

profit-getting economic bodies. Cooperatives being inherently non-acquisitive organizations are just as strange to all kinds of partially fused "combines" as they are different from enterprises.

Coordination as a Channel of Economic Integration

Much less attention has been paid in economic literature to the problem of economic integration through coordination of economic activities of enterprises and households than to the problem of their fusion. As is the case with the discussion of fusion, this problem has been mainly interpreted as a matter of economic policies, and almost exclusively from the point of view of monopolistic trends of modern industry life.¹⁰ In a study of cooperative organizations, an analysis of the coordinated activities of economic units ought to be set on an entirely different basis. A student of cooperation is interested in disclosing, above all else, the structural aspect of the coordinated work of enterprises and households, and in examining derived economic formations from the standpoint of their economic anatomy, since such analysis may throw light on all the peculiarities of their functioning. The following outline of the most salient features of the process of coordination and of the products of this process is sketched primarily for such a purpose.

Process of Coordination Versus Fusion

Coordination, as a way of economic integration, is not only radically different from fusion, but from the structural point of view is diametrically opposite to it. For:

¹⁰Some interpretations of the problem of coordination of economic activities of enterprises are found mainly, if not exclusively, in the literature relating to cartels.

- a) Every fusion – complete or partial – leads inherently toward the formation of derived economic units through assimilation of all the ingredients involved in a process, while every coordination is intended only to achieve necessary adjustments of functioning of the participants without any encroachments upon their individuality or their independence. Fusion creates new economic units, while coordination aims only to harmonize the economic activities of existing economic individuals.
- b) Hand in hand with the growth of a derived economic body in the process of fusion, the identity of the participants in this process correspondingly declines (partial fusion), or quite disappears (complete fusion). Exactly the opposite tendency is traceable in the process of coordination, which always assumes a continuity of independent economic life of its participants and is intended to strengthen their economic vitality and stability.
- c) While fusion is inherently directed toward production of an economic unit which absorbs all the separate elements of this process, the outcome of coordination is always a plurality of coordinated individuals.
- d) The product of economic fusion thus is an economic unit with an economic entity of its own, while the outcome of the coordinative process is an aggregate of coordinated economic bodies, a plurality of economic entities of its ingredients, but without any independent entity of its own.

Groups of Economic Aggregates¹¹

Aggregates of coordinated economic bodies are diverse: they are imbedded in all the strata of existing economic order and, taken as a whole, play an outstanding part in socio-economic life. Within the scope of this study, however, a general survey of economic aggregates is necessary only as a means of detecting those groups of aggregates which compose the cooperative associations and thus segregating them distinctly, not only from fused economic formations, but also from their kindred economic organizations elaborated in the processes of coordination. Out of many potential criteria of classification of aggregates, we shall choose here, in the interests of consistency, their structural nature as the ground for their grouping. From the structural point of view, the aggregates may be distinguished as follows:

1. Aggregates of economic fractions;
2. Aggregates of economic units - acquisitive (enterprises) or spending (households).

Aggregates of Economic Fractions

In contrast to fusion as a channel of integration, designed preeminently for economic fractions (though it is extensively used for consolidation of economic units), coordination is specifically adapted for

¹¹In this section of the study (pp. 97-111) our analysis is confined to delineation of the general conception of the aggregates of economic fractions and of economic units without any reference to cooperative organizations and to characterization of certain basic economic features inherent in every aggregate of economic bodies. Such basic economic characteristics of aggregated formations in this preliminary and introductory outline are stated as the corollaries of aggregate structure of these bodies. Exceptional difficulties of treatment of the cooperative problem compelled us to adopt this method of presentation. In the later part of this study (pp. 109ff.) the concept of aggregate of economic units as it is here outlined is employed in examination of cooperative organizations.

integration of economic units in the sense that an aggregate (a product of coordination) is the sum of economic individualities, while fusion is a process of depersonalization of its ingredients. However, just as some groups of economic units are fusible and produce derived economic units of outstanding practical importance, so certain economic fractions may be coordinated into true economic aggregates, including those of singular socio-economic significance. The economic fractions that are susceptible of coordination into aggregates are exclusively human fractions (renters, creditors, wage earners, salaried groups, entrepreneurial fractions, etc.). There is no irreconcilable contradiction in the assumption of the possibility of aggregates of economic fractions, after duly weighing the emphasis previously laid on the notion that the fractions of economic units have no economic individuality of their own. Since, for example, the human fractions (creditors, renters, etc.) of any enterprise are the individual recipients of income and as such they can coordinate their efforts through their respective aggregates. The aggregates of economic fractions represent a wide range of varieties due to differences in their membership or to a diversity of economic purposes pursued. With all such diversity, however, all the aggregates of economic fractions have invariably in common:

