

2. Nature and requirements of a tax

What should we tax to combat climate change, and who will pay?

As we saw in 1. **Current state of measures for combating climate change, and features of Climate Change Tax in this context**, above, measures for combating climate change reduce CO₂ emissions through: a price-incentive effect (see p.8) and using the revenues gained from the Climate Change Tax. If either or both of these functions are to be effective, then the tax should target CO₂ or fossil fuels. If the tax targets CO₂, each entity will pay a tax corresponding to its emission levels; if the tax targets fossil fuels, then each entity should pay a tax corresponding to the amount of fossil fuels it uses (more precisely, the person/company will pay a tax corresponding to the average carbon content of each quantity of fossil fuel consumed, which will form the basis of the tax)¹.

When deciding whether to tax CO₂ or fossil fuels, it will be necessary to take a number of factors into consideration, including ease of combination with other policy instruments, the degree of the price-incentive effect such a tax would have, and the feasibility of assessing and collecting the tax. Taking into consideration the totality of these factors, a source or upstream tax on fossil fuels, described below, is strong candidates (see p 25, **Study of Alternate Proposals**).

Source tax on fossil fuels: The volume of fossil fuels traded in a bonded area or mined/pumped from a well/mine (time of production)

Upstream tax on fossil fuels: The volume of fossil fuels produced at a refinery/processing plant (energy conversion sector) (time of shipment)

Additionally, since the intention of Climate Change Tax is to provide incentives to the final consumer of the fossil fuels, a mechanism should be studied that makes the final consumer feel the burden of the tax, even if the tax is levied at the source or upstream.

Additionally, a look at existing taxes shows that the taxes can be paid in a number of ways. The tax can be paid directly by the taxpayer, or it can be collected indirectly, from a withholding agent or special collection agent². In the case of Climate Change Tax, a source tax would be levied on the producer or importer, while an upstream tax would be levied on the refiner, and in either case, the taxpayer would normally pay the tax directly. In order to facilitate the transfer of this tax burden to the final consumer of the fossil fuels, it will be appropriate to study how to decide the taxpayer (the entity who should be paying the tax).

When the Program is assessed and reviewed in 2004, such questions as what strength of additional measures should be taken, and what will be the role of Climate Change Tax within those additional measures, will be examined. The tax rate will be determined based on this study. For example, let us examine the case when continuing and strengthening existing policies cannot be expected to lower emissions sufficiently to meet the committed of the Kyoto Protocol. In this case, if Climate Change Tax is the only additional measure adopted, then all required emissions reductions must be borne by the price-incentive effect of this tax, and the tax rate will be the highest. Meanwhile, if other additional measures are adopted in conjunction with the Climate Change Tax, a relatively lower tax rate will be

sufficient to bear the relatively smaller responsibility of Climate Change Tax for lowering emissions.

Since taxes must be borne economically by the people, they should be held to the minimum required level. Furthermore, based on the current economic and employment situation, a high tax rate that would dramatically change the shape of the economy is not very realistic.

It is therefore the opinion of the Expert Committee that Climate Change Tax should be adopted with a relatively low tax rate. If the reduction effect of this rate is not sufficient, then it should be adopted in conjunction with other methods, such as subsidies to return some of the tax revenues, and thus ensure that the totality of these measures reduces emissions enough to meet the level of reduction committed in the Kyoto Protocol.

Measures for combating climate change, be they taxes or something else, promote reforms toward a new type of economy. With this type of low tax rate, however, it should be possible to implement successful reforms, while maintaining the current economic situation, including the current industrial structure (see p. 25, **Study of Alternate Proposals**).

¹ Here, we are dealing with energy-derived CO₂ and other emissions from fossil fuels, which make up about 90% of Japan's greenhouse gas emissions. The Kyoto Protocol targets 6 greenhouse gases, and it was studied whether the tax should be levied on non-energy-derived CO₂ and the 5 other types of greenhouse gas (methane, dinitrogen monoxide, HFC, PFC, and SF₆). It was decided, however, that this study should be continued based on the assessment and review of the Programme in 2004, due to the large range of emissions sources and emissions formats. Note that when actually studying the levying of the tax, a separate system design must be studied in the case of a fossil-fuel tax as described below.

² The **taxpayer** is the person who has the actual tax obligation, or in other words, the person identified by the tax law as bearing the tax in question. The **withholding agent** and **special collection agent**, meanwhile, have an obligation to collect the tax from the taxpayer, and pay it to the tax authorities.