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# Aspects of Farmers' Business Behaviour I

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### CHARACTERISTIC FEATURES OF PART-TIME FARMING IN JAPAN

#### I. Labour in agriculture in the post-war period

OW are the labour resources in Japanese agriculture being adjusted under the economic development of the post-war period? The present paper is concerned with the labour allocation in agriculture, with particular emphasis on part-time farming.

The Land Reform in the immediate post-war period was regarded, at least at that time, as a programme to give Japanese agriculture the conditions of modernization. But, after having passed through about a decade following the end of the war, agriculture came to be involved in many difficult problems.

It has become evident since the middle of the 1950s that the disparities in productivity and income between agriculture and non-agricultural industries still remain great and there hardly seems to be any appreciable tendency for such disparities to be improved. Since the 1950s, too, the emigration of labour out of agriculture, especially the fresh labour forces coming directly from school to the labour market, has come to be remarkable. And part-time farming has also become marked in many parts of the country, in accordance with the increase in off-farm employment opportunities.

In the pre-war period, too, part-time farming was not unimportant in Japan. In those days the off-farm jobs engaged by farmers or their family members were of such sorts, to take a few typical examples, as casual or permanent farm labourers, seasonal non-farm labourers, charcoal-burners, woodcutters, fishermen, pedlars, retailers, co-operative employees, landlords and even self-employed entrepreneurs in the small-scale cottage industries. However, the off-farm occupations coming to be important in the post-war period are rather different in nature from those prevalent in the pre-war period. The main type of off-farm employment of the farm people has increasingly come to be wage-earning, either regular or casual.

Figure 1 shows, by a semi-logarithmic scale, that the number of part-time farms<sup>2</sup> is increasing remarkably and among their various

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<sup>&</sup>lt;sup>2</sup> Since the beginning of the new method of compiling agricultural statistics in Japan in 1941 (in part preliminarily in 1938), a full-time farm and a part-time farm have been accurately defined. According to the definition, a full-time farm is a farm the operator

types the part-time farm earning off-farm wage incomes<sup>1</sup> is coming to be predominant.

It is also evident that there have been remarkable increasing trends in the numbers of several types of farms, e.g. Class II part-time farms,<sup>2</sup> part-time farms earning off-farm regular wage incomes, and also the Class II part-time farms belonging to the last type. The increase in part-time farms of such types has been marked especially in these ten years when the economic growth rate has been rapid, but they had already started to increase in the late 1930s through the influence of the early stages of the war economy. It may be seen in Figure 1 that the old series of Japanese agricultural statistics failed to show the full importance of part-time farming in the early war period.

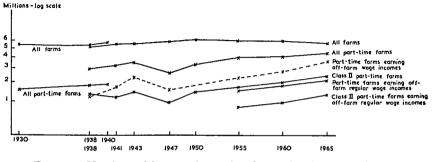


FIGURE 1. Numbers of farms and part-time farms of various types (Japan)

The labour forces in the farm household which earn off-farm wage incomes are increasing in the post-war period, due partly to the income disparity which induces family members of the farm household to seek for employment opportunities bearing higher income potentials, and partly to the emergence of labour demand within the commuting distance of farm people.

The changes in numbers of full-time and part-time farms in the period 1960-5 are shown in Table 1. From 1960 to 1965 all farms decreased by 392,000 ( $6\cdot$ 5 per cent decrease as compared with the number in 1960) and full-time farms also decreased by 860,000

of which, and any of his family members in the household, are not engaged in off-farm occupations through the year concerned. If any of the family members, including the operator himself, is engaged in an off-farm occupation, the farm is classified as a part-time farm.

<sup>&</sup>lt;sup>1</sup> Here, the wage income covers the labour incomes of any sort, including salaries.

<sup>&</sup>lt;sup>2</sup> In Japanese agricultural statistics, a part-time farm of the Class II is defined as a farm for which the total off-farm income is larger than the net income from farming; on a Class I part time farm the reverse is the case.