- a) the aggregate structure of their organizations, and
- b) strictly and characteristically fractional economic aims.¹²

Representative Cases of the Aggregates of Economic Fractions

For the purposes of this study, we are directly concerned with the aggregates of human fractions of economic units. Two groups of human

¹²Fractional economic aims are thought here to mean the economic aims specific for and appropriate to certain economic fractions: (a) questions of wages, of hours of work, and other conditions of employment represent the fractional economic aim of wage earners; (b) profit seeking is a fractional economic aim of the group of entrepreneurial fractions, etc.

fractions¹³ of economic units, as the term is here used, should be distinguished: (a) entrepreneurial fractions, and (b) the fraction-recipients of stipulated income. It is expedient therefore to examine the aggregates of these two groups of economic fractions separately.

A. *Aggregates of Entrepreneurial Fractions*

It should be clearly understood that in terms adopted in this study an entrepreneur is the fraction of economic unit and not the economic unit. An entrepreneur is a part of enterprise he is associated with: the farmer without his farm or retailer without his store are not farmer and retailer; for the moment or for a period of their dissociation with their enterprises they cease to function economically and as the entrepreneurs they simply disappear. On the other side the entrepreneur associated with his enterprise represents the commanding and unique component part of enterprise; he is an independent acquirer and a recipient of entrepreneurial residua in his own economic unit.

Entrepreneurs can coordinate their economic activities and organize the aggregates of entrepreneurs distinct from the aggregates of their enterprises. Such coordination is possible mainly along the lines of general conditions of entrepreneurial work without direct participation of their enterprises in any activities of such aggregates. Agricultural associations in all countries, American Farmers' Clubs and Granges, French and Belgian agricultural syndicates are fairly typical cases of entrepreneurial aggregates in agriculture. All such organizations are the organizations of farmers not of farms; it is not rare that within such organizations the group of members can initiate the regular business activities¹⁴ with direct participation of their farms and thus to start the aggregates of their economic units.

¹³See table, p. 74.

¹⁴See pp. 112-127, below.

The entrepreneurial organizations among businessmen are still more important if not more numerous than in agriculture. Probably the most prominent among them are Chambers of Commerce and similar associations (Boards of Trade, Commercial Associations, Merchants' Associations, Better Business Bureaus, Businessmen's Clubs, etc.). About 2,500 chambers of Commerce are active currently in the United States and their central organization - U.S. Chamber of Commerce - represents an efficient and influential spokesman for the industry and commerce of the entire country. The primary function of Chambers is to crystallize the opinion of businessmen on current important economic problems and to make the voice of businessmen articulate.

While Chambers normally represent the entrepreneurial interests generally, Trade Associations are specialized by certain lines of economic activities. Many such associations represent similar entrepreneurial aggregates pursuing in their special fields the purposes common to the entrepreneurial group of the industry involved. The other trade associations are closer to a type of cartels and are more the aggregates of enterprises than of entrepreneurs (the employers' associations for instance).

All such entrepreneurial associations are set up as the aggregates of associated entrepreneurs: each member of these associations retains his economic individuality and economic identity and the association never attempts to interfere in the sphere of entrepreneurial activities within business units of its members; no subordination of membership to association is compatible with the character of entrepreneurial organizations; they only represent their associated entrepreneurs and never pretend to be anything more than the voice of the entrepreneurs participating in organization; hence the importance of referenda in the current work of such associations. They all maintain strictly democratic control and usually adopt the rule "one man - one vote."

Aggregates of Householders

Similar to entrepreneurial aggregates there are aggregates of householders (not of households) or of the members of households. All

kinds of clubs, for instance, where only the registered members are personally entitled to use the economic services of the organization represent a surprisingly wide range of aggregates of householders or of members of households. Automobile clubs, yacht clubs, golf clubs, chess players' clubs, etc., illustrate the diversity and character of this type of aggregates provided that they embrace individual members of households and not the households in their entirety, as cooperative apartment house associations for instance.

B. Aggregates of Other Participants of Economic Units

An economic feature common to all participants of economic units other than entrepreneurs is that in their acquisitive functioning they all are dependent acquirers, the parts or fractions of the acquisitive economic units which are not their own. As acquirers such participants necessarily bear the sign of the economic units they belong to – they acquire as the fractions of these economic units. Such dependent participants in economic units which are not their own are the recipients of contractual income (salary, wages, interest, rent).

