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I Introduction

The agricultural cooperative today is regarded, above all, as a form of business organization and is actually performing various kinds of business for the member farmers. So long as it remains a business organization, it must have a supply of funds with which to command materials and services. For an undertaking to function it must have capital in one form or another.

Needless to say, agricultural cooperatives, like other businesses, require capital for several purposes: to extend loans to the members who need money; to cover the purchase and replacement of many kinds of fixed assets; to cover running costs; to cover cost of holding inventories; and to cover delays by member or others in paying accounts due to the cooperative.

In practice, agricultural cooperatives in many countries have used a considerable amount of capital to meet these requirements. The total capital used by agricultural cooperatives in the United Kingdom in 1955 was estimated at not less than £23,000,000.[1] Assets of farmers' marketing and farm supply cooperatives in the United States at the close of fiscal year 1954 were estimated at over $3.6 billion.[2] In our country the total assets of local agricultural coopratives of general purpose type amounted to more than ¥630 billion at the end of March, 1958.[3] If many federated associations at Prefectural and National levels are included the total assets must be far more than this.

And yet it is pointed out commonly in many countries that lack of capital and too small a capital structure are major problems facing many agricultural cooperatives. The more the cooperative organizations are required to expand and integrate in business operations, the greater the capital requirements. Agricultural cooperatives have recently expanded into more marketing, purchasing and other service operations. Their business has grown in volume and their memberships have increased with shift from simple to complex associations and to broader services. They have shown tendencies toward

more processing of farm products and manufacturing, modernized many facilities and improved their operating efficiency.

In brief, agricultural cooperatives have been forced to make use of modernized economic devices and weapons to combat the other sectors of the economy and all this never fails to be accompanied by the problem of capital. In other words, in terms of amount of capial needed by an agicultural cooperative, it may be no different from any other form of business of similar nature and scale of operation.

But, then, is the cooperative organization as such essentially possessed of the organizational structure able to meet fully such capital demands? In short, this question must be negatively answered. As will be discussed later, basically the cooperative organization cannot exist as an investment opportunity. Ownership and control of the cooperative is in the hands of those who use its services. The decisions are made and control is exercised by the owners as patrons rather than as investors. Business operations are so conducted that any amounts over cost of carrying on the business is to be returned to patrons on an equitable basis in some way or another. Although share capital subscribed by the members is to earn interest, it is usually limited to a fixed rate. These concepts are significant mainly because in the cooperative they are distinctly different from characters of enterprises usually based on the use of risk capital.

In the cooperative the patron member supplies share capital primarily to obtain and gain from its services. The matters of risk and possible returns on the investment as such are only secondary. The difference in status of share capital in cooperatives as against other business concerns is shown in some of the practices used by cooperatives. For instance, cooperatives commonly put a par value on their capital shares. They usually limit the ownership of voting shares to active patrons on the basis of one man one vote. Such practices obviously reduce the possible attractiveness of cooperatives as investment opportunities. Possibilities of value increase, ease of transfer and ready salability are desirable characteristics of the capital share of most

noncooperative corporation having many owners. They do not pertain to cooperative shares.

Thus, the need for capital is just as urgent for a cooperative as for any other form of business, but the method of getting it must be adjusted to the fact that share capital returns are definitely limited, and sources of risk capital are restricted. It may be said that here is a contradiction exhibited by the cooperative as business organzation existing in highly developed capitalist economy.

But, over the years, agricultural cooperatives in various countries have made efforts to find ways to secure the capital needed under the restrictive conditions mentioned above. In acquiring "owned" capital they have come to sell capital stock not only to the members but to the public. In getting external liabilities they have made borrowings from commercial banks or other sources, or embarked by themselves in the banking business. In later years government has become a source of funds or has helped establish special banks for cooperatives, especially since the great depression of the 1930's.

But these vary, of course, in practical devices and means in different countries according to the historical conditions of economic development under which agriculture and agricultural cooperatives have grown.

The following study purports to be no more than a simple survey of the present capital structure of agricultural cooperatives in the United States and Japan in the form of a comparative study. It is doubtless true that a study of this subject cannot be said complete without more elaborate examination of basic concepts of the cooperative organization and historical study in more detail of the development of the cooperative movement in the respective countries. But the writer ventures to believe that this study, as it is, may be useful to clarify the differences in financial aspects of agicultural cooperatives. Furthermore, he believes that through it, the comparative structural features, direction of development and the position in national economy of the agricultural cooperative movement in the two countries, far apart in

economic, social and political characteristics may be elucidates.

At the beginning, however, it will be necessary to present at least brief considerations to the relation of cooperative organization and capital formation thereof in more general terms, and to the present picture of agricultural cooperatives in the two countries.

Notes :

1) Digby, M. and Gorst, S., Agricultural Go-operation in the United Kingdom, Basil Blackwell, Oxford, 1957, p. 125.

2) U.S. Department of Agriculture, General Report 32, 1957, p. 3.

3) Ministry of Agriculture and Forestry, Yearbook of Statistics of Agricultural Cooperatives, 1959, p. 21.

II Cooperative organization and capital formation

It is admitted, as Professor C. R. Fay once poioted out,[1] that back of the emergence and the growth of modern cooperation were the Industrial Revolution which began in the last third of the 18th century in England and the Agricultural Revolution since the last half of the 19th century on the European Continent. This means that the cooperative movement had its beginning with the growth of commodity production in industry and agriculture. Faced with a rapid expansion of capitalist economy and the accompanying enlargement of the market, working men, small farmers or peasants and others, who were too small units as consumer or producer individually, could not help joining together to cope with such situation. Otherwise, they would have to be exploited by avaricious commercial and usury capital. Through cooperation in selling their produce, in buying their requisites or in supplying credits, they intended to protect themselves from such exploitation. Hence working men began to organize the consumers' cooperative societies, handicraftsmen went into the organization of workshops of their own, and small farmers and peasants set about to form agricultural cooperative associations.

As a matter of course, however, the mode of development of cooperation is different from country to country. So far as the case of farmers or peasants is concerned, we find such a country as the United States, where there has been a close connection between the agricultural cooperatives and the general farmers movement. However, in other countries, especially with innumerable small units of peasant economy, such relation is not necessarily distinct. As seen in our country, there is a case that the agricultural cooperative has been organized as a means for making the peasant economy adaptable to the capitalist one under the initiative of the landlord class and government. In other words, the cooperative movement in such a case is, so to speak, a movement not from below but from above.

But, in any case, the agricltural cooperative movement as such is a movement by which the participating members propose to protect themselves in the field of economy. Accordingly it must be given a peculiar economic structure. That is, it is an economic organization in which the members want to combat the pressure of modern capitalism and commercial or usury capital by collectivizing their means for production and circulation, or labor.

Cooperation thus involves in itself two moments; collectivizing of the economic means or labor and ownership relation of the elements collectivized. The direction and the degree to which these two moments extend cannot fail to bring about different forms of cooperation. Thus, a variety of cooperative forms are to be found around us. Among these the so-called cooperative workshop, a kind of producers' cooperation, is thought to be the highest form of cooperation, because it collectivizes both labor and means for production in the fullest sense of the terms. Historically this form of cooperation appeared in England and France around 1850.[2] It was in this form that John Stuart Mill predicted cooperation's ultimate triumph and Karl Marx found a new, cooperative mode of production.[3] Each of the other forms of cooperation can be said to be characterized according to the degree of divergence from this form.

For instance, agricultural cooperation in most cases is an association of peasants or small farmers based upon the principles of open menbership and democratic control by the participating member patrons themselves, with a presupposition of maintaining their individual autonomy and independence. In other words, cooperation in this case means only that labor and economic means of individual members are partially collectivized.

Then, let us direct our attention to the internal structure of cooperation of this form, particularly to the mutual relation of cooperation as such and the ownership of each member. It would be recognized that cooperation formed under such condition as partial collectivizing of individual labor and economic means represents itself as a new organization having a dual nature of a derivative of the constituent individual members and, at the same time,

of an entity to be distinguished from the individual members. Cooperation, exclusive of the highest form mentioned earlier, must be said to be destined to exist always with such a dualism as its indelible nature. Accordingly it must follow that while cooperative organization is fundamentally to be in subordination to the constituent members, it comes in course of time necessarily to strengthen its own independent individuality and autonomy, and to be forced to promote economically reasonable operations of its own. Cooperative organization as an entity turns out, so to speak, a going economic concern in incorporated form. Under such a situation, the owership relation also takes a dual appearance—externally a collective or cooperative ownership and internally, private owership to be divided into individual shares. In other words, in cooperatives we find corporate or group ownership of productive property, but that ownership rests with individuals whose property rights are determinable.[4]

Then, under the conditions of capitalism, advance of capital and the expense of raising it are generally met by means of money and therefore cooperative capital funds socially take the nature of capital bearing interest. Capital of a cooperative also must be regarded as an advance made by the member patrons in one form or another. Hypothesized as an association in its embryonic stage, it might be assumed that the member patrons furnish their association with capital sufficient for one transaction, whenever transactions are carried out by the association. However, as the actual cooperative association has come to deal, as a permanent business concern, with a permanent flow of transactions of current business, the method of advancing money for each transaction seperately has been replaced by a constant fund placed at the cooperative's disposal.

Through such a process of capital formation in a cooperative and with the growth of economic surplus in it, the cooperative property comes to be inevitably marked with the nature of capital in the sense mentioned above.

But, however much the cooperative property may take on such nature, it cannot completely transform itself into entrepreneurial capital as such.

The cooperative association has originally an internal structure in which its property may be restrained from such transformation. The so-called cooperative principles—fixed, conservative rate of interest on the funds subscribed by the members, one member one vote regardless of the amount of funds contributed, intransferability of subscription certificates, etc.—these all are neither arbitrary nor casual but necessary to the genuine characteristics of cooperative association, and particularly they may serve to restrict free movement of the capital accumulated in the association. Again, it is quite obvious that when the capital funds accumulated in a cooperative transform into entrepreneurial capital in the ordinary sense, the cooperative cannot remain a true cooperative any longer, but it will be anything but a cooperative association.

But, for exact application of these cooperative principles, there must be required some assumptions to be met. For instance, in the case of producers' cooperative workshop, the highest form of cooperation, it is a prerequisite that not only the cooperative property should be equally shared among the participating members but also that each member's labor should be absolutely equal both in quality and in quantity. If such conditions are not met, there may arise some contradiction or friction, especially unequal distribution of profits among the consitituent members. Such unequality tends frequently to lead to transformation of the cooperative into a profitable interest paying establishment for prospective investors. In fact, a number of instances of such transformation have been seen in many countries.[5] (Recall Dr. F. Oppenheimer's formulation: Das Gesetz der Transformation der Arbeiter-Produktivgenossenschaften.)

In any form of cooperation other than a cooperative workshop, the participating units usually do not share the cooperative property equally, because, in reality, the member units are under different conditions from one another and they participate in the cooperative under different conditions. In this case, however, at least theoretically the following presupposition is required in order to prevent the cooperative from breaking down. That is, the proportion of the total cooperative property to be shared by each of the

participating units should be defined by the relative size of the productive activities of each of the individual units.[6] This proportionality is the most basic determinant for the manner in which participating units will share all inputs and all outputs of the cooperative they join. The bearing of uncertainties, the financial responsibility, the economic use (patronage), the costs, and the economic benefits in connection with the cooperative must be shared by the units on the basis of proportionality.[7] But any cooperative in reality can hardly maintain such proportionality. Therefore inside of any cooperative there may exist fricition or contradiction to some extent between ownership and patronage or between the use of capital and private owership. It is not so difficult to find some instances in which such a contradiction had grown enough to have made agricultural cooperatives transform themselves into some other form of enterprises.

Moreover, a cooperative in reality exists usually as having some non member-patrons as well as patron-members, and capital borrowed from outside in some degree for which it must pay interest. These factors also may distort the proportionality noted above and may come potentially to push the cooperative in a non-cooperative direction.

In addition to this it may also be pointed out that the tendency grows for ownership to come to be separated from management in a cooperative as seen in the other forms of business. In the case of a cooperative association the members, being the owners of it, elect the directors just as the stockholders do in an ordinary corporation. Inevitably the larger the number of members, the volume of business, the complexity of functions, and the greater capital employed, the less the control exescised by the membership over management. Such divorce of ownership from management must be said to be a result of capital fomation in a cooperative organization.

The foregoing is only an insufficient analysis of the relation between the *structure of cooperative organization and the capital formed therein.* It will, however, be an important point ncessary for understanding the survey of capital structure of active agricultural cooperative associations.

In the next place, a brief consideration will be paid to capital formation in agricultural cooperatives in general terms.

In the primary stage, agricultural cooperation would be, in reality, of a temporary nature to meet some occasional needs of the participating members. It would have been an organization in one form or another, but yet could not have been regarded as having the real qualities of a going economic concern. In such a case the cooperative capital would be only of temporary or interim character. When, however, there exists any continuous need for cooperation such temporary organization cannot help transformation into a permanent one with an organic unity, being relatively independent from the individual members. And it will have some collectivized means for production or circulation, and division of labor to some degree. It is at this stage that the cooperative organization will have increased needs for working capital, fixed capital and hired labor. In other words, as the cooperative develops into a more permanent sort of undertaking, the patrons also will be forced to place larger capital contributions in it. In parallel with this, the methods of capital raising and of paying expenses will change, for instance, in such ways as from the assessment to the subscription in a form, and from the instant settlement to the disbursement in advance. Of course, in such a stage it should be taken into consideration that there may have been enacted the cooperative laws which stipulate incorporation of the cooperative, methods of capital raising, and so on. Accordingly the changing aspects in the methods of capital raising can be traced, to a considerable extent, to the changes in the stipulations of the cooperative laws.

Most of the cooperatives today are in quite similar situation in that they use much capital—borrwed as well as owned—, hire labor on almost the same terms and conditions as other ordinary firms, use equipment of highest quality and efficiency, employ competent, highly-paid managers, and depend on the latest, most efficient management and administration. In fact, some of the regional farmer cooperatives in the United States are ranked high among the so-called big businesses.[8] In our country some of the federated

agricultural cooperatives are operated and managed as considerably large-scale businesses, though most of the local associations, of course, fall behind them in many respects.

Then, the criteria by which the degree of the cooperative capital formation can be measured should be the amount of hired labor as well as the money capital contributed by individual members. In the early stage, the labor needed for doing cooperative business might be furnished, without any remuneration, by each or some of the members. As the cooperative grows as a going business concern and expands the scale of operation, such labor would come to be gradually replaced by labor remunerated in some way; the level of remuneration also goes up from the nominal to the substantial. These changes must be said to have resulted from the different degree of capital formation and employments. In this respect, the difference between the Raiffeisen principle and that of the Schulze-Delitzsch should be recollected. As known well, the former made it a rule not to give remuneration for managerial labor provided by the members.[9] On the contrary, it was a principle of the latter that all the labor should be remunerated.

Shift from non-remuneration for managerial labor to remuneration is not caused simply by the organizational technique, but by the difference of the level in capital formation. Shift from unlimited liability to limited has the same meaning in one side. And when the cooperative comes, at the next stage, to employ wage-workers, whose quality is to change gradually from the part-time labor or family dependents to full-time or self-supporting workers, the level of the capital formation therein can be said to have approached to the ultimate stage, and the separation of capital from labor becomes decisive.

However, what reflects dircetly the level of cooperative capital formation must be the capital funds in the form of money contributed by the members. In connection with this, the Rochdale Pioneers' Society should be, first of all, recalled to mind. It is said to have opened the way to the modern cooperation in the middle of the last century in England. So far as

the providing of capital funds is concerned, the Rochdale Society formally sought share capital to be subscribed by the individual members. This method has since then been adopted by most of the cooperative organizations in the world in order to raise capital funds. Share capital has come to be regarded as the foundation of cooperative finance. Moreover, it has been identified with the membership of the cooperative.

Then, turning to look at the source of such capital fund contributed directly by the members, one sees that it would be, after all, nothing but the economic surpluses in the hands of individual members. Such surplus, however, must be usually limited to quite a small amount by the nature of the membership, particularly so in the case of small farmer. Here is obviously a strict limitation in the formation of cooperative capital if it depends upon only the form of share capital. In our coutry the agricultural cooperatives have been allowed only this method for raising their equity capital by the law from the beginning, while American farmer cooperatives have devised a variety of methods for accumulation of the owned capital after having once accepted the Rochdale method as will be described later.

With the growth of a cooperative organization as an enterprise, it comes to be possible for it to draw upon other sources of capital owned by the members in addition to share capital as mentioned above. These include reserves and undistributed profits, which are all contributed in one way or another by the members. In connection with reserves and undistributed profits Raiffeisen's rural bank system would be remembered. In Raiffeisen village banks, no member was asked to pay down anything for a share on joining. This accepted regulation, howerever, was overruled by the legislature on the basis of the law of 1889,[10] which stipulated that there must be shares. The Raiffeisen associations had to meet such requirement by making their own shares as small as possible. Their principal sources of capital were found in the two reserve funds instituted. One of these is an ordinary reserve fund, but the other is said to be a feature entirely peculiar to the Raiffeisen system. This is called the "Stiftungsfond", to which without fail

two-thirds of the annual profits must go. It belongs wholly to the banks and must not be shared out on any account whatever.[11]

In some countries including Japan, the law requires that some definite portion of the annual surplus of all cooperatives should be placed to reserve until the reserve equals a certain portion of the share capital.

Reserve in general are an eminently satisfactory form of capital in that they cost nothing once they are establised, are stable, and are wholly under the control of the cooperative.

In addition to reserve, it is not uncommon to retain a substantial sum as unallocated surplus. The device of replacing initial share capital by a bank loans secured on the joint guarantee of all members is found in a few countries including Denmark.[12] In the United States and Canada the revolving fund plan is seen used widely to accumulate owned capital and it seems to have begun to attract attention elsewhere. A system of allocated reserves also is adopted in some countries.

Besides, some agricultural cooperatives are in the habit of issuing debentures, preference shares or some other form of capital certificates to their members or the public. Moreover, there are, needless to say, the cases in which the cooperative associations have the practice of accepting interest-bearing deposits from the members, as seen typically in our general-purpose agricultural cooperative system or credit associations.

Cooperatives may exist which are entirely self-financed. They are, however, rather exceptions at present. For a very large number of agricultural cooperatives, some form of outside finance has become necessary. Tha major sources of outside capital are bank loans or overdraft and trade credits. Besides, there are some forms of loans from the members or other individuals as minor sources of capital.

At any rate, thus, the cooperative has come to depend upon a number of different sources of capital funds under different conditions which have been developed in various countries. But there is one thing that shoutld not be overlooked. It is a fact that agricultural cooperatives have come not to

be carried on without government financial aid in some form whatever. For example, there have been created special banks for financing cooperatives in a number of countries, the funds of which consist of capital provided by government as well as that subscribed by the member associations. For the present, it seems difficult to find any country which has no government plan of financial aid to agricultural cooperatives. Furthermore, a government program aiding agricultural cooperatives is not confined only in financing. It can be said that farmer cooperatives today are closely tied up with government aid or control in their business activities. Without consideration of this aspect, the existence of the farmer cooperative movement at present cannot be fully understood.

Such a close tie between the farmer cooperative movement and government programs is thought in general to have started since the beginning of the 1920's. At that time a serious world-wide depression broke out with violent fall in farm product prices; it made farm relief a major political and economic issue and occasioned a vigorous search for ways to increase farm prices and income. It might be natural that legislators advocating assistance to farmers would have proposed using the cooperatives as the medium for carrying out a government farm relief program where an extensive cooperative movement was already in existence. Another disastrous economic crisis in the 1930's could not help strengthening more and more this tendency. As a result the connection between government agricultural programs and the farmer cooperative movement became decisive. At the same time, however, the agricultural cooperative movement is thought to have experienced great change in its economic functions as well as in financial phases. It is pointed out in the United States that the time from 1929 to 1933 marked the culmination as well as the end of one important period in the history of agricultural cooperation, and the failure of the voluntary cooperative as a device for expressing market power, for out of it, by remarkably direct steps, grew the agricultural programs of the thirties.[13] As for our country, too, it would not be denied that the time when the Rural Economic Rehabilitation

Movement began (since 1932) marked a period of transition in the history of our agricultural cooperative movement.

Then, it seems necessary to refer briefly to the development of the agricultural cooperative movement both in the United States and in Japan.

Notes :

1) Fay, C. R., Cooperation at home and abroad, P. S. King & Son, London, 1925, pp. 190 ff.

2) Ashley, S. W., The organization of England, Longmans, Green and Co., London, Third ed., 1949, pp. 174 ff.
Cole, D. G. H., A short history of the British working-class movement 1789-1947, George Allen & Uniwin Ltd., London, 1948, pp. 156 ff.

3) Mill, J. S., Principles of Political Economy, Book IV, ch. VII, 6, George Routledge & Sons, London, pp. 509-510.
Marx, K., Capital Vol. III, Chapter XXVII, (English translation, Foreign Languages Publishing House, Moscow, 1959. p. 431)

4) U. S. Department of Agriculture, The yearbook of agriculture 1954, Marketing, p. 240.

5) Cole, loc. cit.; Ashley, op. cit. p. 175.

6) Phillips, R., Economic nature of the cooperative association, (Abrahamsen, M. A. and Scroggs, C. L. ed. Agricultural Cooperation, University of Minnesota Press, Minneapolis, 1957, p. 146)

7) ibid.

8) Fortune, August 1945, Vol. XXXII, No. 2, pp. 153 ff.

9) Wolff, H. W., People's Banks, P. S. King & Son, London, 1910, p. 134.

10) ibid. p. 135.

11) ibid. pp. 136-137.

12) Digby, M. and Gorst, S., Agricultural Co-operation in the United Kingdom, Basil Blackwell, Oxford, 1957. q. 129.

13) Galbraith, J. K., American Capitalism, Houghton Mifflin Co., Boston, 1956, p. 162.

III Development of agricultural cooperatives in the United States and Japan

The modern cooperative movement in general began, as mentioned previously, to develop on a full seale with the establishment of industrial capitalism. However the real conditions that stimulated working men or small producers to organize their cooperatives vary by countries.

Apart from the obscure, embryonic stage, the general propagation of a cooperative form of organization by the farmers in the United States dated back to the period after the Civil War, during which industrial capitalism is regarded to have been established. At the same time, it is noteworthy that such cooperative movement among the farmers was first promoted by the Grange movement formed about the time of the post war crisis.[1] That is, the farmer cooperative movement in the Uuited States started in close connection with the general farmers movement. In view of this fact, it is permissable to say that the farmer cooperative movement there was formed by farmers themselves spontaneously and voluntarily. In this respect the movement must be charaterized as remarkably different in nature from the agricultural cooperative movement in Japan.

The Grange, the Patrons of Husbandry, was formed in 1867 as an organization protecting farmers' interests, which was conceived originally by Oliver Hudson Kelly.[2] He considered at first the possibility of improving farming conditions following the Civil War by the establishment of a fraternal order. He then decided that the Grange could be expanded to deal with farmers' economic problems. It is reported that the local organizations increased rapidly; almost 12,000 were formed in 1874, the peak year. The total was more than 24,000.[3] The Grange engaged in battles to curb the railway corporations as well as in information and education for farmers. One of the conditions that made such economic joint action among farmers possible was the fact that the farmers in the United States had already by

about 1870 become largely producers of staple crops for market and also nearly entirely dependent upon outsiders for supplies.

Although the cooperative movement by the Grange was shortlived and came to an ultimate end in 1875,[4] the most influential contribution that the Grange exerted upon the later development of the cooperative movement may be the introduction of the Rochdale principles. In 1874 the National Grange sent a representative to Europe to gather information about cooperation.[5] As a result, the Grange formulated and distributed a set of rules for the organization of cooperative stores in the following year. The influence of the importation of the Rochdale principles upon cooperative capital formation will be discussed later.

After the decline of the Grange, the Farmers' Alliance sprang up in several areas. Cooperative efforts were developed by the Alliance in almost similar manner to that of the Grange mainly from 1888 to 1895.[6] It is reported that by 1890 there were about 1,000 active cooperatives.[7] Seventy-five per cent of these handled dairy products; 10 per cent, grain; and over 10 per cent, fruit and vegetables.

It was during the three decades from 1890 to 1920 that agricultural cooperation established itself on a firm basis. In nearly all States there had occurred the formation of local cooperatives, especially marketing associations. By the end of this period the number of active cooperatives is reported to have reached a peak in history, —more than 14,000, including over 12,000 marketing associations and about 2,000 purchasing ones.[8] Again federations of local shipping associations and a few centralized cooperatives are seen to have started.

Just after the new century began, an outgrowth of the Farmers' Alliance movement appeared. The Farmers' Educational and Cooperative Union—usally called the Farmers Union— was launched in Texas in 1902.[9] The Farmers Union placed major emphasis on economic activities as well as educational and scoial problems. It performed purchasing and marketing services through its local cooperatives and later federated and centralized regional associations

mainly in the Southern and Midwcstern States. The State Farmers Union established a wholesale supply purchasing department in some States in the middle of the 1910's.[10)]

In parallel with the Farmers Union, the American Society of Equity, a general farm organization, began sponsor many cooperatives in the North Central States.[11)] Its efforts were in particular directed to marketing livestock, grain and potatoes, and also handling farm supplies. It should be pointed out in connection with the develoment of cooperation during this period that many regional cooperatives started to be formed, and the formation of farm supply coopertives spread throughout the country.

Meanwhile, government and other public institutions began to pay attention to the farmer cooperative movement. President Theodore Roosevelt created the Country Life Commission in 1908,[12)] which took interest in cooperatives. In 1913 President Woodrow Wilson sent a commission to Europe to study cooperation and an office of markets was established in the U. S. Department of Agriculture.[13)] Moreover, the Smith-Lever Act, passed in 1914, provided for the so-called extension system.[14)] Country and States Farm Bureaus, which were formed to promote the extension work, assisted in organizing many cooperative associations. The American Farm Bureau, the national organizition formed in 1919, in sponsoring the organization of cooperatives, frequnently aided by assuming preorganizational expenses and furnishing initial capital.[15)] It is said that under the influence of this organization several national cooperative organizations were established, including the U.S. Grain Growers, Inc., Chicago; Federated Fruit and Vegetable Growers, Inc., Chicago; and the National Livestock Producers' Association, Chicago.

In these days the air around farmer cooperation seems to have been, so to speak, filled with optimism as to its possibilities. Certainly it was showing growth.

In reality, however, both the number of associations and the participating members were not necessarily very large. Based upon the official data reported by the U.S. Department of Agriculture,[16)] in 1913 the number of

farmer cooperative association was slightly more than 3,000, most of which were marketing ones. After two years the number of associations increased to about 5,500, but with only 652,200 members. Again, the Sixteenth Census of the U.S. showed that there were 624,527 farms that bought or sold through cooperatives in 1919.[17] This figure accounted for only 9.7 per cent of the total number of farms in the same year.

With the coming of the following period, marked by the depression of 1920–1921, the direction of the farmer cooperative movement had to be changed a little in the face of the violent fall in farm product prices. It was at this juncture that a new movement arose, which was symbolized by a slogan—"orderly commodity marketing".[18] This new movement was first advocated by Aaron Sapiro, a lawyer of California, who is said to have had the backing of the American Farm Bureau Federation.[19] The aim of this movement was to create organizations, with members firmly bound to the organizations, by contracts, large enough to control the marketing and the production of major fractions of the principal crops, and to obtain, through such organization, the power to set the prices. It is thought to have been an attempt to realize the utmost possibility that farmer cooperation had. Also, it is said, however, that the intention of the leaders of this movement was, not interest in building strong coopertives democratically controlled by the members, but the creation of organizations dirceted wholly from above by the executives, which would be powerful enough to meet oligopolistic industrial or commercial buyers of farm commodities on a plane of equality.[20]

As a fact, there had been formed, under the direct influence of "Sapiroism," many State and regional associations for marketing cotton, tobacco, wheat, broomcorn, white potatoes, olives, alfalfa, milk, melons and poultry. Farmers signed "iron-clad" contracts providing for delivery of their crops to these new enterprises. At the close of 1920 there were, it is reported, 16 centrally controlled cooperatives with about 50,000 members, and by 1925 the number had increased to 74, including 13 wheat pools, with about 880,000 members.[21] As a matter of course, however, not all the

cooperatives formed in the 1920's were under the direct influence of "Sapiroism."

Moreover, it should be remembered that there were numerous contribution to the legal side of cooperative marketing during the 1920-1929 period. Most States enacted a marketing act. National legislative acts pertaining to cooperatives were enacted for the first time. Among them there was the Capper-Volstead Act passed in 1922. In 1926 was passed the Cooperative Marketing Act which provided for a division in the U.S. Department of Agriculture. This is the predecessor of what is now the Farmer Cooperative Service Division.

Then, returning to the matter of "Sapiroism," to clarify what the result of this movement was it may be convenient to take the case of tobacco cooperatives as an instance. In 1923 the six tobacco cooperatives handled 48.5 per cent of the entire crop. As a result, indeed, prices went up, but it benefited, to some extent, only nonmembers who of course proceeded to sell their crops. The cooperatives soon found themselves left holding large stocks and unable to pay their members in full on delivery.[22] One of the lessons learned from such experience would be at least that cooperative control of even a large fraction of a crop is in itself not sufficient to raise prices effectively. In fact, despite the existence of "iron-clad" contracts the members deserted and the cooperatives disintegrated.

Professor J. K. Galbraith puts much value upon cooperatives as a device for getting economies of larg-scale operation in the handling of farm products or for providing and capitalizing such facilities as elevators, grain terminals, warehouses and creameries, but he can not help undervaluing them as a group to exercise market power. Pointing out the fatal structural weaknesses of cooperatives, he says, "The cooperative is a loose association of individuals. It rarely includes all producers of a product. It cannot control the production of its members..... A strong bargaining position requires ability to wait — to hold some of all of the product. The cooperative cannot make the nonmembers wait, they are at liberty to sell when they please ..... In

practice, the cooperative cannot fully control even its own members. They are under the constant temptation to break away and sell their full production, ... These weaknesses destroyed the Sapiro cooperatives." Furthermore he explains that the agricultural programs of the thirties grew from the failure of the voluntary cooperative as a device for expressing market power.[23]

After many Congressional efforts to provide cooperatives with government aid through the 1920's, the Agricultural Marketing Act was passed in 1929 during which year the "great depression" broke out. Under this Act was established a Farm Board which had two main duties: (1) to aid cooperatives, and (2) to support prices if necessary by means of stabilization corporations which would buy up excess supplies. Thus the farm-relief movement of the 1920's finally introduced direct governmental intervention to raise prices and to assist cooperatives.

The Farm Board is said to have first hoped the large cooperatives it sponsored would be able to occupy the same position in their respective fields as did some of big businesses in theirs.