(41.4 per cent decrease), but part-time farms increased by 468,000 (11.8 per cent increase). Particularly, the increase in Class II parttime farms is noticeable (423,000 21.8 per cent). The number of all farms in the post-war period, having reached the peak of 6,132,000 in 1950, turned to decrease and the decreasing trend seems to be accelerated after 1960. Even so, the change in the number of farms has been proceeding at a slower rate than the emigration of labour force from agriculture, which, including the fresh labour force supplied from farm households, amounted to 855,000 per annum, on the average, in the period 1960–5.

			Part-time farms				
Year	All farms	Full-time farms	All part-time farms	Class I part-time farms	Class II part-time farms		
			('000)				
1960	6,057	2,078	3,979	2,036	1,942		
1965	5,665	1,218	4,447 per cent	2,082	2,365		
1960	100.0	34.3	65.7	33.6	32.1		
1965	100.0	21.2	78.2	36.8	41.2		
Changes from			('000)				
1960 to 1965	-392	-860	+468 per cent	+46	+423		
	-6.2	-41.4	+11.8	+2.3	+21.8		

TABLE 1. Numbers of farms classified as full-time and part-time farms.Japan 1960 and 1965

Source: The Interim Report of 1965 Census of Agriculture, Ministry of Agriculture and Forestry, 1965.

In this connection it is interesting to see how the people in farm households are engaged in farming and off-farm occupations. Table 2 shows the numbers of persons in farm households gainfully engaged respectively in farming and in off-farm occupations as full-timers or part-timers in 1960 and 1965, and changes that occurred between the two years. In these five years the number of persons engaged in farming as full-timers decreased by 3,482,000 (26.6 per cent decrease as compared with the number in 1960), but the number of persons engaged in farming as part-timers increased considerably. The persons part-timely engaged in farming but mainly in farming increased by 454,000 (31.4 per cent increase), and those part-timely in farming but mainly in off-farm occupations by 815,000 (26.2 per cent increase).

Further, the persons engaged entirely in off-farm occupations but belonging to farm households increased by 146,000 (8.1 per cent increase). These figures tell us how far the farm people in Japan are coming to be involved in part-time farming in these years.

Year		Engaged part-timely in farming				
	Engaged entirely in farming	Mainly in farming	Mainly in off-farm occupations	Engaged entirely in off-farm occupations		
		('o	00)			
1960	13,096	1,446	3,114	1,806		
1965	9,614	1,900	3,929	1,952		
Changes from						
1960 to 1965	- 3,482	+454	+815	+ 146		
		per	cent			
	-26.6	+31.4	+26.2	+8.1		

TABLE 2. Numbers of gainfully engaged persons belonging to farm households. Japan 1960 and 1965

Source: The Interim Report of 1965 Census of Agriculture, Ministry of Agriculture and Forestry, 1965.

#### II. Economic implications of part-time farming

A part-time farm household has dual characters, dual in at least three senses. Firstly, the employment of its labour consists of two parts which differ from each other in income-forming potentials. It is evident from Table 3 that the income from farming is, on the average, considerably lower than the income from off-farm occupations. In recent years the income from farming seems to be about 50 per cent on the *per capita* basis of persons gainfully engaged, and about 70 per cent on the per hour basis of labour input, of the income from off-farm occupations.

Secondly, the farm income and the off-farm income are formed respectively in different competitive conditions. In agriculture there exist a large number of small-scale producers and, consequently, none of them can have any influence on the market price of the products. That is to say, perfect competition must prevail in agriculture. The income from farming is formed in this market condition of perfect competition. On the other hand, the market is more or less imperfectly competitive in the non-agricultural sector of the economy, both

in commodity supply and factor demand. The labour market in nonagricultural industries seems to be imperfect rather than perfect in competitive conditions. This is characteristic, whatever extent it may be, of conditions in which off-farm wage rates are determined. Such is a sharp contrast to the income-forming condition in agriculture. Thus the income of a part-time farm household consists of two parts which differ from each other in respect of the market conditions in which the respective income elements are formed.

