

SOURCES OF LOANABLE FUNDS OF AGRICULTURAL CREDIT INSTITUTIONS IN ASIA

—Japan's Experience—

YUZURU KATŌ

PROBLEMS

RECENT NOTEWORTHY changes in the agriculture of Southeast Asia include a growing recognition on the part of peasant farmers of the effects on agricultural yields deriving from the introduction of new varieties of crops and the use of fertilizers, leading to an increased demand for agricultural credit. A concomitant development has been a new willingness to follow the guidance of agricultural extension workers. Within this process of agricultural transformation, known as the "green revolution," financial institutions for agriculture have come to have a new and unprecedented importance.

The disproportional amount of influence traditionally wielded in such countries by landowners, merchants, and money lenders is well-known, as is the fact that these non-institutional lenders usually charge excessively high interest, which could by no stretch of the imagination be paid by peasants from the fruits of their normal production activity. Accordingly, government authorities have been trying to make more low-interest funds available for farmers by encouraging agricultural loan activity by various institutional lenders, such as commercial banks, special financial institutions, agricultural cooperatives and governmental institutions.

However, with the exception of the commercial banks, agricultural credit institutions invariably find themselves lacking in internal resources, and appear not to be active in raising funds through deposit solicitation and bond flotation activities. In effect, they have come to be essentially loan agencies dealing in government funds, borrowings from the central bank and from international lending organizations. In this article, I shall discuss these shortages of funds in agricultural credit institutions in several Asian countries, and describe the structural characteristics of these institutions through comparison with the Japanese case. I shall try to show the importance of mobilizing the capital resources of the propertied class while encouraging the peasant farmer to save and to deposit it with agricultural credit institutions. These measures are crucial if the above institutions are to achieve fund repletion. I believe this will become clear if we take a look at the development of agricultural financing in Japan since 1897.

I. FINANCIAL POSITION OF AGRICULTURAL CREDIT INSTITUTIONS IN THAILAND, THE PHILIPPINES, AND INDIA

Table I illustrates the recent situations of three Asian countries, Thailand, the Philippines, and India, with respect to interrelationships of deposits, debts, paid-up capital, reserves, and loans (each in terms of amount outstanding) in selected short-term credit institutions actively engaged in extending credit to peasants.¹ Corresponding figures for Japanese agricultural cooperatives in the early part of the twentieth century and very recently are also provided for purposes of comparison. These credit institutions acquire their operating funds from deposits, borrowings, paid-up capital and reserves, which they use for making loans, investing in securities and real estate, while the balance is used as cash-in-vault and deposits with other banks. Multi-purpose cooperatives, which engage in several types of business operations, including marketing, purchasing and distribution,

TABLE I
FINANCIAL POSITIONS OF SHORT-TERM AGRICULTURAL CREDIT
INSTITUTIONS IN SELECTED ASIAN COUNTRIES

		Thailand	Philippines	India	Japan	Japan
		Village Credit Cooperatives (End of Dec. 1965)	Rural Banks (End of Dec. 1968)	Primary Agricultural Credit Societies (End of June 1969)	Agricultural Cooperatives (End of 1964 Fiscal Year)	Agricultural Credit Cooperatives (End of March 1970)
Deposits	D	1	1	1	1	1
Borrowing	B	5.5	0.7	9.5	0.9	0.2
Paid-up capital, reserves	C	3.3	1.1	3.8	4.9	0.1
Loans	L	8.6	2.3	10.9	4.6	0.5
Structural features observed		L >> D	L > D	L >> D	L < D	L < D
		B >> D	B < D	B >> D	B ≈ D	B << D
		B > C	B < C	B > C	B << C	B ≈ C

Sources: Compiled from Table IV and Appendix Tables; also Nōrin Chūō Kinko [Central Cooperative Bank for Agriculture and Forestry], *Nōrin kinyū tōkei* [Statistics of agriculture and forestry] (Tokyo, 1971).

Note: All figures are in amounts outstanding; calculated as percentages of deposits taken as a unit. B >> D means that B is much larger than D, and B ≈ D means that B is nearly equal to D.