As the Board, however, had to act in hurry it forced the exisiting local or state cooperatives into overhead national selling organizations, which involved wheat, livestock, wool and beans. At the same time the Board was authorized a revolving fund of $ 500, 000, 000 by Congress to assist cooperatives.[24] As long as the board could lend the cooperatives enough to pay market prices or better for their members' products, cooperative business increased and also a number of new associations and stabilization corporations appeared. But after 1931 when the fund was exhausted and these organizations had to stand on their own feet, their sales fell off rapidly. Finally most of these organizations went out of existence.

The Farm Board experience seems to indicate that the withholding of enough of the supply of a major crop to affect the price significantly would require financing on the scale of an enormous amount of money and in order to be effective such financing would have to be accompanied by the control

of marketing and the regualtion of production. These functions are probably beyond the scope of cooperation. In consequence, price-support programs in the U.S. since 1933 have been directly carried out by government agencies, and at the same time the emphasis placed on cooperatives came to be changed. Since then the cooperative movement has tended to build itself firmly on local organizations and to concentrate on the real gains to be derived from increasing efficiency in operations. That is, it has been emphasized that the object of cooperation is to bring to farmers the economies of large-scale operation coupled with efficient low cost service. A new period in the development of agricultural cooperation is said to have begun with the closing of the Farm Board era in 1933.[25)]

It seems difficult adequately to characterize this period which still continues at present. A number of conditions, it is sure, have intermingled with each other to affect cooperation by farmers. There was, needless to say, the time of World War II in the interim. Within agriculture such shifts as those to mechanized, diversified, scientific and more commercialized farming have occurred. Farmer cooperatives have had much growth in business volume and memberships, and moreover have experienced diversification, integration, consolidation and modernization. As a result, a shift from simple to complex associations and to broader services has been seen. Strong emphasis has come to be placed on sound business principles and membership participation. Again, it must be a marked tendency in this period that farmer supply cooperatives, in particular those of regional type, have steadily increased in importance, many of them have undertaken a great increase in the manufacturing of farm supplies.

There are several important events to be pointed out here, which also mark this period. First, there is the creation of the Banks for Cooperatives which have made facility, operating, and commodity loans to cooperatives. This system was a result of the legislation creating the Farm Credit Administration, which also established production credit associations whose lending services help relieve some of the farmers' demands for credit from farm

supply cooperatives. Second, there are the research, service, and educational assistance to farmer cooperatives by the U.S. Department of agriculture. Activities of this gevernmental agency seem to have served to emphasize and strengthen such tendencies as follows: managerial problems and operating efficiency; manufacturing of farm supplies with more modern facilities; more processing of farm products of many kinds; consolidation or merger of cooperatives, especially of inefficient small ones; coordinating the efforts of both local and regional cooperatives; the need and importance of accounting and auditing service.

What is described above is a glimpse of the development of the agricultural cooperatives in the United States. It seems necessary to be supplemented with some statistical data. In the United States it is since the fiscal year 1929–30 that a nationwide survey of farmer cooperatives have come to be made annually. Before that, a like survey was held only in 1913, 1915, 1922, 1925–26 and 1927 1927–28 respectively.[26] Accordingly it appears difficult to get any nationwide statistical data pertaining to farmer cooperatives before the early part of the 1910's, not to speak of any data for the 19th century.

Based upon data available, annual changes in the number of farmer cooperatives, memberships and estimated businiess are shown in tables 1, 2, and 3 respectively. As indicated in these tables the formation of farmer cooperatives in the United States came to be widespread over the country with the beginning of the 1920's and the number reached the record peak in the early part of the 1930's; since then it has continually decreased. This was caused by more rapid decline in the number of marketing associations and steadier increase in that of farm supply associations. As for membership, table 2 shows that it has steadily increased from year to year, with a slight reverse trend in the end of the 1930's, and memberships in farm supply cooperatives represent a far higher rate of increase than that of marketing cooperatives. The proportion of the former in the total memberships reached 44.6 per cent in 1955–56. This percentage was higher

Table 1 Number of marketing, farm supply and service cooperatives, 1913 to 1956, United States.

Year	Marketing **		Farm Supply **		Service **		Total	
	coops	%	coops	%	coops	%	coops	%
1913	2,988	96.4	111	3.6	–	–	3,099	100.0
1915	5,149	94.9	275	5.1	–	–	5,424	100.0
1921	6,476	87.8	898	12.2	–	–	7,374	100.0
1925–26	9,586	88.7	1,217	11.3	–	–	10,803	100.0
1927–28	10,195	89.4	1,205	10.6	–	–	11,400	100.0
1929–30	10,546	87.9	1,454	12.1	–	–	12,000	100.0
1930–31	10,362	86.7	1,588	13.3	–	–	11,950	100.0
1931–32	10,255	86.2	1,645	13.8	–	–	11,900	100.0
1932–33	9,352	85.0	1,648	15.0	–	–	11,000	100.0
1933–34	9,052	83.0	1,848	17.0	–	–	10,900	100.0
1934–35	8,794	82.2	1,906	17.8	–	–	10,700	100.0
1935–36	8,388	79.9	2,112	20.0	–	–	10,500	100.0
1936–37	8,142	75.8	2,601	24.2	–	–	10,743	100.0
1937–38	8,300	76.2	2,600	23.8	–	–	10,900	100.0
1938–39	8,100	75.7	2,600	24.3	–	–	10,700	100.0
1939–40	8,051	75.3	2,649	24.7	–	–	10,700	100.0
1940–41	7,943	74.9	2,657	25.1	–	–	10,600	100.0
1941–42	7,824	74.2	2,726	25.8	–	–	10,550	100.0
1942–43	7,708	73.8	2,742	26.2	–	–	10,450	100.0
1943–44	7,522	73.0	2,778	27.0	–	–	10,300	100.0
1944–45	7,400	72.9	2,750	27.1	–	–	10,150	100.0
1945–46	7,378	72.7	2,772	27.2	–	–	10,150	100.0
1946–47	7,268	71.8	2,857	28.3	–	–	10,125	100.0
1947–48	7,159	70.6	2,976	29.4	–	–	10,135	100.0
1948–49	6,993	69.4	3,082	30.6	–	–	10,075	100.0
1949–50	6,922	69.0	3,113	31.0	–	–	10,035	100.0
1950–51	6,507	64.7	3,282	32.7	262	2.6	10,051	100.0
1951–52	6,582	64.7	3,323	32.7	261	2.6	10,166	100.0
1952–53	6,489	64.2	3,376	33.3	249	2.5	10,114	100.0
1953–54	6,445	64.1	3,372	33.5	241	2.4	10,058	100.0
1954–55	6,316	63.9	3,344	33.8	227	2.3	9,887	100.0
1955–56	6,268	63.5	3,373	34.1	235	2.4	9,876	100.0

* Cited from Agriculture Handbook No. 118, 1957 and Statistics of Farmer Cooperatives 1955—56, 1958, U.S. Department of Agriculture.

– not available.

** Marketing cooperatives in this table (the same shall apply hereinafter) include those associations whose business is predominanly marketing farm products for their patrons, with more than 50 per cent of their total dollar volume derived from the sales of such products. Farm supply coopertaives are those whose farm supply business accounts for more than 50 per cent of their total dollar volume. Related service cooperatives have the major functions of trucking, storing, drying, or similar services related to marketing or farm supply activities. (See appendix of Statistics of Farmer Cooperatives 1955—56, General Report 48, 1958, U.S. Department of Agriculture)

Table 2 Estimated memberships of marketing, farm supply and service cooperatives, 1915-1956, United States.* (1,000)

Year	Marketing		Farm Supply		Service		Total	
	members	%	members	%	members	%	members	%
1915	592	90.9	60	9.1	–	–	652	100.0
1925-26	2,453	90.9	247	9.1	–	–	2,700	100.0
1927-28	2,602	86.7	398	13.3	–	–	3,000	100.0
1929-30	2,630	84.8	470	15.2	–	–	3,100	100.0
1930-31	2,608	86.9	392	13.1	–	–	3,000	100.0
1931-32	2,667	83.3	533	16.7	–	–	3,200	100.0
1932-33	2,457	81.9	543	18.1	–	–	3,000	100.0
1933-34	2,464	78.1	692	21.9	–	–	3,156	100.0
1934-35	2,490	75.9	790	24.1	–	–	3,280	100.0
1935-36	2,710	74.0	950	26.0	–	–	3,660	100.0
1936-37	2,414	73.8	856	26.2	–	–	3,270	100.0
1937-38	2,500	73.5	900	26.5	–	–	3,400	100.0
1938-39	2,410	73.0	890	27.0	–	–	3,300	100.0
1939-40	2,300	71.9	900	28.1	–	–	3,200	100.0
1940-41	2,420	71.2	980	28.8	–	–	3,400	100.0
1941-42	2,430	67.5	1,170	32.5	–	–	3,600	100.0
1942-43	2,580	67.0	1,270	33.0	–	–	3,850	100.0
1943-44	2,730	64.2	1,520	35.8	–	–	4,250	100.0
1944-45	2,895	64.3	1,610	35.7	–	–	4,505	100.0
1945-46	3,150	62.9	1,860	37.1	–	–	5,010	100.0
1946-47	3,378	62.1	2,058	37.9	–	–	5,436	100.0
1947-48	3,630	61.6	2,260	38.4	–	–	5,890	100.0
1948-49	3,973	62.3	2,411	37.8	–	–	6,384	100.0
1949-50	4,075	61.9	2,509	38.1	–	–	6,584	100.0
1950-51	4,117	58.1	2,879	40.6	94	1.3	7,090	100.0
1951-52	4,229	57.4	3,033	41.2	102	1.4	7,363	100.0
1952-53	4,247	56.8	3,139	42.0	89	1.2	7,475	100.0
1953-54	4,273	56.2	3,253	42.7	82	1.1	7,608	100.0
1954-55	4,213	55.4	3,322	43.7	68	0.9	7,603	100.0
1955-56	4,222	54.6	3,443	44.6	64	0.8	7,730	100.0

* The same sources as cited at foot of table 1.

– not available

Table 3 Estimated volume of business of marketing, farm supply and service cooperatives, 1913-1956, United States.*

(millions of dollars)

Year	Marketing		Farm Supply		Service		Total	
	value	%	value	%	value	%	value	%
1913	304	98.1	6	1.9	–	–	310	100.0
1915	624	98.2	12	1.8	–	–	636	100.0
1921	1,198	95.4	58	4.6	–	–	1,256	100.0
1925-26	2,265	94.4	135	5.6	–	–	2,400	100.0
1927-28	2,172	94.4	128	5.6	–	–	2,300	100.0
1929-30	2,310	92.4	190	7.6	–	–	2,500	100.0
1930-31	2,185	91.0	215	9.0	–	–	2,400	100.0
1931-32	1,744	90.6	181	9.4	–	–	1,925	100.0
1932-33	1,199	89.5	140	10.5	–	–	1,340	100.0
1933-34	1,213	88.9	152	11.1	–	–	1,365	100.0
1934-35	1,343	87.8	187	12.2	–	–	1,530	100.0
1935-36	1,586	86.2	254	13.8	–	–	1,840	100.0
1936-37	1,882	85.7	313	14.3	–	–	2,196	100.0
1937-38	2,050	85.4	350	14.6	–	–	2,400	100.0
1938-39	1,765	84.0	335	16.0	–	–	2,100	100.0
1939-40	1,729	82.8	358	17.2	–	–	2,087	100.0
1940-41	1,911	83.8	369	16.2	–	–	2,280	100.0
1941-42	2,360	83.1	480	16.9	–	–	2,840	100.0
1942-43	3,180	84.1	600	15.9	–	–	3,780	100.0
1943-44	4,430	85.9	730	14.1	–	–	5,160	100.0
1944-45	4,835	85.7	810	14.3	–	–	5,645	100.0
1945-46	5,147	84.8	923	15.2	–	–	6,070	100.0
1946-47	6,005	84.4	1,111	15.6	–	–	7,116	100.0
1947-48	7,195	83.3	1,440	16.7	–	–	8,635	100.0
1948-49	7,700	82.6	1,620	17.4	–	–	9,320	100.0
1949-50	7,082	81.2	1,643	18.8	–	–	8,726	100.0
1950-51	7,983	75.9	2,437	23.2	100	0.9	10,519	100.0
1951-52	9,257	76.3	2,761	22.8	114	0.9	12,132	100.0
1952-53	9,292	75.5	2,866	23.3	142	1.2	12,299	100.0
1953-54	9,196	75.4	2,840	23.3	158	1.3	12,193	100.0
1954-55	9,341	75.0	2,920	23.4	195	1.6	12,456	100.0
1955-56	9,505	74.9	2,970	23.4	214	1.7	12,691	100.0

* The same sources as cited at foot of table 1,
— not available

than the portion (34.1 per cent) of cooperatives of the same type in the total number of cooperatives. This probably means that the average size of farm supply associations was larger than that of marketing associations. It should be noted that the yearly figures of memberships do not represent absolute numbers of individual member farmers, but contain duplication because many farmers are members of more than one cooperative and may be counted twice or even more times. The annual values of business done by farmer cooperatives have fluctuated year by year. In order to know the real trends of value in goods marketed and purchased, these actual values must be adjusted by use of the index of prices received by farmers and by that of prices paid for farm supply items respectively. If such allowances were made for changes in price levels and the substantial gain in the physical output of agriculture, the increase trends shown by the actual values would lose much in significance.

Let us go ahead to seek a somewhat minute data pertaining to farmer cooperatives in the United States. Firstly, data on the extent of cooperative marketing and farm supply purchasing by farmers are available as a part of the Agricultural Censuses of 1919, 1924, 1929 and 1939 respectively (table 4). These data are said to have provided a comprehensive picture of agricultural cooperation as measured by the number of farms reporting transactions with cooperatives. In the respective yeras, it was not attempted to obtain the number of farm operators who held membership in cooperative organizations, but to enumerate the farm operators who bought or sold goods or purchased services provided by cooperatives in the year specified. The type of service organizations intended to be covered (only in 1939) were mutual insurance companies, mutual telephone companies, cooperative truck-routes, spray rings, rural electrification associations, etc.[26] Table 4 tells us that only less than 10 per cent of all farm operators used their cooperatives in 1919, about which time the farmer cooperative system is said to have firmly established itself. Through the year, the percent of all farm operators using coopeatives incresed. In particular, cooperative buying showed larger and more consistent increase

Table 4 Farm operators reporting business with or through cooperative, with percent of all operators reporting, by tenure, for the United State: 1919 to 1939 **

Tenure	Any business with or through cooperatives, 1939	Selling and/or buying												Service
		1939	1929	1924	1919	Selling				Buying				1939
						1939	1929	1924	1919	1939	1929	1924	1919	
All farm operators reporting	1,364,402	1,043,261	824,537	987,376	624,527	827,235	691,895	884,207	511,383	745,633	410,914	362,745	329,449	712,651
All owners	946,461	719,888	(1)	(1)	(1)	570,019	(1)	602,364	(1)	513,252	(1)	266,089	(1)	506,192
Full owners	732,262	549,974	〃	〃	〃	432,801	〃	(1)	〃	387,960	〃	(1)	〃	388,684
Part owners	214,202	169,914	〃	〃	〃	137,218	〃	〃	〃	126,192	〃	〃	〃	115,508
Managers	10,230	8,261	〃	〃	〃	6,712	〃	5,023	〃	5,557	〃	2,180	〃	5,019
All tenants	407,658	315,112	〃	〃	〃	250,554	〃	276,820	〃	224,893	〃	94,416	〃	203,440
Cash	91,538	75,996	〃	〃	〃	60,539	〃	(1)	〃	53,283	〃	(1)	〃	44,102
Share-cash	101,780	83,836	〃	〃	〃	67,332	〃	〃	〃	64,382	〃	〃	〃	50,223
Share*	162,030	123,275	〃	〃	〃	97,524	〃	〃	〃	87,452	〃	〃	〃	83,054
Croppers (Southern only)	25,606	14,650	〃	〃	〃	11,594	〃	〃	〃	7,433	〃	〃	〃	14,062
Others	23,704	17,355	〃	〃	〃	13,565	〃	〃	〃	12,253		〃	〃	11,990
		Percent reporting (Total number of operators in each tenure class = 100%)												
All tenures	22.4	17.1	13.1	15.5	9.7	13.6	11.0	13.9	7.9	12.2	6.5	5.7	5.1	11.[illegible]
All owners	25.6	19.5	(1)	(1)	(1)	15.4	(1)	15.6	(1)	13.9	(1)	6.9	(1)	13.[illegible]
Full owners	23.[illegible]	17.8	〃	〃	〃	14.0	〃	(1)	〃	12.6	〃	(1)	〃	12.[illegible]
Part owners	31.8	27.6	〃	〃	〃	22.3	〃	〃	〃	20.5	〃	〃	〃	18.[illegible]
Managers	23.3	22.7	〃	〃	〃	18.5	〃	12.3	〃	15.3	〃	5.4	〃	13.[illegible]
All tenants	17.3	13.3	〃	〃	〃	10.8	〃	11.2	〃	9.5	〃	3.8	〃	8.6
Cash	18.4	14.8	〃	〃	〃	11.8	〃	(1)	〃	10.4	〃	(1)	〃	8.6
Share-cash	36.5	30.1	〃	〃	〃	24.2	〃	〃	〃	23.1	〃	〃	〃	18.0
Share*	13.9	15.1	〃	〃	〃	12.0	〃	〃	〃	10.7	〃	〃	〃	10.2
Croppers	4.7	2.7	〃	〃	〃	2.1	〃	〃	〃	1.4	〃	〃	〃	2.6
Others	11.2	8.2	〃	〃	〃	6.4	〃	〃	〃	5.8	〃	〃	〃	5.7

(1) Not availabe

* Includes croppers for the northern and western States, but not for the southern States.

** Sixteenth Census of the U.S., 1940, Agriculture. Volume III. General Report. p. 442.

than did cooperative selling. However, even in 1939, the farms selling and buying through cooperatives represented 13.6 per cent and 12.2 per cent respectively of the total farms. The percent of the farms having any business with or through cooperatives, including services, in the same year was 22.4. That is, less than one-fourth of all the farms used their cooperatives. Moreover, based on data classified by tenure, the highest percentages in the same terms as mentioned just above were represented by the classes of share-cash tenants (36.5 per cent) and of part owners (34.8 per cent). The class of croppers for the Southern States showed only 4.7 per cent, the lowest, in the same terms. Judged from these data, even if estimated memberships of more than 3,000,000 about that year (see table 2) was justified, the actual users of cooperatives might be less than a half of this figure.

There has been no like survey comparable to the one supplying these data since 1940. Therefore it seems impossible to ascertain the percentage of farms using cooperatives or the memberships. In recent years, farmer cooperatives are reported to have more than 7,000,000 memberships, but the number of individual farmers as having membership is estimated at about three million or less. It seems impossible to get more detailed data by which the economic and social status of cooperative member farmers can be clarified.

Then, here may be allowed to derive an interpretation from the 1954 U.S. Census. Table 5 shows the number or farms by economic classes on the basis of the same census data.

Table 5 The number of farms of farms by economic classes

Economic class		Number of farms (thousand)
All farms		4,782
Commercial farms, total		3,100
By value of sales	$25,000 and over	134
	$10,000 to $24,999	449
	$ 5,000 to $ 9,999	707
	$ 2,500 to $ 4,999	811
	$ 1,200 to $ 2,499	536
	$ 250 to $ 1,199	463
Noncommercial farms, total		1,682
Part time and residential (Sales under $2,500)		1,507
Subsistence (Sales under $250)		175

Judging from these figures, farms affiliated closely with cooperatives would probably fall, in the main, in the lower commercial classes, and it is sure that some of the part-time and residential farms are participating in cooperatives, especially in the farm supply function. Contrary to this, a few of the upper commercial farms affiliate with cooperative activities, as shown by the case of Massachusetts.[28] In particular, none of the commercial farms of the highest class will be found as members of cooperatives. That is, it can be said that most of the cooperative members belong to the middle class farms in a broad sense.

In connection with this point, it may be permissible to mark an additional remark. That is, a reason that cooperative organizations are formed and used in considerable extent by American farmers up to the present is, among others, that a large portion of the farms are of the so-called family farm type. The farm of this type must be, strictly speaking, said to belong to the category of small farming. This means such farming as is almost fully operated and maintained only by the family labor, accordingly with little hired labor, and the income being adequate to the family needs. It is believed that cooperation can flourish only where small farming is extensively in existence. And also such a situation is most likely to have one of the conditions necessary for the successful organization of a cooperative — that is, a condition that the membership on which it is based should be homogeneous.

In this sense, it can be said that there is no difference in essential character between American farming and ours, though the wide differences in appearance should not be ignored. That is, the former is sharply distinguished from the latter in these points — farm land area, production facilities including mechanization, income level or living standard of family. Even such differences, of course, are recognized as what bring about various influences upon cooperative organizations by farmers. Especially difference in income level will exert a considerable influence upon the formation of cooperative capital owned by the members of cooperatives — equity capital.

Then, another survey that shows farm size of cooperative members in a State located in the East North Central area is available (table 6).

Table 6 Size of farm of cooperative members in Iowa

Average group (acres)	Number of members under survey	Per cent
Total	268	100.0
10-49	6	2.2
50-99	22	8.2
100-174	105	39.2
175-259	69	25.8
260-800	66	24.6

As indicated by the table above, the portion of farms under 100 acres is only slightly more than 10 par cent of the total. Nearly 40 per cent is occupied by the medium-sized farms (100-174 acres) and the rest is shared approximately equally between the 175-254 acres group and the 260 800 acres group. Average acreage per farm in Iowa State was 160.1, 168.7, and 176.5 in 1940, 1950, and 1954 respectively.[29] These figures bear evidence that 100-174 acres farm is the medium in this State. This survey, insufficient as it is, seems to suggest to some degree that those who have organized and patronized American farmer cooperatives are the owners of medinm-sized farms.

Next, some observations as to farmer cooperatives classified on the basis of several standards should be made.

As shown previously, there existed 9,876 farmer cooperatives in the United States in 1955-56. According to a classification adopted by the U.S. Department of Agriculture,[30] of these 6,268 (63.5 per cent) were marketing associations, 3,373 purchasing and 235 service. Recently, however, cooperatives have diversified into more types combining two or three of these functions. Therefore there are only few that have a single operation. In 1955-56, of 9,876 cooperatives 7,010 (71.0 per cent) were marketing associations that handled some farm products, 7,330 (74.2 per cent) were purchasing for patrons. Moreover, these farmer cooperatives are classified into two types — local and regional. What are called "regionals" are defined as;

(1) all federated cooperatives; (2) centralized cooperatives, usually serving more than 8 to 10 counties; (3) cooperatives with large business volume that include both local associations and individual producers in their membership; (4) a few cooperatives with small business volume that market farm products or sell production supplies to both local associations and individual producers, or do business in more than one state; and (5) bargaining cooperatives.[31]

Table 7 shows number, estimated membership and estimated business of marketing, farm supply, and related service cooperatives for local and regional cooperatives in 1955-56. This table indicates that the number of regionals was 711, or 7.1 per cent of the total cooperatives, but these had more than three millions in membership, or almost 40 per cent of the total membership. In marketing functions, the regionals which had 53.7 per cent of the membership performed business which accounted for 51 per cent of the total value. In purchases, the regionals having 22.1 per cent of the total membership handled about 24 per cent of the total business value.. This means that the regional cooperatives are small in number but have a relatively large number of members and large business volume. It can be easily imagined that some of them must have a considerablly large scale of business operation.

Table 7 Number, membership and business for local and regional cooperatives, classified by function, 1955-56.*

	Local	%	Regional	%
		Number of cooperatives		
Marketing	5,682	90.7	586	9.3
Farm Supply	3,253	96.4	120	3.6
Service	230	97.9	5	2.1
Total	9,165	92.8	711	7.2
		Memberships		
Marketing	1,955,228	46.3	2,267,137	53.7
Farm Supply	2,685,401	78.0	758,079	22.1
Service	64,179	98.9	686	1.1
Total	4,704,808	60.9	3,025,902	39.1
		Business ($1,000)		
Marketing	3,652,064	49.0	5,853,881 (gross)	3,857,904 (net)
Farm supply	1,546,801	76.0	1,424,079 (〃)	497,471 (〃)
Service		(not available)		
Total	5,198,865		7,277,960 (〃)	4,355,375 (〃)

* U.S. Department of Agriculture, Statistics of Farmer Cooperatives 1955—56, 1958 p.13.

It seems difficult to obtain any datum relating to size or scale of farmer cooperatives. Only a static survey in 1954-55 can be referred to, which shows percentage distribution of individual memberships (table 8). It requires only a glance at this table to reveal the fact that there existed a considerable number of associations having a relatively small number of members. The associations having less than 100 memberships accounted for almost 21 per cent of total locals and 13 per cent of all regionals. Taking associations having less than 300 members, these associations accounted for more than 50 per cent and more than 25 per cent in locals and regionals respectively. In marketing associations, 28 per cent of all locals belonged to the group having less than 100 memberships. Taking the group having less than 500 memberships, it accounted for, indeed, almost 83 per cent of all local marketing associations. There were some differences in the case of purchasing cooperatives. The number of associations whose membership on the average were less than 100 accounted for only 7.4 per cent of all locals while the associations having less than 500 memberships per association accounted for 52 per cent of the total local farm supply cooperatives. From this it may be imagined that the average size, in terms of the number of memberships, of purchasing locals was a little larger than that of marketing locals.

As to the regional cooperatives, most of them were, it is pointed first, marketing cooperatives. Thirty-two and seven tenths per cent of marketing regionals had less than 300 memberships per association, and at the same time it is observed that the number of associations which had more than 1,500 memberships accounted for 22.6 per cent of the total marketing regionals. But more attention should be paid to the fact that the centralized type of purchasing cooperatives which had more than 1,500 memberships averaged accounted for 9.0 per cent of all regional purchasing cooperatives, especially 4.5 per cent of them had 10,000 or more memberships per association. Moreover 32.4 per cent and 58.6 per cent of all regional farm supply cooperatives were of combination type and federated type respectively.

Table 8 Percentage distribution of individual membership in local and regional cooperatives by function, 1954–55. *

Individual membership per association	Marketing		Farm supply		Service		Total	
	Local	Regional	Local	Regional	Local	Regional	Local	Regional
Number of coops	5,736	580	3,233	111	221	6	9,190	697
				– Per cent –				
Less than 50	14.8	7.2	2.2	–	27.6	–	10.6	6.0
50 – 99	13.2	8.3	5.2	–	10.4	–	10.3	6.9
100 – 199	22.2	10.7	13.4	–	14.9	–	18.9	8.9
200 – 299	15.2	6.5	12.3	–	14.0	–	14.2	5.5
300 – 399	10.5	2.7	10.6	–	12.2	–	10.5	2.3
400 – 499	6.8	2.4	8.3	–	6.3	–	7.3	2.0
500 – 599	4.0	1.9	7.0	–	2.7	–	5.0	1.6
600 – 699	2.9	2.1	5.6	–	0.9	–	3.8	1.7
700 – 799	2.2	1.4	3.8	–	1.8	–	2.8	1.1
800 – 899	1.2	0.9	3.7	–	1.4	–	2.1	0.7
900 – 999	1.2	0.9	3.0	–	1.8	–	1.9	0.7
1,000 – 1,099	1.0	1.9	2.9	–	0.9	–	1.7	1.[illegible]
1,100 – 1,199	0.8	0.5	1.9	–	–	–	1.1	0.4
1,200 – 1,299	0.5	0.7	2.0	–	–	–	1.1	0.6
1,300 – 1,399	0.3	1.9	2.0	–	0.5	–	0.9	1.6
1,400 – 1,499	0.3	0.7	1.6	–	0.9	–	0.8	0.6
1,500 – 1,999	1.1	2.4	5.7	1.8	1.4	–	2.7	2.3
2,000 – 2,999	0.9	5.0	4.8	1.8	1.8	–	2.3	4.4
3,000 – 3,999	0.6	2.9	2.5	–	1.5	–	1.3	2.4
4,000 – 4,999	0.2	2.1	0.7	–	–	–	0.4	1.7
5,000 – 9,999	0.1	4.5	0.7	0.9	–	–	0.3	3.9
10,000 and over	–	5.7	0.1	4.5	–	–	(1)	5.5
Total (excluding combination and federated)	100.0	73.3	100.0	9.0	100.0	–	100.0	62.4
Combination type	–	6.4	–	32.4	–	–	–	10.5
Federated type	–	20.3	–	58.6	–	100.0	–	27.1
Grand total	–	100.0	–	100.0	–	100.0	–	100.0

(1) Less than 0.05 per cent

* Cited from Statistics of Farmer Cooperatives, 1954—55, FCS U.S. Dept. of Agriculture, General Report 31, June 1957, pp. 65—66

Again, membership figures or types of cooperatives vary a great deal according to commodities handled by cooperatives. Marketing cooperatives which handled dairy products or fruit and vegetables or grain and soybeans had less percentages in membership than those in number of cooperatives. In cooperatives which marketed cotton and cotton products or livestock or tobacco, the corresponding relations were reversed. That is, the former had more memberships per association and the latter relatively fewer. There was no local cooperative handling sugar products or tobacco (table 9).

At any rate, it cannot be generally denied that the steady increase in membership accmpanied by the gradual decrease in number of associations has resulted in an increase in the average number of memberships per

Table 9 Number and estimated memberships of farmer marketing cooperatives, by specified commodity groups, 1955-56.*

Commodity group (classified according to major product handled)	Cooperatives		Estimated memberships	
	Number	%	Nnmber	%
Beans and peas	15	0.2	6,190	0.1
Cotton and cotton products	558	8.9	510,780	12.1
Dairy products	1,762	28.1	799,815	18.9
Fruit and vegetables	730	11.7	123,635	2.9
Grain, soybeans, soybean meal and oil	2,117	33.8	952,120	22.6
Livestock and livestock products	491	7.8	894,775	21.2
Nuts	37	0.6	47,240	1.1
Poultry products	143	2.3	115,430	2.7
Rice	62	1.0	11,030	0.3
Sugar products	65	1.0	37,255	0.9
Tobacco	33	0.5	585,400	13.9
wool and mohair	185	3.0	119,325	2.8
Miscellaneous	70	1.1	19,370	0.5
Total	2,268	100.0	4,222,365	100.0

* Statistics of Farmer Cooperatives, 1955—56, FCS U.S. Dept. of Agriculture, General Report 48, July 1958, p. 11.

association. In other words, the average size of the cooperative, in terms of

number of memberships, has steadily increased. In the 30-year period since 1926, the average number of memberships more than tripled, increasing from 250 to 783 as follows:**

1926	250
1931	251
1936	348
1941	320
1946	494
1951	709
1956	783

** ibid, p. 10 and Statistics of Farmer Cooperatives, 1964—55, p. 9.

It can be said that in the United States the farmers may choose by themselves the type of cooperative organizations they needed. Accordingly there have been created such types of cooperatives as centralized, combination, and federated as well as ordinary local cooperative associations. And also they can participate in more than one cooperative at need. In organizing or participating in cooperatives, they seem to have not been much restricted by their residences.