•			
Year	1962	1963	1964
Farm income (1,000 Yen)	263.7	279.8	314.8
Off-farm income (1,000 Yen)	260.0	302.0	354.9
Number of persons gainfully engaged			
in farming	1.84	1.26	1.20
in off-farm occupations	0.00	0.94	0.99
Hours of labour (hours)			
in farming	3,012	2,930	2,868
in off-farm occupations	2,156	2,212	2,306
Income per person gainfully engaged (1,000 Yen)			
in farming	143.3	159.0	185.2
in off-farm occupations	288.9	321.3	358.5
Income per hour of labour (Yen)			
in farming	87.55	95.49	109 <sup>.</sup> 76
in off-farm occupations	120.20	136.23	153.90
Relative level of farm income as compared with off-	•••		
farm income (per cent)			
per person gainfully engaged	49.6	49.2	51.2
per hour of labour	72.6	69.9	71.3

TABLE 3. Farm income and off-farm income per farm household

Source: Farm Household Economy Survey, Ministry of Agriculture and Forestry.

Thirdly, the labour force of a part-time farm household comprises two occupational groups, family farm workers and hired non-farm workers. The labour force belonging to each of the groups differs in its economic functions and social activities. Nevertheless, they live under the same roof and share the same household. These two occupational groups can be highly competitive in consumption, though they are non-competitive in production. This is an important aspect of part-time farming when its economic implications are considered.

An approach is attempted here in interpreting such a remarkable increase in part-time farms as indicated in Figure 1 and Table 1 above. It is made by considering factors that have affected Japanese agriculture in the post-war period.

On the production side, the Land Reform is the most important. The object of the Reform was in establishing proprietor-farmers widely in order to secure farmers' position, to promote agricultural productivities and to democratize the rural community.<sup>1</sup> Its effect seems to have been far-reaching, positively and negatively as well. Merits and demerits of the Land Reform are still undecided. However, one point must be made with respect to part-time farming. It is that the Land Reform hardly touched the size distribution of agricultural holdings and hence the prevailing small-scale farming.

On the consumption side, changes that occurred in the post-war period should be noted. The consumption of the farm household was strongly affected by the increased contacts with the urban ways of living. Among factors contributing to this are the development of highways and bus transportation, the increased circulation of newspapers and magazines, the prevalence of radio and television, the sprawling of factory and residence sites in rural areas, the planning of larger towns, the increased opportunities for off-farm employment and so on. In this way the farm people in the post-war period have become keenly aware of the level and the pattern of consumption of the non-farm people. This brought about real changes in the consumption of the farm household. The process of the change in consumption on the part of the post-war Japanese farm household may be explained by the demonstration effect referred to by James S. Duesenberry<sup>2</sup> and also by Ragnar Nurkse.<sup>3</sup>

Such a change in consumption may possibly cause a divergence between consumption expenditure and income if there is no income improvement. But when the divergence is recognized by the farm people, an additional income to make up for it would be sought by them. Primarily, the means open to them to raise the income level must be through enlarging the scale of farming or intensifying agriculture. However, these possibilities are, to most farmers, restricted by the smallholding and the difficulties of obtaining additional acreage which constitute negative aspects of the Land Reform as mentioned above.

Consequently, additional incomes must be earned in off-farm

<sup>&</sup>lt;sup>1</sup> See, for instance, Takeo Misawa and Yuzuru Ito, 'Capital Formation and Capital Use in Japanese Agriculture, with Special Reference to the Effect of the Land Reform', *International Journal of Agrarian Affairs*, vol. ii, no. 4 (January 1958).

<sup>&</sup>lt;sup>2</sup> James S. Duesenberry, *Income, Saving and the Theory of Consumer Behavior*, Harvard University Press, 1949, pp. 26–7.

<sup>&</sup>lt;sup>3</sup> Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries, 3rd ed., Oxford, 1955, pp. 58–9.

employment. Thus part-time farming is, in all probability, preferred by the farm household to full-time, larger scale or more intensive, farming. The rapid economic growth in the post-war period has supplied, in effect, the farm people with the opportunities of achieving higher income, as it has offered them ample off-farm employment within their commuting distance.