For various economic purposes such participants in economic units of others do coordinate their efforts and organize their aggregates, some of which are of outstanding importance in existing conditions.

The principal types of such aggregates are:

- a) *Associations of renters* are well represented by various leagues and associations of houseowners and of landlords when and inasmuch as they are organized for protection of their common interests as the recipients of rent. Such aggregates of renters are numerous and strongly organized in many countries.
- b) *Aggregates of interest recipients* are embodied in the groups of bondholders, for instance, in cases of bankruptcies of debtor business units, if these bondholders are organized for active defense of their economic interests.

- c) *Aggregates of professional employees* generally are very diverse and often have indefinite contours. Their economic character is more difficult to be clearly detected for that reason. Their indefiniteness is due mostly to the fact that organizations of this group seldom confine their activities to strictly acquisitive work. All professional associations, leagues, societies, etc., work directly and indirectly in the common interests of their members with the purposes to improve general conditions of professional work and the economic status of their members. Insofar as they work along these lines and coordinate their efforts for their common interests they represent the aggregates of economic fractions (recipients of stipulated income).
- d) The last but not least type of aggregate of economic fractions is well represented by the aggregates of wage earning participants in enterprises of others – the trade unions. The trade unions are not only the most important group of aggregates of recipients of contractual incomes, they are probably also the most explicit ones and are better known than all other fractional aggregates taken together. They are composed of the wage earners exclusively; the economic problems they are dealing with are specifically the problems of wage earning classes; their methods of activity are strictly specific for wage-earning employees (collective bargaining, strikes, picketing, etc.). This reference to the trade unions is made here not only with the purposes of defining their structural kinship with and difference from cooperative organizations, but also with the aim to throw some light on the most complicated and most confused chapter of cooperative doctrine, namely, the chapter on so-called "productive" associations. These remarks on the fractional aggregates of wage-earning groups will be later used in the analysis of the "productive" cooperatives.¹⁵

¹⁵See the chapter on "Productive Associations," pp 230-244.

These groups of entrepreneurial aggregates and of aggregates of other participants (recipients of stipulated income) in economic units illustrate sufficiently the general economic character of the products of fractional coordination, their diversity, and relative significance in existing society.

All these groups have in common the following general characteristics:

1. All such groups represent the aggregates or federations¹⁶ of entrepreneurs (or householders) or of other participants (recipients of contractual income) in economic units without direct participation of their respective economic units in economic activities of the groups; in terms adopted in this study they are, therefore, the aggregates of economic fractions, not of economic units;
2. All such organizations are not independent acquisitive or spending (for consumption) economic units; not being such economic units they by themselves do not acquire nor spend; all economic activities of these organizations are actually the economic activities of associated members who coordinate their individual actions through their aggregates;
3. The groups under survey are so designed as not to interfere with the freedom of individual choice of their members - their declared purpose is to serve their membership and not to dictate anything to them;

¹⁶The term "federation" is almost identical in its meaning with the term "aggregate" used in this study and has an important advantage being a generally accepted and widely used term in economic literature. The term "aggregate" is adopted here because the term "federation" customarily relates to secondary organizations: a federation is an association of associations; since the cooperative and their kindred organizations are associations of primary economic bodies it appears that the special term is necessary for their description.

4. Being the aggregates designed only for coordination of individual functions they all adhere to the principle of "democratic control" and in their practice usually adopt the rule - one man - one vote;
5. All such characteristics of the economic organizations under discussion reveal their aggregate structure; the associated members of these federations cannot successfully coordinate their individual activities on any other ground.

Aggregates of Economic Units

The preceding discussion of fusion as a process of economic integration and of fractional coordination had the following purposes:

- a) to eliminate fusion as a potential channel of economic integration where the cooperative organization could be originated, and
- b) to distinguish aggregates of economic fractions (aggregates of entrepreneurs and of recipients of contractual incomes) and thus clear the way for an outline of the processes of coordination of economic units (enterprises and households) as processes leading toward the formation of aggregates of enterprises and of households which we identify with cooperative associations.

The conception of an aggregate of economic units is a strangely difficult concept. It cannot be comprehended precisely unless it is clearly understood, that an aggregate of economic units is not the independent economic unit but the group of functioning economic units - acquisitive (enterprises) or spending (households) and, therefore, all the functions of the aggregate are ultimately the functions of the aggregated economic units and not of the aggregate itself.