But such direction of cooperative development as the formation of large regional cooperatives of various types and consolidation or merger taking place among smaller cooperatives has been undoubtedly stimulated and accelerated by the changing conditions without agriculture as well as by those within. It may be rather thought that pressure from outside of agriculture has more strongly worked there, in particular changing market structure, which has taken place in parallel with expansion of American capitalist economy toward the higher stage, is one of the most influential factors.

Thus, farmer cooperatives in the United States today are increasingly strengthening their nature as going business concerns in more senses than one, and they are doing so in competition with not only ordinary business enterprises but also with each other. Under such a situation cooperatives are inevitably to have more capital requirements and to seek sources of

capital. Therefore great efforts have been more for this purpose.

The development of farmer cooperatives in the United States, may be summarized as follows:

Cooperation by farmers in America emerged first in a close connection with the general farmers movement which attempted to cope with the early monopolistic economic powers. This represents typically the necessity of cooperation by farmers. Most legislative actions rather followed such voluntary active movement of the farmers.

However, just as the productivity and commodity production on farms have taken an upward trend and, at the same time, the farmers' market has grown in size and complexity, so have their cooperatives changed in scope and nature. These changes have developed largely as the economic need for them has risen, as farmers have felt impelled by necessity to take on responsibilities for off-farm activities of vital concern to themselves — using the cooperative as their medium.

Such tendencies implied, on the other hand, that cooperatives had come to expand their nature as business undertaking relatively independent from farmers themselves as the formation of capital funds had advanced.

During the time of the economic depressions of the 1920's and 1930's, cooperatives had to be exposed to severe trials and to face changes in scope and nature again. They disclosed their weaknesses in organization and function, particularly in marketing of farm products or in maintaining a high price level over a long time. This also was closely connected with the weakness in the capital structure of cooperatives. Out of such situation, there resulted Government aids in various forms to farmer cooperatives. The function of maintaining price level for farm products has been partially taken over by Government control. Cooperative finance has been facilitated by the establishment of special banks as part of the Agricultural Credit Administration system. The U.S. Department of Agriculture has vigorously furnished farmer cooperatives with research studies and service activities of assistance.

Accordingly, farmer cooperatives have come to move, more and more, in such direction as to get the economies of large-scale operations in handling of farm products or farm supplies or other related services rather than to exercise "market power." As a result, more performance of distributive functions has become of greater significance. Marketing cooperatives have been getting further into the merchandising field, individually or by working together through federation. Similarly in purchasing they have been moving closer to the sources of raw materials involved in the farm production supplies they have handled.

Thus, farmer cooperatives have been achieving more vertical and horizontal integration. The federation of local and regional cooperatives aims to bring about both forms of integration simultaneously. In brief, a strong trend toward fewer but larger associations with more diversified business is to be seen. Under such circumstances, it is natural that their direct and immediate concerns are whether or not the business units operate economically and efficiently. That is, the scale of operation is significant.

However, on the other hand, it is not denied that cooperatives have strengthened their independency of the member farmers. They tend to be run more by the hired men, the managers, and the farmer members take less interest in the cooperative management. That is reflected in members' sense of ownership and responsibility in their own cooperatives. With success and growth in cooperation, that sense of interest of the members has declined. For example, the manager of the Cooperative Grange League Federation Exchange, Ithaca, N.Y. (more commonly called G.L.F.), one of the largest farmer cooperatives in the United States, once said, "G.L.F.'s greatest weakness is the fact that more and more farmers are taking it for granted."[32] This shows explicitly that there is separation of management from ownership.

There is little doubt that farmer cooperatives will continue to grow in such ways and the device of federation or other forms may hold promise of greater development. But, for the present, most of the cooperatives existing over the United States still remain small-scale ones as already

indicated, and the proportion of farm products or farm supplies handled by cooperatives can never be said to be very large. Rough estimates indicate that about one-fifth of the farm products moving into commercial channels are handled at one or more stages by the farmer cooperatives. Although increasing slightly in the last decade, the changes in proportion have not been of any great significance. Likewise in purchasing, the proportion—perhaps 16 to 18 per cent—has not changed materially in the last ten years, although the proportion has increased a little faster than in marketing.[33]

In view of such aspects of the cooperative movement, the American farmer cooperative system is not regarded as having formed an organic unity as a whole and its place in the national rural market is not necessarily very significant. Rather it seems to be remaining within certain boundaries. Indeed there have been formed several national organizations of farmer cooperatives. But most of them are not business organizations, but educational or informational ones. Again, they do not include all the local and regional farmer cooperatives. It seems that the bases underlying the present American farmer cooperative movement are, in a somewhat exaggerated expression, localism and competition. Government aids cannot be said to have taken hold over the farmer cooperative system as a whole. It is said that the American farmers are powerfully represented in Washington and when cooperative federations link their interests with general farmers organizations—for example, the Farm Bureau Federation, the Grange or the Farmers' Union, their strength is almost irresistible. But, cooperatives seem wary of accepting financial help from the Government. Some of them even prefer to finance their plants and operations through commercial banks rather than through the Farm Credit Administration. It may be said what leads the growth of the American farmer cooperatives is, in the main, economic reasonability. Some Americans say that cooperatives are an integral part of the capitalistic economy just as are ordinary corporations, partnerships and individual proprietaries, or that cooperation is a phase of the capitalistic free enterprise system. Farmer cooperators also seem to be satisfied if cooperatives constitute

a large enough part in the economy to police private corporations, to act as a balance wheel, or as a pace-setter, or a pace-maker, or a yardstick in a system of free enterprise. Such cooperators seem not to intend to overstep these boundaries.

Such present picture of farmer cooperatives in the United States is considerably different from that of our agricultural cooperatives.

Agricultural cooperation in Japan may be worth being called "a system." It has formed a national unity, the constituent bodies of which are the local agricultural cooperatives of the so-called general-purpose type. These local cooperatives organize the federations by function at prefectural level, which in turn form all together the national federations by function. In other words, there has been set up a huge systematized cooperative organization, taking the shape of a pyramid with local cooperatives on the base and with federations from the middle to the top. Furthermore this organization includes almost all the farmers throughout the country as the member-patrons. Thus, agricultural cooperatives in Japan, always represent themselves as such a systematized organization, which is the only, largest national farmers organization. It also is most powerful both economically and politically, as there has been formed no powerful organization comparable to this in Japan.

For the present, this organization is more than a voluntary cooperative organization that farmers set up, own and control. It is not too much to say that it represents a large part of our rural market in which small farmers have business relations with capitalistic enterprises as producers and distributors of commodities. It seems to have distinct characteristics in nature and structure that are not likely to be seen in any other country. Apart from the agricultural cooperative system, our rural economy as a whole can not be fully understood.

It was in 1900 that the Industrial Societies Law (the Sangyokumiai Ho) came into force in Japan. Although before that time, some forms of cooperation by small producers had been found in some areas in our country, it may be admitted that the year 1900 marked the beginning of a new era

in the history of the Japanese cooperative movement. But it was not until around 1910 that the development of cooperatives came to have importance, as shown in table 10. Further, general propagation of cooperatives throughout the country was assumed to have come after the time of World War I. It is true that through all the history of our cooperative development the credit society (or credit business) has been the starting and rallying point of all other forms of cooperation. It has always occupied by far the most important position in our whole cooperative system. As the table below indicates, the number of credit societies has rapidly increased followed by purchasing societies. Marketing and other societies lagged behind.

However it is observed that in course of time the form of the multi-purpose society has steadily increased and finally the so-called "quadruple form" has come to take predominant position. In 1906, as the result of the revision of the Industrial Societies Law, credit societies were permitted to carry on their business in conjunction with other societies. The reasons why this form of society was authorized by the law and actually became tho most prominent form may be not few. At least, however, these can be pointed out: while marketing and purchasing businesses could not make profit under the pressure of merchants, credit business could do so to some extent; farming in general was too small and still not specialized to accept several associations separated by function; there had been found much convenience in this form in collecting debts and bills from members; and there are financial advantages, that is, the association can use a portion of the deposits accepted from members as operating capital. Furthemore, government had, directly and indirectly, encouraged the organization of associations of this type. Needless to say, this type of cooperative association has been taken on and authorized by the postwar Agricultural Cooperative Law, and actually has become predominant and has formed a decisive element in the cooperative system in Japanese agriculture. This type of association is called a "general purpose" association, because such associations are engaged simultaneously in credit, marketing, purchasing, utilization, rural industry and many other

Table 10 Number of cooperative societies by type, for specified years, 1900-1945, Japan.*

Year	C.	M.	P.	U.	C.M.	C.P.	C.U.	M.P.
1900	13	1	2	0	0	0	0	3
1605	986	92	273	38	0	0	0	142
1910	2, 226	217	772	78	381	1, 239	14	503
1915	3, 015	234	535	133	400	2, 583	39	461
1920	2, 650	235	454	107	250	3, 045	61	385
1925	2, 573	289	370	195	166	2, 649	125	305
1930	2, 449	328	323	295	223	2, 024	149	284
1935	1, 313	301	314	298	157	760	82	258
1940	667	221	258	229	32	96	53	165
1945	567	127	226	227	21	65	43	120

Year	M.U.	P.U.	C.M.P.	C.M.U.	C.P.U.	M.P.U.	C.M.P.U	Total
1900	0	1	0	0	0	1	0	21
1905	63	30	0	0	0	47	0	1, 671
1910	136	49	1, 062	14	26	222	369	7, 808
1915	141	37	2, 608	90	57	230	946	11, 509
1920	167	20	3, 975	151	73	173	1, 696	13, 442
1925	154	71	3, 807	91	308	253	3, 161	14, 517
1930	287	102	3, 075	59	374	359	3, 751	14, 082
1935	256	152	1, 952	33	204	518	8, 430	15, 028
1940	146	168	536	11	67	484	11, 968	15, 101
1945	61	149	332	2	63	354	11, 878	14, 235

* Cited from Statistics of Industrial Societies, each annual edition, Ministry of Agriculture and Forestry, Japan.

Types of society :

C. Credit society
M. Marketing society
P. Purchasing society
U. Utilization society
C.M. Credit and marketing society
Other combinations of the initial letters indicate the society carrying on more than one function corresponding to the respective initial letters.

businesses as well as in guidance on farm operation. Further, this type of association also has given a distinct feature to the capital structure of the cooperative by accepting deposits from members.

During the agricultural crisis after the Russo-Japanese War (1904-5), government strengthened its policies for fostering agricultural cooperatives. In 1909, federation of societies was legally recognized, and the Central Cooperative Union (the Dainihon Sangyokumiai Chuokai) came to enjoy the protection of the law.[34] This organization was given subsidies by government. At about the same time, officials in charge of cooperatives were stationed in each Prefecture. The way was opened to make loans without security to cooperative associations through the local agricultural and industrial banks, and through the Central Hypothec Bank (the Kangyo Ginko) in 1907 and 1911 respectively.[35] It must also be noted that in consequence of the Agricultural Warehousing Act, passed in 1917, cooperative associations came widely to take up the agricultural warehousing business. Government subsidy was given to the construction of warehouses by cooperative associations.[36]

Agricultural cooperation in our country made further development with the economic depression of the 1920's as a turning point. In this period cooperative associations were organized in almost all the rural towns throughout the country and most of the farmers joined them. Many federations on a national level, including the National Federation of Purchasing Association (the Zenkoku Kobaikumiai Rengokai), 1923, the National Federation of Marketing Associations (the Zenkoku Hanbaikumiai Rengokai), 1931, were established. Besides, the Central Bank for Industrial Societies, (the Sangyokumiai Chuokinko) was created in 1923.[37] The conditions which stimulated such cooperative development during this period were many.

Credit business could enlarge its scope for making loans by being granted the use of public money funds (mainly the Post Office savings). Marketing business marked a striking advance in handling rice under the conditions of the enactment of a law aiming to maintain rice prices. Of

course, it shonld not be overlooked that such expansion of cooperative marketing was strongly encouraged by the furnishment of government funds for handling of the rice crop and construction of warehouses. Purchasing business expanded with the increase in use of ammonium sulphate in farming. In 1930 the National Federation of Purchasing Associations established a fertilizer compounding factory with government subsidy.[38)]

It should be noted that a five-year plan for cooperative expansion was executed following 1932 under the initiative of the government and with a variety of governmental programs for supporting this plan.

Thus, the agricultural cooperation of our country can be said to have developed with the reinforcement of the state social policies for small farmers, which was carried out in paralell with the growth of capitalist economy, and it was, at the same time, a process in which the agricultural cooperative system as a whole had been joined with the highly developed capitalist economy, being controlled by the hands of the state to a considerable extent. Therefore, as economic control by the state was tightened the cooperative marketing and purchasing businesses had, in a sense, expanded and secured a monopolistic position in the national market with accompaniment of the elimination of merchants. It meant, however, on the other hand, that the agricultural cooperatives had been made the terminal agencies of the state administrative machinery, and deprived of the character of voluntary organization on the part of farmers. Since they were reorganized into the Agricultural Societies (the Nogyokai) in 1943, such transfiguration has become decisive.

After World War II, the Agricultural Societies were ordered to dissolve under the rural democratization policy, and agricultural cooperative associations began to be newly formed on the basis of the Agricultural Cooperative Law passed in 1947. That law has aimed to make agricultural cooperatives autonomous organizations owned and controlled by farmers themselves and to liberate them from bureaucratic intervention. But, in reality, can such aims be said to have been realized? Indeed, the business volume

and the number of memberships have been by far larger compared with those in the pre-war period, but it cannot be denied that this has been largely due to the state economie control and government aid given to cooperatives. This is evidenced by giving a little consideration to the fact that what have supported the agricultural cooperatives in our country are the government control of rice, government purchase of some other staple food crops, the ceiling price system for fertilizer, government or other public funds and subsidies, and so on. At the same time, it should be taken into account that the administrative superintendence over the agricultural cooperatives has been tightened through the repeated revisions of the law and the issuance of the Agricultural Cooperative Finance Standards Ordinance in 1950.[39]

Although this ordinance itself had meaning as a counter-measure against financial crisis into which a large number of agricultural cooperatives were deeply falling about that year, it had to be followed by some other measures directly aimed at the relief of cooperatives from financial difficulties that they were facing. The Agricultural, Forestry, Fishery Associations Reconstruction and Readjustment Law, and the Federations of Agricultural, Forestry, Fishery Associations Readjustment Facilitation Law were enacted in 1951 and in 1953 respectively.[40] In addition, the Agricultural Cooperative Associations Reconstruction Special Measure Law was put into operation in 1956.[41] In short, a common intention of these measures can be said to have been the rationalization of management of cooperative undertakings. Therefore, what had been required of cooperatives were the readjustment of all the frozen debts, making up of all the losses, rapid increase of owned capital, etc. The emphasis of operational policy of cooperatives had been placed on the point that cooperatives should select the most profitable items as priority goods to be handled, the local cooperatives should put the produce of member on unconditional consignment sale by the prefectual federations, and the purchase of farm supplies should be carried on by pooling through the federations. In execution of these operations, there are furnished extensive loan funds through the prefectual credit federations and the Central

Bank for Agriculture and Forestry, and also there are given government subsidies to the local cooperatives or the federations in question.

Thus, a series of measures for cooperative financial reconstruction has aroused much more attention as to the economic reasonability of cooperative management. But at the same time the measures could not fail to reveal the dominant and advantageous position of the federations over local cooperatives as their affiliates and the frictions between them. Federations of cooperatives in general can usually have a considerably larger size of operation and larger capital. In addition to these it has no direct affiliation of individual member farmers. Therefore, it is possible and easy for it to pursue reasonability in management. But that frequently is apt to be done at the sacrifice of the affiliated local cooperatives.

The Japanese agricultural cooperatives may appear to be very well-organized, to have a larger portion of total farmers as the members, and to have more importance in the national market compared with the American farmer cooperatives. On the other hand, however, it seems that the former are characterized by greater dependence upon the state economic functions, and by less autonomy and voluntaryism. As a matter of course, it should not be forgotten that the cooperative credit business has not developed in the United States, while in this country it has become the central axis of cooperative businesses and created the associations of the so-called general purpose type, and further given a peculiar capital structure to them.

Notes:

1) Mitchells, B. and L. P., American Economic History, Houghton Mifflin Company, Boston, 1947, pp. 697 ff.
Cochran, T. C. and Miller, W., The age of Enterprise, The Macmillan Company, N. Y., 1956, pp. 219 ff.

2) Shannon, F. A., American Farmers Movement, D. Van Nostrand, Princeton, 1957, pp. 55-56

3) U. S. Department of Agriculture, Farmer Cooperatives in the United States, Farmer Cooperative Service Bulletin 1, 1955, pp. 11-12

4) Shannon, op. cit., p. 55

5) U.S. Department of Agriculture, op. cit., p. 11

6) Shannon, op. cit., pp. 63-65; U.S. Dept. of Agri., op. cit., p. 13

7) U.S. Dept. of Agri., ibid.

8) ibid.

9) Elsworth, R. H., The Story of Farmers' Cooperatives, Farm Credit Administration Circular E-23, 1938, p. 11

10) ibid., pp. 12-13

11) U.S. Dept. of Agri., op. cit., p. 15

12) ibid., p. 16; Abrahamsen and Scroggs, ed. Agricultural Cooperation, Univ. of Minnesota Press, Minneapolis, 1957, p. 26

13) U.S. Dept. of Agri., op. cit., p. 16

14) ibid.; Abrahamsen and Scroggs, op. cit., pp. 30 ff.

15) U.S. Dept. of Agri., op. cit., p. 17

16) U.S. Dept. of Agri., Major statistical series, Vol. 9, Farmer cooperatives, Agricultural handbook, No. 118, 1957, p. 5

17) Sixteenth Census of the U.S., 1940, Agriculture, Vol. III, General report, Chapter VI Cooperation, p. 442

18) U.S. Dept. of Agri., Farmer Cooperatives in the United States, FCF Bulletin 1, 1955, p. 16; Abrahamsen and Scroggs. op. cit., p. 35; Bakken, H. H. and Schaars, M. A., The economics of cooperative marketing, McGraw-Hill Book company, N. Y., 1937, pp. 260 and 273

19) Nourse, E. G., and Knapp, J. G., The Cooperative Marketing of Livestock, Brookings Institute, Washington, 1931, pp. 122 ff.

20) Norman, T., Introduction (Cooperation), Economics for Agriculture, ed. by J. P. Cavin, Harvard Univ. Press, Cambridge, 1959, p. 281

21) U.S. Dept. of Agri., the same source as 18), p. 17

22) Norman, the same source as 20), p. 282

23) Galbraith, J. K., American Capitalism, Houghton Mifflin Co., Boston, 1956, p. 161

24) U.S. Dept. of Agri., the same source as 18), p. 18; Murray, W.G., Agricultural finance, Third Ed., The Iowa State College Press, Ames, 1956, p. 342

25) U.S. Dept. of Agri., the same source as 18), op. cit., p. 19

26) U.S. Dept. of Agri., Major statistical series, op. cit., p. 1
27) Sixteenth Census of the United States, 1940, Agriculture, Vol. III, General Report, p. 441
28) See Asuwa, S., Agricultural cooperatives in Massachusettes, a supplementary treatise attached to this thesis.
29) U. S. Dept. of Commerce, Statistical abstract of the United States, 79th Annual Ed., 1958, p. 615
30) U.S. Dept. of Agri., Statistics of farmer cooperatives 1955-56, p. 17
31) ibid., p. 64
32) Fortune, August 1945, Vol, XXXII, No. 2, p. 176
33) Harold, H., Looking into the next half century, News for Farmer Cooperatives, Vol. 17, No. 10, 1951, pp. 1-2
34) Toura, S., Nippn Sangyokumiai Shi (History of Industrial Societies in Japan), Koyoshoin, Tokyo, 1935, pp. 151 ff.
35) ibid., pp. 146 and 156
36) ibid., p. 157
37) ibid., p. 160
38) ibid., p. 173
39) Government Ordinance No. 337, Showa 25 (1950)
40) Law No. 140, Showa 26 (1951)
41) Law No. 44, Showa 31 (1956)

IV Methods of cooperative capital raising in the United States and Japan

The difference in character of the farmer cooperative organization as a whole between the two countries can not help being reflected in the methods of capital raising. The American farmer cooperative movement is an indigenous growth. It has sprung up spontaneously in response to the needs of agricultural producers. It has been, of course, influenced by patterns of cooperative organization elsewhere, but such influence can be said to have been confined to an irreducible minimum. Accordingly it might have developed its own practical and effective devices for dealing with capital problems.

In the United States, the first cooperative statutes were enacted in the 1860's in several states.[1] But they were mainly intended to make it plain that the conduct of a business on a cooperative basis was an authorized corporate purpose, and made little or no provision for the peculiar capital requirements of cooperatives. That is, while they expressly authorized the formation of cooperative corporations, the capital requirements were still spelled out in the general corporation laws. Consequently, there was no choice for cooperative corporations but to be formed with capital evidenced by shares of stock. This was the only kind of capital structure which was possible for an incorporated cooperative to have under such statutes. For example, one of the first cooperative laws, passed in Michigan in 1865,[2] authorized capitalization of $5,000 to $500,000, divided into shares of $5 to $10 each. It also had a provision that said association might, either in its articles of association or in by-laws for that purpose to be adopted, regulate the number of shares which any one subscriber might take and hold …… the mode of voting therein…… the mode of awarding, declaring, and paying dividends……[3] The pertinent Massachusetts Law, passed in 1866, had provisions that the amount of capital stock of such an association shall be

fixed and limited in its articles of association, and might be any sum not exceeding fifty thousand dollars;[4] ……and no member thereof should be entitled to hold or claim any interest therein exceeding the sum of one thousand dollars, nor should any member, upon any subject, be entitled to more than one vote;[5] that no distribution should be declared and paid until a sum equal, at least, to ten per cent of the net profits should be appropriated for contingent or sinking fund, until there should have accumulated a sum equal to thirty per cent in excess of such capital stock.[6] Again, the New Jersey Act of 1875 merely permitted cooperative stores to be incorporated under the general corporation law of 1849.[7]

Indeed, no definite plan not only of operation and organization but of capital formation for cooperative association could be said to have developed before 1875. It was in this year that the so-called Rochdale principles were introduced by the Grange, as stated previously, in the form of "Set of Rules" for the guidance of cooperators. Some of their chief provisions, in particular relating to capital formtion, were as follows:[8]

> Cooperative associations to be organized as stock companies with shares of $5 each.
>
> Shares transferable only to members of associations.
>
> Ownership of one share or more to constitute membership in the association.
>
> No member allowed to hold more than 100 shares of capital stock in the association.
>
> Interest on capital limited to 8 per cent.
>
> Profits to go, after payment of interest and depreciation, either to increase the capital or business, or for any educational or provident purposes authorized by the association, and the remainder shall be divided among those who have purchased goods from this association during the proceding quarter, in proportion to the amount of purchases during the quarter.
>
> Members in distress could withdraw all their capital above the sum of $5 at the discretion of the directors or any amount in excess of $25 on proper notice and with the consent of the directors.

Although it is clear that these rules had in mind primarily the operation of cooperative stores, they were also utilized by the Grange to operate

elevators and shipping associations.

Thus, the introduction of the Rochdale principles made unavoidable the passage of new special statutes for cooperatives or to modify the existing cooperative law in any state whose general corporation law specifically stipulated voting on the regular share basis, or the distribution of profits in accordance with capital investment.

Since then, in the United States, the cooperative laws of most states have been written or amended so as to allow for the Rochdale pattern. And it has been generally said that a typical embodiment of this pattern is found in the Wisconsin law of 1911. This statute has been, in fact, used widely as a model in other states.[9] It will be observed that this law gives specific recognition to the three fundamentals identified with the Rochdale movement, namely, limitation of capital holding, democratic voting, and dividends on patronage.[9]

But, in such course of adoption of the Rochdale principles, the American farmer cooperative movement came to confront a difficulty. The farmer cooperative was more required to enlarge its set-up, to increase its business and to improve its management in order to accomodate, on the one hand, growing productivity and commodity production of the participating members, and, on the other, to cope with market power brought about by expansion of American capitalist economy. Therefor, the cooperative found that some of the Rochdale principles, particularly limitation of capital holding, had changed into rather impedimental factors for such direction of cooperative progress. As a result, new devices for raising more capital were sought by cooperative organizations and this was, in turn, reflected in the provisions of cooperative statutes.

The Pennsylvania law of 1887 had already a novel provision of permanent and ordinary stock[10] which bore some resemblance to the financial devices of a modern ordinary business corporation. This provision is said to have been based on the idea that every member should have a permanent investment in the capital of the association. Ordinary stock could be bought and sold, but

permanent stock running up to a maximum of $ 1,000 and conferring one vote on the holder must remain undistributed as long as one was a member. Patronage dividends were to be applied to payment for this stock until $ 1,000 maximum was reached. Thus, the $ 1,000 limitation came to prevail quite widely among farmer cooperatives in the United States.

But such limitation, coupled with restricted the functions of ordinary or preferred stock, was soon found in practice to impede the efforts of a cooperative to raise adequate capital. As a result, for example, the $ 1,000 limitation of capital holding was dropped from the Wisconsin law when it was redrafted in 1921, and in the same year the Iowa law raised the limit to $ 5,000.[11] Similar changes were made in other states, too. Such changes have, on the other hand, brought about some influence upon another cooperative principle of restriction of a single vote to each member.

At any rate, under the Rochdale type association membership was identified with the ownership of capital stock, and restrictions were placed on the transferability of such stock certificates. This practice has the merit of emphasizing the cooperative principle that contribution of permanently invested capital is one of the obligations of a member in a cooperative association. American farmer cooperatives once accepted the Rochdale principles as a whole and appreciated their merit to some extent, but, in the long run, could not hold them as they were. In the first place, one of them, the limitation of capital holding, was destined to be modified as a distinct drawback. Because, in this case, the amount of stock to be purchased (between the minimum and the maximum limits) is to be left to personal choice, everyone was responsible in no small degree for the under-capitalization of the older farmer cooperative enterprises. Moreover, in order to acquire adequate capitalization the cooperative must offer the payment of interest at a rate high enough to attract investors. Such a tendency will only help perpetuate, among the cooperators, the ordinary corporation idea that capital stock is the primary claimant to benefits from the operations of the organization.

A new device, the so-called non-stock cooperative association, appeared

on the stage at this moment. This type of cooperative is said to be based on the single principle that voting control shall rest on the basis of personal membership and that all invested capital, whether derived from within the membership or without, shall be regarded merely as loan funds. The primary aim of this new type seems to have been an attempt to provide a most effective means of providing capital for cooperative undertakings. It has placed the chief reliance as a means of securing necessary fixed capital upon making levies in proportion to the amount of business done, rather than upon offering the lure of an attractive interest rate.

The non-stock scheme of organization has given rise to a distinctive type of cooperative legislation. The first instance was the California law of 1895. There have followed the Alabama law of 1909, the Texas law of 1917 and others.[12)]

From the viewpoint of capital formation, one of the features of these laws is in that the capital stock has been eliminated. In the case of California, for example, the law of 1895 does not provide any method of financing in lieu of the sale of capital stock, nor does it stipulate how revenues shall be disbursed or expenses defrayed.[13)] It merely indicates that by-laws may be drawn to provide for "the amount of membership fee, if any, and the amount which each member shall be required to pay annually, or from time to time, if at all, to carry on the business of the association, and also the compensation, if any, to be paid by each member for any services rendered by the association to him, and the time of payment and the manner of collecting the same, and for forfeiture of the interest of the member in the association for non-payment of the same."[14)] The Alabama law and the Texas law also have excluded the capital stock idea from the methods of financing cooperative association.

About this time, it had been found that co-operators in the United States were coming to feel the urgent need of a statute which would differentiate the cooperative association clearly from the ordinary incorporated company and would make an affirmative statement of public policy with

reference to the position of the association in the commercial world. In addition to this the framing of the Clayton Act amending the Sherman anti-trust law stimulated such desire.

As well known, the Clayton Act of 1914 had a clause as follows:[15]

> Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purpose of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the anti-trust laws.

That is, in order to enjoy such exemption the cooperative organization was required to be an institution which can meet, at least, the three terms, namely "mutual help", "not having capital stock," and "not conducted for profit." This meant obviously that emphasis was placed much more upon legislation of the California type than upon legislation of the Wisconsin-Nebraska type.

Such situation impelled the Department of Agriculture to draw up a pattern measure after which the cooperative statutes of each State can have uniformity to a considerable extent in addition to explicit clauses corresponding to the three terms required by the Clayton Act. As a result the so-called "Department Bill" was drawn up under the title, "Suggestions for a State Co-operative Law Designed to conform to Section 6 of the Clayton Act."[16] This draft bill may have had some influence thereafter in shaping the development of cooperative statutes in the United States.

So far as the financing of a cooperative association is concerned, the pattern measure stipulated that an association might provide for the payment of expenses, necessary in the performance of its services to the members, by the creation of a working fund or otherwise, through fees, dues, assessments, or charges for the services, to be fixed and collected in such manner as might be prescribed in the by-laws.[17] This provided, of course, only for such financing of the associations as it might be necessary or expedient to effect from within their own ranks. In addition to this the bill provided, with

reference to borrowed capital, that associations should have power to borrow money necessary in the conduct of their operations, to issue notes and bonds therefore, and to give security, in the form of mortgages or otherwise, for the payment thereof.[18] This stipulation can be understood as a summary of the methods that farmer cooperatives have actually used to raise capital.

Then, turning to the device of non-stock association, this type has not been accepted by all the farmer cooperatives in the United State of America. As seen in the Bingham Acts of Kentucky,[19] associations with capital stock as well as those without have been again authorized by some of the state cooperative acts. In reality there have existed both types of farmer cooperatives to date in the United States.

It may be said that the concepts of capital stock and nonstock are fundamentally related to the type of legal business corporation created, rather than to the financial or capital needs of the corporation, either form of organization may have much need for capital, but it cannot be denied that the device of the non-stock association has widened the way to provide effective means of capitalizing cooperative undertakings. It is under this device that the revolving fund plan has come to be used as one under which one of the outstanding tenets of cooperative theory can be realized viz., that financing should be furnished by members in proportion to the use they make of the association. Also, for example, this type of cooperative association has begun to open the way to a separation of the marketing organizations from the processing plants used by them. In such a case, the marketing association itself is organized as a non-stock type while a subsidiary warehouse or processing plant is formed on the ordinary capital stock plan because of its great demand for fixed capital. The subsidiary then operates under contracts with the marketing association to perform the services for a charge sufficient to pay current returns on the invested capital. Although cooperators would contribute as much capital to a non-stock association in issuing certificates of indebtedness as to a stock association in the form of capital shares, the use of the subsidiary corporation provides, it is sure, a

convenient way of attracting permanent capital from the investing public.