As discussed here, the role of consumption change is important in interpreting the remarkable increase in part-time farming in the postwar period. Consumption changes occasioned by increased contacts with urban ways of living give rise to a motive towards a higher income level; this in turn induces farm people to look for off-farm employment, and thus part-time farming results. This is a logical sequence providing an explanation of the increase in part-time farming.

#### III. Income positions of part-time farms

As seen in previous tables, part-time farms have been gaining ground in the post-war decades in Japan. The importance of off-farm employment to the farm economy in 1964 is evident in Table 4. The contribution of the income from farming to the household consumption expenditure was, on the average of all farm households, only 54.1

	Sur	iory II u			c	ategory I	farms	
	All farn	Category farms	Category farms	0·1 − 0·5 ha.	0·5 – 1·0 ha.	1.0 – 1.5 ha.	1·5 – 2·0 ha.	Above 2.0 ha.
				per	cent			
Contribution of the income from farming to consumption expenditure	54.1	17-2	6g·6	37.3	50.2	76.5	92.3	104.9
Importance of off-farm employ- ment to the farm household economy								
in income	53.0	84.8	39.8	65.3	54.7	34.3	23.5	16.4
in labour input	44.2	73.3	34.4	48·9	44.6	29.2	22.3	17.2

TABLE 4.	Importance of off-farm	employment to the farm econom	y.
	Japan 1964 (avera	age per farm household) <sup>1</sup>	

Source: Farm Household Economy Survey, Ministry of Agriculture and Forestry.

Note:

1. Hokkaido is excluded because of the difference in the size of holding. The same applies below when figures by farm size classes are compared.

2. According to the classification of farms recently adopted by the Ministry of Agriculture and Forestry, Category I farms include those farms which are regarded as agriculture-oriented and mostly cultivate more than 0.5 ha. Category II farms include those farms which occupy less than 0.5 ha. and are regarded as more interested in off-farm occupations than in farming.

per cent in the year. And the importance of off-farm employment in the farm household amounted to  $53 \cdot 0$  per cent of the income and to  $44 \cdot 5$  per cent of the labour input. When comparisons are made between farm categories and also between farm size classes, it is found that the smaller is the farm size, the larger is the divergence between consumption expenditure and income from farming and correspondingly the larger is the extent to which the farm household is involved in off-farm employment.

But it should be pointed out here that in recent years the income of a farm household seems to approximate that of a non-farm regular labourer's household. This is particularly evident when the income position of the two household groups is compared on a *per capita* basis, i.e. in terms of income per family member in the household. And it is also to be noted that the *per capita* consumption expenditure of a farm household approximates that of a non-farm regular labourer's household. Comparisons of households of the *per capita* income and of the *per capita* consumption expenditure for the two groups are made for 1964 in Table 5.

It may be perceived from comparisons in Table 5 that the *per capita* income and the *per capita* consumption expenditure of the farm

	Average p	e <del>r</del> household
	Income	Consumption expenditure
Total income or consumption expenditure	thous	and Yen
Farm household	669.7	582.2
Non-farm labourer's household	593.2	469.3
Number of family members in the household		
Farm household	5.32	5.35
Non-farm labourer's household	4.10	4.10
Per capita income or consumption expenditure	•	•
Farm household	125.2	108.8
Non-farm labourer's household	142.6	112.8
Relative level of per capita income or per capita consumption	•	
expenditure of the farm household in comparison with the		
non-farm labourer's household	pe	er cent
with respect to the same year	87.7	96.2
with one year's time lag	100.1	109.2

TABLE 5. Per capita income and per capita consumption expenditure of a farm household and a non-farm regular labourer's household. Japan 1964 (average per household)

Sources: Farm Household Economy Survey, Ministry of Agriculture and Forestry. Family Income and Expenditure Survey, Bureau of Statistics, Office of the Prime Minister. household are respectively following those of the non-farm regular labourer's household, with about one year's time lag. And it may be supposed from figures in the table that the *per capita* income of the farm household moves in pace with its *per capita* consumption expenditure. These suggest the role of consumption change in inducing the farm household to raise its income level through introducing part-time farming.