The following specific characteristics of the process of coordination of economic bodies as distinct from the process of their fusion should be thoroughly considered:

1. In the process of the coordination of their economic activities only very insignificant, often purely technical and sometimes hardly traceable changes are necessary for the enterprises or the households involved, while complicated and difficult adjustments are unavoidable in their fusion.
2. The socio-economic character of enterprises and of households remains almost untouched when they combine their efforts in aggregates, while a radical transformation is inescapable in their fusion.
3. The enterprises and households not only fully preserve but considerably strengthen their economic independence and economic individuality if they coordinate their actions in the aggregates; this individuality and independence are completely lost in case of their fusion;
4. The sameness of economic aims and similarity of economic functioning of the enterprises and households are sufficient for their successful coordination into aggregates, whereas in fusions economic units pass through a long, complicated and difficult process of transformations and adjustments within a derived economic body.
5. The liquidation of a derived formation - an aggregate of enterprises or households, leaves the vital, though somewhat weakened economic units capable of staying on their own feet, while after a destruction of a fused, derived body, only the fragments of the economic unit remain.
6. Centripetal forces are intrinsic in every fused economic formation since they are inherent in every enterprise or household; in aggregates of enterprises or households, the opposite, centrifugal forces are always at work. Economic units, be they enterprises or households, are designed for individual and independent life. In conditions of competitive economy they strive toward maintenance of their individuality and independence. If they huddle together

into aggregates, they do it only under extreme objective necessity. This innate feature of their aggregate structure is singularly significant. It throws light on many strange peculiarities of the aggregates of economic units. As will be shown later, it discloses many mysteries of the cooperative movement and explains some important phases of its origin, its historical growth, its present achievements and failures. Furthermore, it can help to forecast its future possibilities, at least, for a predictable future.

It therefore follows that:

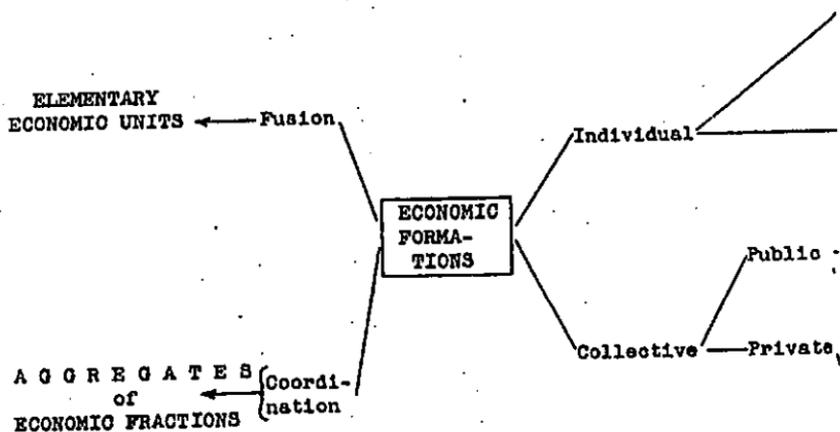
- a) The process of organization of aggregate is for this reason very delicate and difficult. The entrepreneurs and the households involved in aggregation must have common tasks and common interests strong enough to overcome their innate inclination toward individual and independent action.
- b) Being supersensitive to potential encroachments upon their freedom and individuality, enterprises and households may only be, as a rule, successfully organized into an aggregate if the potential frictions within the aggregate are (for practical purposes) completely eliminated and the maximum of independent individual activities is guaranteed. Even remote possibilities of friction very often prevent organization of needed aggregates of economic units, and the slightest maladjustments within the organized aggregates disrupt them.
- c) Because of this inherently explosive nature of the aggregate of economic units, the chief secret of success of organizers of aggregates lies in the thoughtful planning of the aggregates and in a sagacious execution of these plans. Usually, therefore, very definite purposes of organization and very simple lines of coordinated activities for aggregates are stated in advance. Attenuated plans or complicated lines of intended activities through the proposed aggregates usually hinder the process of their formation and undermine their stability.

- d) The economic stability of aggregates of economic units is inherently low. Every aggregate of economic units is saturated with disruptive forces and is kept together only by the pressure of external necessity. This is particularly true of aggregates of enterprises.
- e) As to the size of aggregates, there is a certain minimum of membership of every kind of aggregate of economic units which is necessary for its vitality, and a reasonable maximum to prevent the dangers of hardships and frictions, which grow progressively with the increase in size of aggregates.
- f) Enterprises and households may be easier coordinated into an aggregate and may be easier kept together in the aggregate if they are economically homogeneous, mostly because of their disruptive nature. Only in rare cases an aggregate of economic units may be based on economically heterogeneous membership. As a rule an aggregate is a plurality of similar units: homogeneity of aggregated members eliminates frictions and maladjustments, so typical of all aggregated formations.