¹ There are two types of financial institutions, short-term credit institutions and long-term credit institutions. Table I gives data relating to short-term credit institutions alone. Long-term financial institutions usually require the receipt of capital subscriptions and the issuance of bank bonds in order to raise operating funds. In this case, we must also define the character of the shareholders and bond subscribers; otherwise, it will be impossible to pursue the study of this theme. Although short-term credit institutions of course receive government contributions and public deposits, their relative weight in the operating funds is not as great as that of long-term credit institutions.

and other undertakings, will of course have additional business accounts. The table, however, shows only loans, for the reason that it is simplified and enough for our purpose of illustrating the structural weaknesses of the financial positions of these institutions. For the same reason, other items in the table are given as percentages of deposits taken as a unit.

From this table, therefore, it can be seen that balance of loans are much larger than those of deposits. For Thailand and India, loans total 9 to 11 times as much as deposits. In Japan, however, loans accounted for only half of the amount of deposits in the immediate postwar period. This contrasted with the early twentieth century, when the same kind of institutions were lending 4 to 5 times as much as deposits, indicating the severe shortage of funds which characterized the stage of agricultural development of Japan at that time. It was in 1917 that deposits began to exceed loans, as we shall see subsequently. Thus, scarcely 20 years after Japanese agricultural cooperatives were legally organized under the Agricultural Cooperatives Law, they were already at a stage of development characterized by transition from "borrowing cooperatives" to "savings cooperatives." In the cases of Thailand and India, however, it is quite uncertain when these typical short-term agricultural credit institutions will be able to function as "normal" credit institutions in the sense of being able to finance loans with deposits accumulated through confidence in themselves. At this point, such an eventuality would seem unlikely. Rural banks in the Philippines, though on a somewhat different level than in Thailand and India, are still involved in a high degree of overloan position.

How is the gap between deposits and loans dealt with? Primarily by borrowings and paid-up capital. In the first decade of the twentieth century the paid-up capital of Japanese financial institutions was much greater than borrowings. For the Philippines today, borrowings also tend to be less than paid-up capital. The contrary applies to Thailand and especially India, however, where borrowings are much larger than paid-up capital.

Comparing borrowings and deposits, we note that in present-day Japan, the relative weight of borrowings as external funds is quite negligible, while during the first decade of the twentieth century borrowings, though less than deposits, were still quite significant. While the situation in the Philippines is certainly better in this respect than Japan's around 1900-1910, the significance of borrowings for the rural banks can hardly be overlooked. In Thailand and India, however, the role of borrowings is overwhelming. This is especially so in India, where deposits account for only 10 per cent of borrowings.

II. FUND RESOURCES OF AGRICULTURAL CREDIT INSTITUTIONS: JAPAN'S EXPERIENCE

It should be clear from the indices in the preceding section that the agricultural credit institutions of most Asian countries are indeed confronted with serious shortages of funds. Moreover, as was suggested in Section I, one essential con-

dition for the modern agricultural growth of these countries is replenishment of the funds of the appropriate financial institutions in order to allow a more active provision of credit. In order for peasants to be able to deposit more, they will have to have a higher income level. They have to have money in order to save or deposit with financial institutions. Yet, even before that time comes, it is not necessary for these institutions to function only as mere intermediaries channeling funds from governments, central banks, and international lending agencies. Even at current income levels, it is possible and mandatory that savings drives and savings education be commenced. Also desirable, and perhaps even more important, is the need to funnel the money of the propertied class of rural areas into these agricultural credit institutions. This, however, will become possible only when the local propertied class demonstrates a willingness and enthusiasm to take leadership in the area of agriculture in their districts. In view of the maldistribution of wealth and income in these countries, one can only feel a sense of urgency in this area.

Japan's experience provides a number of useful illustrations for treating these problems. There is already considerable interest in Japan as a model, and in particular Japan's experience in the development of agricultural credit since 1897 may prove useful in seeking the best ways of improving and reinforcing agricultural credit systems in developing nations today. This is of course a problem requiring systematic treatment. However, in this study we shall limit ourselves to a consideration of the question of fund replenishment, focussing on Japan's historical experience. Let us begin by examining the mobilization of propertied class resources, and then examine the efforts to stimulate and mobilize peasants' savings.