Such an income position as that shown in Table 5 is concerned with the average farm household. There are some differences among farm categories and among farm size classes. In Table 6 we can observe that there is about one year's time lag for the *per capita* income of farm households in the upper size classes holding more than 1.5 hectares before reaching the income level of the average non-farm regular labourer's household. And that it takes two years or even longer for lower size classes holding less than 1.5 hectares, except for Category II farms which depend to a large extent on off-farm occupations.<sup>1</sup>

	Relative level of per capita income, as compared with th average non-farm regular labourer's household					
	With respect to the same year					
	per cent					
All farms	87.7	100.1	102.6			
Category II farms	90.0	103.6	106.5			
Category I farms	86.1	9 <sup>8</sup> ·1	100.6			
Category I farms						
0.1–0.5 ha.	82.9	94 <sup>.</sup> 6	96.9			
0.5–1.0 ha.	81.9	93.4	95.7			
1.0-1.5 ha.	85.5	97.5	99.9			
1.5–2.0 ha.	88-8	101.5	103.2			
Above 2 o ha.	99·6	113.6	116.4			

TABLE 6. Relative level of per capita income of the farm household by farm categories and sizes, in comparison with the average non-farm regular labourer's household. Japan 1964

Sources: The same as Table 5.

In Table 7 is shown the relative level of *per capita* consumption expenditure of the farm household by farm categories and by farm sizes, in comparison with that of the average non-farm regular labourer's household. In this case the length of time lag differs

<sup>1</sup> For the classification of farms see the note of Table 4.

between farm classes, but the time lag seems to be one year or shorter in all farm classes and differences between classes are likely to be smaller than for income.

TABLE 7. Relative level of per capita consumption expenditure of the farm household by farm categories and sizes in comparison with the average non-farm regular labourer's household. Japan 1964

	Relative level of per capita consumption expenditure, a compared with the average non-farm regular labourer' household							
	With respect to the same year	With one year's time lag	With two years' time lag					
	per cent.							
All farms	96.2	109.2	113.2					
Category II farms	101.0	115.4	119.5					
Category I farms	94.1	106.6	110.4					
Category I farms								
0.1-0.5 ha.	97.4	110.3	114.4					
0.2-1.0 ha.	92.8	105.1	100.0					
1–0–1.5 ha.	92.8	105.2	108.9					
1.2–2.0 ha.	93.1	105.2	109.3					
Above 2.0 ha.	100.3	113.6	117.8					

Sources: The same as Table 5.

The next task is to examine the average propensity to consume and the savings rate of the farm household, in comparison with those of the non-farm labourer's household. The figures for 1964 are shown in Table 8.

The average propensity to consume is, on the average of all farms, higher than that of the non-farm regular labourer's household. It is particularly high in the smaller farm size classes holding less than  $1 \cdot 0$  hectares where the *per capita* income seems to lag considerably behind that of the non-farm regular labourer's household as shown in Table 6.

As the reverse to this, the savings rate of the average farm household is lower than that of the average non-farm regular labourer's household. And when comparisons are made by farm classes, the savings rate is particularly lower in the smaller farm size classes holding less than 1.0 hectare. But on the other hand it seems to be higher in the larger farm size classes holding more than 1.5 hectares, especially over 2.0 hectares, than in the average non-farm regular labourer's household. It may be reasonable to suppose from the

relative levels of the *per capita* income and of the savings rate that there is not much room for farms cultivating less than 1.0 hectare to make investment for farming. But agricultural investment appears to be possible for farms in the larger size classes cultivating more than 1.5 hectares.

