

Recent Development of Agricultural Policy Instruments: Its Features and Problems

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1. Market functions and the role of the government

According to the agricultural production index, Japanese agricultural production reached its peak in 1986 and then moved into a downturn phase¹⁾. As a result, the indices decreased from the 100 level of the peak year to 86 in 2000. This turnaround from upturn to downturn, however, was not accurately recognized at that time. Agricultural production is subject to irregular fluctuations, and accordingly this change in trend was not confirmed immediately after the fact. It appears that most of those concerned did not recognize the declining tendency in agriculture until the middle of the 1990s.

In July 1999, the Basic Law on Food, Agriculture and Rural Areas came into force. The biggest controversial point faced by the legislation of this new law was whether target rates for food self-sufficiency should be set by the government. Although an agreement was finally reached to set up such targets²⁾, a number of skeptical opinions were expressed in the Investigative Council on Basic Problems Concerning Food, Agriculture, and Rural Areas, which played an important role in paving the way for legislating the basic law. As a backdrop to the decision by the Ministry of Agriculture, Forestry and Fisheries for the establishment of target rates for food self-sufficiency, there emerged a strong sense of crisis against the fact that agricultural production had turned into a declining trend. In fact, in the beginning of the legislative process, the MAFF itself seemed to be reluctant in setting up numerical target rates for self-sufficiency. The reason was that absolute volume of self-sufficiency is more important than the rate, and even though self-sufficiency rates had been deteriorating, agricultural production itself, which indicates self-sufficiency in absolute term, had not. This had been the basic stance of the agricultural authorities toward the issue of self-sufficiency rates for a long time. However, it has become clear that the assumptions underlying this stance began to crumble during the middle of the 1990s³⁾. Before long, a turnaround in the recognition of agricultural production led to the establishment of self-sufficiency target rates.

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1) Agricultural production index (Agriculture as a whole) is the Laspeyres quantity index using the prices in a base year as weights.

2) The target rates are specified in the Basic Plan for Food, Agriculture and Rural Areas (approved by the cabinet in March 2000), which was prepared under the stipulation of the Basic Law. A 45% self-sufficiency rate on a calorie supply basis has been set as a target (self-sufficiency rate in 1998 was 40%).

3) The White Paper on Food, Agriculture and Rural Areas in fiscal 1999 analyzed the factors of the declining self-sufficiency rate. According to it, out of a 33% fall in self-sufficiency rate from fiscal 1965 through fiscal 1998, 21% was due mainly to dietary changes and 12% was due mainly to the declining production. But if the period of analysis is limited to from fiscal 1985 through fiscal 1998, the rates is reversed to 5% and 8% respectively (the data are taken from "Supplementary Statistics of White Paper for Food, Agriculture and Rural Areas in fiscal 1999" issued by Association of Agriculture and Forestry Statistics in 1999).

The self-sufficiency target rate is a comprehensive figure, which symbolically expresses a middle-term goal for the reconstruction of agriculture. The instruments for agricultural policies in the early part of the 21st century are to be positioned under this target. The problem is the contents of the policies. Needless to say, the return to protective agricultural policies based on price supporting is not intended. With regard to the price formation of farm products, the policies have been reorganized to further utilize market mechanism. The 1st section of Article 30 of the Basic Law states, "The State shall take necessary measures for allowing the prices of farm products to be formed appropriately reflecting the real supply/demand situation and quality evaluation, in order to promote agricultural production responsive to consumer demands." The phrase "shall take necessary measures" can be paraphrased more properly as "the government is moving in the direction of refraining from excessive involvement in the market." There is also a belief that this change encourages production to meet with demand, resulting in an improvement in the self-sufficiency rate in the long term.

However, this does not mean that agricultural policies under the new Basic Law are implemented solely on market principles. The 2nd section of Article 30 states, "The State shall take necessary measures for mitigating the adverse effects of significant price changes of farm products on farms to be fostered under this law." Also, the direct payment system in hilly and mountainous areas, which started in 2000, responds to the phrase in Article 35 of the Basic Law that says, "The State shall take specific measures for the fulfillment of multifunctional roles of agriculture by providing support to compensate for disadvantages in agricultural production conditions." "Multifunctional roles" means the by-products of farming such as conservation of the national land, water resources, and the natural environment, the formation of good landscapes and the maintenance of cultural tradition (Article 3, Basic Law). In the terminology of economics, "multifunctional roles" are just the external economies of agricultural production, and it can be said that the roles of redressing the market failure are expected of these policies.

I have previously stated; the philosophy of the new Basic Law has to be "to properly position the market functions and the roles of organizations for the current problems of food, agriculture and rural areas."⁴⁾ The organizations here include the government. Therefore, the statement can be paraphrased as the rearrangement of the market functions and the review of government's roles. At any rate, in this sense, it is judged that the on-going reform of agricultural policies is broadly appropriate. In other words, reasonable distinction is being made between the areas where the market functions should be encouraged and the areas where the new roles of the government are required.

There remain various problems, however. Intensive policy appraisals are needed especially on new types of policies, considering the experimental elements. This paper focuses on the three policy measures and reviews on each characteristics and the foreseeable problems. Namely, I will discuss the following mainly from the economics point of view: firstly, price formation and the subsidy system for wheat and soybean; secondly, the reform of price policies and the introduction of safety net policies; and thirdly, the direct payment type of policies. All of these are areas in which new type of policy developments are planned and each is a policy that directly influences the income level of farmers.