Prof. H. E. Erdman emphasizes the importance of homogeneity of membership in cooperative aggregates as follows:

Another fundamental factor underlying successful cooperation is a homogeneous membership. This does not mean that a variety of racial or religious groups may not at times unite in the same organization. Many nationalities and many religious beliefs are combined in some of our very successful organizations. Likewise there are men from every economic status in some of these large organizations. Even men of characteristically different races or of radically different religious beliefs often work well together, but real cooperation involves so much of "give and take," so

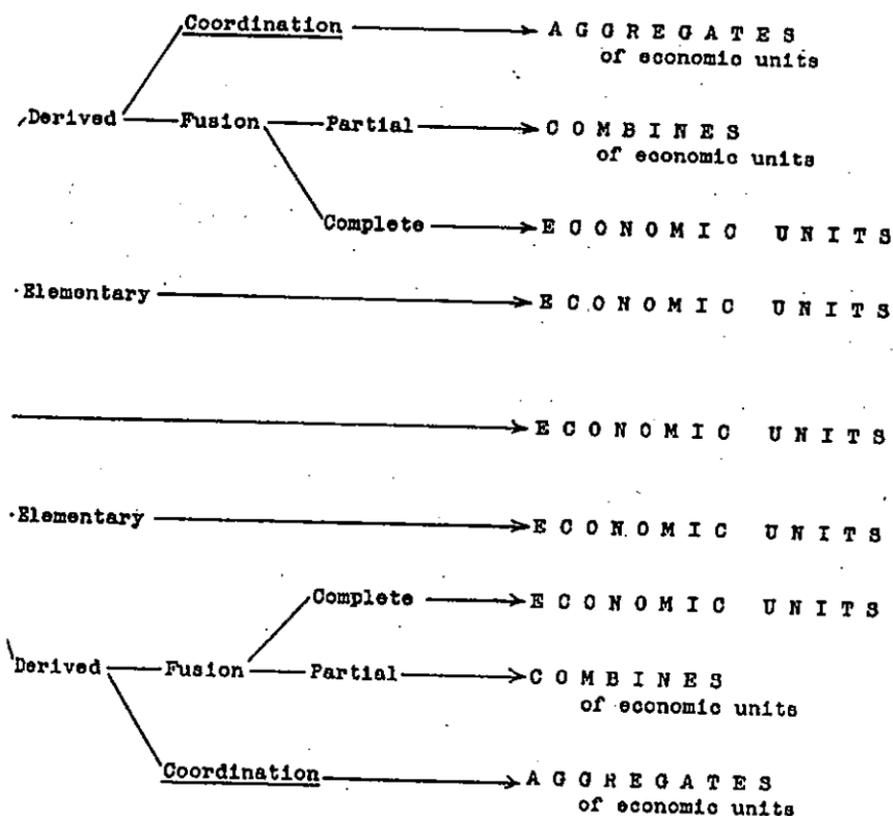
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much of trusting the other fellow, and there is such frequent need of abiding by the decision of the majority when that decision runs counter to one's own, that any added strain may break the bond that holds the group together.¹⁷

We conclude the discussion of economic integration with the scheme (pp. 110-111) of the channels of integration and its products, elementary and derived, which were just surveyed.

Cooperative Organization as an Aggregate of Economic Units

The scheme of the principal types of economic organizations just outlined is thought to cover the whole structural range of existing economic formations. Since, as it has been mentioned in earlier chapters, cooperatives do not belong to a group of elementary economic bodies (enterprises or households) and cannot be identified with the products of economic fusion (complete or partial), they are either aggregates of enterprises or households originated in the processes of coordination, or are entirely strange bodies in the framework of the existing exchange economic system. Almost all representatives of the traditional philosophy of cooperation are inclined to place them in the latter class.

Thus two questions arise at this point of the inquiry:

1. Do cooperative organizations belong to the class of economic aggregates?
2. If they do belong to the class of aggregates, are they aggregates of enterprises or households (of economic units)?

¹⁷H. E. Erdman, "Some Economic Fundamentals of Cooperation," *American Cooperation*, 1925. Vol. I, p. 71. Washington, 1925.