A. *Mobilization of the Resources of the Propertied Class*

A 1912 survey by the Financial Bureau of the Ministry of Finance is the oldest systematic survey of farmers' debts in Japan. It demonstrates that loans from agricultural cooperatives and banks accounted for only 30 per cent of total debts as against loans from non-institutional lenders which were predominant (Table II). Loans at interest rates of 10 per cent or less per annum accounted for only 35 per cent of total debts while as much as 20 per cent consisted of loans transacted at interest rates of 15 per cent or more (Table III). Although this was the situation around 1912, it can be easily imagined that before that time the influence of non-institutional lenders was probably much more overwhelming. It was against this background that, during 1897-1900, many agricultural credit institutions, e.g., the Nippon Kangyō Ginkō (Hypothec Bank of Japan), Nōkō Ginkō (prefectural banks for agriculture and industry), Hokkaidō Takushoku Ginkō (Hokkaidō Colonial Bank), agricultural cooperatives were established by the joint efforts of Government and business leaders in villages.

With the implementation of the Agricultural Cooperatives Law of 1900, agricultural cooperatives began to be set up in many local municipalities. The loan-deposit ratio—(loans outstanding/deposits outstanding) × 100—indicates that de-

TABLE II
DEBT STRUCTURE OF JAPANESE FARMERS, BY LENDERS
(1912, 1964)

Lenders	1912	1964	
		Long-, Medium-term	Short-term
Special banks and government	10.3	30.5	2.2
Other banks	17.6	0	3.9
Insurance companies	0.1	1.2	0
Cooperatives	2.9	41.2(a) 15.8(b)	75.5(b)
Money lenders	20.3	0	0
Pawnbrokers	1.3	0	0
Merchants	1.7	0	1.8
Mutual financing	8.4	0	2.5
Individuals	35.9	4.0	11.7
Others	1.6	7.3	2.4
Total	100.0	100.0	100.0

Sources: Ministry of Agriculture and Forestry, *Nōrin kinyū binran* [Handbook of agricultural and forestry finance] (Tokyo, 1953), and *Nōka shikin dōtai chōsa hōkoku* [Survey of farm household funds] (Tokyo, 1965).

Note: (a) Special loans administered by central or local governments, (b) ordinary loans.

TABLE III
DEBT STRUCTURE OF JAPANESE FARMERS, BY INTEREST RATES
(End of 1912, 1964)

	Below 10%	10-15%	15-20%	Above 20%	n.a.	Total (%)
1912 (a)	35.2	44.9	15.6	4.3		100.0
1964 (b)						
Long-, medium-term (c)	95.9		3.5		0.6	100.0
Short-term (d)	37.3	59.9	1.1	0.2	1.5	100.0

Source: See Table II.

Note: (a) Calculated on basis of amounts outstanding; (b) calculated on basis of annual borrowings; (c) debts payable beyond a year; (d) debts payable within a year, per diem rates converted into annual rates.

posits by cooperative members during the initial period were inadequate to meet the credit demand from members (Table IV). The same applies in the case of agricultural credit institutions in India, Thailand, as well as in the Philippine rural banks today.

During the early period of cooperatives, the shortage of deposits in relation to loans was met partly by borrowings from local banks, Hypothec Bank of Japan, and prefectural banks for agriculture and industry, but mainly by capital contributions. Table V shows the relations between borrowers and lenders within

TABLE IV
FUND STRUCTURE OF AGRICULTURAL COOPERATIVES
AND CHANGES IN LOAN-DEPOSIT RATIO (JAPAN)

Year	Operating Fund Structure				Loans (B)	Loan-deposit Ratio
	Paid-up Capital, Reserve Accounts	Borrowings	Deposits (A)	Total		$\frac{B}{A} \times 100$
1904	72.2	13.1	14.7	100.0	67.5	459
1905	65.6	16.4	18.0	100.0	63.8	354
1906	58.7	18.0	23.3	100.0	60.6	260
1907	50.4	21.5	28.1	100.0	61.2	218
1908	46.3	26.0	27.7	100.0	55.7	201
1909	46.2	20.4	33.4	100.0	64.0	192
1910	46.0	16.8	37.2	100.0	61.5	165
1912	38.7	21.1	40.2	100.0	62.7	156
1913	38.4	21.6	40.0	100.0	66.7	167
1914	39.6	22.5	37.9	100.0	69.9	185
1915	39.6	21.4	39.0	100.0	68.7	176
1916	37.0	16.1	46.9	100.0	60.5	129
1917	30.6	13.3	56.1	100.0	49.3	88
1918	25.4	11.3	63.3	100.0	43.6	69
1919	21.6	11.5	66.9	100.0	46.9	70

Source: Y. Katō (Itō) [5, pp. 169-70], with original data from the Ministry of Agriculture and Forestry, *Sangyō kumiai yōran* [Guidebook for agricultural cooperatives].