2. Price formation and subsidy system

Reforms are progressing in policies concerning the prices of farm products. The first runner is the one concerning rice. Rice economy was drastically deregulated in the distribution and the price formation under the Food Law (1994). The present rice prices reflect the balance of supply and demand as a whole and are formed through differentiations by growing region and variety. The government's involvement in the price formation of other farm products such as wheat, soybean, processed milk, etc. is receding rapidly following the rice deregulation.

4) Shinichi Shogenji "Agricultural Policy Reform from Anti-Radical Perspective", the Association of Agriculture and Forestry Statistics, 1998 (chapter 13).

Take wheat for example. The system, by which the government purchased virtually all domestic wheat at prices fixed beforehand, has been transformed to a price formation system based on a bidding mechanism participated by the demand and the supply side. At the same time, the newly formed market prices were expected to be below the price level under the old system because new market prices are influenced by the price level of imported wheat. As a result, the fixed payment had been introduced for the purpose of compensating the gap of prices between the old and the new system. A similar fixed payment had also been applied to soybean and processed milk. Both payment systems can be regarded as payment to fill the disparity between domestic and foreign prices of agricultural and processed products⁵⁾.

As already mentioned, a set of reforms were undertaken to form prices that would reasonably reflect supply-demand conditions and quality appraisals. The attitude of emphasizing the quality problem can be attributed to a reflection of policy makers where the evaluation of the products on the demand side had not precisely been conveyed to the producers under the old system⁶⁾. In other words, as typically seen with wheat, there were always so-called mismatches between supply and demand, where the products with low evaluation by the demand side become excessive while the products with strong demand in terms of varieties and growing regions become short. This is understandable, because the activity of paying effort for improvements to products is not rational for the farmers in the circumstances where the revenue is basically determined by the production quantity, regardless of quality, even though a slight disparity exists among the grades.

The price structure under the old system lacked incentives toward quality improvement. If the incentives for producers do not function, the incentives toward research and development are also likely to be weakened. As a result of this structure continuing over a long period, domestic wheat and soybean began to fall behind those from overseas not only in terms of prices, but also in their quality. The redress of such defects was the aim of reforms of price policies. As a specific approach, a bidding method that encourages the price differentials by growing region and variety was introduced. Are these reforms then bringing the expected effects? My impression about it is very doubtful. At least, the system itself includes various problems that must be overcome. Hereafter, let me proceed to review the situation by taking wheat as an example.

First of all, I have to refer to the limit of the bidding price range. Although the new policy is said to encourage price formation reflecting the quality evaluation, there have been +5% and -5% of the limiting range for annual price changes to the bidding procedure until now. On this point, however, there is also the possibility of taking the same process as the bidding market for rice (the Rice Price Formation Center for Voluntary Distribution) which phased out the limit on price changes. If limiting range is considered as a shock absorber for drastic changes, it should not be a serious problem. As the limiting range is set relative to the previous year's price, the price difference could expand every time the bidding is repeated. Actually, the price disparity of ¥1,985-2,688 per 60 kg of wheat had been formed in 2002, which is the third year since the introduction of the bidding system.

The serious problem is that even if prices in themselves reflect quality difference, this is diluted at the stage in which the producers receive revenue. The amount of farmers' revenue consists of the price formed in the market plus the fixed payment (the Wheat Farm Stabilizing Fund for wheat). In case of products in 2000, the WFSF payment was ¥6,396 per 60kg (also, a fixed amount of ¥600 is paid as a Contract Production Promotion Subsidy). As a result, the relative disparity of 100 to 74 in market prices declined to 100 to 93 in the amount of revenue at farm gate. There is one problem here. Of course, alternative methods cannot be created easily. In particular, of the current agricultural policy instruments, those related to income formation for producers are subject to the international regulations based on the WTO agreement⁷⁾. Nevertheless, isn't there any room for better ideas? Wisdom in policy design is needed to find a payment method in which the effect of the newly introduced method on

5) There is no such fixed payment for rice because it is in an almost completely self-sufficient state and is not linked to international prices.

6) Processed milk is in a somewhat different situation. It is possible to have various conditions of transactions of milk. The objective of the reform is to create the market circumstances in which the options of customers increase and to encourage the rationalization of the dairy manufacturing and the dairy farming, especially the former.

7) The fixed payment created by a set of reforms of price policy is the subsidy that is classified into the amber-box in the WTO agreement, implying that the measure must be reduced gradually.

price formation is not reduced.

Today, 37% of the wheat planting area is occupied by paddy fields under the set-aside program for rice. The rest is 36% from upland fields and 27% from paddy fields as a winter crop. A subsidy of ¥73,000 per 10 are at the largest is given to wheat production from paddy fields under the set-aside program (Current name is “Measures for Vitalizing the Land Using Farming in Paddy Fields”). The areas where this maximum unit subsidy is paid accounts for only 21% of the total wheat area under the set-aside program since it is necessary to comply with a number of requirements. Even so, the average payment of this subsidy amounts to ¥57,776 per 10 are. This is equivalent to ¥9,765 per 60kg since the average yield was 355 kg/10 are in the same year. This amount is paid as a fixed subsidy, irrespective of the quality of product. According to the same aforementioned calculation, the relative price disparity due to quality is reduced further to 100 to 95 on the revenue level with this subsidy for wheat under the set-aside (Data in 2001 taken from Ministry of Agriculture, Forest and Fisheries).