For the purposes of this study we should examine the whole diversity of cooperative organizations in all lines of their activities and on all stages of their complexity as well as to maintain throughout this analysis their strictly economic (price) aspect with all sociological, technical, legal and socio-reformistic shades and implications carefully eliminated.

In the later parts of this survey (pp. 113ff.) all the basic patterns (elementary non-incorporated associations, incorporated cooperatives of non-stock, non-profit type and of Rochdale pattern) are examined.

It is methodologically expedient to start this examination with the simplest cooperative organizations, free for that reason, as nearly as possible, from non-economic elements. These simple cooperative organizations are, as a rule, non-incorporated (therefore free from all legal superstructures), without any permanent or extensive establishments (therefore free from beclouding technical shades), and composed of a membership drawn from the middle classes (therefore sociologically more or less neutral); such cooperatives approximate most closely in their structure the pure economic contours of the cooperative organization. Fortunately we can find such cases of the embryonic stages of development of cooperative bodies. They are remarkable, on the one hand, for their extreme simplicity and on the other for their clear typification. These cases represent the bare rudiments of cooperative bodies with all essential economic features explicit, and with all non-economic shades almost completely eliminated. Such embryonic phases of development of the cooperatives are numerous and might easily be found in various lines of economic activities in all countries. In this study, however, they are drawn from the actual cooperative processes in this country, and from the two main lines of work, namely, from purchasing and marketing groups. The cases taken are significant in more than one sense. Besides exhibiting an elementary economic structure, they help also to draw the sharp line of cleavage separating the aggregates of economic units from the aggregates of economic fractions.

Elementary Purchasing Cooperative Associations

Farmers' Clubs are numerous in this country. They are primarily social rather than economic organizations. Inasmuch as they are involved in economic activities, they represent aggregates of economic fractions, being preeminently aggregates of farmers (entrepreneurs) and not of farms (enterprises). As stated earlier, they are economically identical with agricultural associations, agricultural syndicates (France, Belgium), etc. A good many of these Farmers' Clubs, along with their social and other activities, also carry on cooperative purchasing transactions. In such cases we find, therefore, a cooperative body in its *statu nascendi* within an aggregate of economic fractions (Farmers' Club). Being an embryonic phase of the development of cooperative organization, such purchasing cooperative transactions within the Clubs call for a careful examination. They are of singular interest to students of cooperation because they show palpably an aggregate economic structure of cooperative organization and unveil the whole economic "mystery" of cooperation. The purchasing cooperative groups naturally vary in their organization and in their structural details, but their general type is characterized as follows:¹⁸

- a) If among the members of a Club a sufficient group of farmers interested in collective purchases of some goods is found, such a group is organized without any formalities into a collective buyer, and an order for the goods involved is made in the name of the Secretary of the Club or some other elected or self-appointed "manager" attending to the purpose.
- b) Sometimes a Special Committee, consisting of two or three members of the group is appointed for such individual transaction.

¹⁸Most of the characteristics of the Farmers' Clubs here cited are taken from the actual practices of the Farmers' Clubs of Minnesota as they are described by Prof. E. Dana Durand and H. B. Price in the Bulletin - "Cooperative Buying by Farmers' Clubs in Minnesota." Minnesota Agricultural Experiment Station, Bulletin 167, Minn., 1917.

- c) Neither the group nor the Club itself has a rating as a business unit and the credit of the group is no better than the credit of farmer-participants of the group.
- d) In rare instances compensation is made for conducting purchases, e.g., if it is impossible to find anyone in the Club who is willing to conduct purchasing without compensation. Compensation is paid by members proportionally to the volume of business done by each member of the group. From three to five percent of the value of goods bought through the group is the most common rate of compensation.
- e) The element of labor and clerical costs connected with purchases are held by most of the Clubs to be insignificant.
- f) The goods bought are usually taken directly from the car on the railroad siding to the farm by patrons. In cases where the volume of business is large enough to warrant it, warehouses or other facilities are provided.
- g) The members of the group as a rule make advance payments (usually 50% of the order) and pay the balance when they take the goods from the car or warehouse.
- h) When the transactions and all the reckonings are finished the group as a purchasing body disappears from the scene.

A Careful Examination of a Basic Case

Every detail and shade of this outline of the elementary cooperative purchasing group will now be examined with the utmost care, for here before our eyes we find an elementary cooperative association in perfect economic nakedness. Due to its refinedly economic appearance, this case represents a unique object for economic analysis. It is for this reason considered to be a basic case in the course of this discussion. Its methodological value is based on the fact

that in this case, taken from the actual experience of the Northwestern farmers, we have a completely isolated economic skeleton of the cooperative body; it is of such importance for the economic analysis of cooperative organizations that we should be obliged to take an identical hypothetical scheme of cooperative organization, if it were not already actually in existence.