TABLE 8. Average propensity to consume and savings rate of the farm household by farm categories and sizes, together with those figures of the non-farm regular labourer's household. Japan 1964 (average per household)

	Disposable income	Consumption expenditure	Saving	Average propensity to consume	Savings rate
	thou	sand Yen	·	per cent	
All farms	682.6	582.2	100.4	85.3	14.2
Category II farms	629.4	543.5	85.9	86.4	13.6
Category I farms	703.9	598.7	105.2	85.1	14.9
Category I farms					
0.1-0.5 ha.	596.5	522.1	74.4	87.5	12.2
0.2–1.0 ha.	634.8	\$53.0	81.8	87.1	12.9
1.0–1.5 ha.	715.2	605.1	110.1	84.6	15.4
1.5–2.0 ha.	786.9	655.7	131.2	83.3	16.2
Above 2.0 ha.	952.1	767.5	184.6	8o <sup>.</sup> 6	19.4
Non-farm regular labo	ur-				
er's household	558.3	469.3	89.0	84.1	15.0

Sources: The same as Table 5.

However, it must be remembered that even these farm households in the larger farm size classes are lagging behind non-farm labourer's households in the *per capita* income level, as made evident above. It seems likely that the farm households in the larger size classes accept such a relative level of *per capita* income and save even more than non-farm labourer's households do. Here we may find a feature in the saving of the farm household. A farm household saves not only for the household provision, but also for the farm business. This must be a reason why the savings rate is higher, even though the *per capita* income is rather lower, in the larger farm households than in the non-farm regular labourer's households.

It is necessary to note what types of assets are relatively preferred by the farm household. The value at the beginning of the year and the increase in value in one year's period, of various types of assets, for 1964 are shown, by farm categories and sizes, in Table 9.

The increase in the value of assets in a year, of course, does not square with the saving of the year. But when it is shown by asset types, it seems to suggest some feature of saving and investment of the farm household. We may observe in Table 9 that unusual increases in value of fixed assets and working assets, which seem to be

TABLE 9. Value of farm assets and increase in their value in a year, by farm categories and sizes. Japan 1964 (average per household)

	51	gory II us	zory I us		Ca	tegory I	farms	
	All farms	Category farms	Category farms	0·1− 0·5 ha.	0·5− 1·0 ha.	1·0– 1·5 ha.	1·5→ 2·0 ha.	Above 2∙0 ha.
Value at the beginning of the	_			thousa	nd Yen			
year								
Total assets	2,470	1,679	2,828	1,946	2,319	2,993	3,579	4,264
Fixed assets	1,786	1,106	2,097	1,357	1,700	2,241	2,670	3,229
Working assets <sup>1</sup>	79	43	95	42	77	102	123	162
Cash and financial assets <sup>2</sup>	606	529	637	547	542	651	787	874
Increase in value in a year								
Total assets	207	120	200	180	156	239	259	308
Fixed assets	45	23	48	33	29	63	61	76
Working assets	13	-3	16	38	14	17	10	25
Cash and financial assets	150	99 99	146	139	113	159	178	207
Percentage increase in value in a				per	cent			
уеаг								
Total assets	8.40	7.68	7.40	0.52	6.75	7.92	7.23	7.22
Fixed assets	2.20	2.00	2.27	2.45	1.21	2.82	2'20	2.36
Working assets	16.75	16.24	16.01	18.71	18.44	16.47	15.28	15.29
Cash and financial assets	24.71	18.66	22.88	25.39	20.00	24.37	22.67	23.71

Source: Farm Household Economy Survey, Ministry of Agriculture and Forestry.

NOTE:

1. Working assets are inventories of materials and products.

2. Cash and financial assets include cash, deposits, shares and bonds.

a reflection of gross investment in agriculture in the year, are more conspicuous in the larger size farm classes holding more than  $1 \cdot 0$ hectare than in the smaller size farm classes and the Category II farms. However, it is to be noticed that the increase in cash and financial assets is most marked, among various asset types, in all farm categories and classes. Even in larger farm size classes the increase in cash and financial assets is far more conspicuous than the increases in fixed and working assets. It means that assets of more liquid type are preferred to those of fixed type even by the farmers who are regarded to be, relatively speaking, more interested in agricultural investment.