Through such a process the American farmer cooperatives have opened the way for securing capital in various ways. The methods by which farmer cooperatives in the United States meet their capital needs may be summarized as in the following lists:

I Direct methods

1 Sale of shares of capital stock
2 Collection of membership fees
3 Sale of preferred stock
4 Sale of bonds
5 Requiring members to execute promissory notes to the association
6 Borrowing
  a From members and nonmembers
  b From central cooperative organizations
  c From marketing agencies
  d From commercial banks
  e From government agencies

II Indirect methods

1 Deferring payments to patrons
2 Deduction of definite amounts from members' returns (including issuance of certificates of interest — revolving fund plan)
3 Accumulation of surpluses, reserves
4 Use of sight drafts and trade acceptances
5 Creating subsidiary companies and selling stock in the same
6 Delaying payments of bills.

In our country, under the Industrial Societies Act of the pre-war period, cooperative capital consisted of share capital, reserve funds, and deposits from members, and was supplemented by money borrowed from other organizations. Every member had to subscribe at least one share. The maximum value of one share, excepting in special cases, was not allowed to exceed ¥ 50 and, further, one member's holding of shares could not be more than thirty; only in exceptional cases was the maximum of fifty allowed.[20] The reserve fund was divided into two forms. One was prescribed by the Act called "legal or compulsory reserve." Every association had to set aside at least one-fourth of its net profit for the reserve until this reached the amount agreed upon in the by-laws of the association.[21] The Act prescribed

that the minimum reserve of this kind must not be less than the total amount of the nominal capital of the association.[22] The other kind of reserve was what was called "special or voluntary reserve." The Act stipulated that an association might allocate a certain portion of net profit to this kind of reserve. These two forms of reserve fund, unlike the Stiftungsfond in the Raiffeisen Societies, were not the permanent indivisible property of the society, each member could lay claim to it.

The sources of borrowed capital for the Japanese cooperatives in earlier days were roughly as follows:

1 From the federations of credit associations
2 From the Central and Prefectual Hypothec Banks
3 From local Commercial banks
3 From private individuals

The government, with a view to promoting cooperative associations, granted them vest sums each year from the funds managed by it (for instance, the Post Office savings) at a low rate of interest through the intermediary of the banks mentioned above. But, after the central Bank for Industrial Societies was established in 1923, such loans used to be granted through this organization. The amount of loans from the government rapidly increased after the agricultural crisis of the 1930's.

But the largest source of cooperative capital was the deposits accepted from members.

Post-war, under the new Agricaltural Cooperative Law of 1947, a little change has been found in the financial aspect of our agricultural cooperatives. Firstly, it should be noted that the Law authorizes two types of agricultural cooperative association, that is, associations with share capital and those without.[23] Legal recognition of these two types of association reminds us of stock and nonstock associations in the United States; in fact, the law was written under the influence of some of the State laws in the United States.[24] But what is intended by it seems not necessarily the same as in the United States. The Law set forth some discriminative prescriptions between the two types of association and does not expect both types to perform the

same functions. In reality, as already mentioned, the associations with share capital hold the predominant position in our agricultural cooperative system. Secondly, the Law provides for a kind of revolving fund, which allows the association to require members to subscribe to the association all or part of the patronage refund allocated to them for five years.[25] The provision of this revolving fund was laid down by the law as the result of a revision in 1951 under the plain influence of the practice being carried out in the United States. But the introduction of such foreign practice has not been successful in our country as will be discussed later.

Thirdly, the Law stipulates that when it is agreed on in the by-laws, an association may charge to members the expenses for cooperative activities.[26] Fourthly, an education and information fund is provided for by the law. An assciation must set aside more than one-twentieth of its annual net profit as an education and information fund for the next fiscal year.[27]

But,it remains unchanged that share capital, reserves and deposits are the foundation of our agricultural cooperative finance. Under the new law, every member is required to subscribe more than one share, the amount of one share is not limited and also as to member's holding of shares, there is no limitation. These matters are left to be laid down in the by-laws.[28] Pertaining to reserves, the law stipulates that an association should set aside more than one-tenth of its net profit for the reserve until this equals the amount agreed on in the by-laws of the association. The minimum of the reserve must not be less than one-half of the total share capital.[29] In addition to this kind of reserve, it is permissible for the association to allocate a certain portion to be fixed by the by-laws of net profit to voluntary reserve.

After all the above is considered, however, but for members' deposits the capital structure of our cooperatives would be quite poor. The so-called general-purpose type of association including the credit business department, has a decisive position and meaning in our agricultural cooperative system, and it gives a distinct feature to the capital structure of our cooperative

associations.

Notes :

1) U.S. Dept. of Agri., FCS Bulletin 1, 1955, Farmer cooperatives in the U.S. p. 11

2) ibid.

Laws of Michigan, 1865, Act No. 288., An Act to authorize the formation of Mechanics' and Laboring men's Cooperative Associations. This was, in 1875, amended to include agricultural and horticultural associations. See E.G. Nourse, The legal status of *agricultural cooperation*, Brookings Institute, Washington, 1928, p. 39

3) ibid.

4) The Massachusetts Acts, Section 5, Chapter 290, 1866

5) ibid., Section 7

6) ibid., Section 12

7) Nourse, op. cit., p. 40

8) ibid., pp. 36 ff.

9) ibid., pp. 443 ff.

10) ibid., pp. 42-43

11) ibid., p. 48 footnote

12) ibid., pp. 67-68

13) ibid., p. 64

14) Section 653p, 4, Chapter 26, California Non-stock Law of 1909 (See Nourse, op. cit., p. 453)

15) U.S. Dept. of Agri., FCS Bulletin 10, 1958, Legal Phases of Farmer Cooperatives, p. 165; Nourse, op. cit., pp. 75-76

16) Nourse, op. cit., p. 78

17) Section 17, the Department of Agriculture, Cooperative Bill (See Nourse, op. cit., pp. 83 pp. 83 and 465-466)

18) Section 6 (f), the Department of Agriculture, Cooperative Bill (See Nourse, the same pages)

19) Articles of incorporation of the Bingham Cooperative Marketing Acts, Acts of Kentucky, 1922 (See Nourse, op. cit., pp. 474-475)

20) The Industrial Societies Law, Law No. 34, Meiji 33 (1900), Article 17.

21) ibid., Article 46.

22) ibid., Article 51-(2)

23) The Agricultural Cooperative Law, Law No. 132, Showa 22(1947), Article 13.

24) Yokoo, M., Agricultural Cooperative Law, Zenkoku Nogyo Shuppan Company, Tokyo, 1954, p. 69

25) The Agricultural Cooperative Law, Article 13-2.

26) ibid., Article 17.

27) ibid., Article 51.

28) ibid., Article 13.

29) ibid., Article 51.

V Present capital structure of farmer cooperative associations in the United States and Japan

(1) General view

The capital structure which discloses the various sources of a corporation's capital will be generally shown on the liabilities side of the corporation's balance sheet. In order to examine the capital structure of farmer cooperatives, it is desirable in the first place to have a consolidated balance sheet of these cooperative associations. But it seems difficult to find or to prepare such a sheet of farmer cooperatives in the United States. There is only a national estimate of total assets of 9,793 farmers' marketing and farm supply associations at the close of fiscal year 1954 (table 11). The figures are those expanded on the basis of the data supplied by the sample of 1,157 cooperatives.[1)]

As shown in table 11, the total assets of 9,793 farmers' marketing and farm supply associations in the United States at the close of fiscal year 1954 were estimated at over $3.6 billion. Needless to say, this table represents a kind of simplified balance sheet of farmer cooperatives and it does not give the figures in detail. The amount of assets equals that of liabilities and net worth. The latter means the sources from which the associations derive their capital funds. In this case the sources of capital funds are expressed as divided into three kinds.

Total equity capital (net worth)[2)] of the 9,793 associations was estimated at $2,087,181. This figure represented almost 58 per cent of the assets of these associations and was more than double the amount of borrowed capital outstanding at that time. A comparison of borrowed capital with assets and equity capital for local and regional associations showed significant differences. Evidently local cooperatives as a group relied more heavily on internal or membership financing, whereas regionals as a group leaned more

Table 11 Assets, liabilities, and equity capital in farmer cooperatives at the close of fiscal year 1954, (except 264 bargaining cooperatives and not elimnated inter-cooperatives investments), the United States.*

(Thousand dollars)

Types of association	Total number of ass.	Assets	Liabilities and equity capital		
			Equity capital	Borrowed capital	Other liabilities
Marketing	6,420	2,590,201	1,358,186	748,965	483,050
Locals	6,103	1,384,541	923,383	201,382	259,776
Regionals	317	1,205,660	434,803	547,583	223,274
Farm Supply	3,373	1,026,975	728,995	165,406	132,574
Locals	3,257	473,378	374,855	34,080	64,443
Regionals	116	553,597	354,140	131,326	68,131
All associations	9,793	3,617,176	2,087,181	914,371	615,624
Locals	9,360	1,758,919	1,298,238	235,462	324,219
Regionals	433	1,759,257	788,943	678,909	291,405

* Cited from the U.S. Dept. of Agri., FCF General Report 32, 1957, P. 3

Table 12 Equity capital, borrowed capital and other liabilities as a percentage of total assets of 9,793 farmer cooperatives, fiscal year 1954, the United States.

(%)

	Net worth	Borrowed capital	Other liabilities
All regionals	45	39	16
Marketing	36	45	19
Farm supply	64	24	12
All locals	70	13	17
Marketing	67	14	19
Farm supply	79	7	14
Regionals and locals	58	25	17
Marketing	52	29	19
Farm supply	71	16	13

heavily on borrowed capital.

Regional cooperatives owned almost half of the total assets, although they represented less than five per cent of the total number of associations, and yet over 74 per cent of the total borrowed capital had been borrowed by these regional associations in this year.

Over 62 per cent of total equity capital was in the 9,360 (95 per cent) local associations and left a little less than 38 per cent in the 433 (5 per cent) regional cooperatives. Divided total equity capital, percentage-wise, between marketing and farm supply cooperatives, showed 65 per cent in the former and 35 per cent in the latter. These percentages approximately corresponded to those of the respective numbers in all associations.

Marketing and farm supply cooperatives had over 914 million dollars in borrowed capital outstanding at that time; this figure represented one-fourth of total assets and was less than one half of the equity capital figure of all farmer cooperatives. Marketing associations had 82 per cent of total borrowed capital while farm supply cooperatives had 18 per cent of the total. These figures on borrowed capital, however, did not measure in any way the annual peak borrowings of farmer cooperatives because seasonal credit demands were not taken into consideration. Probably very little of such seasonal borrowings were reflected in the 914 million dollars total unless they happened to be outstanding and unpaid at the time the balance sheet was prepared.

Liabilities, other than capital borrowed on a loan basis, include such items as accounts payable, proceeds payable, and deferred and accrued items.[3] Percentage-wise, the portion of these liabilities in the total assets for local and regional cooperatives and for marketing and farm supply associations did not vary significantly. Table 12 shows equity capital, borrowed capital, and other liabilities, as percentage of the total assets of all associations.

Although interested in the varying ratios of equity capital and borrowed capital to total assets by commodity groups in marketing cooperatives, here we have to omit all the minor details, showing only

Table 13 Equity capital, borrowed capital and other liabilities as percentage of total assets of 6,420 marketing cooperatives, by principal commodity handled, at the close of fiscal year, 1954, U.S.A.*

(per cent)

Associations grouped according to principal activities	Number of associations	Assets ($ 1,000)	Equity capital	Borrowed capital	Other liabilities
Local					
Cotton	520	86,373	78	14	8
Dairy	1,616	284,519	67	14	19
Dry beans	15	1,862	62	12	26
Fruit & vegetables	684	317,687	60	17	23
Grain	2,130	593,925	67	13	20
Livestock	474	13,996	90	8	2
Miscellaneous	61	13,391	70	14	16
Nuts	36	14,682	72	4	24
Poultry	137	26,084	73	10	17
Rice	52	19,010	66	29	5
Wool	152	98	85	0	15
Regional					
Cotton	26	219,611	18	60	22
Dairy	51	186,360	59	12	29
Dry beans	9	6,489	42	26	32
Fruit& vegetables	37	152,244	53	24	23
Grain	32	195,319	53	21	26
Livestock	43	25,265	49	18	33
Miscellaneous	3	2,964	42	44	14
Nuts	6	22,953	47	28	25
poultry	17	32,351	71	13	16
Rice	6	24,963	50	40	10
Wool	25	23,648	24	67	9
Soybeans	8	7,170	59	40	1
Sugar	20	14,638	69	20	11
Tobacco	29	291,568	6	91	3

* Cited from the U.S, Dept. of Agri., FCS General Report 32, P. 7

table 13.

The capital structure of agricultural cooperatives in Japan is greatly different from that of farmer cooperatives in the United States. The greatest difference is, as mentioned earlier, that our agricultural cooperatives of general purpose type include a credit department and accept savings from members, which make up a large part of the total liabilities and net worth. The combined balance sheet of the 11,625 general purpose cooperatives as of March 31, 1957, is shown in table 14.

One glance at this table will be enough to note the remarkable feature of capital structure of our general purpose agricultural cooperatives. That is, the deposits accepted from members of the 11,625 cooperatives at the close of fiscal 1957 amounted to over ¥453 billion. This figure accounted for 71.1 per cent of the total equities and liabilities. The amount of equities was, on the other hand, nearly ¥45 billion, which accounted for only 7 per cent of the total equities and liabilities. And yet most of equities consisted of share capital. It seems a question whether or not the savings accepted from members should be treated as external liabilities or owned capital. On the balance sheet of our agricultural cooperatives the savings have been treated as current liabilities, while by an English student of cooperation they are included in the owned capital.[4] The deposits are, indeed, a sort of financing by the members themselves, but they are not the same in nature as share capital or reserves. The deposits should be treated as liabilities separated from owned capital in general. Here it is important that the deposits with our general purpose agricultural cooperatives are employed not only for the proper credit business but also for such other businesses as marketing or purchasing. A general purpose association has, needless to say, a complicated management structure owing to the combining of various business departments – credit, marketing, purchasing, utilization, rural industry, and other businesses, as well as to offering guidance on farm operations. While such a form of undertaking has managerial conveniences, it sometimes happens to fall into careless or loose finance. The law requires that at least the accounts of credit

Table 14 Combined balance sheet of the 11,625 general purpose agricultural cooperatives, Japan, as of March 31, 1957.*

(Million Yen)

Assets		Liabilities and Net Worth	
Assets	628,875	Liabilities	590,250
Credit Department	472,449	Credit Department	553,485
Cash	6,098	Membership savings	453,775
Deposits	220,110	Debts	90,663
Securities	8,459	Others	9,046
Loans	227,292	Other Departments	36,764
Others	10,448	Accounts payable (Purchasing Dept.)	11,944
Other Departments	99,285	Accounts payable (Marketing Dept.)	3,260
Accounts receivable (Purchasing Dept.)	33,067	Accounts payable (Other Dept.)	3,241
Accounts receivable (Maraeting Dept.)	9,266	Debts	10,180
Accounts receivable (Other Dept.)	5,179	Insurance account	371
Inventories	38,349	Others	7,766
Special account	4,494	Net Worth	44,791
Others	8,927	Paid up capital	39,826
Fixed Assets	57,140	Revolving funds	155
Fixed assets	38,243	Capital reserves	2,207
Outside investments	18,897	Legal reserves	1,575
Affiliated	18,035	Special reserves	1,026
Non-affiliated	862		
Unappropriated Deficit	8,548	Unappropriated Earned Surplus	2,382
Total Assets	637,424	Total Liabilities and Net Worth	637,424

* Yearbook of Statistics of Agricultural Cooperatives, Ministry of Agriculture and Forestry, 1959, P. 21.

business should be separated from other business accounts. It is said, however, that the funds employed in other businsses than credit have not been paid any interest in most cases.

As previously referred to, it can be said that there has been no change in the predominancy of the general purpose type association in our agricultural cooperative system through the pre-war and post-war periods. But the position of deposits in the capital structure of agricultural cooperatives has somewhat changed as shown in the following table. Aside from the changes in detail of these three elements, it can be pointed out that in the pre-war period share capital held a relatively high percentage, but post-war the percentage of deposits gone up to a considerable degree, though it has shown a somewhat downward trend in recent years. The reasons for such changes in the capital structure of our agricultural cooperatives are not few. One of the leading and immediate causes, however, is that government control over marketing of farm products continued after the war and most farm products were marketed through the agricultural cooperatives. For the present such direct government control is left only for the marketng of rice, but it has a significant influence upon the agricultural cooperative business. Speaking briefly, the proceeds of rice sold by farmers through their cooperatives to the government are paid to farmers through the cooperatives. In this case, however, money does not go directly into the hands of farmers, but it is once transferred into the deposit account which each farmer has in his cooperative. Thus, the proceeds of rice sales are automatically detained and accumulated as deposits in agricultural cooperatives. As a result, post-war the position of deposits in capital structure of our agricultural cooperatives has increased in importance.

At all events, there is no doubt that the deposits are the first consideration in the capital structure of our general purpose agricultural cooperatives. From table 14 it is clear at least that the amount of liabilities of the credit department exceeded that of assets of the same department by ¥81 billion, and this excess amount was employed to make up for the deficits in capital that was secured both from the other departments and from the net worth. The balances between liabilities and assets in the other departments, and between net worth and fixed assets (including outside

Table 15 Percentage distribution of share capital, deposits and borrowed capital in agricultural cooperatives, pre-war and post-war, Japan.*

Year	Share capital	Deposits	Borrowed capital
1905	46.0	37.6	16.4
1910	45.8	37.4	16.8
1915	39.6	39.0	21.4
1920	22.5	63.3	14.2
1925	21.5	69.0	5.5
1930	44.6	45.5	9.9
1935	20.0	67.5	12.5
1950	4.0	86.3	9.7
1951	5.4	85.4	9.2
1952	6.4	81.2	12.4
1953	6.3	81.1	12.6
1954	5.8	76.6	17.6
1955	6.2	73.4	20.4
1956	6.6	74.8	18.6

* Statistics of Industrial Societies and of Agricultural cooperatives, each annual edition, Ministry of Agriculture and Forestry.

investment) were ¥62 billion and ¥19 billion respectively. In other words, the combined balance sheet of our general purpose cooperatives stands on the condition that a not small part of the funds raised in the credit department as deposits are employed internally in departments other than that of credit business.

Furthermore, it should not be overlooked that about a half of the share capital paid in has been absorbed as share capital subscribed to the federations. As a result the net worth has not covered fixed assets in the combined balance sheet.

Then, of the amount of savings, about one-half was used as loans to members at the close of fiscal 1957. The other half was in the prefectural credit federations as deposits, which in turn were parlty employed as funds

for the federations of other businesses and were partly in the Central Bank for Agriculture and Forertry as deposits. It is estimated on the basis of average of monthly figures in 1957 that, while the deposits accepted from members in general purpose agricultural cooperatives amounted to about ¥442 billion, the amount of loans to members was ¥217 billion, that ¥106 billion was employed in economic businesses other than credit business and further that ¥130 billion was invested outside of cooperative businesses. At the same time, it should be taken into consideration that over 40 per cent of the loans to members was not what had been extended voluntarily by the cooperatives but what had been reinforced by government rearrangements in one way or another.[5)]

After all, a considerable portion of the funds raised in the form of savings of farmer members was not used as the sources for making loans to members but was invested outside of cooperative business at the stages of our cooperative system, — local cooperatives, prefectural credit federations, and the Central Bank. Here is a problem of the so-ccalled 'idle' or spare funds in our agricultural cooperative credit business.

Table 16 shows the steady increase of idle funds in local agricultural cooperatives. This has been caused by increase in savings accepted from members on the one hand and by stagnation in loans for members on the other. And it is observed that there has been a strong tendency to employ funds outside cooperative businesses rather than to re-deposit them with the central cooperative institutions.

Table 16 Deposits and securities in local agricultural cooperatives as of March 31, 1957, 1958, and 1959, Japan.

(billion yen)

	1957	1958	1959
Deposits with other bodies	206.8	218.8	261.3
(of which prefectural credit federations)	193.2	201.8	240.1
(others)	13.6	17.0	21.2
Securities	5.7	8.5	9.0

* Agricultural Year Book of Japan (Nippon Nogyo Nenkan), 1958, 1959 and 1960

Such financial conditions in local cooperatives naturally could not help being reflected in those of prefectural credit federations, and actually the same tendency as mentioned above was more marked there. Reviewing the main accounts of the 46 prefectural credit federations (table 17) the increase in deposits is noticable while the extension of loans is stagnant. As a result a considerable portion of idle funds in these federations as a group is used outside the cooperative network. This is evidenced by the large increase in securities and in loans for non-members (particularly the increase in Call Loans should be noted). These facts caused the credit federations to reinvest a relatively lower portion of their funds with the central body than did local cooperatives with their federations.

Table 17 Consolidated account of Prefectural Credit Federations as of March 31, 1957, 1958 and 1959, Japan.*

(Billion Yen)

	1957	1958	1959
Liabilities			
Deposits	223.6	243.8	296.3
Borrowings	21.2	23.1	12.3
Capital	3.6	4.5	5.2
Assets			
Loans	93.3	114.2	112.4
Deposits with other bodies	130.7	126.1	165.1
(of which central coop. institute)	106.9	107.4	141.2
Securities	25.2	34.8	43.3

* Agricultural Year Book, 1958, 1959 and 1960.

In the Central Bank for Agriculture and Forestry, as the result of remarkable decrease in loans for affiliated agricultural bodies, idle funds largely increased (table 18.) These idle funds are employed as loans for related agricultural industries such as fertilizer plants, dairies, breweries, etc., or for Inter-Bank Loans and CallLoans, as indicated in table. 19.

Thus, it sesms inevitable that agricultural cooperative funds are

Table 18 Deposits, loans and idle funds in the Central Bank for Agriculture and Forestry, as of March, 1957, 1958, and 1959, Japan.*

(Billion Yen)

	1957	1958	1959
Deposits	116.8	115.4	151.2
(of which affiliated agricultural associations)	110.9	110.3	142.2
Loans	57.0	69.0	52.5
(of which affiliated agricultural associations)	32.3	42.6	26.4
Idle funds	72.1	54.7	116.4

* Agricultural Year Book, 1958, 1959 and 1960.

Table 19 Employment of idle funds in the Central Bank for Agriculture and Forestry. as of March 31, 1957, 1958 and 1959, Japan.*

(Billion Yen) .

	1957	1959	1959
Loans for related agricultural Industries	30.5	29.4	56.3
Inter-Bank Loans	33.7	16.3	45.3
Call Loans	7.9	9.0	14.8

* Agricultural Year Book, 1958, 1959 and 1960.

increasingly transferred either directly or indirectly to non-cooperative activities.

From the foregoing it is easily understandable that our agricultural cooperative capital structure largely depends upon the members' deposits, a considerable portion ofwhich is employed outside the cooperative network at each stage of our agricultural cooperative system; particularly through the Central Bank cooperative funds are closely connected with the national money market. With relation to these facts discussions are arising on functions of the prefectural credit federations and the Central Bank, the relations between agricultural cooperative loans and government loans, the decline in systematic patronage, etc. Basically, however, we may find here some limitations of the

cooperative credit business itself.

Attention should also be drawn to the fact that the utilization of increasing funds collected by the expanding mutual insurance business is forming a new source and a new problem in the matter of cooperative capital in our agricultural field.[6)]

It is important, after all, to recognize that in our agriculural cooperatives the capital problem is one not merely for individual cooperatives but also for the agricultural cooperative system as a whole.

(2) Equity capital

It may not be appropriate to make a direct comparison of the weight of equity capital in farmer cooperative capital structure between the United States and Japan without regard to the difference in type of association. Notwithstanding this it cannot be denied that the position of equity capital in our agricultural cooperative capital structure is too weak. As mentioned previously, there may be many forms or types of equity capital. The types and amounts of equity capital of our agricultural cooperatives (general purpose type) were as shown below at the close of fiscal year. 1957.

Type	Amount	%
Paid-up capital	¥ 39,826,504	89.2
Revolving funds	155,847	0.3
Capital reserve	2,207,522	4.8
Legal reserve	1,575,078	3.5
Special reserve	1,026,365	2.2
Total	44,791,316	100.0

Nearly 90 per cent of the total equity capital of our agricultural cooperatives was share capital subscribed directly by members. Accordingly any other type of equity could not have importance. Legal reserves have been required by the existing *Agricultural Cooperative Law* to be accumulated by placing aside over one-tenth of the annual surplus. The Model By-Laws provide for the accumulation of this reserve until it equals the amount of share capital.

But it did not reach to even four per cent of the share capital which amounted to about ¥40 million at the close of fiscal year 1957.

In the United Kingdom, share capital is the foundation of agricultural cooperative finance. The percentage distribution of owned capital is quite different from that of our agricultural cooperatives. It is reported that in 1956 the total owned capital of English agricultural cooperatives amounted to £11, 357, 126, of which £4, 583, 264 was reserves and undistributed surplus.[7] This latter accounted for 40 per cent of total owned capital. Of course, it should be taken into consideration that our agricultural cooperatievs were reorganized after World war II; it is not denied, however, that they have too small reserves as part of their owned capital.

As pointed out previously, the source of share capital subscribed by members to their cooperative may be a part of economic surplus or profit in the case of a large farmer, but it may be a matter of thrift in the case of a small farmer or peasant. Therefore cooperative share capital cannot help being restricted in quantity as well as in quality under such conditions. We should remember that share capital of agricultural cooperatives in the pre-war period in our country consisted largely of capital subscribed by the landlord class.[8] After the war, as a result of the Land Reform, a large part of the landowners disappeared from the scene and a great number of small owner-operators were established. High rents which constituted previously more than half a tenant's costs were reduced to less than one per cent. Farmers are, it is sure, better able to save for self-investment on capital goods in farming. Actually, farm machinery and livestock have increased in value markedly since then, though relatively favorable prices for agricultural products in these years have undoubtedly played a part in stimulating capital formation.

However it seems difficult to examine what effect such change in capital formation has brought about in financial contribution by farmers to their cooperatives. Considering the facts that even the post-war agricultural cooperative movement was not an indigenous growth but rather of the nature

of something given from above to a great extent (this was a reason why it could involve all the farmers as members), and that agricultural capital formation is, after all, limited by farm size, it can be said that farmers' financial contribution depends upon the degree of interest that they have in their cooperatives and the area of their holdings. Several surveys have evidenced that agricultural cooperative activities have been most closely bound with the middle-class farmers. Probably they also have played a large part in cooperative finance. The comparatively larger and smaller or parttime farmers have less interest in cooperative business. As indicated later, they recently seem to have invested more money outside the farm business.

It can be observed that share capital subscribed by member-farmers varies not only according to the size of farm but also by agricultural region. As shown in table 20, share capital per member on prefectural average increases steadily with each increase in the area of the holdings. In large holdings — category of two cho and over — it amounted to ¥ 19,089 in national average (excluding Hokkaido), almost nine times that in small holdings. Making a comparison, for instance, between Tohoku and Setonaikai Districts, it will be found that in big holdings — categories of 1.0-1.5 cho and over — share capital per member is smaller in Setonaikai than in Tohoku. Margins of share capital between the corresponding categories of the two districts clearly increase as the category goes up. Farmers in Hokkaido had the largest share capital per head in our country at the close of fiscal year 1957. Average farm size is larger, farming is less intensive and market conditions are less advantageous in Hokkaido than in any other district of Japan. Most of the farmers there incline to be much concerned with cooperative activities.

As mentioned earlier, producers' cooperation requires of members to contribute to the financing of the association in proportion to the use they make of their association. But, cooperative law in usual provides only that every member should subscribe to more than one share upon joining the cooperative. Under such a provision, the number of shares to be held by the

member is a matter of personal choice. Accordingly he is responsible in no small degree for the under-capitalization of his cooperative association. In order to fill such a gap there have been devised several means and ways. The non-stock association and revolving fund plan in the United States have been already mentioned. Some cooperatives have established a ratio between the share values and the acreage of farm, number of cows or a given volume of anticipated trade, by prescribing the relationship in the by-laws. Any attempt to set up such relations or obligations seems to be unknown, at least

Table 20 Cooperative share capital and other securities per member by farm size and selected districts, as of March 31, 1958, Japan.*

(Yen)

Farm size (Cho)	Nation (excluding Hokkaido)	Tohoku	Setonaikai	Farm size (Cho)	Hokkaido
			– Cooperative share caqital –		
0.3 and below	2,247	1,845	2,781	2 and delow	5,967
0.3–0.5	3,310	3,141	3,646	2– 3	25,935
0.5–1.0	5,948	6,449	6,414	3– 5	32,548
1.0–1.5	8,473	8,299	7,347	5– 7	34,874
1.5–2.0	12,002	14,159	10,163	7–10	50,612
2.0 and over	19,089	24,562	13,094	10 and over	74,315
			– Securities –		
0.3 and below	25,585	8,528	41,848	2 and below	8,620
0.3–0.5	17,441	6,789	18,199	2–3	28,368
0.5–1.0	18,506	12,946	20,386	3–5	33,944
1.0–1.5	23,063	24,301	16,424	5–7	39,489
1.5–2.0	31,988	20,110	20,969	7–10	67,854
2.0 and over	39,952	40,331	38,892	10 and over	104,553

* Ministry of Agriculture and Forestry, Farm Household Economy Survey 1957

offcially, in our country, where shares are to be subscribed as the member wishes, subject to the maximum fixed by the by-laws. But, it is reported that in reality shares are usually allocated among members on the basis of some standards, for instance, acreage of farm, number of cattle, value equivalent to a certain volume of a farm product, etc.

Since the financial difficulties of agricultural cooperatives have occurred around 1950 and the increase of share capital has been required, such practices are said to have been followed by many associations. Share capital of agricultural cooperatives has steadily increased in these years as shown below:

1953	¥19,882 million
1954	24,337
1955	29,904
1956	34,533
1957	39,826

It doubled within five years. Under such circumstances, however, some problems have been presented. One is that members of small-sized cooperatives must have made much greater financial contribution in the form of share capital than those of large-sized associations have done. Another is this: financial reconstruction of the federations has required for the member local cooperatives the subscription of much more share capital. As table 21 shows, the affiliated local associations subscribed to the federations; the equivalent of more than 40 per cent of their total equity capital in these years.

Local associations have borne a considerably heavy burden in the financial contribution to their federations. Further, it is found that from local associations, in some years, a large porton of their share capital collected from their members was taken by the federations as shown in table 22. That accounted for 80 per cent and 60 per cent of share capital collected in 1954 and in 1955 respectively.

Needless to say, a cooperative association is not an investment opportunity for its members. Therefore, share capital subscribed by members

Table 21 Total equity capital of general purpose agricultural cooperatives and their paid-up investment in the federations, as of March 31, to 1958.*

(Billion Yen)

	Total equity capital of local coops.	Paid-up investment in federations	%
1954	20.9	8.7	41
1955	26.6	12.3	46
1956	32.4	15.7	48
1957	37.4	17.1	45
1958	44.7	18.0	40

* Source : Statistics of Agricultural Cooperatives, each annual edition.