An Examination of Cooperative Groups Within Farmers' Clubs

Examining the cooperative purchasing groups, we find:

- a) *A group is an aggregate of economic bodies.* That a purchasing group within the Farmers' Clubs is not a primary economic body but an aggregate of such economic bodies is perfectly obvious: purchases made through the group are but individual purchases of the farms participating in transaction. Even the superficial observer cannot fail to notice it; he can see that the economic functions of the group are in reality only the sum of individual functions of participants. The case gains very much in its instructiveness from the fact that in the economic aggregates under discussion we find synchronized activities of the members of a purchasing group. Usually work in cooperatives is not necessarily synchronized, and this fact alone conceals from the eyes of the observer the aggregate nature of a cooperative association

- b) *A group is based on the principle of coordination of functions: Subordination is inconsistent with its economic set-up.* Further it is clear from the outline of the purchasing groups that they can be based only on the voluntary coordination of their actions; subordination – an intrinsic feature of every economic unit, elementary or derived – is evidently incompatible with such a type of grouping. if there is the slightest pressure on the free choice of participants, they will simply refuse to join in the collective purchase and the group itself will not be organized.

- c) *The economic individuality of every participant of the group is fully preserved.* It is a cardinal characteristic of an aggregate of economic bodies that there is no encroachment upon the individuality of its participants; such encroachments are unavoidable in every economic unit, whether elementary or derived. A participant in the purchasing groups under examination cannot suffer the least detriment to his economic independence because of his participation in the acting group. In an aggregate of collective purchases no one is interested in such encroachments, and if the encroachments were intended, there is no ground on which they could be enforced. It is a feature of great significance that every member of a cooperative purchasing group is acting economically (in reckonings on his transactions) as though this particular participant was acting individually. A physical pool of commodities involved in a transaction, either in carloads or in storage, is not accompanied by any economic merger of the members of the group.
- d) *A group of collective purchases is not an economic unit but a plurality of economic units.* In the group of collective purchases under examination the actual purchasers are the participants of the group, not the group itself: the group is not the buyer, but a plurality of buyers; this essential fact is not beclouded in these elementary groups by any technical or legal veils and may be directly observed; only the keen and trained observer-student can discern this fundamental truth of cooperative organization in the fully developed and incorporated cooperative associations.
- e) *Purchasing groups represent aggregates of economic units, not of fractions of economic units.* The difference between an aggregate of economic units (a purchasing group - a group of purchasing farms) and an aggregate of the fractions of economic units (a Club - a group of farmers) may be clearly and easily traced by direct comparison of the organizations under discussion. The Farmers' Clubs - the aggregates of the fractions of economic units - are associations of farmers in their capacity either as entrepreneurs (educational work of the Clubs) or as house-

holders (social gatherings for example); their farms as the economic units do not directly participate in the activities of the Clubs, though they might be indirectly benefitted or impaired by these activities.

The purchasing groups – the aggregates of economic units – on the contrary are primarily organizations of farms. Here farmers act only as the represents of their economic units, again either as of enterprises (e.g. collective buying of fertilizers, of seeds, of feeds, etc.) or as of households (e.g., collective purchases of sugar for home use, etc.).

- f) *Decentralization of economic responsibility in the purchasing groups.* An aggregate of economic units cannot by itself assume any economic responsibility for the business transactions performed through the aggregate by its participants: such responsibility is assumed directly and completely by the members composing the aggregate. This difficult concept of decentralized economic responsibility clearly reveals itself in the cooperative groups under discussion. Illustrations: 1. In the groups of purchasers of fertilizers, of seeds, etc., through the purchasing groups in the Farmers' Clubs the participants themselves assume obviously full and unrestricted entrepreneurial responsibility for the success of these transactions; 2. In the aggregates of households (such as the group purchasing collectively sugar for home consumption) again every member of the transaction is fully responsible as the represent of his household for the success or failure of the transaction. In all cases of cooperative purchases through such groups within the Farmers' Clubs, a group itself cannot bear any economic responsibility for what is done through it; the group is only a collective noun for the associated purchasers.
- g) *An aggregate of economic units is organization of its patrons.* One of the most penetrating tests of true cooperative organizations appears to be that the cooperative is an organization of its patrons. Such a descriptive characteristic of cooperative associations is

usually recommended as an empirical truth; but its causal relationship to the economic structure of cooperative organization has never been stated and a search for the underlying factors of its cooperative principle has never been attempted. Cooperators are told that every member of their association has to be its patron. It was never disclosed, however, why the cooperators, if they desire to maintain their association truly cooperative, ought to be its patrons.