The increased subsidy under the MVLUF is pushing up the planting area of wheat in paddy fields. The planting area expanded from 62,150ha in 1999, the previous year of the introduction of the measures, to 95,020ha in 2001. However, there is the possibility that this increase in the planting area, brought by the fixed payment independent from the quality, deepens the aforementioned mismatch related to quality difference. If this fear becomes a real problem, then such a production increase is not in line with consumers’ needs. To make matters worse, the upsurge of the self-sufficiency rate, which will be brought about in the short term, is likely to camouflage the problem.

The subsidy for a change of crops in paddy fields paid as the fixed amount per 10 are implies in itself many doubtful points. The fixed payment irrespective of quality, as I said before, is independent of the yield level as well due to the fixed payment per area. Such a subsidy is also disqualified from the viewpoint of incentives which encourages cost reductions through larger volume of output. Further, a part of or even entire subsidy for the change of crops might belong to land owners as a rental⁸⁾. The subsidy does not sufficiently reach the actual supporters of production activities. This is related to the subsidy style which is paid on a land basis. It should be said that this is a crucial problem in view of the structural reform of paddy field farming.

In one aspect, the current system of subsidies for a change of crops in paddy fields has inherited the initial idea that the income equivalent to rice should be compensated in the paddy fields where rice is not grown. In other words, these problematic points as stated have existed since 1970 when the production adjustments began, or at the latest, since 1978 when the promotion of changing crops started under the Measures for Utilization of Paddy Fields. The method of securing the effective production adjustments of rice through subsidies for items other than rice is unique in the incentive measures for adjusting the supply of farm products in developed countries. Agriculture in many of these countries has experienced production adjustment problems. But incentive measures linked with the items targeted by the adjustment are adopted widely. For instance, the rights to receive the deficiency payment had been given to the participants in the crops production adjustment in the U.S. until 1996 when the production adjustment program was abolished by the 1996 Farm Law, and the production adjustment program of raw milk which started in 1984 in the EU and is still continuing ensures supported prices only for milk within the production quotas⁹⁾.

Needless to say, we must not doubt it just because the measure takes a unique style. However, any problematical points that I have pointed out here are related to the essential part of the purpose of policies. Especially, with respect to quality improvement, it is like putting one’s foot on the accelerator and at the same time on the brake. Furthermore, there is not even a track that the policy authority took into consideration explicitly the adverse

8) There are various cases in different regions concerning the distribution of subsidies for changes of crop in paddy fields. Let me introduce the following comment from a dairy farmer as an extreme case. “The characteristic of my farm is that the self-sufficiency rate of roughage is 100% despite being located in the suburbs of a city. I have poured energy especially into planting grass in the rented 3ha in addition to 4.5ha of owned field for forage. I rent the paddy field under the production adjustment program at practically no charge by giving the whole subsidy to the landowner as the rent of the field”(Yumiko Fuchigami ‘Challenge’ “Study on a Young Dairy Farmer” No.46, Japan Dairy Farming Youth Study Federation, 2001).

9) See Shinji Hattori “American Agriculture”, the Grain Importers Association, 1998, on the grain production adjustments in the U.S. See chapter 12 of Shinichi Shogenji “Economic Analysis of Modern Agricultural Policy”, University of Tokyo Press, 1998, on the milk production adjustments in the EU.

implication of such circumstances. Can we say that the negative side of bureaucratic policy formation emerges when the wheat price policies are controlled by Food Agency, and the subsidy measures to the wheat for crop change are controlled by Agricultural Production Bureau (currently Production Bureau)?

3. Reform of price policy and the safety net

In the “Farm Management Policies for Promoting Agricultural Structural Reforms” issued by the Ministry of Agriculture, Forestry and Fisheries in August 2001, the necessity of “building a safety net for mitigating the management risks in preparation for the case that the fluctuation of farming prices greatly influences the revenue or income of the ‘farms to be fostered’ was stressed. This safety net is known to the people in the farming sector as Measure for Stabilizing Farm Income (MSFI). The consideration for realizing this policy measure is now in progress in response to the statement. The necessity of measure to cope with the risk of price fluctuations was already incorporated in the articles of the new Basic Law. Namely Section 2 of Article 30, referred to in the previous section, is related to this measure. However, the idea of MSFI on this occasion was not directly derived from the new Basic Law and not proposed along with the current main stream of the policy formation.

The idea of stabilizing farm income suddenly emerged from within the Liberal Democratic Party in autumn of 2000. Behind it was the strong sense of limitation toward the effectiveness of the measures for stabilizing rice income established against the downturn in rice prices. Further, there was the rising concern against the rapidly increasing import of vegetables mainly from China. As well known, the safe guard was temporarily triggered in April 2001 against the rapid increase of imports. Thus, it was in this somewhat pressing air that the MSFI was proposed. However, this policy is not the sort that should be created in a hurry, as it can become a basically different policy from the conventional ones in Japan. It has the possibility of influencing how other policies should be. Therefore, the design should be carefully drawn up, although too much time should not be consumed. These points are the reasons why I take up MSFI as a target of review, although the measure is still under examination in the government.

The insurance method and fund raising method are proposed as alternative systems for the MSFI in the aforementioned “Farm Management Policy for Promoting Agricultural Structural Reform.” The purpose is to mitigate the risks due to price fluctuations on a farm basis through this measure. The examination will continue along this line. However, we need to listen to the voice of expectation to the policies from a broader perspective to clarify the effective range of the MSFI.

