of the scale of auction, if the scheme is designed to restrict participants such as segmenting the market by business section, negative impacts on competition could occur, namely, buyout of emission allowances and manipulation of transaction prices of emission allowances in order to eliminate specific business entities such as newly participating entities, etc.
- v. If information important for competition is disclosed as an auction result, for example, the volume and the price of emission allowances which participating business entities want to purchase, this kind of information will be an important sign that can tell business plans, etc., to competing business entities, and thus it could induce negative impacts on competition.

* Based on the above issues, the Study Group on Government Regulations and Competition Policy made an evaluation on methods of emissions allowance allocation

¹³ In such a case, equal footing is considered to be taken into account in the process of reviewing the BAT in each section by applying the method of utilizing BAT as a benchmark (to be calculated by accumulating emissions in the case of introducing BAT).

on the standpoint of competition policy and discussed that allocation by auction is desirable from the viewpoint of giving a minimum impact on competition among business entities as an important factor.

3. Cost containment measures

(1) Use and restriction of external credits

Use of external credits is generally considered desirable as business entities will have diverse options to achieve emission reduction obligation and the impact of the obligation on business activities of the participating entities and consequently on competition can be relatively small.

On the other hand, use of external credits diminishes incentives to make efforts to reduce own emissions by business entities, and thus restriction for its use is set in some cases. However, if the use of external credits is excessively restricted under the circumstance in which emission allowance trading is not yet sufficiently activated, there might induce negative impacts on competition, for example business entities may not be able to obtain emission allowances or external credits necessary for increasing their production in a very short period and thus might have no other choice but restrict production.

Moreover, external credits are established without strict monitoring and verification in many cases while there are some cases that have been established as a result of strict processes by the United Nations such as CDM in the Kyoto Mechanism. Regarding external credits, therefore, it is appropriate to permit the use of only those that have been established through a certain level of strict monitoring and verification from the viewpoint of securing fair competition conditions.

(2) Banking and borrowing

As banking and borrowing provide business entities with more options for obligations other than sale and purchase of emission allowances or external credits, it can relatively reduce impacts of giving emission reduction obligations on business activities of participating entities and consequently on competition. Further, it is expected to enable business entities to flexibly make their efforts to invest in emission reduction facilities toward future emission reduction. With measures of banking and borrowing, moreover, there would be less concern that coordinated acts regarding prices and production volume are induced as it will be difficult to speculate production plans of competing business entities from the relations of emission and production in a certain period.

However, permitting banking and borrowing with no restriction would diminish incentives to trading emission allowances and external credits with other business

entities in the market, and these kinds of trading might not be activated.

4. Trading of emission allowances and external credits

(1) Price restriction of emission allowances and external credits

The market mechanism might not function well for the trading of emission allowances per se in the case that maximum price restriction, etc., is set for emission allowances and external credits.

In the case that maximum price of emission allowances and external credits is set lower than emission reduction costs of business entities, incentives to emission reduction and technology development are diminished and negative impacts on competition in the technology market or R & D market related to emission reduction, because business entities can achieve the emission reduction obligation by purchasing emission allowances and external credits.

(2) Trading through an exchange

Trading allowances and credits through an exchange contributes to securing business entities with diverse trading options and is also expected to produce an outcome to provide smoother trading opportunities through lowered transaction costs and price detection function.

On the other hand, it is necessary to ensure the conditions in order to function trading through exchange effectively, such as free participation in trading, low participation cost, fair and timely disclosure of information about market trading price, and no manipulation of the market price.

However, information disclosure in trading emission allowances and external credits could induce noncompetitive actions among business entities for example in the case where a fact that a specific business entity has offered sale or purchase of emission allowances and the information such as price and trading volume offered at the time are disclosed to the competitors which belong to the same market. Therefore, data disclosed by the exchange should be selected and treated by careful consideration.

5. Other concerns

(1) Regulations on small-to-medium scale business entities

In relation to emission reduction costs to comply with the emission regulation and administration costs to verify emission volume, participating business entities might be required to bear fixed costs regardless of emission volume. The cost to comply with the regulation would be excessive for small-to-medium scale business entities if the regulation with fixed costs covers these entities, emissions from which are small. In the case that these entities have financial difficulties in continuing their business, such an

environment might induce a decrease in the number of competing business entities in the market and consequently a negative impact on the competition.

(2) Monitoring, accounting, and reporting of emissions

It is a prerequisite for the effective functioning of the emission reduction regulation to establish a scheme under which the business entity which is obliged to reduce emission measures the emissions accurately at the end of the target year and report them to the government. As same as the emissions allowance allocation, from the viewpoint of securing fair competition conditions, it is important in such a scheme to develop arrangements to enhance transparency such as a mechanism that the third party verifies actual emissions reporting by business entities and information disclosure about actual emissions reported by business entities to the government.

