

Carbon Pricing: A Policy Consideration Perspective

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The Act on Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure (commonly referred to as the GX Promotion Act) entered into force in May 2023. The Act underpins Japan's dual goal: achieving carbon neutrality by 2050 and fostering economic growth. The centerpiece of the policy is issuing JPY20 trillion in GX Economic Transition Bonds over a 10-year period. These funds, when combined with private-sector capital, are expected to generate over JPY150 trillion in low-carbon investment in the future. Instead of introducing carbon pricing immediately, the approach is to first invest in low-carbon initiatives using these bonds, then introduce carbon pricing after a large amount of CO₂ emission reduction is achieved. By introducing carbon pricing after setting a period for companies and individuals to reduce their emissions, it becomes possible to lessen the overall burden. This type of carbon pricing could be described as a distinctive system that is unprecedented even worldwide.

On the other hand, in the deliberations that took place in the House of Representatives and House of Councillors during the 211th Session of the National Diet, the journey to enacting the GX Promotion Act was not uneventful. The points of contention that were raised in connection with carbon pricing revolved around various aspects such as its rate, coverage, start date, industry impact, and funding allocation. The points repeatedly raised by the opposition parties were mainly that the level of pricing is lowⁱ, and that the commencement date is lateⁱⁱ. To address these concerns, the House of Representatives amended the bill to state that the carbon pricing approach would be modified depending on Japan's internal and external decarbonization and economic conditionsⁱⁱⁱ. Following that, at the House of Councillors, amid considerable concern over employment in industries where work will be lost as a result of industrial transformation, another amendment was made^{iv} to explicitly state the concept of a "fair transition" aimed at transformation that guarantees employment and is based on the impact on the regions. This led to an unusual situation in which the bill was sent back to the House of Representatives. This process clearly shows that the effects of the GX Promotion Act and carbon pricing aren't uniform across society. Instead, these effects are intricately linked, making simple discussions about them challenging.

Surprisingly, there was little mention of how the outcomes of carbon pricing or its effects on citizens would be demonstrated, even though these are crucial for policy planning. While the Fossil Fuel Surcharge on fuel importers and the Specified Business Contributions related to emission quotas for electricity producers will both be payments from energy suppliers to the government, it's the consumers who will ultimately bear the costs^v. The extent to which these surcharges and contribution payments will be passed on to consumers remains a topic of debate, but some level of pass-through is expected. As a result, under ordinary circumstances, it would have been necessary to concretely demonstrate the benefits and burdens of carbon pricing to citizens. Nevertheless, the government has stuck to a consistent explanation suggesting that the burden across Japan as a whole will not increase because “in the medium to long term, the decline in revenue from petroleum and coal tax resulting from the decline in fossil fuel consumption, and the reduced burden of renewable energy feed in tariff (FIT) resulting from the early withdrawal from high unit-price renewable energy in the renewable energy FIT system, will be utilized”^{vi}. Furthermore, there were no questions raised that deeply probed this point. While Japan as a whole, the burden might remain neutral, some consumers will see reduced costs while others will experience an increase. For example, when it comes to the impact on the household sector by region, the burden will decline in urban areas that are blessed with a warm climate, and where public transport is well-developed. However, in cold areas where energy demand is considerable or regions where there is a major demand for gasoline, the burden will increase. Numerous studies have pointed out that insofar as energy is by nature indispensable, its regressivity is significant^{vii}. In the industrial sector, where the diversity of energy demand in each industry is even larger, it is easy to imagine there will be major disparities in the impact.

The discussion on low-carbon technology investment targets and nurturing new industries is central to achieving carbon neutrality. However, to create a system in which no one is left behind, while contributing to Japan's economic growth, there is also a need to simultaneously bring responses to the ramifications to the discussion table^{viii}. How can we secure resources for a low-carbon society while understanding and minimizing the impact? This is a perspective we must remember as we design systems in the coming years.

i The level envisaged in the GX Promotion Act was pointed out by witnesses and opposition party committee members at the House of Councillors Committee on Economy and Industry, based on figures such as it being roughly one-tenth (or around JPY1,500) of the figure in the International Energy Agency's Net Zero by 2050 (the price needed in developed countries in 2030).

ii At the House of Representatives Committee on Economy, Trade and Industry, an opposition party committee member argued that the timing of the introduction was extremely slow, and tantamount to a freeze on carbon pricing.

iii Article 11, Supplementary Provisions (extract), Act on Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure.

iv Article 3, Act on Promotion of a Smooth Transition to a Decarbonized Growth-Oriented Economic Structure.

v For example, according to the minutes of the House of Councillors Committee on Economy and Industry meeting held on April 20, 2023, a witness (Motoshige Itoh, Professor Emeritus, the University of Tokyo) noted the following: “I think the social burden and behaviors of carbon pricing will be quite complicated. (Omission). One is that in ideal terms the primary burden of carbon pricing will of course take the form of the importers and the electricity producers that handle that petroleum, but I think this is quite a difficult discussion politically, and the fact is, it will ultimately be necessary to pass this on to all prices and wages across society as a whole. Consequently, when it comes to who will shoulder the burden as a result of that, it becomes an issue for society as a whole, not simply the entities that are paying those taxes now, and so it will be a somewhat more complex discussion, I believe.”

vi A similar explanation is given in the Strategy for Promoting the Transition to a Decarbonized Growth-Oriented Economic Structure (Cabinet approval granted in July 2023), which was approved by the Cabinet subsequently.

vii For example, “Analysis of Energy Prices and Expenditures by Region, Energy Composition, and Income Level Based on the Individual Data from the Household CO₂ Emission Survey” (Hoshino and Ogawa (2021), “Energy and Resources,” July 2021 Edition, Vol. 42 (248th issue)), demonstrates that in northern Japan, households in low-income households have lower energy price elasticity, and the ratio of their (energy) expenditure burden as a component of their household budgets is larger. Additionally, the report points out that this also means that in low-income households in particular, a move to upgrade to energy-saving appliances, for example, is unlikely to proceed smoothly even if energy prices rise, and that energy price increases thus tend to lead to increased energy expenditure and so potentially add to the burden placed on the households’ budgets.

viii For example, the OECD’s Regulatory Impact Assessment (RIA) (2020) points out that to ensure the success of regulatory impact assessment, the following elements are essential: (1) Clearly identify the problem and desired goals of the proposal; (2) Identify and evaluate all potential alternative solutions (including non-regulatory ones); (3) Always attempt to assess all potential costs and benefits, both direct and indirect; (4) Be based on all available evidence and scientific expertise; and (5) Be developed transparently with stakeholders, and have the results clearly communicated. Additionally, as one RIA principle, it cites the need for “identifying all relevant direct and important indirect costs as well as benefits.”

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