TABLE V
LENDING AND BORROWING RELATIONS BETWEEN JAPANESE AGRICULTURAL
COOPERATIVES AND COOPERATIVE MEMBERS BY CLASS
(End of 1926)

	Average Number of Members of a Cooperative (Persons)	Capital Subscrip- tions (Yen)	Loans per Capita (Yen)	Deposits per Capita (Yen)	Ratio of Deposits to Loans (%)
Landowners	11.9	152	1,066	1,641	169
Owner-operators	80.5	65	381	353	96
Part-owner-operator/ part-tenants	119.6	41	278	221	81
Tenants	76.3	30	131	103	73
Others ^a	50.8	69	406	495	134

Source: Y. Kondō, *Kyōdō kumiai genron* [Principles of cooperatives] (Tokyo: Kōyō shoin, 1942), p. 220.

^a Members engaged in non-farm business, such as merchants, teachers, etc.

the cooperatives as of the end of 1926. In those days, landowners became less and less interested in agriculture, since tenancy disputes became more acute and the Tenancy Law was planned to be enacted. Also the share of agriculture in national income continued to decline as that of commerce and industry rose. In

spite of this, per capita capital subscriptions of landowners remained three to five times as much as those of owner-operators, part-owner-operator/part-tenants, and tenants. We may infer that in the first decade of the twentieth century the differential in capital subscriptions of landowners and peasants was even larger. Furthermore, as regards the relation between deposits and loans the non-tiller class, that is, "landowners" and "others," retained credit balances with the cooperatives, and the tiller class, that is owner-operators, part-owner-operator/part-tenants, and tenants, had a debit balance. Rich landowners and non-tillers would deposit extra funds with cooperatives, which would make them available for provision of credit to the tillers.

Thus, during the initial period of the Japanese cooperatives, the funds of the propertied class, landowners and other businesses, were introduced into cooperatives and played an important role. As income levels rose due to production growth, and as deposits increased due to thrift and savings drives, the loan-deposit ratio tended to decline. As prosperity during and after World War I spread into rural areas the prices of agricultural products, especially rice and cocoons, and then farmer's income rose sharply, and by 1917 the loan-deposit ratio had dropped below 100 per cent. Since that time, it has never again been above 100 per cent, at least in terms of nationwide agricultural cooperative figures. Essentially, if a cooperative is to be of real use to its members, they should help each other by making available the funds of the members themselves within the cooperative. In this sense, it can be said that Japanese cooperatives took off as of 1917. A look at the current situation of agricultural cooperatives in Southeast Asia, suggests that the very fact that the period from the start until the take-off of Japan's cooperatives was very short poses an interesting problem. However, what I want to emphasize here is that in Japan the propertied class in rural areas assumed a leadership role in the cooperatives, or, in other terms, that of an entrepreneur, through furnishing of funds, though of course the role they had played as entrepreneurs was not confined to the furnishing of funds.

As stated above, the rural propertied class made no small contribution to the finance of cooperatives. Furthermore, their contributions in this area were not confined to cooperatives. In the case of the Hypothec Bank of Japan, of the 138 large share holders with 50 shares or more as of the end of 1897, the year of its inauguration, there were 96 whose business types are known today, 25 persons connected with local industries, landowners, cotton wholesalers, brewers, fertilizer and rice dealers [3, pp. 151-53]. Such was often the case with Dai-shi Ginkō (the Fourth Bank) and other local banks.