Table 22 Annual increase in paid-up share capital in general purpose agricultural cooperatives and in the federations, 1953 to 1957.*

(Billioo Yen)

	Paid-up capital in local coops.	Paid-up investment in the federations	%
1953 – 54	4.5	3.6	80
1954 – 55	5.6	3.4	60
1955 – 56	4.5	1.4	31
1956 – 57	5.4	0.9	16

* Source : Statistics of Agricultural Cooperatives, each annual edition

does not necessarily require the payment of dividends or interest on it. Viewed from this point, share capital may be a satisfactory form of capital for cooperatives. When the payment of dividends or interest on share capital is made, the rate is usually fixed. In our country it is fixed by the law at five per cent at the maximum. Besides, cooperative shares are not publicly quoted and they remain always at their face value. Transfer of cooperative shares is restricted within narrow limits. However, this direct method for capital raising by cooperatives has its own limit as stated previously. Recently the number of cooperatives making the payment of interest on share capital has increased as we will see later, and also there

has been seen a movement to raise the maximum rate of interest on shares from 5 per cent to 6 per cent. These trends indicate not only that the financial conditions of our agricultural cooperatives have been improved, but also that the necessity of attracting more share capital from members has increased. In Great Britain, the rate of interest on cooperative share capital is usually 5 per cent at maximum, but 6 per cent is said to have been known sometimes. Digby and Gorst say, "the fact that cooperative share capital has to be paid for at a rate often above the bank rate, or other outside sources of capital, means that it must either be fully employed throughout the year or invested in some securtiy bearing interest, if possible as high as that carried by the share. This explains why cooperatives, not foreseeing any immediate expansion, are at times reluctant to accept more share capital."[9]

At any rate, agricultural cooperatives of our country have depended heavily upon share capital in building up their net worth. Share capital cannot be said, however, to have been accumulated just enough to work as net worth. This is evidenced by the fact that the so-called fixed assets ratio is too low. Table 23 shows that of 11,625 general purpose cooperatives surveyed 6,087 (52.4 per cent) indicate fixed assets ratio of less than 75 per cent and the number of cooperatives which indicate the ratio of more than 100 per cent is only 3,333 (less than 30 per cent).

Table 23 Number of general purpose cooperatives, by fixed assets ratios, 1957.*

Fixed assets ratio	Number of coops	Per cent
Less than 35%	2,474	21.3
35 - 45	740	6.4
45 - 55	862	7.4
55 - 65	1,009	8.7
65 - 75	1,002	8.6
75 - 85	954	8.2
85 - 95	839	7.2
95 - 100	412	3.5
More than 100%	3,333	28.7
Total coops surveyed	11,625	100.0

* Source : Statistics of Agricultural Cooperatives 1957

What has covered such weakness of share capital must be the acceptance of deposits from members, the supply of government funds with low interest and long-term, and other government financial aids. As mentioned previously, the application of some methods prevailing in the United States in acquiring equity capital has been considered in our country. For instance, the method of forming a revolving fund has been imported from the United States and has been applied to our agricultural cooperatives. However, where the practice of patronage refund has not been used exactly, this method has not been able to prove its proper function. Actually the position of revolving fund in our cooperative capital structure is almost negligible. As to the revolving fund plan being used widely in the United States, we will study it in further detail in a later section.

Then, turning attention to the present status of equity capital of farmer cooperatives in the United States, we will find that the status is quite different from that of our agricultural cooperatives. In short, what makes up the large portion of equity capital of American farmer cooperatives is 'retained refunds' in a number of forms. In practice, there have been devised several types of equity capital and methods by which it is acquired,

(A) Types of equity capital in the American farmer cooperatives

As said above, types of equity capital of farmer cooperatives in the United States are not few and classification of them differs with students of cooperation.[10] They can, however, be generally classified as follows:

1 Common stock
2 Preferred stock
3 Certificates of equity with maturity dates
4 Allocated capital credit without maturity dates
5 Unallocated reserves
6 Membership certificates
7 Miscellaneous equity and current net margins

Common stock has usually par value which varies from $1 to $100 with associations and also is the votng stock. The by-laws in general require

that all members own at least one share of this stock.[11] Preferred stock, unlike common stock. does not carry with it voting rights and is frequently sold to both members and non-members as an auxiliary means of financing cooperatives. Subsidiary corporations, created by capital stock or non-stock cooperatives, often sell this kind of stock. The owner of preferred stock does not have a creditor relationship but a proprietary one to the cooperative.[12] On the other hand, however, the rate of dividend which must be paid on this stock seems to be high to enough attract the funds of both members and nonmembers.

Farmer cooperatives in the United States issue, as known well, certificates of equity, certificates of indebtedness, and other certificates of like nature. It seems, however, not easy to define these certificates either as borrowed capital or equity capital, particularly where they bear maturity dates. The U.S. Department of Agriculture conveniently adopts such classification as follows: all certificates of indebtedness bearing interest and having definite maturity dates are classified as borrowed capital; certificates of equity, and other like certificates bearing no interest and having no maturity dates are to be classified as eqnity capital; all certificates with definite maturity dates are to be classified as borrowed capital.[13] Further U.S.D.A. says in addition that the following factors are to be taken into consideration: whether substantially all of the certificates in question are in the hands of members of the association, and whether or not the certificates have been acquired through allocation of patronage refunds. It is clear that such classification is only an expedient based upon the present state of things.

It is said that some cooperatives issue certificates of equity covering a part or all of the capital credits allocated to patrons, others follow the practice of crediting capital to individual patrons, notifying them of their respective shares, and not issuing any formal certificates of equity covering their book credits.

Unallocated reserves are, so to speak, the undivided assets belonging

to the association and not to each member.

Membership certificates are given to members in non-stock associations upon payment of a membership fee. Membership fees are said to vary considerably from less than $ 1 per person to as high as $ 100, although $ 1, $ 5, and $ 10 fees predominate.[14)]

Tables 24 and 25, taken from a survey made by the U. S. Department of Agriculture, show types and amounts of equity capital reported by 1, 157 cooperatives in 1954. As indicated in these tables, the most usual form of equity capital was the allocated capital credits without definite maturity dates, which amounted to more than $ 331 million. This figure accunted for more than 39 per cent of the total equity capital of $ 847 million. This form of equity capital was employed by 936 associations or over 80 per cent of the total number of associations included in this survey. Preferred stock ranked next with common stock following. These three altogether accounted for more than 80 per cent of the total equity of 1, 157 associations. Accordingly, other types of equity had not much importance. Although unallocated reserves were used by 70 per cent of the associations, they were

Table 24 Kinds and amounts of equity capital reported by 1, 157 cooperatives, fiscal year 1954.*

Kinds of equity capital	Local & Regional		Locals		Regionals	
	Amounts ($ 1, 000)	Per-cent	Amounts ($ 1, 000)	Per-cent	Amounts ($ 1, 000)	Per-cent
Common stock	162, 680	19. 2	29, 480	19. 1	133, 200	19. 2
Preferred stock	185, 606	21. 2	21, 999	14. 3	163, 007	23. 6
Certificates of equity with maturity dates	69, 808	8. 3	3, 936	2. 5	65, 872	9. 5
Allocated capital credits with out maturity dates	331, 495	39. 1	74, 392	48. 2	257, 103	37. 1
Unallocated re serves	85, 600	10. 1	21, 288	13. 8	64, 312	9. 3
Membership certificates	1, 826	. 2	1, 048	. 7	778	. 1
Miscellaneous equity and current net margins	10, 241	1. 2	2, 225	1. 4	8, 016	1. 2
Total equity capital	847, 256	100. 0	154, 368	100. 0	692, 888	100. 0

* U. S. Dept. of Agriculture, FCS General Report 32, 1957, P. 9

Table 25 Types of equity capital used by 1,157 farmer cooperatives, fiscal year 1954.*

Types of association	Total number of association	Number of associations reporting:		
		Common stock	Preferred stock	Certificate of equity with maturity date
Marketing	801	559	262	29
Locals	606	458	192	15
Regionals	195	101	70	14
Farm supply	356	268	175	18
Locals	292	221	141	9
Regionals	64	47	34	9
All associations	1,157	827	437	47
Locals	898	679	333	24
Regionals	259	148	104	23

Types of association	Number of associations reporting:			
	Allocated capital credits without maturity date	Unallocated reserves	Membership certificates	Miscellaneous equity and current net margins
Marketing	657	558	79	102
Locals	490	444	58	78
Regionals	167	114	21	24
Farm supply	279	246	24	62
Locals	223	203	20	55
Regionals	56	43	4	7
All associations	936	804	103	164
Locals	713	647	78	133
Regionals	223	157	25	31

* U.S. Dept. of Agriculture, FCS General Report 32, 1957, P. 10.

much smaller in the amounts.

The importance of each type of equity capital varied between marketing associations and farm supply associations, and between regionals and locals. For instance, nearly half of the equity capital of marketing associations was in allocated capital credits without maturity date, compared with less than 30 per cent in farm supply cooperatives. Over 55 per cent of the equity

capital in marketing locals was in the form of allocated book credits without maturity date compared to 32 per cent for farm supply local cooperatives. Common stock and preferred stock, on the other hand, are more prevalent in farm supply cooperatives than in the marketing group. Such relations are indicated in table 26.

(B) Methods of acquiring equity capital

It is said that there have been adopted three methods for acquiring such equity capital in farmer cooperatives in the United States, that is, purc hase, authorized deductions, or refund retained. Purchase needs no explanation.

Table 26 Percentages of equity capital of farmer cooperatives by categories, fiscal year 1954. *

Type of association	Common stock	Preferred stock	Certificates of equity with maturity date	Allocated capital credits without maturity date	Unallocated reserves	Other equity capital
Marketing	14.5	17.6	9.1	46.5	10.6	1.7
Locals	14.9	11.2	3.4	55.3	13.3	1.9
Regionals	14.4	19.5	10.8	43.9	9.8	1.6
Farm supply	25.3	27.5	7.1	29.5	9.5	1.1
Locals	28.9	21.5	.6	31.5	14.8	2.7
Regionals	24.8	28.3	8.0	29.2	8.8	.9
All ass'ns	19.2	21.9	8.3	39.1	10.1	1.4
Locals	19.1	14.3	2.5	48.2	13.8	2.1
Regionals	19.2	23.6	9.5	37.1	9.3	1.3

* U.S. Dept. of Agriculture, FCS op. cit., P. 12.

Authorized capital deductions mean deductions made by associations from sales proceeds in compliance with a by-law provision or a membership agreement They usually take such form as a specified deduction for each physical unit handled (bushel, hundredweight, dozen and so on), or a percentage of sales returns. Refund retained mean savings or margins realized in operations and held by the association as an addition to capital. But, it can be said that if such refunds be paid out to patrons at some future date, or are returned to patrons on a revolving fund basis, it is doubtful whether these refunds should be regarded as equity capital or as borrowed capital.

As shown in tables 27, 28, 29, and 30, refunds retained was the most popular method of acquiring equity capital among the farmer cooperatives in the United States. Over 60 per cent of the total equity capital of 1,157 cooperatives was acquired by this method. But the importance of each method of acquiring equity capital varied by type of equity. Almost one half of common stock, which represented 19 per cent of total equity capital, was acquired through refunds retained. In preferred stock, over 39 per cent was purchased outright by patrons (this is due to the nature different from common stock which is usually the voting stock), and another 24 per cent was obtained by a combination of purchase and refunds retained. Of the total, 31 per cent was acquired entirely by refunds retained. Certificates of equity and allocated book credits were acquired dominantly through refunds retained and an additional 20 per cent was obtained by authorized deductions.

Table 27 Methods of acquisition of common stock in farmer cooperatives in the United States, fiscal year 1954.*

Type of association	Number of associations	Total common stock	Common stock as percent of total equity capital	Percentage of total common stock acquired by:						
				Purchase	Authorized deductions	Refunds retained	Purchase and authorized deductions	Purchase and refunds retained	Authorized deductions and refunds retained	Purchase, authorized deductions and retained
		(Thousands)								
Marketing	801	$ 69, 429	14. 49	18. 32	5. 38	48. 26	4. 72	21. 99	. 05	1. 28
Locals	606	16, 152	14. 93	23. 06	1. 79	35. 37	1. 20	35. 80	. 14	2. 64
Regionals	195	53, 277	14. 36	16. 89	6. 47	52. 17	5. 78	17. 81	. 02	. 86
Farm supply	356	93, 251	25. 34	31. 96	. 30	51. 10	. 55	16. 03	. 05	. 01
Locals	292	13, 328	28. 87	6. 30	. 62	56. 98	. 62	35. 07	. 32	. 09
Regionals	64	79, 923	24. 83	36. 24	. 25	50. 12	. 54	12. 85	–	–
All ass'ns	1, 157	162, 680	19. 20	26. 14	2. 47	49. 89	2. 33	18. 57	. 05	. 55
Locals	898	29, 480	19. 10	15. 48	1. 26	45. 14	. 94	35. 47	. 22	1. 49
Regionals	259	133, 200	19. 22	28. 50	2. 74	50. 94	2. 64	14. 83	. 01	. 34

* U.S. Dept. of Agriculture, FCS op. cit., P, 17

Table 28 Methods of acquisition of preferred stock in farmer cooperatives in the United States, fiscal year 1954.*

Type of association	Number of associations	Total preferred stock	Preferred stock as percent of total equity capital	Percentage of total preferred stock acquired by:						
				Purchase	Authorized deductions	Refunds retained	Purchase and authorized deductions	Purchase and refund retained	Authorized deductions and refunds retained	Purchase, authorized deductions, and refunds retained
		(Thousands)								
Marketing	801	$ 84, 607	17.65	26.13	1.83	34.35	2.35	32.39	.57	2.38
Locals	606	12, 077	11.16	27.03	4.98	42.43	1.94	19.91	–	3.71
Regionals	195	72, 530	19.55	25.98	1.31	33.01	2.42	34.46	.67	2.15
Farm supply	356	100, 999	27.45	49.98	1.53	28.80	1.00	16.27	2.39	.03
Locals	292	9, 922	21.50	66.89	–	8.20	1.03	23.60	–	.28
Regionals	64	91, 077	28.30	48.14	1.70	31.04	1.00	15.47	2.65	–
All ass'ns	1, 157	185, 606	21.91	39.11	1.67	31.33	1.62	23.61	1.56	1.10
Locals	898	21, 999	14.25	45.01	2.73	26.99	1.53	21.58	–	2.16
Regionals	259	163, 607	23.61	38.32	1.53	31.91	1.63	23.89	1.77	.95

* U.S. Dept. of Agriculture, op.. cit., P. 18

Table 29 Methods of acquiring certificates of equity and allocated book credits of farmer cooperatives in the United States, fiscal year 1954.*

Type of association	Number of associations	Total certificates of equity and allocated book credits	Allocated capital credits as percent of total equity capital	Percentage of total certificates of equity and allocated credits acquired by:						
				Purchase	Authorized deductions	Refunds retained	Purchase and authorized deductions	Purchase and refunds retained	Authorized deductions and refunds retained	Purchase authorized deductions and refunds retained
		(Thousands)								
Marketing	801	$ 266, 534	55.61	2.86	30.48	60.58	.68	.65	4.02	.73
Locals	606	63, 503	58.69	1.83	23.74	70.30	1.18	.14	2.67	.14
Regionals	195	203, 031	54.71	3.19	32.58	57.54	.52	.81	4.44	.92
Farm supply	356	134, 770	36.62	4.15	.08	87.39	–	.08	8.29	.01
Locals	292	14, 826	32.12	.45	.75	98.04	–	.71	–	.05
Regionals	64	119, 944	37.27	4.61	–	86.07	–	–	9.32	–
All ass'ns	1, 157	401, 304	47.36	3.30	20.27	69.58	.45	.46	5.45	.49
Locals	898	78, 329	50.72	1.57	19.38	75.55	.96	.25	2.17	.12
Regionals	259	322, 975	46.62	3.72	20.48	68.13	.33	.51	6.25	.58

* U.S. Dept of Agriculture, FCS op. cit., P. 20

Table 30 Methods of acquisition of membership voting certificates of farmer cooperatives in the United States, fiscal year 1954.*

Type of association	Number of associations	Total membership voting certificates	Membership voting certificates as percent of total equity capital	Percentage of total membership voting certificates acquired by:						
				purchase	Authorized deductions	Refunds retained	Purchase and authorized deductions	Purchase and refunds retained	Authorized deductions and refunds retained	Purchase authorized deductions and refunds retained
		(Thousands)								
Marketing	801	$ 1,267	.26	51.30	.51	25 04	19.97	3.02	–	.15
Locals	606	576	.53	64.60	.41	27.88	1.41	5.38	–	.32
Regionals	195	691	.19	40.23	.60	22.68	35.44	1.05	–	–
Farm supply	356	559	.15	60.78	33.86	.69	–	4.67	–	–
Locals	292	472	1.02	53.55	40.11	.81	–	5.53	–	–
Regionals	64	87	.03	100.00	–	–	–	–	–	–
All ass'ns	1,157	1,826	.22	54.21	10.72	17.59	13.86	3.52	–	.10
Locals	898	1,048	.69	59.63	18.29	15.69	.77	5.45	–	.17
Regionals	259	778	11	49.61	.53	20.14	31.48	.94	–	–

* U.S. Dept. of Agriculture, FCS op. cit., P. 21.

(3) Dividends and interest on equity capital

The next subject to be considerd must be whether the cooperative equity capital actually receives dividends or interest.

In the United States it is said that there is no agreement among cooperatives as to whether members should receive dividends or interest on equity capital. Some associations make no return on equity capital whatsoever, while others go all the way and provide for a modest rate of return to every member having equity capital in his cooperative. However, it is allowed to say that many cooperatives pay interest on some types of equity capital and not others.

As shown in table 31, taken from the survey made by the United States Department of Agriculture, nearly 40 per cent of 1,157 associations under survey paid no dividends or interest on any equity capital in fiscal year 1954. The 127 associations (11 per cent) of the total 1,157 associations paid some interest on all equity capital, except membership certificates and unallocated reserves. The other 585 associations (51 per cent) paid interest on some stock, certificates of equity or allocated book credits, but not on all types of equity.

Examining tables 32, 33, and 34, one sees that they indicate that more cooperatives tend to make return on all perferred stock than on all common stock or certificates of equity and book credits. Holders of preferred stock have preferred claims upon dividends or interest after other prior claims such as those of creditors and bond holders are met, and have a prior equity in the assets of the cooperative over the common stock holders in the event of dissolution of the association. Although, of ceurse, no interest need be paid on the preferred stock unless the cooperative has some earned surplus, when it is earned and the cooperative does pay dividends or interest on equity capital, the preferred stock must be paid prior to the common stock and usually the rate of interest which such stock carries is to be high enough to attract the funds of both members and non-members. In this latter respect,

Table 31 Number and percent of farmer cooperatives paying interest and dividends on equity capital, 1954, U.S.A.*

Type of association	Number of associations	Associations paying no dividends or interest		Associations paying on all equity capital except memberships & unallocated reserve		Associations paying on some types of stock or allocated equity capital and not others	
		Number	%	Number	%	Number	%
Marketing	801	338	42.2	91	11.4	372	46.4
Locals	606	238	39.3	75	12.4	293	48.3
Regionals	195	100	51.3	16	8.2	79	40.5
Farm supply	356	107	30.1	36	10.1	213	59.8
Locals	292	89	30.5	29	9.9	174	59.6
Regionals	64	18	28.2	7	10.9	39	60.9
All ass'ns	1,157	445	38 5	127	11 0	585	50.5
Locals	898	327	36.4	104	11.6	467	52.0
Regionals	259	118	45.5	23	8.9	118	45.6

* U.S. Department of Agriculture, FCS General Report 32, 1957. P. 23

however, it seems the case that preferred stock does not necessarily carry a higher rate of interest compared with that of common stock.

Slightly over 52 per cent of the 827 assoiations with outstanding common stock in 1954 reported that no dividend was paid to holders of common stock (table 32). With regard to preferred stock, almost 76 per cent of the associations which reported outstanding preferred stock in 1954 were paying dividends on all preferred stock.

The associations which were paying no intesest on certificates of equity or allocated capital credits accounted for almost 87 per cent of the 936 associations having capital credits allocated to members in 1954.

From the foreging it can be said that a considerable portion of the equity capital of farmer cooperatives in the United States was not interest bearing in 1954. Particularly most of the equity capital except common and

Table 32 Number and percent of farmer cooperatives paying dividend on common stock, fiscal year 1954, U.S.A.*

Type of association	Number of associations	Associations with common stock		Associations paying no dividends on any common stock		Associations paying dividends on all common stock		Associations paying dividends on some types of stock and not on others	
		Number	%	Number	%	Number	%	Number	%
Marketing	801	559	69.8	285	51.0	248	44.4	26	4.6
Locals	606	458	75.6	218	47.6	214	46.7	26	5.7
Regionals	195	101	51.8	67	66.3	34	33.7	0	–
Farm supply	356	264	75.3	146	54.5	122	45.5	0	–
Locals	292	221	75.7	120	54.3	101	45.7	0	–
Regionals	64	47	73.4	26	55.3	21	44.7	0	–
All ass'ns	1,157	827	71.5	431	52.2	370	44.7	26	3.1
Locals	898	679	75.6	338	49.8	315	46.4	26	3.8
Regionals	259	148	57.1	93	62.8	55	37.2	0	–

* U.S. Department of Agriculture, FCS General Reeort 32, 1957, p. 23

Table 33 Number and percent of farmer cooperatives paying dividends on preferred stock, fiscal year 1954, U.S.A.*

Type of association	Numbor of associations	Associations with preferred stock		Associations paying no dividends on any preferred stock		Associations paying dividends on all preferred stock		Associations paying dividends on some types of stock and not on others	
		Number	%	Number	%	Number	%	Number	%
Marketing	801	262	32.7	61	23.3	190	72.5	11	4.2
Locals	606	192	31.7	47	24.5	136	70.8	9	4.7
Regionals	195	70	35.9	14	20.0	54	77.1	2	2.9
Farm supply	356	175	49.2	27	15.4	141	80.6	7	4.0
Locals	292	141	48.3	25	17.7	112	79.5	4	2.8
Regionals	64	34	53.1	2	5.9	29	85.3	3	8.8
All ass'ns	1,157	437	37.8	88	20.1	331	75.8	18	4.1
Locals	898	333	37.1	72	21.6	248	74.5	13	3.9
Regionals	259	104	40.2	16	15.4	83	79.8	5	4.8

* ibid, p. 23

Table 34 Number and percent of farmer cooperatives paying interest on certificates of equity or allocated book credits, fiscal year 1954, U. S. A. *

Type of association	Number of associations	Associations with allocated capital credits		Associations paying no interest on any allocated capital credits		Associations paying interest on all allocated capital credits		Associations paying interest on some and not on others	
		Number	%	Number	%	Number	%	Number	%
Marketing	801	657	82.0	566	86.1	26	4.0	65	9.9
Locals	606	490	80.9	432	88.1	20	4.1	38	7.8
Regionals	195	167	85.6	134	80.2	6	3.6	27	16.2
Farm supply	356	279	78.4	246	88.1	13	4.7	20	7.2
Locals	292	223	76.4	203	91.1	9	4.0	11	4.9
Regionals	64	56	87.5	43	76.8	4	7.1	9	16.1
All ass'ns	1,157	936	80 9	812	86.7	39	4.2	85	9.1
Locals	898	713	79.4	635	89.0	29	4.1	49	6.9
Regionals	259	223	86.1	177	79.4	10	4 5	36	16.1

* ibid, p. 24

preferred stock was paid no dividends or interest.

We will see, in the next place, what rates of return are applied on equity capital. As is well known in the United States the Capper-Volsted Act provides that dividends on capital stock of coopertives may not be fixed at a rate exceeding 8 per cent per annum, or the legal rate of interest in the State of incorporation, whichever is highest.[15] Of course, this provision is only one of the conditions which a cooperative must observe if it is to be eligible for income tax exemption, but not an absolute limit for cooperative. It seems, however, that very few cooperatives pay dividends on equity capital at a rate exceeding 7 per cent.

As shown in table 35, the most prevalent rate of dividends or interest on equity capital was approximately 4 per cent in 1954. Only one per cent of the total equity capital bore interest at 7 per cent or over. It shonld be noted, on the other hand, that almost 65 per cent of the total equity

Table 35 Interest and dividend rates on equity capital of farmer cooperatives, fiscal year 1954, U.S.A. (of 1,157 coops in sampee)*

Rate of return	Amount ($ 1,000)	Per cent
No return	550,000	64.9
1% - less than 3%	16,000	1.9
3% - less than 4%	36,000	4.3
4% - less than 5%	148,000	17.5
5% - less than 6%	48,000	5.7
6% - less than 7%	40,000	4.7
7% and over	9,000	1.0
Total	847,000	100.0

* ibid, p. 24

capital of $847 million reported by 1,157 farmer cooperatives in 1954 was non-interest bearing.

Table 36 shows the dividend rates on common stock, preferred stock and the intesest rates on certificates of equity capital and allocated book credits. Interest or dividend rates vary for different types of equity capital. On over half of common stock no dividends were paid, and about 30 per cent of this stock were paid dividends of 1 per cent to less than 6 per cent. Of preferred stock, 31 per cent was without dividends. Dividend rates of 4 per cent to less than 5 per cent were most prevalent for coopertives which did pay dividends on perferred stock, 38 per cent of the total falling in this category. Also it is evident that preferred stock did not necessarily carry higher dividend rates than common stock did.

With regard to certificates of equity and book credits allocated to members, almost 78 per cent of the total was non-interest bearing. Most of the rest which bore interest was paid at the rate of approximately 4 per cent.

We feel perplexed by the fact that there are no satisfactory data

Table 36 Interest and dividend rates on allocated equity capital of farmer cooperatives, fiscal year 1954, U.S.A.*

Type of association	Number of associations reporting	Amount ($ 1,000)	Percentage of total amount with: No interest or dividends	1 to less than 3 percent	3 to less than 4 percent	4 to less than 5 percent	5 to less than 6 percent	6 to less than 7 percent	7 percent and over
Equity capital represented by stock, certificates of equity, or allocated book credit									
Marketing	801	420,571	64.44	1.73	6.33	18.07	6.16	1 58	1.69
Locals	606	91,732	67.62	3.16	8.86	11.54	3.45	4.15	1.22
Regionals	195	328,839	63.55	1.33	5.63	19.89	6.92	.86	1.82
Farm supply	356	329,019	54.96	2.58	3.02	22.02	6.82	10.04	.56
Locals	292	38,075	57.74	1.86	3.34	13.75	15.42	6.77	1.12
Regionals	64	290,944	54.60	2.67	2.97	23.11	5.70	10.46	.49
All ass'ns	1,157	749,590	60.28	2.10	4.88	19.81	6.45	5.29	1.19
Locals	898	129,807	64.73	2.78	7.24	12.18	6.96	4.92	1.19
Regionals	259	619,783	59.35	1.96	4.38	21.40	6.35	5.37	1.19
Common stock									
Marketing	559	69,430	50.01	4.96	7.45	20.45	9.21	2.79	5.13
Locals	458	16,153	24.00	5.55	22.71	26.69	8.33	10.09	2.63
Regionals	101	53,277	57.90	4.78	2.83	18.55	9.48	.58	5.88
Farm supply	268	93,251	51.74	.65	1.06	6.97	12.92	26.57	.09
Locals	221	13,327	60.75	3.77	7.44	15.15	6.65	5.75	.49
Regionals	47	79,924	50.24	.13	–	5.61	13.96	30.04	.02
All ass'ns	827	162,681	51.00	2.49	3.79	12.72	11.34	16.42	2.24
Locals	679	29,480	40.61	4.75	15.81	21.47	7.57	8.13	1.66
Regionals	148	133,201	53.30	1.99	1.13	10.79	12.17	18.26	2.36
Preferred stock									
Marketing	262	84,607	33.77	1.98	14.55	32.45	7.82	5.26	4.17
Locals	192	12,076	16.83	7.53	17.63	27.89	7.46	17.00	5.66
Regionals	70	72,531	36.59	1.05	14.04	33.22	7.88	3.30	3.92
Farm supply	175	100,999	28.13	6.23	8.27	42.77	6.18	6.69	1.71
Locals	141	9,923	5.51	1.22	1.82	31.58	38.90	17.35	3.62
Regionals	34	91,076	30.60	6.77	8.97	43.99	2.62	5.52	1.53
All ass'ns	437	185,606	30.70	4.29	11.13	38.07	6.93	6.04	2.84
Locals	333	21,999	11.72	4.68	10.50	29.56	21.64	17.16	4.74
Regionals	104	163,607	33.25	4.24	11.22	39.21	4.95	4.54	2.59
Certificates of equity or allocated book credits									
Marketing	657	266,534	77.93	.81	3.42	12.88	4.85	.10	.01
Locals	490	63,503	88.38	1.72	3.66	4.57	1.45	.19	.03
Regionals	167	203,031	74.67	.53	3.35	15.48	5.91	.06	–
Farm supply	279	134,769	77.30	1.18	.44	16.89	3.08	1.11	–
Locals	223	14,825	89.99	.57	.69	.55	7 59	.61	–
Regionals	56	119,944	75.73	1.26	.40	18.91	2.53	1.17	–
All ass'ns	936	401,303	77.72	.94	2.42	14.23	4.25	.44	(1)
Locals	713	78,328	88.69	1.50	3.10	3.81	2.61	.27	.02
Regionals	223	322,975	75.06	.80	2.26	16.75	4.65	.48	–

* ibid, pp.26~28 (1) Less than.005 percent

in detail pertaining to dividends on share capital of our agricultural cooperatives. However, it is probable that a large portion of the agricultural cooperatives in Japan have not paid dividends. It cannot be denied that financial unstability and difficulty in most of our agricultural cooperatives have been and still are obstructive to the payment of dividends on their share capital.

The Industrial Societies' Law of the pre-war period provided that the society might distribute the surplus, after having made up the loss and deducted the amount required by the law for reserve funds, in proportion to the paid-up share capital of each member. In this case the law limited, however, such dividends to 6 per cent, but in exceptional circumstances 10 per cent. This latter exceptional stipulation was blamed as not being "cooperative" but "capitalistic." In the credit societies with financial stability, a large portion of the surplus was, it is said, distributed as dividends on share capital at a high rate.

The existing Agricultural Cooperative Law has the provision that the distribution of surplus may be made, after having made up the loss and deducted the amount required by the law for reserve funds, in proportion to the paid-up share capital of each member, at the rate of less than 5 per cent per annum in accordance with the stipulation agreed on in the by-law, (, and if there is still a balance of surplus it should be distributed among the members in proportion to the patronage they have made with the society).