Section 5. Business entities' conduct in emission regulations that would possibly pose a problem under the Antimonopoly Act

In reducing emissions, it is assumed that business entities in concert with others or trade associations will be engaged in order to implement the tasks efficiently.

Depending on the substances, on the other hand, joint projects would possibly pose a problem under the Antimonopoly Act. Further, implementation of external credit schemes and sales of emission allowances or external credits could induce actions which are in violation of the antimonopoly Act toward the business partner.

Described below are business entities' actions in emission regulations that would possibly pose a problem under the Antimonopoly Act.

1. Concerted action by business entities, etc.

(1) Concerted action in the implementation of emission reduction

Currently, in quite a few cases, trade associations develop a voluntary action plan to commit to emission reduction, and based on this kind of plan, not only commitment by individual business entities but also joint projects, etc., by business section are being implemented¹⁴. Further, there are some cases that trade associations participate in Experimental introduction of an integrated domestic market for emissions trading¹⁵.

In the case that the government sets a certain volume of emission allowances to individual business entities or establishments as obligations or assigns them a certain volume of emission reductions, there could arise a problem of cartel regarding supply

¹⁴ For example, the Japan Iron and Steel Federation is implementing fundamental research for the development of an innovative iron and steel process.

¹⁵ Although in principle participation as an organization is not acceptable, the government allows it as a special case.

volume in relation to the Antimonopoly Act if business entities in concert with others or trade associations determine the supply volume of products and services of each business entity based on these obligations. Further, restriction¹⁶ by business entities in concert with others or trade associations on methods to achieve obligations of emission allowances regardless of no such regulation by the government would pose a problem under the Antimonopoly Act.

(2) Concerted action to respond to increase in cost burdens associated to emission reduction

When business entities are put an obligation regarding emissions, these entities are required to constantly bear additional costs in order to purchase emission allowances or external credits from other entities if necessary as well as to reduce emissions by their own efforts. Further, these burdens can occur to each entity at the same time.

Business entities could respond to such cost burdens by directly raising prices of their products and services, but it can induce decline in sales if a business entity as an individual does it. Therefore, it is considered that it possibly induces incentives to business entities to jointly raise the prices of products and services by a certain amount of money. Such action, however, will be a problem under the Antimonopoly Act.

(3) Joint research and development regarding emission reduction

As a commitment to emission reduction, it is assumed that business entities jointly perform research and development for innovative production technologies, etc., which lead to emission reduction. Joint research and development is considered to provide a positive impact to enhance competition in many cases as it makes research and development activities more active and efficient through cost reduction in research and development, risk diversification, period shortening, etc.

On the other hand, as joint research and development is an activity by multiple business entities, business activities of the participants could be unjustly engaged depending on the agreement on the joint research and development, and thus fair competition in the technology market and product market could be disturbed.

In principle, restriction of licensing of technology as an output of joint research and development to the third party per se would not be a problem. However, for example, in the case that in a business section, joint research and development has developed an innovative technology that produces substantial emission reduction outputs and other entities would not be able to continue their business activities if not using this technology to reduce emissions, activity of rejecting licensing of the technology

¹⁶ For example, restrictions on credit volume and type that can be used for achieving the obligation, and on arrangement, facilities, etc., on emission reduction.

regardless of an offer with reasonable conditions including costs could be a problem of unfair trade practices (concerted refusal to trade, etc.), private monopolization, etc., in relation to the Antimonopoly Act.

(4) Development of rules, etc., regarding emission calculation

There are several methods of calculating emissions, such as calculation methods of business entities' emissions as specified in the laws and acts including the Act on Promotion of Global Warming Countermeasures and the calculation method in the Carbon Footprint of Products for labeling emission necessary per unit of product and service. A certain calculation rule for the latter is specified in the Guideline on the Carbon Footprint of Products developed by METI, but in actual calculation, calculation rules are required to set for each product according to the characteristics of each product and service¹⁷. In such a case, it is conceivable that trade associations take the initiative in establishing rules, etc. regarding the method of emission calculation.

When developing the rules, it would not be a problem in principle in relation to the Antimonopoly Act that trade associations set voluntary rules and terms regarding the emission calculation for the social welfare purpose of enhancing convenience of consumers and conserving the environment, etc., as long as they do not falsely disturb benefits of the demand side of the products and services, are not unjustly discriminatory to the member business entities, and do not force its compliance.