Let us here consider the case of an agricultural cooperative in the Uttar Pradesh State of India. Table VI shows the cooperative's balance sheet, in which loans to the members amounted to 9,975 rupees as against deposits amounting to only 51 rupees. The contributions and reserves combined with deposits are still much smaller than loans to members. Therefore, demands for loans are mostly met by borrowings from the district cooperative bank. Within the service area of the cooperative, there are 168 families, of which 142 families are peasants. Ninety

TABLE VI
LENDINGS AND BORROWINGS OF A COOPERATIVE IN THE
UTTAR PRADESH STATE OF INDIA
(June 30, 1969)

Assets		Capital and Liabilities	
Cash in hand	30.83	Deposits from members	51.25
Investment	1,680.00	Borrowings to be repaid to District Cooperative Bank	8,425.00
Loans to members	9,974.50	Shares held	2,193.00
Interest to be received	555.00	Interest to be paid	127.49
Value of stock	50.00	Other items to be paid	381.87
Special bad debts reserves	44.00	Reserves	407.25
Others	40.67	Other funds	201.00
		Undistributed profits	70.00
		Total	11,875.05
		Profits	518.85
Grand total	12,375.50	Grand total	12,375.50

Source: Materials given by an official of the Cooperative.

per cent of the households are cooperative members. Within the cooperative, 55 members have debts and 21 members have deposits. Per capita deposit is not more than 2.5 rupees. It may be that borrowers are compulsorily required to deposit part of the borrowings from the cooperative. Thus, the borrowers stand to withdraw substantial parts of their deposit with only 51 rupees left outstanding. However, not all of the members are unable to save money. Among the members of the cooperative is a farmer who before the land reform was a *zamindar* ("large landowner") with 1,000 acres of land. He now runs a total of 145 acres of farms in three villages. In this particular village, he operates 100 acres with 10 regular employees, a tractor, and a car. Yet he does not deposit with the cooperative, which helps to explain why the cooperative has trouble in building confidence of people in it.

B. *Encouraging Petty Farmers to Save and Mobilizing Their Savings*

In the previous section, we discussed a function of the responsibility and willingness of the propertied class to improve fund raising in agricultural credit institutions. I will now study the problems of encouraging low income farmers to save money, and mobilization of their deposits. Let us return to Japan again. Table VII indicates that in the period 1894-1917 the funds of the Deposit Bureau of the Ministry of Finance (since 1951, called the Trust Fund Bureau) stemmed largely from postal savings, which were substantially large compared to all bank and all ordinary bank deposits. This was especially the case in 1894. Even at present, the funds of the Bureau account for a large proportion—some 10 per cent—of the fund total for all financial institutions. It is worthy of note that toward the end of the 1900s, when the general level of income was much lower, the low income class had deposits with postal saving offices in significant

amounts, thus greatly contributing to national capital formation. Their deposits at that time, in fact, amounted to about half of total deposits of all ordinary banks. Even when a developing country tries to introduce foreign capital, the result will invariably be an abuse of the capital unless there is already nationwide propensity of the people to save, and unless competent organizations are prepared to mobilize their savings.² Therefore, more attention has to be paid to encouraging the awareness and implementation of these two activities.³

These petty savings of the low income class accumulated nationwide through the postal savings system, and aggregated fairly large sum. Apparently, other financial institutions also benefited from fairly large deposits of the low income class, although the details are not available. In the period of rapid growth of the Japanese economy after the Sino-Japanese and Russo-Japanese wars, many

² On this point, an interesting suggestion was made by A. K. Cairncross [2].

³ As indicated in the table, from the latter part of the nineteenth century until the early twentieth century, farmers accounts and deposits equaled 30 per cent of total accounts and deposits in the Japanese postal savings system.

POSTAL SAVINGS OF JAPANESE FARMERS
(1897, 1907)

End of March	Deposit Accounts (1,000)			Amount of Deposits (¥1,000)			Deposits of Farmers per Account (¥)	Tokyo Rice Price (Spot) Annual Average per Koku (¥)	Farmers' Deposits per Account, (in Terms of Rice) (Koku)	Wages of Male Farm Day-Worker (¥)	Farmers' Deposits per Account (in Terms of Male Working Days)
	Farm-ers (1)	Total (2)	(1) (2) (%)	Farm-ers (3)	Total (4)	(3) (4) (%)					
1897	473 (100)	1,273	37.2	8,577	28,251	30.4	18.13 (100)	11.88	1.53 (100)	0.26	69.7 (100)
1907	2,145 (454)	7,414	28.9	20,598	79,956	25.8	9.60 (53)	16.42	0.58 (38)	0.39	24.6 (35)