The type of the MSFI, which is conceived among the persons concerned, is divided into two. The first one is the leveling of revenue or income, which is unstable due to price fluctuations. The part expressed as “revenue or income,” which is one of the important disputes, will be reviewed later, and hence, it is, for a while, stated as revenue for simplicity. The second perception for the measure is to cope with the possible structural downturn of prices exceeding the speed of reducing production costs. The first concept is almost the same as the idea of mitigating the fluctuation, by means of insurance or reserve withdrawal, which is suggested by the agricultural policy authority. And if the current stabilization measures per product are integrated, and the system, which covers many products, is designed for the purpose of leveling the year-to-year fluctuation of revenue, then such a system is recommendable as a reasonable and mild turnaround of policies. One merit of integrating policies into a farm based one is that the risk of price fluctuation, which may arise for every product, can be pooled. It is in the first type of MSFI for leveling that this merit is most visible.

There is another merit in the idea of having policies on a farm basis. It is considered that the adverse effect of the stability measures on an item basis can be reduced to a certain degree. The adverse effect here means the following phenomenon. Take the measure for stabilizing rice income for instance; first of all, the market recognizes that certain price compensations are made through the public financing after the announcement of the policy¹⁰⁾. If

10) The measures for stabilizing soybean farms and measures for stabilizing dairy farms for processed milk production, which had been designed following the measures for stabilizing rice farms, are systems in which 80% of a price fall is compensated through a fund, consisting of reserves from producers and a subsidy from the government (the ratio of fund from both parties is one to three). The fact that the system is run by the contributions from both the producers and the government is common with the net income stabilizing account in Canada mentioned later.

so, the behavior based on this recognition inevitably arises, whatever the degree might be. In price negotiations, the buyers will be able to adopt a strong posture compared with the case without the measure for stabilizing rice income. The acceptable range of price discounts will be expanded also for the side of producers who are the sellers, compared with the case without the subsidy from the public financing. In this way, the measure for stabilizing rice income is calculated in the market, in the sense that the intentions of both sides interact and eventually a price more or less influenced by the measure will be formed. In other words, the policies to cope with the fall of prices can actually induce a further fall in prices. In this respect, the MSFI, which can cover various items at the same time, are thought to have an advantage which weakens these responses in the market to a certain degree. This is another merit of having policies on a farm basis.

Basically, two types of methods of leveling exist as the agricultural policy authorities have in mind. One is the insurance system which collects insurance fee from farmers based on the appraisal of risk rates and pays out insurance when revenues fall. Needless to say, the detailed information about the risk has to be obtained to realize this method. On the other hand, the account system for stabilizing net income adopted in Canada can be referred to as a model for the fund raising system, which is another method. This is a system, in which the fund reserved by the producers and the government is established, and producers can withdraw the money from the fund up to the reserve, in the event that income for the year falls below the standard income.

Here, let us move to the second concept of the MSFI. People in the farming sector have a high expectation about this second concept i.e. the measures to cope with the structural fall of the prices. As already stated, the examination of the MSFI was triggered by the recognition of the limitation of the measure for stabilizing rice income. In this sense, it is natural that expectations among farm-related people focused on this type of policy. The target of policies is the structural fall in prices exceeding the speed of cost reduction, and the MSFI is prepared after assessing the possibility of such a state. As a concrete method, it is considered that the difference between the reference revenue and the actual revenue in the year is compensated. Although a part of funds used for compensation can be levied on producers, in the same way as the case of the fund raising method for leveling, the basic pattern is a kind of deficiency payment to each farm unit. The problem is the determination of a reference revenue. As an extreme case, it is, in theory, possible that the amount of revenue during a certain period in the past is fixed as a reference amount. In reality, in the case that the measure against structural price deterioration has been introduced, there is almost no possibility that this sort of rigid reference revenue would be adopted. The reason is that the situation where the outcomes of farming are secured independently from the dynamic elements in the market where supply and demand interact, is clearly against the current stream of policy reforms starting with a review of price policies. The MSFI should be constructed on the flow of reform in agricultural policies. If this is not the case, the discussions surrounding the MSFI become meaningless.

Another extreme case of setting the reference revenue takes, say, the form of a three-year moving average which must sensitively reflect the price fluctuation on the reference amount. To tell the truth, the measure for stabilizing rice income started under this method. Faced with a continuing fall in rice price, the method of calculating the reference has been forced to change from the initial method of moving average to the method of fixed reference. This incidence suggests which points should be taken into consideration for compensation measures for falling prices. Above all, we need to realistically predict the speed of structural price deterioration beforehand. On top of that, it should be determined how much the producers are charged and how much the public financing are called, mainly by two factors, that is to say, the calculating method of the reference revenue on the one hand and the subsidy ratio of the government on the other. In addition, it is important that the possible revisions of the system are built into the policies beforehand in preparation for the case that the prices move in a different direction from the initial predictions. Without this policy armament, the system cannot be controlled reasonably against the disturbances from changes in circumstances and other various pressures.