Depending on the emission calculation method, however, it is assumed that dissociation between calculated emission and actual emission could be large. Such dissociation could influence competition among business entities. When developing rules and terms, etc., trade associations should provide sufficient opportunities to collect opinions from related constituent business entities and, if necessary, it is desirable to hold occasions for exchange and collection of opinions with the demand side of products and services concerned and third-party experts.

2. Action toward business partners, etc.

(1) Action regarding implementation of the external credit scheme

It is considered that large scale business entities, etc., which desire to use the external credit scheme, possibly implement an external credit project by impounding group business partners, clients, and business entities, which desire to have contracts with the large scale entities in order to efficiently secure a certain volume of credits. In this case, there could rise an issue of unfair trade practices (Trading on Restrictive Terms) in relation to the Antimonopoly Act if the large scale entities, etc., have a

¹⁷ Calculation standards, called Product Category Rules (PCR), are specified by taking into account lifecycle assessment, etc., by product category.

business contract with a condition that the external credit project is to be implemented only between the entity and existing business partners, resulting in a reduction in business opportunities on the part of competitors to such large scale business entities, and consequently the business partners could not easily find alternative partners.

Further, in the implementation of the external credit project, additional cost burdens and decreases in profits could occur in the cases such as a smaller volume of credits due to less emission reduction than expected, and more costs incurred in the project implementation than expected. In these cases, it could arise as an issue of unfair trade practices (abuse of dominant bargaining position) in relation to the Antimonopoly Act if business entities in a dominant bargaining position¹⁸ falsely in the context of usual business practice force the clients to bear these additional costs and decreases in profits.

(2) Action regarding loan projects, etc.

As banking institutions are participating in the trading of emission allowances and external credits as Experimental introduction of an integrated domestic market for emissions trading, they are considered to participate also in the future emission regulation as an actor to sell emission allowances and external credits.

In such a case, an issue of unfair trade practices (tie-in sales, etc.) could arise in relation to the Antimonopoly Act if a banking institution requests a business entity that is to have loans from the institution to purchase emission allowances and external credits from the institution or its subsidiary and virtually forces the entity to accept the request.

In particular, it could be an issue of unfair trade practices (abuse of dominant bargaining position) in relation to the Antimonopoly Act if banking institutions, etc., in a dominant bargaining position in the context of continuous business contract such as loan, etc., falsely force loan recipient entities to purchase emission allowances or external credits, the price for which has decreased.

¹⁸ Business entities that purchase external credits are in many cases large scale business entities as many such entities participate in a voluntary action plan. Business entities engaged in emission reduction in the external credit project are mainly presumably small-to-medium scale entities as non-participants in the plan, and thus it is highly possible that the former is in a dominant bargaining position toward the latter.

Work schedule of the Study Group on Government Regulations and Competition Policy
(Issues in Competition Policies Regarding Countermeasures Using Market-Based Instruments
in the Measures Against Global Warming: Discussion Points in the Japanese Emissions
Trading Scheme)

	Date	Main agendas
1	September 25, 2009	<ul style="list-style-type: none">○ Discussion points in the Japan Emissions Trading Scheme from the viewpoint of competition policies
2	November 5, 2009	<ul style="list-style-type: none">○ Hearings from major business entities, etc.<ul style="list-style-type: none">• Japan Iron and Steel Federation○ Hearings from the observer<ul style="list-style-type: none">• Toru Morotomi, Associate Professor, Graduate School of Economics and Faculty of Economics, Kyoto University○ Discussion points in the Japanese Emissions Trading Scheme from the viewpoint of competition policies
3	March 23, 2010	<ul style="list-style-type: none">○ Interim report draft

Members of the Study Group on Government Regulations and Competition Policy

(Listed in the Japanese alphabetical order)

Acting Chairperson	Hideki Ide	Professor, Faculty of Business and Commerce, Keio University
Members	Fujio Kawashima	Associate Professor, Graduate School of International Development, Nagoya University
	Daitaro Kishii	Professor, Faculty of Law, Hosei University
	Ken-ichi Shimomura	Professor, Research Institute for Economics and Business Administration, Kobe University
	Toshihiro Matsumura	Professor, Institute of Social Science, the University of Tokyo
	Hiroataka Yamauchi	Professor, Graduate School of Commerce and Management, Hitotsubashi University
	Gentaro Yoshino	Visiting Research Fellow, Japan Center for Economic Research
Observer	Toru Morotomi	Professor, Graduate School of Economics and Faculty of Economics, Kyoto University

(Titles as of March 23, 2010)