Sources: Ministry of Posts and Telecommunication, *Yūbin kawase chokin jigyō gaiyō* [Outline of postal money orders and postal savings] (Tokyo, 1897 and 1908); E. Nakazawa, *Nihon beika hendōshi* [History of rice price fluctuations in Japan] (Tokyo: Meibundō, 1933), pp. 370, 390 and 410; M. Umemura et al., *Nōringyō—chōki keizai tōkei* [Agriculture and forestry—long-term economic statistics] (Tokyo: Tōyō keizai shimpō-sha, 1968), p. 107.

In 1897 farmers' deposits averaged a little more than ¥18 per account. In terms of rice, this was equivalent to 1.5 person's annual consumption at the time. In other terms, it was equivalent to 70 days wages of a male farm day-worker. The number of farmers' deposits accounts increased 4.5 times between 1897 and 1907, indicating a rapid rate of diffusion. Consequently, deposits per account in 1907 declined to 53 per cent of those of 1897. In terms of rice, however, this came to 38 per cent, and in terms of male worker wages, 35 per cent. It can be seen that a rise in the price of rice and an increase in wages gave farmers incentive to save by making it less of a burden to do so. From these considerations, it should be clear that the future task is to apply such approaches to the structure of savings in Southeast Asian countries.

TABLE VII
FINANCIAL RESOURCES OF THE DEPOSIT BUREAU
OF THE MINISTRY OF FINANCE (JAPAN)
(1894, 1905, 1917)

End of Fiscal Year	(Million yen)					
	Postal Savings	Various Deposits	Reserves and Others	Total	Deposits with All Banks	Deposits with All Private Ordinary Banks
1894	24(82)	2 (8)	3(10)	30(100)	134	49
1905	55(63)	20(23)	12(14)	88(100)	974	693
1917	462(77)	63(10)	77(13)	603(100)	5,146	3,233

Sources: Ministry of Finance, *Kinyū kikan hattatsushi* [History of the development of finance institutions] (Tokyo, 1949); The Bank of Japan, *Hundred-year Statistics of Japanese economy* (Tokyo, 1966).

Note: Figures in parentheses are percentages of totals.

companies and banks were established. Concurrently, there were substantial flows of funds from rural areas into these organizations through stock subscriptions and deposits. Such funds were then distributed intensively into major urban areas by means of investments and loans. The result was a maldistribution of funds, slack money markets in major urban areas and tight money markets in rural areas, as well as interest rate differentials between urban and rural areas. It was significant that not private banks and organizations, but a government organ, the postal savings system, played a role in the maldistribution of funds. An effort to remedy this was the establishment of the Ordinary Local Fund of the Deposit Bureau, set up in 1909, enabling unsecured long-term and low-interest loans to be advanced to cooperatives, land improvement associations and local public bodies through the special banks such as the Hypothec Bank of Japan, prefectural banks for agriculture and industry, etc. This had to be set up because the Hypothec Bank and prefectural agricultural and industrial banks, on a purely commercial basis, would not easily extend unsecured low-interest loans to the said organizations involved in agricultural production. As I have treated this matter in detail previously [4], I will not go any further with it here. What I want to stress rather is how large a role the Deposit Bureau's Ordinary Local Funds played in the Hypothec Bank's unsecured loans to cooperatives and land improvement associations (Table VIII).

We have here further testimony that the small savings of the low-income bracket is not a factor to be ignored in economic development. As this income bracket has a low level of education and tends to be weak in terms of its ability to save money, a savings promotion drive directed to them must be implemented through education and publicity. Moreover, for this drive to be effective there must also be some kind of compulsory measure included. In Nepal, farmers are required to deposit 5 per cent of their sales of farm products with the Compulsory Saving Corporation, which, after a five-year term, pays back the deposits with interest (5 per cent per annum). In India, the lending cooperative bank has to receive a certain per cent—5 to 10 per cent—of the borrower's loan for contribu-

TABLE VIII
 SHARE OF DEPOSIT BUREAU FUNDS AMONG PRINCIPAL
 UNSECURED LOAN OUTSTANDING OF THE HYPOTHEC
 BANK OF JAPAN

End of Fiscal Year	Loans to Agricultural Cooperatives	Loans to Land Improvement Associations
1911	81.4	39.8
1917	77.4	64.5
1920	85.8	88.0
1924	69.1	60.6

Source: Unpublished documents received from Research Department, the Hypothec Bank of Japan.

tion or deposit with the bank. In Thailand, there are some experimental efforts in which dividends are not delivered personally to members, but are transferred into their Cooperative deposits accounts.