As we have seen, two concepts are assumed as MSFI. Anyhow, instability in revenues due to price fluctuations is by no means avoidable in today's policy circumstances in which price formations are basically left to the market. Therefore, it is judged that the necessity for revenue leveling is high, whether by the insurance method or by the fund raising method. The question is whether policies based on the prospect of structural price decreases are necessary, in addition to the measure to cope with the irregular fluctuation of prices. And the feasibility of such a

policy has to be examined from the viewpoint of policy technique. The following are possible three alternatives for MSFI.

The first option is to prepare MSFI for just leveling income fluctuations, after excluding the items where the structural decrease of the prices is predicted. The second option is to design MSFI covering products with which the structural fall of prices is highly possible. It is actually extremely difficult to adopt the measure to cope with two types of problems at the same time; the leveling of fluctuation and measures for a structural fall in prices. Take the measures in the leveling type for instance; the system itself will be facing the threat of breakdown when the structural fall of prices becomes reality. The third option is corollary of the first. Assuming that an additional measure is taken for products where a structural price fall is anticipated, the MSFI is implemented as a leveling measure which does not exclude those products.

I consider it most realistic to take the first option, for the time being, and to move to the third option while assessing the maturity of the policies which will be taken separately to cope with the structural decline of prices. Stated differently, if the policies for the structural fall of prices is needed at all, policies for each item should be designed separately, rather than measures for stabilizing the whole farm income. One major problem is, needless to say, the treatment of rice. My opinion on this point is that whether rice should be included in MSFI can be examined at the time when the rice policy itself is reviewed and the direction of the reform is determined. It would not be too late, even then.

As far as rice is concerned, there are circumstances where competition is increasing at the wholesale and retail stages. That is to say, it cannot be denied that there is an element of the structural change in price formation of rice. At the same time, it is judged that the drastic fall of prices can still be avoided through the supply adjustments. However, there are many serious problems in the current policies for production adjustments for rice¹¹⁾. In this sense, the comprehensive and fundamental review for rice policies should precede. And it would be wise that the MSFI comes into working stage only when the production adjustments and the rice price formation are reviewed in depth and the future policy direction becomes clearly visible. If the efforts for settlement of the problems concerning rice policies are not made and the responsibility of problems is thrown over to the side of the MSFI, then we would face a serious moral hazard in policy formation.

Here, I want to point out the additional two contentions to be considered when MSFI is designed. The first contention, which has been reserved before, is whether we should focus on revenue or income. On this point, there is a powerful reason to focus on revenue. One is the degree of ease in catching the changes of economic situation due to price fluctuations. There is no doubt that a revenue calculation can be done at lower administrative costs, compared with an income calculation obtained by deducting various costs from revenue. Another reason is related to the fact that farming income is the final target for the farmers. If it is stabilized by policies, then the motives for increasing income declines. In the sense that the policy environment invites the deterioration of farming activities, it can be called a moral hazard. When the policy is implemented based on revenue, one can increase farm income by further cost reduction. The final outcome as a reward for success is left in the hands of the producers. In summary, the system, which allows different economic results depending on each producer's effort level after the risk reduction by the policies, is recommendable in terms of productivity improvements.

However, if changes that can be attributed to the activity of the producers themselves and changes that cannot be distinguished, the defects of the income-based method on the aspect of incentives can be overcome. When I referred to the amount of administrative costs earlier, it has been implicitly assumed that the economic status of each farm is separately identified. This assumption could also be reconsidered. In other words, each farm's balance need not be focused, but the reference operational model should be established by incorporating various kinds of products and farming conditions. Then estimated effects of price fluctuations based on the reference model enables us to identify the reduced income to be compensated. If income reduction exceeds the value as the model calculation indicates, it means a loss, attributable to the farm itself. On the other hand, if the outcomes exceed the

11) See Shinichi Shogenji 'The Policy that Encourages Japanese Paddy Production to Its Utmost' "Monthly JA", Vol.48 No.2, 2002 and Naomi Saeki 'Development of the System under the Food Law and Reform of Rice Policy' "Agriculture Study", No.18, 2001. The latter critically reviews the whole structure of rice policies under the Food Law which is trapped in the deadlock in various aspects.

model calculation, these are gains that the farm can enjoy.

The other argument on MSFI is how the targets of the policy are selected from farmers¹²⁾. This is the basic contention related to the total vision of Japanese agriculture and rural areas. Here, I want to suggest three viewpoints that are important when we think about this problem.

The first viewpoint is that this policy should be taken to the people whose livelihood relies mainly on farming and who truly need the policy. It is an already well-known fact that the income of the part-time farm households with a stable off-farm job is, on average, higher than that of non-farm workers' households, and that, the income level of a full-time farmer does not reach that of a non-farm household. The second viewpoint is that the agricultural policy as an industrial policy should be structure oriented in the following sense. If, as a result of the policies taken, the capacity of the Japanese agriculture expand, then the fruits in the form of good quality farm products at reasonable prices will be returned to the people as consumers. Such a policy is qualified to be named a structure oriented policy. The MSFI will be supported by the burden of the people as taxpayers. The measures promote the growth of efficient farms. Eventually the results as the benefit of consumers spread to the people. That is, it is important to create an effective circuit linking the benefit of consumers and the support of farming activities. Furthermore, it is important that the picture of such a circuit is presented to the people with as clear data as possible and in an easy-to-understand way¹³⁾.