In the post-war financial reconstuction period of the agricultural cooperatives, to which we have referred already, it might be natural that the matter of dividends on share capital was out of the question. However, recently, with gradual improvement in the financial conditions of agricultural cooperatves the actual importance and necessity of dividends on share capital have been again realized. In fact the cooperatives that make return on share capital have increased in number as shown below:

Number of cooperatives which made return on share capital

1953	3, 358
1954	3, 447
1955	3, 482
1956	3, 711
1957	3, 964

These figures accounted for from 28 per cent to 34 per cent of the total number of associations surveyed in the respective years. That is, approximately one-third of agricultural cooperatives have made return on share capital. But there is no datum regarding what amount of total cooperative share capital and at what rates the dividends have been paid. The statistics of Agricultural Cooperatives, compiled by the Ministry of Agriculture and

Table 37 Breakdown of surplus appropriation in agricultural cooperatives, Japan, fiscal year 1957 *

Year	Unappropriated earned surplus	Breakdown						
		Legal reserves	Special reserves	Taxes	Dividends on capital	Patronage dividends	Officer's bonus	Earned surplus at the end of the period
				– Millions Ten –				
1953	998	225	96	136	219	148	20	155
1954	1, 263	267	138	153	269	218	18	199
1955	1, 646	344	184	177	352	297	18	275
1956	2, 023	412	211	235	454	365	19	329
1957	2, 383	474	234	287	548	449	20	371
				– Percent –				
1953	100. 0	22. 5	9. 6	13. 6	21. 9	14. 8	2. 0	15. 5
1954	100. 0	21. 1	10. 9	12. 1	21. 2	17. 2	1. 4	15. 7
1955	100. 0	20. 8	11. 1	10. 7	21. 3	18. 0	1. 1	16. 7
1956	100. 0	20. 3	10. 4	11. 6	22. 4	18. 0	0. 9	16. 2
1957	100. 0	19. 8	9. 8	12. 0	22. 9	18. 8	0. 8	15. 5

* Taken from the Tenth Statistics of Agricultural Cooperatives, the Ministry of Agriculture and Forestry, 1959, p. 45.

Forestry of Japan, has furnished us only with the amount distributed annually as dividends on share capital. There will be found that from year to year an increase has occurred not only in the amount appropriated to dividends on share capital but also in the ratio of the amount to total unappropriated earned surplus. Incidentally the breakdown of surplus appropriation in agricultural cooperatives will be shown as table 37. It may be noted in a way that the percentages of legal reserves and officer's bonus have decreased on the one hand, while those of capital dividends and patronage dividends have increased on the other.

(4) Borrowed capital

It is unusual for cooperatives today, as mentioned earlier, to derive from their members sufficient funds to supply the fixed and circulating capital required. Therefore, loans from credit agencies and other sources are necessary. However, the meaning and position of borrowed capital in the capital structure of agricultural cooperatives differ from country to country, mainly because of the type of association and business operation, and the farm credit system of the country.

It is difficult for us to ascertain when and how farmer cooperatives in the United States began to obtain loans to meet their own capital requirements. We can see that in early days farmer cooperatives were furnished funds required for organization and operation by general farmers organizations which sponsored cooperatives. In particular, the American Farm Bureau Federation, in sponsoring the organization of cooperatives, frequently aided by assuming preorganizational expenses and furnishing initial capital, which were usually repaid later by the cooperatives.[16)]

In the southern States, it is reported, embryonic associations once searched out some wealthy individuals who would advance the money for their finance. Under this plan, the association was to give a promissory note for the amount borrowed and redeem this obligation soon after the cooperative began to function. But in no instance were ample funds for

organization secured in this way.[17]

Meanwhile, commercial banks seem to have been requested to offer assistance in extending credits to them. First, some of the promotors of cooperatives hypothecated membership notes with cemmercial banks. In such cases, though the banks accepted this paper, they used to feel that it was not good collateral, and stipulate that the association should replace the notes with produce as soon as the principal commodity handled began to be delivered to cooperatives. Some cooperatives sold debentures to acquire necessary additional cash. In some cases where cooperatives had already hypothecated their collateral such as membership notes or produce, the directors had to give their personal notes to secure the requisite loans.[18]

Credits supplied by commercial banks in such ways would not, however, be sufficient to meet capital requirements of farmer cooperatives. It was the case that they needed credit in larger amounts or for longer terms than commercial bank could always supply as they made expansion in business volume and integration in operation.

Important in the history of financing of farmer cooperatives in the United States was the establishment of the Intermediate Credit Banks in 1923 and the Federal Farm Board in 1929. Through these agencies the government accepted, for the first time in the country, the responsibilty of providing credits suited to the needs of farmer cooperatives.

The Intermediate Credit Banks were authorized to make direct loans to cooperatives on products handled by these associations. Loans were, however, strictly limited : the loans to cooperatives must be secured by warehouse receipts, shipping documents, or mortgages on livestock, and no loan could exceed 75 per cent of the market value of the products covered. The loans were intended to supplement the loans of commercial banks to cooperatives. In practice the loans supplied by these credit agencies have been limited in extent (table 38). It is reported that in 1928 these banks extended loans to only 85 different cooperative marketing assocations, handling such commodities as cotton, tobacco, raisins, wheat and so on.[19]

Table 38 Loan operations of the Federal Intermediate Credit Banks, specified year 1923-52#

(Millions of Dollars)

Year ending December 31	Loans to Cooperatives	Loans to Banks for Cooperatives
1923	35.5	-
1928	53.6	-
1933	27.9	-
1938	2.7	39.1
1943*	2.4	57.3
1948**	14.5	147.0
1952**	12.5	120.8

Murray. W,G., Agricultural Finance, 1953, Third Edition, p. 321.
* Jan. to June 30, only.
** Fiscal year ending June 30.

In 1929 the Federal Farm Board was established by the Agricultural Marketing Act. One of its main functions is the making of loans to cooperatives. A revolving fund of half a billion dollars was authorized, among other things, to assist cooperatives. The Farm Board seems to have been positive in lending. The Board made loans to cooperatives totaling 40.3 million dollars, during the period 1929 to 1933.

On the other hand, the Board made huge loans to cotton and wheat stabilization corporations to enable them to maintain their prices during the early days of the depression. It was the failure of these stabilization activities to maintain prices which led to the end of the Farm Board in 1933. In the same year the legislation created the Farm Credit Administration, which established a system of banks for cooperatives.

This new system includes twelve district banks and a central bank at Washington D.C. The Central Bank handles the loans which are too large for the district banks. Three sources of funds are available to the banks for cooperatives to use in lending. These are their own paid-in capital and surplus, the sale of consolidated debentures to investors, and the Federal Intermediate Credit Bank, the Federal Land Banks and commercial Banks.

The capital fund used to start the banks for cooperatives is said to have come from balances remaining in the revolving fund of the Farm Board (called Class A stock). Other capital is provided by borrowing associations in the forms of Class B and Class C stock. Class B stock is of an investment type which any farmer cooperative may purchase and on which noncumulative dividends of from 2 to 4 per cent per annum may be paid. Class C stock, which receives no dividends, is acquired by borrowing cooperatives in three ways:

(1) By purchase of at least one (voting share) to qualify for a loan.

(2) By investing regularly in Class C stock a certiain percentage of the interest paid to the Bank. Each borrowing cooperative is required to invest regularly in Class C stock from 10 to 25 per cent of the amount of interest paid on its loans.

(3) Through patronage refund paid in the form of Class C stock.

The Farm Credit Act of 1955[20] provided a comprehensive plan whereby the 13 Banks for Cooperatives can become completely farmer owned. Complete ownership by cooperatives of the District Banks for Cooperatives will eventually be achieved by retirement of all Class A stock in each Bank. Similarly, the Central Bank will be owned ultimately by the District Banks. The law provides for retirement of Government-owned Class A stock in each bank annually in an amount substantially equivalent to the Class C capital stock acquired by borrowers during the year.

The amount of outstanding capital stock of the Banks for Cooperatives, together with reserves and surplus accumulated, on Jan. 1956 and 1960 were as follows:[21]

(Millions of Dollars)

	1966	1960
Class A	150	126.3
Class B, C. and other	20	40.1
Reserves, surplus and undistributed earnings	88.1	99.7

The development of the banks for cooperatives up until World War II

was rather slow as indicated in table 39. During the war time, an increase in lending occured because of war activities. After the war there has been seen a great increase in lending. It is said that an important phase of the lending activity after the war was facility loans and the facilities made possible by these loans include such buildings as grain elevators, feed and fertilizer plants, and warehouses used by farm supply cooperatives. In fact, as we shall show later, most of the cooperatives which have been supplied loans by these credit agencies are large regional associations.

Speaking as to the matter of interest rates, they vary on the different types of loans and also between banks. In 1946 1½, 2½ and 3½ per cent were charged on comodity loans, operating capital loans, and facility loans respectively.[22] Earnings of the system have been placed in a surplus and reserve account and no dividends have been paid. Reserves, surplus and undistributed earnings altogether amounted to $ 99.7 million dollars as of Jan. 1, 1960 as shown above.

Loans made by the Banks for Cooperatives, including the Central Bank, in the period 1933 to 1952 are shown in table 39.

Table 39 Lending operations of Banks for Cooperatives, including Central Bank, Loans made, 1933–52, (millions of dollars).*

Calender year	Loans made	Fiscal year	Loans made
1933	$ 27	1943**	$ 118
1934	40	1944	471
1935	66	1945	407
1936	81	1946	276
1937	98	1947	532
1938	95	1948	548
1939	83	1949	459
1940	126	1950	373
1941	221	1951	510
1942	340	1952	537

* Murray, W.G., 3rd ed., op. cit., p. 344.
** Jan. 1 to June 30, only

Thus, the Banks for Cooperatives are undoubtedly the largest supplier

of loans, in terms of amount, to farmer cooperatives in the United States. This is evidenced by data shown below.

Sources of 632 farmer cooperatives' borrowed capital outstanding at the close of fiscal year 1954. ($ 1,000)

Source	Amonut	Per cent
Banks for Cooperatives	155,455	57.8
Certificates of indebtedness	44,253	16.5
Commercial banks	27,720	10.3
Insurance companies	12,640	4.7
Individuals	10,790	4.0
Regional marketing and farm supply cooperatives	7,502	2.8
Miscellaneous	6,074	2.3
Marketing and supply companies	4,372	1.6

The data above, taken from a survey made by the U.S. Department of Agriculture,[23] tell us that the Banks for Cooperatives were supplying nearly 58 per cent of the outstanding borrowed capital in the year. Of the 632 associations with borrowed capital, it is reported, 316 obtained all or a portion of it from this source.

The same survey provides further an indication of the amount and relative importance of borrowed funds in capital used by farmer coopperatives. It is given as table 40, which indicates that of 1,146 cooperatives 632, or 55 per cent, had borrowed capital at the close of fiscal year 1954. Probably most of cooperatives resorted to some short-term borrowings during the year, but, of course, very little of these borrowings were reflected in the $ 630 million figure unless they happened to be outstanding at the year-end. In spite of this, it is surprising for us that 514 associations, or 45 per cent, were entirely independent of borrowed capital.

Fifty-two per cent of locals and 66 per cent of regionals reported outstanding borrowed capital. It should be noted that over $ 244 million or 91 per cent of the total borrowed capital was borrowed by 163 regional associations, whereas 496 locals borrowed only 9 per cent of the total or

Table 40 Sources of borrowed capital of 632 farmer cooperatives, fiscal year 1954, U.S.A.*

Type of association	Number of coopera-tives surveyed	Number of associ-ations with borrowed capital	Total borrowed capital ($ 1,000)	Percentage of borrowed capital from following sources							
				Comme-rcial banks	Banks for coope-ratives	Market'ng and supply	Regional coopera-tives	Individ-uals	Insuran-ce compan-ies	Certi-ficates of indebted-ness	Miscel-laneous
Marketing	790	427	151,743	11.92	66.74	.51	2.61	4.80	5.22	6.80	1.40
Locals	606	312	20,640	12.71	57.11	2.68	2.27	12.45	3.42	9.11	.25
Regionals	184	115	131,103	11.80	68.26	.17	2.66	3.59	5.50	6.44	1.58
Farm supply	356	205	117,063	8.27	46.28	3.07	3.03	3.00	4.03	28.99	3.38
Locals	292	157	3,927	15.94	41.80	.83	4.11	18.68	3.49	10.33	4.82
Regionals	64	48	113,136	7.95	46.44	3.15	2.99	2.45	4.05	29.64	3.33
All ass'ns	1,146	632	268,806	10.31	57.33	1.63	2.79	4.02	4.70	16.46	2.26
Locals	896	469	24,567	13.22	54.66	2.39	2.57	13.45	3.43	9.30	.98
Regionals	248	163	244,239	10.02	58.15	1.55	2.81	3.07	4.83	17.18	2.39

* U.S. Department of Agriculture, FCS General Report 32, 1957, p. 31

less than $ 25 million.

It may not be amiss to add a few words to the lending operations of a district bank for cooperatives. According to the 1958 Annual Report of the Springfield Bank for Cooperatives, covering the Northeast Region of the United States as one of the 12 District Banks for Cooperatives, the Bank advanced loans of $ 31 million to 111 coopertives during the year 1958 and was providing $ 25.5 million to 103 associations as of June 30, 1958. The Bank has lent over $ 440 million to 298 cooperatives of the Northeast during the period of the past 25 year. Usually, outstanding loans reach a high point in December and a low point just about the end of June. The spread from high to low in net loans outstanding was about $ 3.7 million. Of the loan balances outstanding on June 30, 1958, about 70 per cent were owned by cooperatives primarily engaged in handling farm supplies, 29 per cent by those whose principal activities were marketing farm products, and 1 per cent by others.

The capital accounts of the Springfield Bank as of June 30, 1957 and 1958 were as follows :[24)]

	1957	1958
Capital stock		
Class A	$ 6,212,400	$ 5,985,400
Class B	807,000	841,900
Class C	577,500	973,400
Other	302,600	141,200
Total	7,899,500	7,941,900
Surplus-Reserved	4,418,800	4,418,800
Surplus-Allocated to patrons	161,200	260,600
Total capital accounts	$ 12,479,500	$ 12,621,600

Besides, the Bank had consolidated debentures issued of $ 9 million and $ 7 million in 1957 and 1958 respectively.

Borrowed capital in our agricultural cooperatives has been occasionally

referred to in this paper. Here we will again consider briefly its character, which is considerably different from that of farmer cooperatives in the United States. Our general purpose agricultural cooperatives have needed a huge borrowed capital from year to year. For instance, the borrowings outstanding at the end of the fiscal years 1953 to 1957 were as follows:

(Millions)

Year	Credit Department	Economic Deparatment
1953	¥61, 107	¥ 5, 561
1954	79, 499	8, 838
1955	74, 245	8, 799
1956	77, 096	8, 326
1957	90, 664	10, 181

Source: Statistics of Agricultural Cooperatives, each annual edition.

Further, taking the average outstanding,[25] it was ¥34, 295 million and ¥90, 634 million in 1956 and 1957 respectively. And yet, of these amounts 85 per cent in 1956 and 95 per cent in 1657 were supplied through the Prefectural Credit Federations and the Central Bank for Agriculture and Forestry. Here can be seen a characteritic of borrowed capital in our agricultural cooperatives. Another feature is in that such borrowings have been made mostly for credit business, i.e., for making loans to members, and borrowings as operational capital of cooperatives have been limited to a small amount. This is partly because, as pointed out previously, working capital has been usually supplemented by the deposits, and partly because, for instance, the advance payment by the government of sales proceeds of rice has played a role as working capital for handling of farm products.

Thus, the most part of the borrowings made by our agricultural cooperatives is to provide funds for making loans to the members, but it should be noted that the source of this borrowed capital is not only the money accumulated in the cooperative network but fund supplied by the governmnt. In addition, some of borrowed capital, the source of which is the cooperative fund, is given subsidies to supplement interest payments by

the government-supported loan scheme. In such a way, the Japanese agricultural cooperative system can be said to have played the part of the principal channel through which the government has made loans to famers as agricultural capital.

Table 41, taken from the Farm Household Economy Survey,[26] indicates indirectly the facts as mentioned above.

Table 41 Farmers' debts as of March 31, 1957 and 1958, Japan (per farmer, Yen)

Source or channel	1957		1958	
	Amount	%	Amount	%
Long-term Government Loans	5,556	12.2	6,834	14.8
Cooperatives	19,295	42.2	19,211	41.8
Agricultural Bills	1,865	4.1	1,132	2.4
New Settlers' Credit Guarantee	119	0.2	133	0.3
Disaster Relief Credit	2,848	6.3	2,328	5.0
Agricultural Improvment Fund	570	1.2	757	1.6
Establishment of Livestock Farmers Credit	708	1.5	663	1.2
Others	2,305	5.1	2,449	5.3
Cooperatives' voluntary credits	10,880	24.0	11,749	25.5
Other Credit Societies	6,759	14.9	6,653	14.4
Miscellaneous Organizations	1,230	2.7	1,454	3.1
Individuals	12,256	27.1	11,743	25.5
Total	45,106	100.0	45,895	100.0

A large part of the long-term government loans, including those for establishment of owner farmers, for disaster relief, for purchase of machinery,etc., are allowably presumed to have been channeled through cooperatives. Accordingly, farmers' debts thus channeled accounted for more than 50 per cent of the total. But less than a half of these are loans made voluntarily by cooperatives to members.

These facts should be, as pointed out previously, considered in connection with the huge idle funds existing at each level of the cooperative system, particularly at the stage of the Central Bank for Agriculture and

Forestry.

The Central Bank for Agriculture and Forestry in Japan is different in character and function from the Banks for Cooperatives in the United States. The Central Bank's capital depends for the most part upon government appropriations. Its total capital amounted to ¥2.4 billion, of which ¥1.6 billion has been invested by the government. It also has issued debentures, which amounted to ¥34.8 billion in average outstanding in 1956. These have been partially secured by government acceptances.

Besides, it has accepted deposits from its affiliated and from nonaffiliated associations. Roughly speaking on the basis of figures in recent years, local agricultural cooperatives have deposited about a half of the savings accepted from members with Prefectural Federations, and these Federations have in turn redeposited nearly 40 per cent of the deposits made by the local cooperatives.

In this way, the Central Bank has become the final reservoir of 'idle' or spare funds in cooperatives. But at the same time, it has another function of making the cooperative credit network connect with the general money market through the employent of the idle funds and of raising capital from outside the cooperative system.

The Central Bank is not an organization of federated type but a special corporation established by a special law.[27] There is no plan at present to make it the farmers' own organization as is to be seen in the United States.

Notes :

1) U.S. Dept. of Agri., FCS General report 32, 1957.

2) In financial parlance, equity is the interest of stockholders as measured by capital and surplus. The term is also used to refer to the unlimited interest of common stockholders. Common shares are often called "equity." Accrding to the view of the U.S. Dept. of Agriculture, the equity capital of a farmer cooperative may be, in a broad sense, defined as its net worth. Thus, equity capital means the investment, exclusive of loan capital, members have in their cooperatives. Included in equity capital of a farmer cooperative in the United States are such balance sheet categories as

common stock, preferred stock, memberships, certificates of equity, book credits, and reserves. When this definition is applied to the Japanese agricultural cooperatives, equity capital is to include share capital and reserves in one form or another.

3) U.S. Dept. of Agri., FCS General report 32, 1957, p. 4

4) Gorst, S., Cooperative organization in tropical countries, Basil Blackwell, Oxford, 1959, p. 239.

5) Central Union of Agricultural Cooperatives, ed., Theory and Practice in credit business in Japanese, Tokyo, 1959, p. 46

6) Reserve funds in cooperative life and building insurance business amounted to about ¥40 billion as of March 31, 1959.

7) Digby, M., and Gorst, S., Agricultural Cooperation in the United Kingdom, Basil Blackwell, Oxford, 1957, p. 170

8) According to a survey made by the Central Union of Industrial Societies in 1933, ditribution of paid-in capital of a society (average of 236 societies) among the classified member groups was as follows:

Amount of paid-in capital	Number of:			
	Landlords	Owner cultivators	Part Owners	Tenants
Less than ¥20	–	22	52	92
20 – 50	30	73	119	119
50 – 100	37	76	53	19
100 – 150	34	34	8	3
150 – 200	29	13	1	1
200 – 300	46	13	4	2
300 – 500	26	3	–	–
500 – 1000	9	2	–	–
1000 and over	5	–	–	–
Total	216	236	237	236

(Survey of the social and economic position of the Industrial Societies, the Central Union, 1934)

9) Digby and Gorst, op. cit., p. 128

10) Bakken, H. H., and Schaars, M. A., The Economics of Cooperative Marketing, McGarw-Hill Book Comapny, 1937, pp. 351 ff.

11) ibid., p. 368

12) ibid., p. 378

13) U.S. Dept. of Agri., FCS General report 32, op. cit., pp. 10–11

14) Bakken and Schaars, op. cit., p. 376

15) U.S. Dept., FCS Bulletin 10, 1958, p. 170

16) U.S. Dept., FCS Bulletin 1, 1955, p. 17

17) Gee, W. and Terry, E.A., The cotton cooperatives in the Southeast, Appleton-Century Co., N.Y., 1933 p. 86

18) ibid., p. 88

19) Murray, W. G., Agricultural Finance, 3rd ed., Iowa State Univ. Press, Ames, 1953, p. 341

20) Murray, and Nelson, E. G., Agricultural Finance, fourth ed., Iowa State Univ. Press, Ames, 1960, p. 404

21) ibid., p. 405

22) Murray, op. cit., third ed., p. 345

23) U.S. Dept. of Agri., FCS General report 32, op. cit., p. 30

24) 1958 Annual Report of the Springfield Bank for Cooperativer, pp. 3–4

25) The term of 'average outstanding' is used in Japan as having the following meaning:

$$\text{Average outstanding} = \frac{\text{Total outstanding at each month-end (April--March)}}{12}$$

26) Ministry of Agriculture and Forestry, Report of farm household eaonomy survey, 1957.

27) The Central Bank for Agriculture and Forestry Law (Norin Chuo Kinko Ho), Law No. 42, Taisho 12 (1923)

VI Some examples of capital structure of individual farmer cooperstives in the United States

In the previous section examination has been made on the present capital structure of farmer cooperatives in the United States and Japan on the basis of general surveys. Actualy, however, the capital structure is different from cooperative to cooperative. And it is easily imagined that such differences in capital structure among individual cooperatives will be more remarkable in the United States than in our country. Here the writer proposes to disucuss the capital structure of some individual cooperatives existing in the Northeastern region of the United States.

(1) The East Bridgewater Farmers' Cooperative Exchange

This is a local purchasing cooperative (handling mainly feed) which has been in operation since 1917. Sales for the fiscal 1957 and 1958 were $484,167 and $462,350 respectively. At the close of fiscal year 1958 the operating margin above expenses was, the manager reported, $11,624, and this was paid to the members at the rate of 8.8 cents per bag of feed purchased by the members during the year. The manager explained that this meant over $100.00 for anyone who had used 22 bags of grain a week and this amount would buy a lot of credit from any bank.[1]

This association probably provides a brokerage service in purchasing feed for the members. The writer does not know what real benefits have been brought about to the members through such cooperation. However, it is rather interesting for the writer to know the fact that the association had 14 new members in 1957, but lost 29 members and had 6 new members in 1958. Thus, memberships of the association seem to have changed to a considerable extent year by year. Moreover, the number of members was 206 in 1958, of which 107 were no longer farming, who bought something from the association during the year, and among others only 24 were farming on

commercial basis, who made a large part of purchases from the association. Although the manager said that their strict cash policy made it hard for some members to participate, such membership situation fundamentally must be a reflection of changing conditions in agriculture in the United States. Such a local, small-sized farmer cooperative is thought to be increasingly faced with difficulties in continuing its operation.

It can be easily imagined that the capital structure of the association is comparatively simple. Balance sheets at the end of September both in 1957 and 1958 are shown as tables 42 and 43.

Table 42 Balance Sheet of the East Bridgewater Farmers Exchange, Sptember 30, 1957

Assets		Liabilities	
Cash in Home National Bank	$ 10, 904. 68	Stock 229 Shares	$ 1, 145. 00
Cash in E.B. Savings Bank	421. 51	Subscription to stock	1, 123. 00
Cash on hand	2, 384. 11	Interest declared but not yet paid	225. 02
Office supplies and equipment	304. 50	Surplus	1, 384. 28
Feed inventory	246. 29	Allocated interest	48. 25
Storehouse	250. 00	Allocated refunds	11, 835. 54
Land	1, 250. 00		
Total Assets	$ 15, 761. 09	Total Liabilities	$ 15, 761. 09

Making a comprison between 1957 and 1958, the total assets slightly decreased in 1958. Concerning equity capital, the by-laws provide that each member shall own one share having $ 10. 00 value. The balance sheets indicate that each member had only one share as voting right in these fiscal years.

No loans were found on the balance sheets, but that the association had depended on some short-term loans was evidenced by the item of interest on loan or of payment of loan on the operating statements. This is an example of a small-sized cooperative association operated on the basis of brokerage, with the simplest capital structure.

Table 43 Balance Sheet of the East Bridgewater Farmers Exchange, September 30, 1958

Assets		Liabilities	
Cash in Home National Bank	$ 11,915.27	Stock 206 shares	$ 1,030 00
Cash in E.B. Savings Bank	435.31	Subscription to stock	1,030.00
Cash on hand	330.24	Interest declared but not yet paid	234.02
Office supplies and equipment	229.00	Surplus	1,364.02
Feed inventory	447.44	Allocated interest	42.50
Store house	250.00	Allocated refunds	11,641.52
Land	1,250.00		
Accounts receivable	484.95		
Total Assetsa	15,342.21	Total Liabilities	15,342.21

(2) The Essex County Cooperative Farming Association

This association is a local farm supply cooperative serving farmers in Essex County, Massachusetts. It was organized in 1917 during World War I. It has developed in sales from $79,600 in 1918 to $1,716,031 in 1956.

The by-laws provide that any member shall subscribe for at least one share of stock, having par value $10.00 (Article V). Equity capital of this association consists of common stock and capital reserve. As the balance sheet shows (Table 44), the association had $73,870 in the form of common stock in 1957. This amount accounted for about 40 per cent of the total equity capital. The rest was made up of capital reserve amounting to $108,000. The reserve was by far larger than common stock in this association.

Dividends on stock and refunds on purchases have been faithfully paid since 1923. The rate of interest on capital stock was 5 per cent each year and refunds on purchases were made at the rate 1 per cent to 3 per cent by year as table 45 indicates.

This association can be called a typical Rochdale type of medium-size.

Table 44 Balance Sheet of the Essex County Cooperative Farming Association, December 31, 1957

Assets		Liabilities	
Current assets		Current liabilities	
Cash on hand	$ 550.00	Accounts payable	$ 73,404.48
Deposit-Merchant Warren National Bank of Salem	11,110.82	Accruals	25,234.34
		Reserve for taxes	4,410.74
Notes and accounts receivable	190,884.94	Mortgage note payable	1,216.49
Merchandise inventory	53,460.98	Other liabilities	41,100.47
Fixed assets	69,725.39	Net worth	
Other assets	4,643.02	Capital stock-common stock, 7,387 shares	73,870.00
		Less Treasury stock	330.00
		Earned surplus and reserves	
		Capital reserves	108,419.69
		Reserve for education	145.00
		Earned surplus	2,903.94
Total Assets	$ 330,375.15	Total Liabilities and Net Worth	$ 33,375.15

Table 45 Dividends and refunds paid, the Essex County Cooperative Farming Association, specified years since 1917

Year	Dividend on stock		Refund on purchases	
	Rate	Amount	Rate	Amount
1917		none		none
1922	2½%	$ 209.25		none
1927	5%	1,362.00	2%	$ 3,101.47
1932	5%	1,715.50	2½%	3,004.17
1937	5%	1,623.50	3%	5,948.23
1942	5%	1,728.00	3%	9,687.33
1947	5%	1,697.00	2%	22,162.50
1952	5%	1,723.50	3%	42,500.00
1956	5%	3,662.50	3%	43,577.24

(3) The Springfield Auction Market Association

This is an egg and poultry marketing cooperative, which organized in 1933 with 60 members. They invested $ 2.00 each to commence operation.

Table 46 Balance Sheet of the Springfield Cooperative Auction Market Association, March 31, 1958 and 1957

Assets	1958	1957
Current Assets :		
Cash	£ 26, 762. 54	$ 28, 714. 65
Accounts receivable	61, 007. 75	59, 815. 81
Inventories	52, 339. 41	52, 997. 49
Plant and equipment :		
Land	12, 667. 87	12, 667. 87
Building and improvements	56, 747. 42	59, 789. 08
Operating equipment	3, 612. 11	4, 032. 85
Automobile	1, 527. 06	747. 51
Furniture, fixtures and equipment	6, 876. 52	7, 220. 48
Investments in Cooperatives	3, 764. 56	3, 813. 66
Other Assets and Deferred Charges	11, 608. 13	11, 499. 46
Total Assets	$ 236, 913. 37	$ 241, 298. 86
Liabilities and Equity	**1958**	**1957**
Current Liabilities :		
Technical bank overdrafts	$ 9, 543. 16	$ 21, 255. 99
Notes payable	7, 200. 00	7, 232. 95
Due producers for merchandise	42, 024. 32	28, 932. 95
Accounts paypble	10, 698. 17	10, 740. 91
Employees' funds withheld	573. 39	638. 16
Accruals and reserves	12, 584. 58	12, 008. 68
Mortgage Note Payable	10, 300. 00	17, 500. 00
Members' Equity :		
Patronage credits due members	137, 780. 82	134, 254. 99
Retain fund certificates	6, 208. 93	8, 734. 53
Total Liabilities and Capital	$ 236, 913. 37	$ 241, 298. 86

The method of selling was changed from auction to straight sales on the way. It is now an organization of over 1,000 member, serving the poultry industry in Western Massachusetts, Eastern New York State and Southern Vermont. The total sales amounted to $2,186,708 in 1958.

The by-laws provide that each member shall pay to the corporation a membership fee as determined by the Board of Directors and annual dues of One Dollar ($1.00). But, in fact, the equity capital of this association was mostly in the form of patronage credits due to members, as shown in the balnce sheet (table 46) as of March 31, 1958. Equity capital in that form accounted for 93 per cent of the total — $143,989 in value.

Concerning borrowed capital we can find that this association is accustomed to obtain it from the Bank for Cooperatives as well as commercial banks.

(4) The United Cooperative Farmers

The United Cooperative Farmers is a regional marketing and purchasing farmer cooperative of federated type, organized in 1928 at Fitchburg, Massachusetts. Strictly speaking, however, the federated type in this case seems to be merely nominal, because none of ten locals having federated to organize UCF (the United Cooperative Farmers is usually abbreviated thus) does physical handling of any commodity. They are only the organizational units. Each of them has individual members in number as follows:[2)]

Ashburnham	57	Rockland	154
Ashby	114	Lunenburg	119
Fitchburg	167	New Ipswich	113
Danielson	241	Townsend	100
Hubbardston	225	Westminster	146
Total		1,428	

UCF is said to have more than 4,000 patrons in all, including the 1,428 members mentioned above. Some 2,500 of these are located in the city of Fitchburg and its surrounding towns. The remaining 1,500 center about the

UCF branches in Danielson and other places, Connecticut, and Rockland, Maine.