In Thailand, the Government Savings Bank issues a kind of savings bond in small denominations of 10 bahts or 20 bahts. Because this bond is premium bearing, the issuer's cost is quite low. But the funds raised by the sale of this bond are not allocated for agricultural loans. In Japan the Hypothec Bank of Japan issued premium bonds in small denominations between 1898-1937, except during the war period when the Government issued savings bonds. The Bank, using the funds raised by these issues, was able to advance long-term agricultural loans at lower than the market rate of interest [3] [5, Chapter 4].

It may be proper to put in a few words about mutual insurance as one of the fund resources of agricultural cooperatives. In Taiwan, for example, there seems to be a possibility to develop mutual insurance. In the field of long-term finance, Taiwan has only one stock exchange with 18 listed companies. No bank bonds are issued and the supply of long-term funds is very short. As the Government is constantly operating lotteries, banks cannot issue premium bonds. Because of the shortage of long-term funds available for enterprises, the latter cannot afford to set up long-term programs. They tend toward operations of short-term turnover. When a kind of crop-raising seems profitable, everybody rushes to it. The result is keen competition, causing prices to fall. Since farmers' associations receive only small shares of the sales of farm products, there is no orderly marketings of farm products, and merchants take advantage of the situation for profiteering. The life insurance system would be another way of raising long-term funds. However, it is felt that it is too early to introduce the agricultural cooperative mutual relief system to Taiwan. This is in spite of the fact that income level per farmer's family member is relatively high (standing at US\$114 in 1967) compared to other developing nations. A pig breeding insurance system is being implemented and mutual financing by private circles is popular. In view of the fact that a portion of farmers have been insured by private insurance companies, I believe it is important to study the possibility of procurement of

long-term agricultural funds through an agricultural cooperative mutual relief system.

Returning again to Japan's experience, cooperatives began to deal in life insurance in 1947. In the same year, the income level per member of farmer's family was around \$40. The life insurance business grew rapidly, and by the end of March 1971, total assets of the National Mutual Insurance Federation of Agricultural Cooperatives and the Prefectural Mutual Insurance Federation of Agricultural Cooperatives came to ¥1,242 billion, of which loans amounted to ¥565.6 billion and deposits with affiliated financial institutions to ¥312.8 billion. In Taiwan, of total contracts outstanding with private life insurance companies, those with farmers accounted for 13 per cent during 1966-67, or 15 per cent in terms of number of cases [1].

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APPENDIX TABLE I
 CONSOLIDATED BALANCE SHEET OF VILLAGE CREDIT
 COOPERATIVES IN THAILAND
 (Operating Cooperatives Total 9,805; End of 1965)

(Million bahts)

Assets		Capital and Liabilities	
Cash in hand	2.57	Share capital	0.30
Deposits with other cooperatives	0.46	Loans outstanding	210.59
Loans to members	325.88	Deposits from members	38.44
Outstanding incomes	38.29	Statutory reserves	110.29
Investments	10.49	Common good fund	5.31
Other assets	1.38	Outstanding expenses	0.41
		Other liabilities	0.16
		Earned surplus	13.55
Total	379.05	Total	379.05

Source: The Office of the Under-Secretary of State, Ministry of National Development, *The Cooperative Movement in Thailand* (Bangkok, August 1967), p. 11.