As the third viewpoint, I want to suggest the creation of a policy for rural areas with a broad perspective, although it may seem to be irrelevant to the MSFI at a first glance. In order to sincerely respond to the requests from the first and second viewpoints, it is necessary that agricultural policies in a narrow sense, which directly work on the farming income, be taken by focusing on selected targets. However, if a psychological disparity arises between the producers covered by the policy and those not covered, it is likely to embarrass the targeted producers themselves, especially in the case of land use farming, since it could cause adverse effect on the expansion of operational size through rented fields and contracted operations. Special arrangements are needed to avoid unnecessary confusion and unhappy friction. For instance, there could be a method, which progressively increases the subsidy rates by public financing according to the degree of necessity, rather than drawing a single line between those covered and those not covered. And also there could be the idea of establishing a mechanism in which the producers select themselves as eligible without administrative judgement by setting up such requirements as bookkeeping or disclosure of managerial records. The producers' participation in MSFI on an optional basis is desirable because, in today's farming, there are individual risk reduction measures such as making long-term contracts with customers.

However, what is fundamentally needed is to create the policies to meet the needs from the different types of community members, looking at the real situation of today's rural areas, where households are widely diversified. Exactly in this sense, the creation of policies for rural areas towards the new era will be welcome. The services provided by the policies for rural areas should include various items: the education of children, lifetime education, welfare for the aged, comfortable living environment, Kleingarten (citizen farm) and so on. In the case of Kleingarten for instance, major beneficiary will be the residents who do not engage in farming rather than the full-time farmers. Or the crucial issue for part-time farmers with off-farm job must be the job security in the region. Of course, maintaining job opportunity is beyond the range of agricultural policies. At any rate, there must be diversified policies for diversified members of rural areas. It is urgent work to properly catch this subtle points in order to design targeted agricultural policies; the policies which cover other fields that the targeted agricultural policies cannot cover properly. The package of these sets of policies should be presented to all the members in rural areas.

12) 'The proposals for new MSFI' (December, 2000) presented by the reviewing group of Liberal Democratic Party include the statement that about 0.4 million farms, including farming corporations, are assumed to be targeted.

13) With regard to the second viewpoint, both the food industries and the restaurant industries in the downstream of agriculture will have a strong concern about the MSFI. The degree of this concern has in turn important implication for utilizing the MSFI to flourishing the domestic agriculture. If the fall of prices is accepted to a certain degree by introducing MSFI, it is not detrimental to the food and restaurant industries as users of agricultural products. Because the burden of higher agricultural prices, for which consumers have been finally charged, come to be partially absorbed by the public finance.

4. Towards the direct payment type of policies

Direct payments as a concept of agricultural policy means subsidies that are not included in the prices of farm products, but directly paid to producers in line with particular policy objectives. Various examples of such policy methods can be found in the Common Agricultural Policy (CAP) of the EU. They can be broadly classified into: (1) direct payments as compensation for price cut of farm products; (2) direct payments for maintaining and promoting the positive externalities of agriculture and controlling the negative externalities. The presence of first type has been rapidly expanded in the EU since the CAP reform in 1992. That is to say, as a result of reducing the crop prices from 1993, the system of direct payment, by which the equivalent amount of price reduction is paid for farmers, was introduced. However, the unit value of the subsidy per area in this system is determined based on the average yield in the region in the past, rather than based on the year's actual yield¹⁴). In so doing, the character of direct payments, as payments de-coupled from the prices of farm products, is preserved.

The representative policy for maintaining and promoting the external economies is the direct payment to the farmers in the disadvantaged areas which became a part of the CAP in 1975. The subsidy to alleviate the locational handicap is paid to each farm in the disadvantaged areas, on the ground that agriculture is needed in order to maintain the population and thus secure the countryside. On the other hand, there are various payments concerning the environment for the purpose of controlling external diseconomies. For example, there are systems such as the Environmentally Sensitive Areas (ESA) in the UK, in which the reduction of revenue due to the environmental-preservation type of farming is compensated for, and the Kulturlandschaftsprogramm (KULAP) in Germany, in which the subsidy is paid on an area basis for preserving grassland¹⁵). An additional point to note is the requirement to meet the conditions of environmental preservation for the farmers to be qualified for a direct payment with a purpose other than the environmental one. This idea, often called cross compliance, is for instance implemented in such a way that the beef premium linked with the reduction of beef prices is limited to livestock below a certain level of stocking density.

The Japanese agricultural policies under reform are moving towards these types of direct payment as a new policy method. As referred to in the early part of this paper, subsidy measures for farming in the disadvantaged areas had already been introduced in fiscal 2000. This is the direct payment system to the hilly and mountainous areas. The direct payment system for encouraging on-farm production of feed crops in dairy farming (Land Utilizing Dairy Farming Promotion Scheme) started in fiscal 1999, although it is not so well-known as that for the disadvantaged areas. This can be regarded as a kind of environmental payment aiming at the recycling type of dairy farming which properly returns the manure to the land by expanding on-farm production of feed crops. Let me now focus on these two policies and review the characteristics and the problems of direct payment policies.