UCF handled 127,600 cases of eggs, nearly 14 million lbs. of poultry and 43,000 tons of feed in 1956. Total amount of sales was $8,821,769 in the same year.[3)]

Turning to the aspect of capital structure, we find that this association has a variety of types of equity – common stock, preferred stock, preferred credits and reserves in several kinds. The preferred stock seems to have great importance as equity. The common stock is rather the voting stock. The total amount of the assoiation's authorized capital stock is $600,000 divided into 23,400 shares of preferred stock – par value $25 per share, totaling $585,000 –; and 150 shares of common stock – per value $100 per share, totaling $15,000 (the Agreement of the Association and By-laws, Section 1, Article IV).

The preferred stock carries no voting rights, but a dividend on it is prior to the payment of any dividend on the common stock and any distribution of savings to patron (the Agreement and By-laws, Section 3, Artcle IV). The common stock may be issued to, and held exlusively by, societies and associations of farmers which have been elected to membership in this association. Each member of this asscciation (it means of the affiliated societies in this case) shall purchase and hold at least one share of common stock, and if its membership exceeds 37 members, it shall purchase and hold one more share of common stock for every 25 of its members. The annual meeting may declare dividends not to exceed 5 per cent per annum on the common stock (Agreement and By-laws, Section 2, Article IV).

As to the distribution of savings, the Agreement and By-laws say as follows: "After payments of costs and expenses, proper reserves and dividends on preferred and common stock, 25 per cent of the net savings of the preceeding fiscal year's operations shall be added to a reserve fund until such reserve fund shall equal not less than 30 per cent of the paid-up and outstanding common and preferred stock; the remaining net savings shall thereafter be distributed to the patrons in the discretion of the annual

meeting in cash, certificates of patronage refunds, other evidences of indebtedness, or by one or more of these methods; certificates of patronage refunds, if issued, shall be payable at liquidation of the association; interest at a rate not exceeding 5 per cent per annum may be paid on certificates of patronage refunds, when authorized by the annual meeting; all savings not paid out in cash other than property reserves and depreciation shall at least once each year be allocated to the patrons in accordance with their respective business done with the association during said fiscal year and by department as detemined by the Directors."

But we find that there are somewhat differences between the provisions of the Agereement and the By-laws, and actual practice. For instance, patronage dividends are not paid each year but are practically paid five years in arrears, meanwhile they are used for operating capital.[4] This is the reason the patrons' equities of five years past appear on the Balance Sheet, as will be shown later.

Another problem seems to be that UCF, like many other farmer cooperatives in the United States, follows the policy of returning patronge refunds to members on the basis of their purchases of production supplies only. One of the officers of the association said to us in reply to our question that that is the policy, in effect, because the marketing operations were properly service at costs. This reasoning seems insufficient. In this case the refunds must, to a large extent, represent savings on feed mill operation. If so, some members, especially those who use the association for market outlets and do not purchase feed may question the equity of their association's operative policy.

As indicated in the Balance Sheet (table 47) the total equities of the association amounted to $ 1,033,150 at the close of fiscal year 1956, of which 20 per cent was preferred stock, 37 per cent refunds to the members in arrears, and 35 per cent general reserve. Thus, the association could hold a high ratio of the equity capital to the total liabilities and equity – nearly 80 per cent.

Table 47 Balance Sheet of the United cooperative Farmers, as of December 31, 1956

Assets	
Current assets	
Cash in bank	$ 97, 583. 19
Cash in hand	3, 018. 00
Accounts receivable	325, 170 89
Inventories	401, 126. 21
Prepaid insurance	4, 980. 33
Prepaid expenses	25, 289. 21
Investments	20, 407. 01
Fixed assets	429, 198. 58
Total Assets	1, 306, 773. 42
Liabilities	
Current Liabilities	
Accounts payable	$ 94, 291. 21
Notes payable	80, 000. 00
Patronage refunds payable	40, 168. 46
Accounts receivable credit balance	19, 715. 75
Others	8, 714. 77
Accruals	30, 732. 78
Shares	
Common	$ 5, 600. 00
Preferred	210, 500, 00
Preferred credits	3, 951. 41
Reserves	
Patrons' equities :	
1951	80, 250. 06
1952	50, 301. 97
1953	68, 202. 40
1954	85, 824. 22
1955	98, 204. 40
Inventory contingency reserve	65. 000. 00
General reserve	365, 315. 99
Total Liabilities and Equities	$ 1, 306, 773. 42

The distibution of savings as of December 31, 1956, was as follows:

Net savings	$ 155,964
Dividends on shares	10,600
To general reserve	36,341
To patrons' refunds	109,023

Needless to say, of these, $ 109,023 distributed to patrons' refund, is to be invested as operating capital for the following five years in place of the patrons' refund amounting to $ 80,250 in the 1951 fiscal year.

(5) The Cooperative Grange League Federation Exchange

The Cooperative Grange League Federation Exchange, more commonly called GLF, is a regional farmer cooperative, being located at Ithaca, New York. It was organized in 1920 as the result of welding of three farmer organizations – the New York Grange, the Dairymen's League Cooperative Association, and the New York State Farm Bureau Federation. This association is probably the largest in size among farmer cooperatives in the United States.

It performs the following services: manufacturing, processing, wholesaling, retailing, marketing, transportation, and insurance.

It maintains 266 farmer-owned service stores and 271 agent-buyers franchised to handle its products. GLF operates four large feed mills, 13 fertilizer plants, six seed processing plants, eight petroleum terminals, eight farm supply warehouses, and ten egg assembly stations.

Serving farmers in New York, New Jersey, and the northern tier of Pennsylvania, this association has 137,000 farmer patrons, of whom about 118,000 are stockholder members.

In purchasing it handled 1,290,000 tons of feed and grain, 19,500 tons of seed, 236,000 tons of mixed fertilizer, 552,000 tons of lime, 121,200,000 gallons of bulk fuels, and farm supplies of $ 16,722,000 value during fiscal year 1956–57. It marketed for farmer patrons 922,000 cases of eggs, 2,229,000 bushels of grain and 315,000 cwt. of beans in the same fiscal year. In

dollar value, commodities purchased by patrons and products marketed for patrons through the association amounted to $ 149, 119, 854 and $ 18, 756, 057 respectively.[5)]

It has worked hard at merchandising quality eggs - all the way from its colleting stations, through packaging in its own cartons, and moving to retail outlets. It also processes, packages, and merchandises beans under its own brand.

Besides, it provides specialized services to assist members with their farm problems. There are 12 crop specialists and 14 poulty specialists now calling on members. The local service agencies employ an additional 100 men to call on farmers.

GLF is a centralized cooperative, in which farmers hold direct membership, but this is not non-stock type. To become a member of GLF, the farmer must own one or more $ 5 shares of the common stock. The maximum number of shares which a farmer may own is 100. Beside common stock, GLF has used preferred stock in securing capital needed, and also retained margins. Concerning outside capital, it has been obtained largely through banks. In addition, this association has issued deventures, which amounted to $ 1.2 million at the close of fiscal year 1957.

As of June 30, 1957, common and preferrd stock outstanding were about $ 15 million and $ 8.8 million respectively. Retained margins amounted to nearly $ 18.5 million. Total net worth was $ 42.3 million, which was equivalent to 65 per cent of the total balance sheet liabilities and members' equity (table 48). This was a healthy financial ratio, and the like percentage or over has been firmly held for the past ten years, as indicated in table 49 which show ten year comparative financial data of GLF. "Current ratio" also has been healthily maintained. The total assets increased from $ 40.4 million in 1948 to $ 65.4 million in 1957, that is by 62 per cent in ten years.

GLF is reported to have celebrated its 40th anniversary, October 19, 1960; during these four decades members have received $ 52.7 million in total savings from the cooperative and have left an additional $ 39 million

of their savings in their business.

Table 48 Balance Sheet of the Cooperative GLF Exchange, as of June, 30, 1956 and 1957

	1956	1957
Assets		
Current assets		
Cash	$ 4,621,162	$ 4,864,002
Accounts and Notes receivable	14,961,781	16,810,873
Inventories	16,412,439	16,963,097
All others	443,558	318,961
Investments-Advances to service stores and agent buyers and investments in other cooperatives and other organizations	9,912,597	9,205,529
Fixed assets	16,916,949	17,261,493
Total Assets	$ 63,268,486	$ 65,423,955
Liabilties		
Current liabilities		
Accounts and Notes payable	$ 7,272,742	$ 7,062,140
Accrued expenses	1,974,525	1,227,673
Provision for tax	1,968,255	1,892,469
Patronage refundes payable		1,000,000
Dividends payable	1,084,572	1,075,095
All others	1,387,431	2,323,427
Long term debt		
Notes payable	8,122,168	7,371,668
Deventures-4% maturing January 1, 1966	239,300	1,201,400
Net Worth		
Capital stock		
Common stock outstanding	15,164,185	14,971,820
Preferred stock outstanding	8,743,200	8,835,900
Retained margins	17,312,108	18,462,363
Total Liabilities and Net Worth	$ 63,268,486	$ 65,423,955

Table 49 Comparative financial data of the Cooperative Grange League Federation Exchange, 1948 to 1957 *

Balance Sheet at June 30	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Assets										
Current Assets	25, 444	23, 559	23, 761	34, 823	30, 865	29, 120	31, 082	32, 057	36, 439	38, 957
Investments	5, 398	8, 440	11, 267	11, 416	11, 034	9, 751	9, 649	10, 555	9, 913	9, 206
Fixed assets	9, 582	11, 223	11, 171	12, 248	13, 483	14, 382	14, 688	15, 518	16, 917	17, 261
Total	40, 424	43, 222	46, 199	58, 487	55, 382	53, 253	55, 419	58, 130	63, 269	65, 424
Liabilities and Equity										
Current liabilities	10, 496	6, 578	7, 104	17, 348	10, 021	6, 601	8, 729	12, 188	13, 688	14, 581
Long term debt	4, 500	9, 036	6, 500	5, 400	7, 750	7, 933	6, 800	5, 677	8, 362	8, 573
Members' Equity										
Preferred stock	5, 698	6, 184	7, 095	7, 548	8, 190	8, 803	8, 827	8, 589	8, 743	8, 836
Common stock	7, 423	8, 445	11, 673	13, 096	14, 140	15, 140	15, 197	15, 164	14, 972	14, 972
Retained earnings	12, 307	12, 979	13, 827	15, 095	15, 126	14, 776	15, 743	16, 489	17, 312	18, 462
Total	40, 424	43, 222	46, 199	58, 487	55, 382	53, 253	55, 419	58, 130	63, 269	65, 424

* Cooperative Grange League Federation Exchange, Thirty-seventh Annual Report, 1956-1957, P. 12.

(6) The Eastern States Farmers' Exchange

The Eastern States Farmers' Exchange, commonly called Eastern States, is one of the largest regional purchasing farmer cooperatives in the United States; its headquarters is in West Springfield, Massachusetts. It was organized in 1918. It is a non-stock, centralized type association, organized on a direct membership basis. In December, 1953, Eastern States was serving 174,224 patrons[6] in the six New England States, Pennsylvania, Delaware, and part of Maryland. It had 99,122 members as of January 1, 1954.[7]

Membership in the association is determined by patronage. Every farmer who purchases through Eastern States becomes a member. If during any calender year he makes no purchases, his membership automatically lapses. In addition to the members (whose qualifications have been confirmed in the by-laws)[8] there are Eastern States buyers and patrons.

Eastern States serves its patrons through 375 farmer-representatives, through 16 independent cooperative associations that also serve as representatives, and through 82 regional branch warehouses strategically located to supplement local car-door distribution. Such car-door service accunts for the greatest portion of all distribution. Eastern States says that it has held its position throughout the years as the most economical.[9] The system depends, of course, upon advance orders and the payment of cash upon arrival. Members accept delivery at the car-door. Here we may see a connection of the members' unpaid labor with cooperatives today as mentioned previously.

The association owns and operates two feed blending mills - one at Buffalo, N.Y., with storage capacity of 2 and one-third million bushels, and the other at Huron, Ohio, with storage capacity of one and one-third million bushels. A corn dryer is also located at Huron. Eastern States owns and operates fertilizer plants at Cambridge, Mass.; Wilmington, Del.; Kittaning and York, Pa.; and Detroit, Me. It operates a feed laboratory farm and its own plant industry project. It employs plant breeders, pathologists, and

nutrition authorities. Its contract acreages and crops for the production of seed potatoes, field seeds, and vegetable seeds, are strategically located in various parts of the United States. It manufactures some of its own sprays and dusts at West Concord, Mass., and at York, Pa. The production supplies are supplemented by the purchase of items which can be procured for the members it serves. Recently it created a marketing division for the first time in its history as the result of merger with several poultry cooperatives existing in New England.

Eastern States has 1,800 employees.

Patrons purchases in 1957 amounted to more than $83 million.

Thus, Eastern States is a large-scale farmer cooperative. The writer is interested in its operation, operative efficiency, membership relations, etc. But he is much more interested in its financial aspect. Starting as a non-stock type of cooperative, there have been no dues or assessments to pay nor capital stock to purchase for members. Eastern States has financed through margins which patrons paid for goods and services. The money needed by the association to pay expenses, to provide working capital, and to build and maintain various service properties comes through service charges which are added to the cost of goods and become a part of the total paid by patrons. In this way the financial responsibility falls completely on those using the association's services but only in proportion to their individual patronage. Needless to say, cash payment and advance order must be the fundamental prerequisits for such practices and they have been firmly maintained from the beginning of this association.

However, it is not imagined that the capital obtained in this way was enough to provide the association with all the working capital needed, at least during the early days of its operation. It is said that the fixed capital investment began to be accumulated with the purchase of a feed mill at Buffalo, N.Y. in 1925.[10] Then, where did the money needed to purchase the feed mill come from? Or, how could the association gain sufficient credit for borrowing? It is needful to look back at the history of Eastern States,

at least the financial phases in its early days.

During the first few years the association merely provided a brokerage service in purchasing of feed for members. Financing was done entirely by the use of other people's credit. As reserves accumulated its credit position gradually became favorable, but is should not be overlooked that there were such peculiar conditions as these: the foundation of the association is said to have been the outgrowth of a movement sponsored by prominent businessmen, industrial leaders, bankers and a few farmers of southern New England. The group of businessmen specifically provided two important elements needed by the organization, i.e.: capital and business experience. The capital was made available through bank loans secured by the personal non-interest bearing notes provided by these men. The financial foundation thus laid by these men provided the base on which the organization got its start, and held it together during the formative years and until members had created a financial base of their own as provided in the by-laws.

The financing of the association over the 40 years past has three phases;[11]

(1) 1918-1922, the working capital was obtained through the borrowing on credit. On February 19, 1918, the Eastern States Agricultural Trust was formed by thirty industrial businessmen and farmers who individually signed demand notes varying in value from $500 to $2,500 for a total $42,500. These notes were discounted at six per cent interest by a bank at 75 per cent of their face value. This constituted the original working capital. After three years the trust fund was increased to $103,000. By 1922 the notes were all paid from accumulated retains or savings through member purchases.

(2) On August 23, 1923, the Eastern States Agricultural Credit Corporation was formed to assemble and discount farmers' notes attached to their purchase contracts. The value of the notes was determined by the volume of commodities members ordered each fall: $10.00 per ton of feed; $10.00 per ton of fertilizer; $2.00 per 100 lbs. field seeds; $1.00 per lb. seed potatoes. These notes were discounted at 50 per cent of their face value at 4¼ per cent interest through the Federal Intermediate Credit Bank. From 1925 to 1935

members received a refund for their credit which amounted to $756,337.

In 1925 the Eastern States mill at Buffalo, N.Y. was bought for $300,000. The money was raised through the sale of 6 per cent preferred stock in the Eastern States Cooperative Milling Corpoation. About $30,000 of preferred stock for additional capital was held by farmers or other individuals. The Eastern States held all of the common stock that was issued from $50,000 in 1925 to $729,415 in 1946. After 7 years all the stock had been retired from accumulated retains or savings from member purchases.

As stated above, the association experienced hard financing during this period. It could get over the difficulty by establishing a subsidiary trust or corporation. Such means might be inevitable for non-stock type cooperative. In the United States it has been frequently seen that cooperatives, particularly non-stock orgnizations, established subsidiary corporations for two objects: for the purpose of financing, i.e., obtaining funds, reducing the cost of finaning, and restricting financial risks; and for the purpose of performing marketing functions either at less cost or at less risk to the parent bodies. Some examples for the latter purpose can be seen in our couutry, too. At any rate, it should be noted that it was not until after Eastern States came through its financial difficulty in such a way that it could attain a financial base of its own as provided in the by-laws.

(3) Since 1932 Eastern States has been financed by accumulated reserves and borrowings on its assets accepted as collateral by commercial banks and the Banks for Cooperatives. There have been issued no certficates of in debtedness and there is no revolving capital. It is sure that such a policy has made it comparatively simple for farmers in succeeding years to become members. In fact, members and patrons much increased in number after that date.

In 40 years past, 1918 to 1957, accumulated annual savings altogether amounted to $57,326,000, out of which $29,178,200 have been retained as permanent capital, the remaining $28,147,800 being returned to members as

cash patronage refunds. As indicated in table 50, accumulated savings for the 40-year period represented 4 per cent of the $ 1, 426, 852, 000 that members spent for farm production supplies and services. The 4 per cent saving rate is divided into two parts; 1.97 per cent in patronage refunds and 2.03 per cent in capital retained by the association.

Table 50 Forty Years in the Eastern States Farmers' Exchange Operations.*

Patrons' Purchases		Patrons' Savings in percentage of purchases		
		Total	Refunded in cash	Retained for capital needs
1918 – 27	$ 36, 998, 000	1.4%	3/10 of 1%	1.1%
1928 – 37	125, 130, 000	3.2%	8/10 of 1%	2.4%
1938 – 47	409, 258, 000	3.8%	1.9%	1.9%
1948 – 57	855, 466, 000	4.3%	2.2%	2.1%
Total	$ 1, 426, 852, 000	4.0%	1.97%	2.03%

* Eastern States, General Manager's Report 1958, Eastern States Cooperator, May 1958, P. 21

Thus, the members of each year have provided their share of the capital needs, each in proportion to his use of the services. Mr. W.D. Milsop, the General Manager of the association, said in his general report at the 1958 General Meeting that it was doubtful if any more economical financial structure existed.

A question, however, may be raised whether such procedure finds some persons participating in the use of facilities which others before them have provided. Officers of the association probably reply to the question by saying that these persons, however, in turn will be providing capital facilities for those to follow, so the plan is in the interest of each member. We may have another question as to the distribution of savings in such cooperative which has a provision in the by-laws that membership shall automatically lapse if a person makes no purchase from the association during any calender year: what about the final distribution of savings? To this question the by-laws answer like this; "In the event of a dissolution of the Eastern Sttes,·····

the net assets, after the payment of all just debts of the Eastern states and the expenses of liquidation, and after the distribution of any current savings ....., shall be divided among the patrons of the Eastern States, past and present, in proportion to their total purchases from time to time from or through the Eastern States,"[12)]

The financial structure of the Eastern States in 1956 and 1957 will be shown below as table 51. Equity capital accounted for more than 70 per cent of the total assets. In short-term borrowings the association used commercial banks and it depended entirely on the Bank for Cooperatives for

Table 51 *Comparative statement of financial conditions, the Eastern States Farmers' Exchange, December 31, 1957 and 1956**

	1957	1956
ASSETS:		
Current assets		
Cash on hand and demand deposits	$ 1,843,085.42	$ 1,792,382.26
Accounts receivable for merchandise	1,344,690.34	1,173.052.68
Other miscellaneous receivables	179,475.00	150,039.95
Merchandise inventories	12,460,025.75	12,241,429.59
Investments-stock in Springfield Bank for Cooperatives	369,393.57	297,978.87
Fixed assets	22,852,873.24	22,700,203.57
Other non-current assets	851,671.68	779,411.73
TOTAL ASSETS	$ 39,901,215.00	$ 39,133,498.65
LIABILITIES		
Current liabilities		
Bank loans payable on demand	$ 2,300,000.00	$ 2,300,000.00
Accounts payable and accrued expenses	1,672.943.77	1,494,010.03
Currently due to patrons	2,250,043.06	2,426,260.46
Mortgage loan-Springfield Bank for Cooperatives	4,500,000.00	4,800,000.00
PATRONS' EQUITIES-amounts retained during the past forty years for capital purposes	29,178,228.17	28,113,228.17
TOTAL LIABILITIES AND EQUITIES	$ 39,901,215.00	$ 39,133,498.65

* Eastern States Cooperator, May, 1958, PP. 28—29

long-term credit.

The net savings of 1957 were disposed in this way: of $3,261,528 total savings $1,065,000 was retained for capital needs and $2,196,528 remained payable in cash to patrons. The amount retained for capital needs represented 33 per cent of the total savings and averaged 1.28 per cent of the total patrons' purchases. The sum which remained for patronage refunds accounted for 67 per cent of the savings or an average of 2.63 per cent of the patrons' purchases.

Notes:

1) Manager's report which the writer received from Mr. R.A.Leland, Manager of the East Bridgewater Farmers Cooperative Exchange

2) United Cooperative Farmers, What is UCF?, p. 1

3) United Cooperative Farmers, Annual Report 1956, pp. 5-6

4) United Cooperative Farmers, What is UCF?, p. 2

5) G.L.F., the 37th Annual Report
Fitton, H.N., G.L.F. 40 years of progress, News for cooperatives (U.S.Dept. of Agri., FCS) December 1960, pp. 12 ff.

6) The Cooperative League of the United States of America, 1954 Cooperative Yearbook, p. 28

7) Eastern States Farmers Handbook, 5th Edition, p. 22

8) Bylaws of Eastern States, Section 1, Article III

9) Eastern States Farmers Handbook, p. 28

10) ibid., p. 20

11) According to what some of the officers of the Eastern States told the writer

12) Bylaws of the Eastern States, Section 2, Article XII

VII Revolving fund plan of farmer cooperatives in the United States

It was already stated that the revolving fund method of financing had developed in response to a situation peculiar to American farmer cooperatives. It was devised as a solution to the problem of how cooperatives can best capitalise their associations equitably so that the capital furnished by each patron bears a relationship to his patronage. It has been thought the most effective plan for raising capital of cooperatives, and is being widely used in Canada as well as in the United States. Some students of cooperation in the United Kingdom think of this plan as an exportable device, and say that it is beginning to attract attention elsewhere.[1] We shall make a study in somewhat detail of this method of financing.

Essentially, the revolving fund plan of financing is one where capital supplied by the current year's patrons is used to retire the oldest outstanding revolving fund capital furnished an association by patrons of earlier years. Accordingly, the name "revolving fund" becomes more suitably called so after an association has reached the stage where it is in financial position to start retiring its oldest revolving investments.

Describing the subject in a little further detail, the principles on which the revolving fund financing is based are as follows:

(1) Continued investment by members and patrons in the capital structure of the cooperative according to use.

(2) Continued accumulation of capital from year to year by the cooperative.

(3) Continued retirement of members' and patrons' oldest outstanding capital first.

Because of such continuous flowing of capital invested, this plan has been frequently likened to a water wheel, picking up water, using it to create the power that turns the mill machinery, and returning the water to the mill-stream.

Generally there are ways in which members and patorns may invest in the cooperative's revolving fund, but the principal ways ordinarily employed are the following three :

a) By authorizing the cooperative to deduct specific amounts from sales proceeds for capital purposes.

b) By permitting the cooperative to retain operating margins and savings as capital.

c) By making direct cash investments in the capital structure of the cooperative.

Of course, it is possible for the cooperative to employ two or all of these capital-raising methods. Needless to say, it is obvious that cooperatives using the revolving fund method of financing must accumulate capital needs before initiating any capital retirement program. It is said that this may require anywhere from 3 to 15 years' accumulation of capital.

How the revolving capital plan works is shown in table 52. This table is based on an imaginary association with its entire capital structure on a revolving fund basis. In order to simplify the illustration, the association's capital requirements are assumed to be constant at $ 30,000 each year. Operation of this association is assumed to have begun in 1941 with initial paid-in membership capital of $ 15,000 and an additional $ 15,000 in borrowed funds.

In 1942, savings of $ 5,000 enabled the association to pay off a like amount of borrowed funds, reducing outstanding loans to $ 10,000. Additional savings of $ 3,000 in 1943, $ 4,000 in 1944, and $ 3,000 in 1945 enabled the association to retire all its borrowed capital. Next step was retirement of initial membership capital, which was accumulated in 1946-48 through the use of retained annual savings in the manner described above. Thus, with borrowed capital and initial membership capital repaid, the association was then in position to begin revolving its oldest outstanding capital contributions acquired through retaining in the cooperative the patronage refunds of previous years.

Table 52 An example of capital statement of a cooperative on a revolving capital plan

Year	Initial membership capital	Borrowed capital	Savings retained		Total capital	Retired,	
			Annual	Cumulative		Initial membership capital	Savings retained
1941	$ 15,000	$ 15,000	–	–	$ 30,000	–	–
1942	15,000	10,000	$ 5,000	–	30,000	–	–
1943	15,000	7,000	3,000	$ 8,000	30,000	–	–
1944	15,000	3,000	4,000	12,000	30,000	–	–
1945	15,000	–	3,000	15,000	30,000	–	–
1946	9,000	–	8,000	23,000	32,000	$ 6,000	–
1947	5,000	–	3,000	26,000	31,000	4,000	–
1948	–	–	5,000	31,000	31,000	5,000	–
1949	–	–	7,000	33,000	33,000	–	$ 5,000
1950		–	2,000	32,000	32,000	–	3,000
1951		–	6,000	34,000	34,000	–	4,000
1952		–	2,000	33,000	33,000	–	3,000
1953		–	5,000	30,000	30,000	–	8,000
1954		–	4,000	31,000	31,000	–	3,000

The revolving capital plan of financing can be used by both stock and non-stock cooperatives. In the United States, it is said that some cooperatives place their entire capital structure on a revolving fund basis and some, not origtnally organized with this plan, adopt the plan by gradually eliminating all other forms of patron investment, exclusive of memberships and qualifying shares. And also it is reported that there are many new association which provide for the revolving fund system of financing exclusively at the time of organization.

It is estimated that about 60 per cent of all the farmer cooperatives in the United States at present are using the revolving fund method and that capital placed in this plan has increased in recent years. A survey made by the U.S. Department of Agriculture pertaining to the financial methods used by the farmer cooperatives in 1954 has furnished us with data of this

plan of capitalization in detail.[2)]

In this survey, the 1,157 farmer cooperatives reported gross equity capital at the close of fiscal year 1954 of over $847 million. Of this equity capital $489 million or 58 per cent of the total was reported as revolving capital. Almost $83 million in revolving equity capital was reported by 531 local associations while 179 regionals reported revolving equity of over $406 million. Therefore, the other 447 associations were not handling any of their equity capital on a revolving fund basis (table 53)

When the regional associations are compared with the local ones, it is seen that a greater percentage of the former have adopted this method of financing than the latter (69 per cent against 59 per cent).

Many asociations reported only one or two types of their equity capital on a revolving basis, while others reported the entire capital structure handled on a revolving fund plan.

Three types of equity capital—common stock, preferred stock, and certificates of equity and allocated book credits - were reported as revolving capital by the associations surveyed. Certificates of equity and allocated book credits accounted for 65 per cent of the total revolving equity reported. Common and preferred stock accounted for the other 35 per cent (table 53).

As mentioned earlier, there are three ways, as a rule, in which members acquire their individual shares of equity capital. Of these, authorized capital deductions and refunds retained are the common methods used for building equity capital handled on a revolving basis (table 54).

Almost 72 per cent of the revolving equity capital of local associations was acquired by refunds retained for deferred payment. Members of regionals obtained almost 63 per cent of their revolving equity capital by this way.

The survey has, in addition, furnished data showing changes in revolving fund capital during the 1949-54 period. As table 55 shows, at the end of the 1949 fiscal year, 717 cooperatives reported revolving fund capital aggregating almost $313 million. During the five-year period, 1950-54; nearly $357 million was added to revolving funds and more than $159 million was paid

Table 53 Equity capital handled on a revolving funds basis by marketing and farm supply cooperatives, by type and amount, fiscal year 1954, the United States*

Type of association	Number of associations with revolving equity capital	Total revolving equity capital of associations surveyed ($ 1,000)	Amount and percentage of revolving equity capital by type of equity					
			Common Stock		Preferred stock		Certificates of equity and book credits	
			Amount ($ 1,000)	Percent of total revolving equity	Amount ($ 1,000)	Percent of total revolving equity	Amount ($ 1,000)	Percent of total revolving equity
Marketing	488	$ 325,729	$ 33,391	10.2	$ 53,972	16.5	$ 238,336	73.3
Locals	350	59,636	4,112	6.9	5,421	9.1	50,103	84.0
Regionals	138	266,093	29,279	11.0	48,551	18,2	188,264	70.8
Farm supply	222	163,223	52,113	31.9	32,997	20.1	78,113	48.0
Locals	181	22,864	8,764	38.3	2,517	11.0	11,583	50.7
Regionals	41	140,359	43,349	30.9	30,938	21.7	66,530	47.4
All ass'ns	710	488,952	85,504	17.4	86,969	17.7	316,479	64.9
Locals	531	85,501	12,877	15.6	7,938	9.6	61,685	74.8
Regionals	179	406,452	72,627	17.9	79,030	19.4	254,794	62.7

* U.S. Department of Agriculture, FCS General Report 41, 1958, P. 40.

Table 54 Sources of revolving equity capital of farmer cooperatives, U.S.A., 1954.*

Type of association	Number of associations surveyed	Revolving equity capital ($ 1,000)	Percentage of revolving equity capital by sources		
			Purchase	Authorized deduction	Refunds retained
Locals					
Marketing & farm supply	531	82,500	3.0	17.2	71.7
Marketing	350	59,635	2.3	23.4	68.4
Farm supply	181	22,864	4.9	–	80.2
Regionals					
Marketing & farm supply	179	406,451	6.7	17.4	62.7
Marketing	138	266,092	3.7	26.3	55.2
Farm supply	41	140,358	12.4	–	76.9

* Department of Agriculture, FCS General Report 41, 1958, P. 18.

out, leaving a balance of about $ 510 million in revolving funds at the close of fiscal year 1954. During the 5-year period revolving fund capital grew by some 63 per cent. The ratio of repayments for the period, 1950-54, to the balance at the end of fiscal year 1949 for all associations, was 51 per cent.