APPENDIX TABLE II
 RATIO OF OUTSTANDING COOPERATIVE PROMOTION FUND
 SUBSIDIZED BY THAI GOVERNMENT TO WORKING
 CAPITAL OF MARKETING AND LAND COOPERATIVES
 (1961-65)

(Million bahts)

	Marketing Cooperatives			Land Cooperatives		
	Cooperative Promotion Funds (1)	Operating Funds (2)	(1) (2) (%)	Cooperative Promotion Funds (1)	Operating Funds (2)	(1) (2) (%)
1961	81.6	127.8	63.8	8.9	38.5	23.1
1962	79.9	140.9	56.7	8.7	42.0	20.7
1963	80.5	145.6	55.3	9.5	46.8	20.3
1964	83.3	145.1	57.4	13.3	47.5	28.0
1965	80.9	137.7	58.8	16.9	48.2	35.1

Source: Same as for Appendix Table I, p. 81.

APPENDIX TABLE III
BALANCE SHEET OF THE BANK FOR AGRICULTURE AND
AGRICULTURAL COOPERATIVES IN THAILAND
(End of December 1968)

(Baht)

Assets		Capital and Liabilities	
Cash and due from banks	43,439,751.88	Paid-up share capital	389,275,500.00
Loans to agricultural cooperatives	295,588,536.12	Reserves	57,033,000.00
Loans to individual farmers	392,807,337.55	Profits	21,015,175.47
Fixed assets	10,415,090.46	Deposits	122,768,278.55
Other assets	3,776,021.86	Loans and notes payable	134,513,855.15
		Miscellaneous	21,420,928.70
Total	746,026,737.87	Total	746,026,737.87

Source: Bank for Agriculture and Agricultural Cooperatives, *Annual Report: Balance Sheet, Profit and Loss Statement, 1968* (Bangkok), p. 16.

APPENDIX TABLE IV
CONSOLIDATED BALANCE SHEET OF RURAL BANKS IN THE PHILIPPINES
(End of December 1968)

(Peso)

Assets		Capital and Liabilities	
Cash and due from banks	42,331,696	Deposits	167,910,288
Loan and investment (net)	390,048,776	Special time deposits-AGLF	21,305,768
Government securities	6,762,650	Special time deposits-IBRD	1,319,870
Other assets	29,570,972	Notes payable	82,092,994
		Central Bank (rediscounted notes)	78,763,298
		Other liabilities	37,125,280
		RCA	1,806,214
		Central Bank; IBRD	17,196,487
		DBP	253,881
		Capital stock	134,747,636
		Preferred—DBP	58,507,550
		Surplus and surplus reserves	33,649,605
		Undivided profits	13,188,291
Total	468,714,094	Total	468,714,094

Source: Department of Rural Banks of the Central Bank of the Philippines, *16th Annual Report* (Manila, 1968) pp. 10 and 30.

Note: AGLF: Agricultural Guarantee and Loan Fund; IBRD: International Bank for Reconstruction and Development; RCA: Rice and Corn Administration; DBP: Development Bank of the Philippines.

THE DEVELOPING ECONOMIES

APPENDIX TABLE V
 PRINCIPAL ACCOUNTS OF THE STATE COOPERATIVE
 BANK IN INDIA
 (End of June 1967)
 (100,000 rupees)

Paid-up capital	3,116
State government contribution	1,035
Reserves	2,448
Deposits	14,738
Borrowings	19,993
Reserve Bank	17,299
Government	2,269
Working capital, total	40,295
Loans	32,516

Source: Reserve Bank of India, *Selected Statistics on Cooperative Credit in India* (Bombay, 1969), p. 3.

APPENDIX TABLE VI
 PRINCIPAL ACCOUNTS OF THE CENTRAL
 COOPERATIVE BANK IN INDIA
 (End of June 1967)
 (100,000 rupees)

Paid-up capital	8,599
State government contribution	2,163
Reserves	2,965
Deposits	25,932
Borrowings	26,334
State Cooperative Bank	24,654
Government	1,592
Working capital, total	63,830
Loans	49,935

Source: Same as for Appendix Table V, p. 4.

APPENDIX TABLE VII
 PRINCIPAL ACCOUNTS OF THE PRIMARY
 AGRICULTURAL CREDIT SOCIETIES
 (End of June 1969)
 (100,000 rupees)

Paid-up capital	16,730
State government contribution	1,303
Reserves	4,785
Deposits	5,684
Borrowings	54,022
Working capital, total	81,221
Loans	61,874

Source: Reserve Bank of India, *Statistical Statements Relating to the Cooperative Movement in India, 1968-69* (Bombay).