Direct payments for farming in hilly and mountainous areas was introduced as a policy method reflecting the character of community-based paddy farming, while learning from the CAP in terms of reasoning. The following three characteristics can be pointed out for the payment system in Japan, compared with the method in the EU. One was to put the prevention of abandonment of fields as a direct target of the policy. This factor corresponds to the fact that the policy in the EU obligates the continuation of farming at least for five years. However, it could be said that the obligation of preventing field abandonment is a somewhat stricter request compared with the continuation of farming. At any rate, the farm situated in designated areas does not automatically become eligible for the subsidy. Secondly, it is assumed that the activity for achieving the target is, in principle, organized on a community basis. This is in contrast to the method in the EU by which the subsidy is paid for the activities of individual farming household. And the key point in the Japanese system is community agreement. It is necessary

14) The reduction of support prices has also been made on beef in the 1992 CAP reforms, against which compensation measures have been introduced as well. With regard to the CAP reform, see chapters 10 and 11 of Shinichi Shogenji "Economic Analysis of Modern Agricultural Policies", the University of Tokyo Press, 1998.

15) There is much literature on the policies for disadvantaged areas and the environmental policies in the EU. Of the former, see "Policies for Disadvantaged Areas in England and Problems in the Japanese Hilly and Mountainous Areas", the National Institute for Research Advancement, 1996. On the latter, see Ryouhei Kada "Environmental Conservation Type of Agriculture in the World", Rural Culture Association, 1998 and A. Heysenhoover and others (translated by Yasuyuki Shikata and others) "Agriculture and Environment in Germany", the Rural Culture Association, 1996.

for the farmers to reach the community agreement regarding the prevention of field abandonment in order to receive the direct payment. The agreement must include the shared roles of the community members and the allocation formula of subsidy among members based on the shared roles. And in relation to the assumption of community based activity, it is necessary to state as the third characteristic that small-scale farm households are not excluded from the subsidy allocation. Small-scale farms are not qualified in the EU.

I want to stress the following two factors. The first one is the property of the Japanese agriculture itself. The paddy farming in the hamlet has been formed as a networking style of production activities, in which each farmer relies on and supports one another because of both positive and negative externalities functioning among the paddy fields. In addition the paddy fields are connected with common irrigation facilities. Under these structural characters, the partial resignation of cultivation, even if it happens in a small plot, worsens the producing condition of surrounding paddy fields. Aiming at the maintenance of farming fields based on the community in the hamlet has rationality, in view of the externalities in production in the sense stated here. No doubt, this rationality cannot be found in European agriculture.

Another factor that I want to stress is that this policy is designed as a system that relies greatly on the self-governing function in the community. The conditionality in the form of the community agreement for qualification shows this. It can be stated that the participation in the system is decided by the autonomous decision making by the community, because the eligibility is conditional on whether the agreement is reached through discussions in the community. In reality, the farm fields that do not qualify for direct payment while satisfying the preconditions for qualifications, such as gradient of fields and minimum size of area, accounted for 37% as of January, 2001¹⁶⁾. Further, the details of the agreement are also left to the decision of the community.

In terms of economics, the costs for reaching a community agreement are a kind of transaction cost related to the implementation of a policy. That is to say, this policy requires fairly high transaction costs in a community level. However, this point should not be evaluated negatively. Because it is no exaggeration to say that the encouragement of the self-governing function in the communities of hilly and mountainous areas is one objective of the direct payment system, in the sense that the active self-governing function contributes positively to the maintenance of cultivation. Furthermore, once the autonomy of a community is activated, then it becomes a sort of durable stock, and if properly maintained, it will continue to function for a long time.

As a policy relying heavily on the self-governing function, it faces difficulties that conventional policies do not have. Are the contents of the community agreement appropriate in view of the policy target of maintaining cultivation and promoting multifunctionality of agriculture? Is there a more effective way to use the same subsidy? These questions should be answered clearly because the policy is implemented at the cost of taxpayers. And these questions need to be fully recognized also in the grassroots of rural areas. On one hand, there is the requirement for encouragement for the self-governing function of a community, and on the other hand, there is the requirement for reasonably using the limited financial resources of the national and local governments. Balancing these two requirements at the highest level, considering the character of the region is the focal point of the policies for rural areas.

Now, let me pick up the Scheme for the Dairy Farming of Land Using Type, which is another direct payment system at present. As pointed out before, this policy has the character as a part of the environmental policies related to livestock farming. Recently, various policies have been introduced to reduce the burden of agriculture on the environment. "The Law for Controlling the Livestock Manure and Promoting their Utilization" was enacted in 1999, aiming to terminate the improper treatments of livestock manure within five years. The reason I pay attention to SDFLU under the current circumstances is that this policy has the characteristics of an economics-based approach rather than a regulatory approach. And in this sense, it can be counted as one of the new challenges in the methods of Japanese agricultural policies.

16) Tokumi Odagiri 'Characteristics of the Direct Payment System and the Reality of Community Agreements' in "How to Achieve the Direct Payment System" edited by Tokumi Odagiri ("Connection of Nature and Human Beings", No.14), the Rural Culture Association, 2001. According to the report of Rural Development Bureau of MAFF, non-participation rate was 30% as of January, 2001 on the same basis.

In detail, this is the policy where the forage producing area per milking cow is calculated for every farm, and the subsidies are paid for cows with different unit prices according to the area per head¹⁷⁾. The larger the forage area per cow, the higher the unit price of the subsidy. The intention is to prevent dairy farmers under the market mechanism from being excessively separated from farmland and to promote the expansion of on-farm feed production by giving them a subsidy incentive. The method of giving a disincentive by taxation can also be considered from a general theory of environmental policy, but most agricultural environmental policies in the developed countries adopted subsidy approaches. The environmental policies by subsidy had been approved as “green box policies,” which is exempted from the reduction of domestic support policies in the WTO agreement.