In order to find the average revolving fund period, using the revolving capital balance at the close of fiscal year 1949 as a base, and dividing by the average annual repayments from 1950 through 1954, the result was less than 10 years for both regional and local associations. However, the fund in the marketing associations completed a revolution approximately every 9 years, whereas the fund in farm supply associations usually required over 11 years. The revolving fund period on the average varies for commodity groups in marketing cooperatives. It is reported that regional poultry associations required only 4 years on the average to completely revolve their capital, while the grain regionals and the local livestock associations required a period of 14 years on the average. The average revolving fund period for

Table 55 Revolving capital of farmer cooperatives supplied by patrons and repaid to patrons, 1950-1954, the United States.*

Type of Association	Number of associations surveyed	Number of ass'ns with revolving capital	Balance at the end of fiscal year 1949	Additions 1950-1954	Total of '49 balance plus additions 1950-1954	Repayments 1950-1954	Balance remaining in 1954 after repayments
Marketing	801	493	205, 155	234, 645	493, 800	111, 683	328, 117
Locals	606	351	35, 025	44, 126	79, 151	19, 659	59, 492
Regionals	195	142	170, 130	190, 519	360, 649	92, 024	268, 625
Farm supply	356	224	107, 469	122, 107	229, 576	47, 738	181, 838
Locals	292	181	13, 860	15, 450	29, 310	6, 484	22, 826
Regionals	64	43	93, 609	106, 657	200, 266	41, 254	159, 012
All ass'ns	1, 157	717	312, 624	356, 752	669, 376	159, 421	509, 955
Locals	898	532	48, 885	59, 576	108, 461	26, 143	82, 318
Regionals	259	185	263, 739	297, 176	560, 915	133, 278	427, 637

* U.S. Departmeet of Agriculture, FCS General Report 41, 1958, P. 57.

other commodity groups ranged from 8 years to 12 years.[3]

In most cooperatives using the revolving fund method of financing the period of revolution is said to be discretionary with the board of directors, while a few cooperatives provide for a fixed revolving fund period in the by-laws. Generally, the practice of a fixed revolving period is thought undesirable for most cooperatives, because associations required to retire substantial parts of their equity capital during years when revenues are low may find themselves with inadequate operating capital. According to the survey, of the 717 associations using the revolving fund method of financing, 65 or 9 per cent were required by their by-laws to retire revolving fund capital investments in a predetermined fixed period.[4]

So far, we have mainly discussed principles and actual operations of the revolving fund plan of financing in farmer cooperatives in the United States. It has, indeed, some advantages as a method of financing farmer cooperatives and it is used to considerable extent among farmer cooperatives in the United States. Some of the principal advantages of this plan of financing would be as follows: Members contribute capital to their cooperative in the same proportion that they use the cooperative and share its benefits; while this usually means only gradual cooperative growth, it can insure sound growth; once this plan is put into operation, it may be possible to maintain the capital required with a minimm of administrative cost; this plan may reduce operating costs by avoiding the necessity of paying interest to attract invested capital.

However, it is obvious, viewed from its nature, that the plan can work well where patronage is constant, volume fluctuations are small, and members remain active. In particular it works best in the association which provides exclusively for this system of financing at the time of organization. On the contrary, under circumstances where a cooperative has been operating for a number of years and there have been changes in memberships and in business volume, the revolving fund method does not always work well.

As in our agricultural cooperatives, where capital has long been built

up by means of share capital subscribed by members, regardless of the proportion of their business done with the cooperative and there has not been established such a practice as retention of patronage refunds, this revolving fund system of financing seems difficult of adoption.

Furthermore, the revolving fund plan of financing as such would have some disadvantages as follows: this plan may become unacceptable to the members if the capital requirements of the cooperative make a long revolving period necessary; members are said to regard their equity in the revolving fund as a debt; the plan may permit expansion of the cooperative without the explicit approval of a majority of the members; the period required for the fund to revolve cannot be maintained where continuous expansion takes place, unless some other method is used to obtain additional capital for expansion; it may fail to take into account the differences in the ability of individual members to provide capital.

It is thought, after all, that while the revolving fund plan can be said to be suitable for cooperative financing, it alone may not entirely meet all the capital requirements of cooperatives.

1) Digby, M. and Gorst, S., op. cit. p. 129

2) U.S. Dept. of Agriculture, Farmer Cooperative Service, General Report 41, 1958, and General Report 32, 1957

3) ibid., p. 58 and p. 43

4) ibid., p. 32 and p. 41

VIII Summary and Conclusion

The writer has sought above to present an objective account of the capital structure of agricultural cooperatives in the form of a comparative study between the United States and Japan.

What have been observable as a result of the analysis of the present capital structure of agricultural cooperatives in the two countries will be summarised as follows;

(1) In the formation of equity capital, agricultural cooperatives in Japan have depended entirely upon share capital and reserves— legal and voluntary, and the methods of acquiring them were mainly direct subscription by members and partial retention of net savings or surplus, while farmer cooperatives in the United States had several types of equity capital and various methods in acquiring it.

As types of equity capital, they had common stock, preferred stock, allocated capital credit without maturity dates, certificates of equity with maturity dates, unallocated reserves, and memberships. They acquired these items of equity capital by such methods as purchase of securities, authorized deductions, refunds retained, or combinations of two or more methods.

However, of the total equity capital more than 60 per cent was acquired by refunds retained, while about 40 per cent was in the type of allocated capital credits without maturity dates, 22 per cent in preferred stock and nearly 20 per cent in common stock.

Over 80 per cent of the cooperatives had some portion of equity capital in allocated book credits without maturity dates, more than 70 per cent had common stock and about 38 per cent preferred stock. 70 per cent had some allocated reserves.

(2) As to dividends and interest rates on equity capital, we have found these: although no exact figures were available, it is evident that only a little portion of equity capital was paid interest in our agricultural co-

operatives; in the United States, too, farmer cooperatives paid no interest on about 65 per cent of their equity capital; no dividends were paid on over half of the common stock; almost 80 per cent of certificates of equity and allocated book credits were non-interest bearing; but nearly 70 per cent of total preferred stock was paid dividends.

(3) As to borrowings, there have been recognized these: of all associations in the United States 45 per cent were entirely debt free at the close of fiscal year 1954; almost 60 per cent of the outstanding borrowed capital was supplied by the Banks for Cooperatives, and certificates of interest with definite maturity dates ranked next to banks for cooperatives in importance as a source of credit; in Japan, agricultural cooperatives may be said to have made huge borrowings throughout the year, a large part of which was channeled through the cooperative network, but the original sources of these funds were partly the government funds and partly the cooperatives' own funds with such government-support as subsidies to supplement interest payments. Cooperatives' voluntary loans made to the members on the basis of their own funds were not very large, most of such borrowed capital has been used to lend to members and the borrowings for working capital of the associations were rather small; working capital has been partly supplied by the deposits accepted from members; the position of the deposits in the capital structure of our cooperatives is significant; hence there have arisen the problems of the so-called "idle" or spare funds; the Banks for Cooperatives in the United States have different functions from those of the Central Bank for agriculture and Forestry in our country.

(4) The development of farmer cooperatives of regional type in the United States has attracted much attention with regard to cooperative capital structure.

Although the regionals accounted for only less than 5 per cent of the total number of associations, thay owned about half the total assets of farmer cooperatives in the United States. It is also pointed out that while local associations relied more on internal or membership financing, the regionals

depended more heavily on borrowed capital. Of total borrowed capital outstanding at the close of fiscal year 1954, 91 per cent was borrowed by 163 regionals, whereas 469 locals borrowed only 9 per cent. And yet it should not be overlooked that such regionals relied, in borrowings, more on banks for cooperatives than did the locals, and the locals depended more on commercial banks than did the regionals.

(5) As has been learnt from the analysis of the capital structure of some individual farmer cooperatives in the United States, the capital structure differed remarkably from cooperative to cooperative. In particular, the large-scale regional cooperatives have established a firm financial basis through varied experiences. They seem go ahead increasingly to expand their businesses and to integrate their operations. Most of the American cooperators find in them a pattern of cooperative association best able to function in a highly developed capitalist economy.

(6) The revolving fund plan has been developed in response to a situation peculiar to cooperatives in the United States. In practice, this plan is used by about 60 per cent of total farmer cooperatives. More regionals use this method than locals, and more than 80 per cent of the total revolving fund capital is in regionals. Cooperative capital of this kind has considerably increased in recent years. A modified from of this method has been imported to our country after World War II, but it could not have been widely used by our agricultural cooperatives, and has little importance in their capital structure.

The most distinct differences in cooperative capital structure between the two countries seems to be in types of equity capital and methods by which it is acquired. That is, in Japan share capital subscribed directly by members has been exclusively dominant, while in the United States numerous types and mothods have been developed. This can be taken to mean that the American farmers as cooperative members have made much effort to strengthen their financial conditions, and have gone far beyond the Rochdale pattern after once accepting it. Farmers in the United States have financed

their cooperatively-owned businesses by using all the standard methods employed by other business corporations.

In reality, however, all these methods have not been used in the same degree by all the cooperatives. The predominant type of equity capital of farmer cooperatives in the United States is "allocated capital credits without maturity dates" (most of which is not interest-bearing), and the principal method by which it was acquired is "retention of refunds." Other types of equity capital as preferred stock and even common stock cannot have very much importance in their capital structure. These facts can be understood to show the limits in capital acquirement of cooperative organizations.

In the United States, share capital with voting right has been confined to the form of common stock in order to avoid the danger of under-capitalization which otherwise is likely occur in cooperative organization; there has been introduced the device that a part of patronage refunds allocated to members is retained in the association to be used as operational capital. In case of an association of non-stock type, even common stock type of equity capital has been eliminated. The revolving fund plan is considered as a farther extended form of this device, in which the period during which the refunds or other type of capital is retained in the association is defined. In this case equity capital is entirely put on a loan basis and in addition the idea of "financial contribution in proportion to patronage" is realized.

Such device has undoubtedly served to ease to some extent reluctance of farmers to contribute capital to their cooperatives directly from their own pockets. The capital funds thus formed in the associations are usually called "free capital" by the American cooperators.

But, on the other hand, for a cooperative association depending mainly on such free capital it must be necessary to have a considerably large net savings or surplus, which is expected only in cases of large-scale operation. It seems that here is an implicit impetus to promote the organization of large-scale farmer cooperatives in the United States. It also goes without saying that only large-scale organizations can have excellent credit ratings,

readily obtain loan capital and sell nonvoting preferred stock. Loan capital involves fixed interest rates and rigid repayment schedules. Preferred stock usually requires regular dividend payments at its designated rate if it is to be a ready source of capital. These inflexibilities can become substantial burdens for relatively small cooperatives. The fact should not be overlooked that the most part of loans made by the Banks for Cooperatives are borrowed by large-scale regional cooperative associations.

The formation of associations of federated type and centralized type, or mergers which have taken place among small associations in recent years — all these are nothing but the methods by which the enlargement of cooperative operations is attempted.

But, while it cannot be denied that as the scale of operation becomes large, the number of memberships increases and the capital formation advances, the cooperative organization cannot help revealing indications of separation from the cooperative principles. As Professor K. E. Boulding points out (Economic Analysis, 3 rd ed., Harper and Brothers, N. Y., 1955, pp 514-515), the divorce of ownership from management inevitably exists even in cooperative organizations. It is not necessary to repeat the words of G.L.F.'s manager.

Historically speaking, there is no doubt but that the American farmer cooperative movement has sprung from the general farmers movement. The course of its growth can be said to be as typical as that of the consumer cooperative movement in England. However it is a historical fact, too, that the cooperatives had to begin to go on their own way as economic organizations soon after they started. The American Farmers unions in general are proud of their ownership of cooperatives. But, according to the present writer's view, the relationship between the two is losing the closeness and dividing into two separate organizations.

Then, turning back to the Japanese agricultural cooperatives, where the Rochdale pattern is followed in acquiring equity capital, a cooperative member should have at least one share of capital which is identified with

voting right. It is, as a rule, at the choice of the member whether he has more shares or not. This means that any member is responsible in no small degree for the under-capitalization of his own association. Since the farm income level in Japan is, needless to say, by far lower than that in the United States, it is not easy for the cooperatives to obtain adequate capital directly from the member farmers' pockets. In addition, where small-scale association is predominant, the revolving fund plan as well as method of retention of refunds does not work well.

Furthermore, most of the large farmers, doing most business, feel that they operate on a large enough scale to do business on their own, without the help of a cooperative association, and, still, there are not very many farmer members who are full supporters of their own cooperative.

Accordingly, it seems to be an inevitable hard task for the executive-council members to spend many hours individually persuading the farmer members to increase their cooperative share capital contributions. Upon this, it is frequently observed that even the network of hierarchical relationships which still remains in the villages is effectively utilized in persuading the farmer members to accept the designated shares of capital.

It goes without saying that the capital structure of individual co-operative associations in Japan is poorer than that in the United States. What have reinforced this financial weakness of agricultural cooperatives in our country are probably the federated system and the government aids.

The Japanese agricultural cooperative system is organized in a three-tiered one, topped by the National Federations and a Central Bank, with the Federations at the prefectural level and the general-purpose Agricultural Cooperatives at village level. Although this system as a whole is seemingly well-regulated and firmly established, it cannot be said to have been created from sheer necessity of the primary local cooperative associations. Among the elements strongly supporting this system are the government financial aids and agricultural policies, for instance the rice control and so on. The relationship between the government or the State and the agricultural

cooperative system seems by far closer and more involved in Japan than in the United States. Consequently, it is not denied that the cooperative character or principle is apt to be so much distorted in such a system. For instance, the criticism may not be unreasonable that the Japanese agricultural cooperative system as a whole is of semi-official-enterprise character or that it is only a government agency.

In the system, the higher up the village-prefectural-national chain one goes the greater such character of the organization and the smaller the sense of responsibility for the individual cooperative members. The federations tend rather to be part of the authorities, whose interests conflict rather than coincide, with the primary local cooperatives' and their farmer members. As to the financial aspects much the same can be said.

Bibliography

1. Ashley, S.W., The Economic Organization of England (With Three Supplementary Chapters by G.C. Allen), 3rd. ed', Longmans, Green and Co., London 1949
2. American Institute of Cooperation, Ameration Cooperation, 1928 seq., Washington, D.C.
3. Abrahamsen, M.A. and Scroggs, C.L., ed., Agricultural Cooperation, University of Minnesota Press, Minneapolis, 1957
4. Arai, Y., Introduction to Agricultural Cooperation (in Japanese), 3rd. ed., Zenkoku Nogyo Shuppansha, Tokyo, 1960
5. Bonneville, J.H., Dewey, L.E. and Kelly, H.M., Organizing and Financing Business, sixth ed., Prentice-Hall, Englewood Cliffs, N.J., 1959
6. Barou, N., Cooperative Banking, P.S. King and Son, London, 1932
7. Baker, J., Cooperative Enterprise, Vanguard Press, N.Y., 1937
8. Benedict, M.R., Farm Policies of the United States 1790–1950, Twentieth Century Fund, N.Y., 1953
9. Business Men's commission on Agriculture, the Condition of Agriculture in the United States and Measures for its Improvement, National Industrial Conference Board, N.Y., 1927
10. Boulding, K.E., Principles of Economic Policy, Prentice-Hall, Englewood Cliffs, N.J., 1958
11. _____, Economic Analysis, Harper and Brothers, N.Y., 1955
12. Beal, G.M., Fessler, D.R. and Wakeley, R.E. Agricultural Cooperatives in Iowa: Farmers' Opinions and Community Relations, Agri. Exp. Sta., Iowa State College, 1951
13. Bakken, H.H. and Schaars, M.A., The Economics of Cooperatives Marketing, McGraw-Hill Book Co., 1937
14. Bogardus, E.S., Principles of Cooperation, the Cooperative League of the U.S.A., Chicago, 1958
15. Cavin, J.P., ed., Economics for Agriculture, Selected Writings of John Black, Harvard University Press, Cambridge, 1959
16. Cole, G.D.H., A Short History of the British Working-class Movement, George Allen and Unwin, London, 1952
17. Cole, G.D.H., The British Cooperative Movement in a Socialist Society, George Allen and Unwin, London, 1951

18. _____, A Century of Cooperation, George Allen and Unwin, London, 1944

19. Cole, A.H., Business Enterprise in its Social Setting, Harvard University Press, Cambridge, 1959

20. Cruger, H., Einfuhrung in das deutsche Genossenschaftswesen, T. Guttentag, Verlagsbuchhandlung, Berlin, 1907

21. Cochran, T.C. and Miller, W., The Age of Enterprise, Macmillan Co., N.Y., 1956

22. Cohen, R., The Economics of Agriculture, Cambridge Economic Handbooks, Nisbet and Cambridge University Press, 1951

23. Cooperative League of the U.S.A., Fact Book on Cooperatives with 1957-8 Developments, Chicago, 1958

24. _____, 1954 Co-op Yearbook, Chicago, 1954

25. Dean, J., Managerial Economics, Prentice-Hall, Englewood Cliffs, N.J., 1951

26. Digby, M., Agricultural Cooperation in Great Britain, Crosby Lockwood and Son, London, 1949

27. _____, The World Cooperative Movement, Hutchinson's University Library, London, 1946

28. _____, Agricultural Cooperation in the Commonwealth, Basil Blackwell, Oxford, 1956

29. _____, and Gorst, S., Agricultural Cooperation in the United Kingdom, Basil Blackwell, Oxford, 1957

30. Duddy, E.A. and Ravzan, D.A., Marketing, McGraw-Hill Book Co., N.Y., 1953

31. Dore, R.P., Land Reform in Japan, Oxford University Press, London, 1959

32. Dobb, M., Capital Enterprise and Social Progress, George Routledge and sons, London, 1926

33. Dirlam, J.B. and Kahn, A.E., Fair Competition, Cornell University Press, Ithaca, 1954

34. Duke University, School of Law, Law and Contemporary problems, Cooperatives, Vol. XIII, No. 3, 1948

35. Draheim, G., Die Genossenschaft als Unternehmungstyp, Vandenhoeck und Ruprecht, Goettingen, 1955

36. Emelianoff, I.V., Economic Theory of Cooperation, Washington, D.C., 1948

37. Elson, J. I. and Kraz, N. G. P., Legal Handbook for Directors and Members of Illinois Cooperatives, University of Illinois Agri. Exp. Sta., 1958

38. Erdman, H.E. and Tinley, J.M., The Principles of Cooperation, Calif. Agri. Exp. Sta. Bulletin 758, 1957

39. Fay, C.R., Cooperation at Home and Abroard, P.S. King and son. London, 1925

40. Furukawa, E., Business Management (in Japanese), Seirin Shoin, Tokyo, 1959

41. Fisher, C. B. The Farmers' Union, University of Kentucky, 1920

42. Filley, H.C., Cooperation in Agriculture, John Wiley and Sons, N.Y. 1929

43. Fauquet, G. The Cooperative Sector (Translated from French), Co-operative Union, Manchester, 1951

44. Farm Foundation, Increasing Understanding of Public Problems and Policies; Chicago, 1957

45. Gee, W. and Terry, E.A., The Cotton Cooperatives in the South-east, D. Appleton-Century Co., N.Y., 1933

46. Graham, B. and McGolrick, C., The Interpretation of Financial Statments, Harper and Brothers Publishers, N.Y., 1955

47. Gullunder, A., Farmers' Cooperation in Sweden, Iowa State University Press, Ames, 1951

48. Gorst, S., Co-operative Organization in Tropical Countries, siɐɟl Blackwell, Oxford, 1959

49. Galbraith, G.K., American Capitalism, new and revised ed., Houghton Mifflin Co., Boston, 1956

50. Gerstenberg, C.W., Financial Organization and Management of Busines, 4th ed., Prentice-Hall, Englewood Cliffs, N.J. 1959

51. Jamison, J.A., Coordination and Vertical Expansion in Marketing Cooperatives, Journal of Farm Economics, Vol. XIII, No. 3, 1960

52. Jenkins, D., Law for Co-operatives, Basil Blackwell, Oxford, 1958

53. Joint Committee Print (85th Congress lst Session), Policy for Commercial Agriculture, Its Relation to Economic Growth and Stability, U.S. Government Printing Office, Washington, D.C. 1957

54. Hough, E.M., The Co-operative Movement in India, P.S. King and Son, London, 1932

55. Henzler, R., Genossenschaften, Betriebswirtschaftlicher Verlag, Wies-

baden, 1953

56. Howard, B.B. and Upton, M., Introduction to Business Finance, McGraw-Hill Book Company, N.Y., 1953

57. Higbee, E., American Agriculture, John Wiley and Sons, N.Y., 1958

58. Kondo, Y., Principles of Cooperation (in Japanese), Koyo Shoin, Tokyo, 1920

59. Kulemann, W., Die Genossenschaftsbewegung, Verlag von Otto Liebmann, Berlin, 1922

60. Kyodokumiai Kenkyukai, Annual Report (in Japanese), Ochanomizu Shobo, Tokyo, 1957 seq.

61. Kurihara, H., Modern Japanese Agriculture (in Japanese), Chuo-koronsha, Tokyo, 1951

62. Kimura, S., Development of Cooperative Capital (in Japanese), Sobunkaku, Tokyo, 1923

63. Kaplan, A. D., Big Enterprise in a Competitive system, the Brookings Institution, Washington, D.C., 1954

64. Knapp J., Are Cooperatives Good Business? Reprint from Harvard Business Review, January-February 1957

65. Marshall, A., Elements of Economics of Industry, 3rd ed., Macmillan, London, 1949

66. Marx, K., Capital I, II and III, (English Translation), Foreign Languages Publishing House, Moscow, 1959

67. Mason, E.S., The Corporation in Modern Society, Harvard University Press, Cambridge, 1959

68. Masuchi, Y., Forms of Enterprise (in Japanese), Chikura Shobo, Tokyo, 1938

69. Ministry of Agriculture and Forestry, Japan, Yearbook of Statistics of Agricultural Cooperatives, Annual edition, 1950 to 1959

70. _____, Statistics of Industrial Societies, Annual edition

71. _____, Materials for Statistical Analysis of Agricultural Cooperatives 1957, 1959

72. Mill, J.S., Principles of Political Economy, George Routledge and Sons, London

73. Mitchells, B. and L.P., American Economic History, Houghton Mifflin Co., Boston, 1957

74. Mukai, S., Management of Industrial Societies (in Japanese), Toyo

Shuppansha, Tokyo, 1934

75. Murray, W.G., Agricultural Finance, Principles and Practice of Farm Credit, 3rd ed., Iowa State University Press, Ames, 1953

76. _____, and Nelson, A.G., Agricultural Finance, 4th ed., Iowa State University Press, Ames, 1960

77. Myer, J.N., Financial Statement Analysis, Prentice-Hall, Ehglewood Cliffs, N.J., 1952

78. Nourse, E.G., The Legal Status of Agricultural Cooperation, Brookings Institution, Washington, D.C., 1928

79. _____, Fifty years of Farmers' Elevators in Iowa, Agri. Exp. Sta., Iowa State College of Agricultural and Mechanical Arts, Bulletin No. 211, 1923

80. Nourse, E.G., and Knapp, J. G., The Cooperative Marketing of Livestock, Brookings Institution, Washington, D.C., 1931

81. Norin Chuo Kinko (Central Bank for Agriculture and Forestry), Agricultural and Forestry Finance (in Japanese), Monthly Publication

82. _____, Ten Years of Agricultural Cooperatives (in Japanese), 1957

83. _____, Real Condition of Agricultural and Forestry Finance (in Japanese), Annual Publication

84. Nihon Nogyo Nenkan Kankokai, Year Book of Agriculture (in Japanese)

85. Nogyo Kyodokumiai Chuo Kai, Yearbook of Agricultural Cooperatives (in Japanese)

86. Noson Mondai Kenkyukai, Problems of Agricultural Cooperatives (in Japanese), Gakuchosha, Tokyo, 1949

87. Chuo Koron Sha, Annual Report of Japanese Agriculture (in Japanese), Tokyo

88. Nosei Janaristo no Kai, Trends in Agricultural Policy (in Japanse), Quarterly, Kyodokumiai Kyokai, Tokyo

89. Okutani, M., Critics for Japanese Industrial Societies (in Japanese), Koyo Shoin, Tokyo, 1922

90. Oshima, K., Agriculture of Japan (II) (in Japanese), Rironsha, Tokyo, 1956

91. Phillips, R., King, E.L. and Lindell, O, L., Do you know Your Cooperative? Iowa Institution of Cooperation, Ames, 1957

92. Plunket Foundation for Co-operative Studies, Year Book of Agricultural Co-operation, Annual Publication, Basil Blackwell, Oxford

93. Packel, I., The Law of Cooperatives. 3rd., Matthew Bender and Co., N.Y., 1956

94. Powell, G.H., Cooperation in Agriculture, Macmillan Co., N.Y., 1914

95. Robertson, D.H., The Control of Industry, Nisbet Co., London, 1923

96. Robinson, E.A.G., The Structure of Competitive Industry, Nisbet Co., London, 1958

97. Rasmussen, W.D., ed. Readings in the History of American Agriculture, University of Illinois Press, Urbana, 1960

98. Robotka, F., Membership Problems and Relationships in Iowa Farmers' Elevators, Agri, Exp. Sta., Iowa State College, Bulletin 321, 1934

99. _____, and Bentley, R.C., Cooperation in Grain Marketing in Iowa, Agri. Exp. Sta., Iowa State College, 1940

100. _____, and Phillips, R., Cooperative Philosophy, Reprint from American Cooperation, 1953

101 Smith-Gordon and Staples, Rural Reconstruction in Ireland, P.S. King and Son, London, 1917

102. Sato, K., Management of Industrial Societies, Vol. I and II (in Japanese, Koyo Shoin, Tokyo, 1923

103. Shannon, F.A. American Farmers Movements, D. Van Nostrand, Princeton, 1957

104. Society for Social and Economic Studies, Capital for Medium and Small-scale Industries, Asia Publishing House, N.Y., 1959

105. Sangyokumiai Chuo Kai, History of Japanese Industrial Societies (in Japanese) Tokyo, 1926

106. Tatsuta, S., Industrial Societies of Japan (in Japanese), Sobunkaku, Tokyo, 1926

107. Thomsen, F.L., Agricultural Marketing, McGraw-Hill Book Co., N.Y., 1951

108. Tostlebe, A.S., Capital in Agriculture: Its Formation and Financing since 1870, Princeton University Press, 1957

109. Tobata, S., Cooperatives and Farm Problems (in Japanese), Kaizo Sha, Tokyo, 1947

110. _____, and Uno, K., ed., Japanese Capitalism and Agriculture (in Japanese), Iwanami Shoten, Tokyo, 1959

111. _____, and Okawa, K., ed., Japanese Economy and Agriculture (in Japanese), Vol. Iwanami Shoten, Tokyo, 1956

112. Tobata, S. and Kono, S., Japanese Economy and Agriculture (in Japan-

ese, Vol. 11, Iwanami Shoten, 1956

113. Toura, S., History of Japanese Industrial Societies (in Japanese), Koyo Shoin, Tokyo, 1935

114. Tsuji, M., History of Japanese Industrial Societies (in Japanese), Sangyokumial Chuo Kai, Tokyo, 1937

115. U.S. Dept,of Agri., Yearbook of Agriculture, Marketing, U.S. Government Printing Office, Washington, D.C., 1954

116. _____, FCS Bulletin 1, Farmer Cooperatives in the United States, 1955

117. _____, FCS General Report 31, Statistics of Farmer Cooperatives 1954-55, 1957

118. _____, FCS General Report 48, Statistics of Farmer Cooperatives 1955-56, 1958

119. _____, FCS Bulletin 10, Legal Phases of Farmer Cooperatives, 1958

120. _____, FCS Educational Circular 5, Financing Farmer Cooperatives, 1957

121. _____, FCS General Report 32, Methods of Financing Farmer Cooperatives, 1957

122. _____, FCS General Report 27, Farmers' Equities in their Marketing and Farm Supply Cooperatives, 1954

123. _____, FCS General Report 52, How Cooperatives Use Credit Agencies to Meet Patron's Needs? 1958

124. _____, FCS Reprint 149, some Reasons Why Farmer Co-ops Fail, 1958

125. _____, FCS Reprint 145, How Farmers Fiance Their Cooperatives, 1957

126. _____, FCS General Report 41, Revolving Fund Method of Financing Farmer Cooperatives, 1958

127. _____, FCS General Report 49, Rural Credit Unions in the United States, 1958

128. _____, FCS General Report 35, Credit Control in Selected Retail Farm Supply Co-ops, 1957

129. _____, FCS Circular 24, Controlling Open Account Credit in Feed Cooperatives, 1954

130. _____, FCS Information 8, Farmer Cooperatives and the Community, 1958

131. _____, FCS Circular 18, Organising a Farmer Cooperatives 1956

132. _____, FCS Educational Circular 12, Farmer Cooperatives in our Community, 1956

133. _____, FCS Bulletin Reprint 5, Agricultural Cooperation, pioneer to Modern, 1956

134. _____, FCS Marketing Research Report No. 258, Business Management, 1958

135. _____, FCS Educational Aid 4, Future Farmers and Co-ops, 1957

136. _____, FCS General Report 50, Inventory Management, 1958

137. _____, FCS General Report 44, Integrated and Related Operations, Central Carolina Farmers Exchange, 1958

138. _____, FCS Circular C-135 The California Fruit Growers Exchange System, 1950

139. _____, FCS Circular C-148, Operations of Major Regional Purchasing Cooperatives 1941-51, 1952

140. _____, FCA Circular E-24, Three Principles of Agricultural Cooperation, 1951

141. _____, FCA Circular E-23, The story of Farmers' Cooperatives,

142. _____, FCA Circular E-21, Managing Farmers' Cooperatives

143. _____, FCA Circular No. 16, Using Credit Instruments, 1939

144. _____, FCA Circular 36, The Cooperative Farm Credit System, 1957

145. _____, FCA Bulletin No. 28, Accounting Procedure for Cooperative Grain Elevators, 1938

146. _____, FCA Circular No. C-115 Organization Structure of Farmers' Elevators, 1939

147. _____, FCA Misc. Reprint 157, Financial Problems of Purchasing Cooperatives, 1952

148. _____, FCA Reprint 52, Good Management Key to Cooperative Success

149. U.S. Dept. of Commerce, Bureau of the Census, Statistical Abstract of the United States, Annual edition.

150. Ueda, T., General Principles of Managerial Economics (in Japanese), Toyo Shuppansha, Tokyo, 1937

151. Udell, G.G., compiled, Laws Relating to Agriculture, U.S. Government Printing Office, Washington, D.C., 1958

152. Wolff, H.W., Co-operation in Agriculture, P.S. King and Son, London, 1912

153. _____, People's Bank, P.S. King and Son, London, 1910

154. Warbasse, J.P., Co-operative Democracy, Harper and Brothers, N.Y., 1947

155. Waugh, F.V., ed., Readings of Agricultural Marketing, Iowa State University Press, Ames, 1954

156. Wilcox, W.W. and Cochrane, W.W., Economic of American Agriculture, Prentice-Hall, Englewood Cliffs, N.J., 1951

157. Yokoo, M., The Agricultural Cooperative Law (in Japanese), Zenkoku Nogyo Shuppan K.K., Tokyo, 1954

158. Yamamoto, Y., Okamura, M. and Kamibayashi, T., ed., General Principles of Managerial Economics (in Japanese), Mineruba Shobo, Tokyo, 1959