#### IV. Behaviour of part-time farms and structural problems

It is a salient feature of the Japanese agriculture in the post-war period that the farm household has come to be significantly affected

by the non-agricultural sector of the economy. Especially its income position is worth notice as discussed above. It is pointed out that the *per capita* income of the farm household seems likely to approximate that of the non-farm regular labourer's household. And that part-time farming is coming to be a major means for the farm household to raise its *per capita* income until an acceptable income level is reached. Taking these situations into account, I have postulated on another occasion the behaviour pattern of the part-time farm in the post-war Japan and its subjective equilibrium positions.<sup>1</sup>

A question is whether it would be possible, in such situations, for the Japanese farmers in the post-war period to establish viable farm units without recourse to off-farm occupations.

In the Medium-term Economic Plan<sup>2</sup> made public by the Japanese Government in January 1965, a viable farm unit was regarded as a unit which is capable of earning income, in terms of mixed income, from farming, just equal to the wage income earned by the comparable labourer in non-agricultural industries, and it was proposed as the first approach to improving agricultural structure to establish such a farm unit.

When the fact is considered that a great part of Japanese farmers in the post-war period feel it difficult to achieve this income level without recourse to part-time farming, it may be an object of structural policy for the time being to establish a farm unit with such income-forming potentials.

However, there exists a problem here. If a farm earns the net income from farming, in terms of mixed incomes, just equal in amount to the wage income earned by a non-farm labourer, the farm household may certainly be able to maintain a living at a similar level to that enjoyed by the non-farm labourer's household, without any offfarm income. But if the farm household is really satisfied with earning no more than that, how would it be possible for it to save for agricultural investment unless it is willing to cut down the level of living?

Wage incomes of non-agricultural labourers may possibly rise year by year in accordance with the improvement in productivity in

<sup>&</sup>lt;sup>1</sup> Takeo Misawa, 'Farm Economy and Part-time Farming in the Postwar Period', a paper prepared for Agriculture and Economic Development: a Symposium on Japan's Experience, the conference held 3-7 July 1967, in Tokyo, Japan.

<sup>&</sup>lt;sup>2</sup> Medium-term Economic Plan, Economic Planning Agency, January 1965. Afterwards it was determined by the Government that it should be abolished and replaced by a new economic planning.

non-agricultural sectors of the economy. On the other hand, farmers would need capital for agricultural investment if they wish to improve the productivity of agriculture in step with the increase in the productivity of non-agricultural industries. Thus it must be necessary for a farmer who wishes to continue his farming as a viable unit to save for agricultural investment.

Therefore, if the income from farming is simply equal to the wage income being earned by a non-agricultural labourer and nothing more than that, the farm household would be, soon afterwards, forced to have recourse to off-farm occupations if it wanted to keep the level of living similar to that enjoyed by a non-farm labourer's household. Thus the farm drops below the line of viable farm units unless its household could save by curtailing consumption expenditures. It is obvious, therefore, that a viable farm policy of this sort is selfcontradictory.

The Agriculture White Paper tells us that the number of farms regarded as viable units according to the definition above stood at about 9 per cent of all farms in 1965. These farms, as the Paper shows, belong mostly to larger size farm classes holding more than 1.5 hectares and operate such enterprises as rice whose price is favourably supported, or vegetables, fruits, pigs and poultry which are capable of higher capital intensity.

Even so, as shown in Tables 4 and 6 above, farm households in those larger size classes, on the average, are not entirely free from offfarm occupations and lag in *per capita* income behind non-farm regular labourer's households. These evidences suggest that the status of the 'viable farms' is still unstable and may be liable to be endangered by changes in the support price level or in market conditions.

Schemes aiming at improving agricultural structure seem to be neglected in recent policies. It is time for the agricultural policy to be reconsidered, with a view to establishing a farm unit which is viable in the true sense of the word.

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