The Pigovian tax (subsidy), named after the economist who firstly proposed the idea, is well-known as an idea of limiting pollution to an optimum level through taxation (subsidization). However, it is no exaggeration to say that there had been no cases that Pigovian tax in a strict sense had been applied in any countries at any time. For the Pigovian tax it is necessary that the relationship between production volume and pollution is accurately identified in terms of monetary value, and also information on how firms causing pollution respond to tax (subsidy) is obtained in advance. This is impossible in the real world.

The approach actually taken is that of gradually attaining objectives, adjusting the level of tax (subsidy) step by step to reach the target level of pollution which is determined beforehand. This is called Baumol-Oates tax (subsidy) by taking the names of two economists who proposed the idea. It is, in its nature, trial and error approach¹⁸⁾. However, the SDFLU was not necessarily established on these economic theories. Any level of the expansion in home-grown feed production is not clarified as policy targets. It is not a Baumol-Oates subsidy.

However, the idea of Baumol-Oates tax provides an important suggestion to the SDFLU. That is, what is important is the post-evaluation on to what degree the subsidies paid has drawn the responses from the dairy farms. A steady work of data collection can lead to the accurate evaluation of policy effects, and this in turn can generate useful information for comparison with alternative policies. Naturally, a review has to be made consciously on how the subsidy should work, referring to the results of evaluation. The trial and error situation is inevitable at the starting point of policy, especially in the case of policies with experimental elements. However, once a policy has started, one can open ways to escape from this situation. The introduction of a new type of policy is, at the same time, the beginning of an evaluation of the effect of that policy.

5. Failure by market and failure by the government

If one is satisfied only with the market principles, there is no room for agricultural policy as an industrial policy to appear. Put differently, the *raison d'être* of agricultural policy lies in the market failure in a broad sense. The agricultural policies start with the recognition of this point. And the policy theory has to closely watch the process from the establishment of agricultural policy up to the implementation stage. If the policy theory ends up by only pointing out the market failure and leaving its correction to the policies, it should be blamed as irresponsible. It could be said that such a theory is not largely different from one which advocates market principles in an excessive manner. The reason is that the government, left to provide a correction, is also in the position of often suffering failures. Once left to the government, the correction process has to be traced up until the consequences become identifiable.

In this paper, three categories are taken up from the new developments of agricultural policies in Japan, and their characteristics and problems are discussed. It is not necessary to repeat the contents. The following three points seem to be important in the agricultural policies under reform from the standpoint of government failure. Let me conclude this report by giving a typology of government failure which requires particular attention in the context of policy reform.

17) In the case of Hokkaido in fiscal 2002, the unit subsidy price per head has been set at: ¥17,500 for farms with more than 100a per head; ¥15,500 for more than 50a per head; ¥13,500 for more than 30a per head; and ¥7,500 for below 30a per head.

18) There are not so many practical examples with regard to the Baumol-Oates tax. See Kazuhiro Ueda, Toshihiro Oka and Hidenori Niizawa “Economics for Environmental Policies”, Nippon-Hyoron-Sha, 1997.

The first one is the failure of carefully defining the target of a policy. One of the advantages of the direct payment type of policies is that fixing the target is possible, differently from the price supporting type of agricultural policies. This advantage should be fully utilized. The MSFI also has a common aspect with the direct payment type of policies in the sense that the subsidy is paid according to the economic status of each farm. I have already asserted that narrowing the targets when designing the policy is important. Needless to say, the targeting criteria of the policy have to be determined through a transparent process, and individual selection of targets must also be made under clearly established criteria.

The second failure arises when the administrative costs are not recognized as the input of resources. Generally, the prediction of cost effectiveness needs to be taken into account in the judgment on whether a policy can be adopted or not. Regarding this point, administrative costs born by the central government or local governments tend not to be fully recognized¹⁹⁾. If the first type of failure is related to assurance of the policy outcome, then this second type of failure is related to counting the costs. Of course, this contention can be broadly applied to all activities by the government. The reason why I stress it here is that the direct payment types of policies are those that require relatively high administrative costs. The fact that the targets of payment are of small-scale subjects such as individual farmers and hamlets means that the scale merit does not easily work in reducing administrative costs. Furthermore, both the process of targeting and the monitoring for securing the goals of subsidy measures lead to an increase in administrative costs. Are these policies worth introducing, when considering the administrative costs? Or are there any ideas for saving administrative costs? With the development of new agricultural policy instruments, the significance of these questions is gradually increasing.

The third failure arises when the inter-relationship among the different policies does not come into view. The example of the price formation with subsidy system for wheat taken up in section 2 is a case in which a policy on one hand acts as an accelerator and another policy acts as a brake from the viewpoint of quality improvement. Of course, those who create brakes does not have any vicious intention. As already mentioned, the problem stems from the fact that the policies have been formed in so-called bureaucratic sectionalism, and also that there had not been a reviewing system which checks the policy system in a comprehensive way. The examples taken thus far could be expressed using an analogy to an accelerator and a brake. However, also the inspection seems to become necessary for subsidy measures to avoid overlapping when the introduction of various new policies is proposed. An approach in which the information of individual subsidy measures is collected and aggregated on a producer basis might be required in the near future.

19) There are cases where the transaction costs borne by producers, who are the direct beneficiaries of the policy, should be considered, as I pointed out regarding the direct payment system for hilly and mountainous areas.