Examination of a cooperative purchasing group in the Farmers' Clubs throws very clear light on this fundamental economic feature of a cooperative association: the necessity of active participation (of patronage) of every member of the cooperative association is only a corollary of the aggregate structure of the cooperative: an aggregate of economic units is nothing but its active participants and the economic activities of the aggregate are the economic activities of its participants; the purchasing group itself does not purchase anything, the farmers participating in the group are the actual purchasers. On the other side a farmer who does not purchase is not a member of any farmer group of collective purchasers. Not only is action imperative for every member of an aggregate: this action should be coordinated with the actions of other participants in the aggregate, i.e., it should be identical with or closely similar to them. Such similarity of identity of functioning is the essential feature of an aggregate, which means a coordination of action. All the aggregated enterprises for any purpose (in case of a group of collective purchases, such purpose is the buying of a certain commodity) necessarily act along the chosen line of work and all the aggregated households participate in the common endeavor. This actual participation is the only road for their aggregation. Every cooperative (aggregate) organization, therefore, is necessarily an organization of, for and by its active participants (patrons).

- h) *Structural rudiments of a fully developed cooperative organization in the groups of collective purchases.* The principal structural and

organizational characteristics of a cooperative organization are discerned unmistakably in the groups of collective purchases under examination. Because of the embryonic character of these groups, however, they are but dimly outlined. Nevertheless, in the theoretical analysis of the cooperative problem these foggy contours of the morphological and functional features of a fully developed cooperative organization can be traced in the groups of collective purchases and merit record:

1. The manager of the transaction is obviously a forerunner of the regular organs of management in the cooperative.
2. A special Committee of two or three members¹⁹ appointed for a transaction in the groups represents a rough delineation of the Board of Directors of a full-grown association.
3. The labor and clerical costs do not play any tangible role in the groups, but with the growth of business in size and complexity in a lasting cooperative organization, they are destined to increase correspondingly and contribute a measurable share of the costs of regular cooperative body.
4. The principle of proportionality as the only sound ground of mutual economic relationship among the members within an economic aggregate not only might be directly observed in these groups for collective purchases (due to their embryonic nature) but finds here its explanation. Since the collective purchases through an aggregate are, in fact, only the sum of individual transactions, every participant has obviously made his reckonings individually, as if he were buying his share of the commodity alone: his payments and his receipts, therefore, will be strictly proportional to the size of his order. When the individual orders of the participants of a purchasing aggregate are pooled, they may be pooled only on

¹⁹See p. 113.

the ground of scrupulously observing proportionality in its reckonings. For the slightest departure from this rule in a group of collective purchases unavoidably creates parasitic maladjustments within the group. The enterprises as well as households are so sensitive to maladjustments of this sort that they can only support the groups of purchases where such proportionality is clearly assured in advance. If this rule is ignored or violated in the aggregate already existing, it undermines and breaks up the group. Thus the roots of the equitable principle of cooperation emphasized commonly by its students and interpreters can be indisputably disclosed in the groups of collective purchases as a functional attribute of an aggregate of economic units. Proportionality is indeed the archstone of successful and stable cooperative organizations and an expression of their aggregate structure.

5. That - to be truly cooperative - associations shall offer their economic services at cost²⁰ seems to be universally recognized dogma among the interpreters of cooperative problems. Dr. G. H. Powell and Richard Pattee point out this principle as one of the fundamental tests of cooperation.²¹

The principle of services at cost in the cooperatives is only the other way of saying that a cooperative organization is a non-acquisitive organization.

The groups of collective purchases within the Farmers' Clubs already described disclose the enigma of the non-acquisitive nature of the cooperative itself: the participants of the group transact the purchasing, the group itself does not buy anything. In the fully developed cooperatives it is strangely difficult to overcome an illusion of a group as a separate and

²⁰See p. 21 of this study.

²¹Ibid.

independent economic entity, but in the farmers' organizations for collective purchases under examination it is perfectly obvious that there is no legally recognized organization, there are only the participants of the transaction, aggregated for a definite and single purpose. They buy the commodities themselves and pay necessary costs of the transaction. Beyond these costs to themselves, they have no party to be remunerated for these transactions. The principle of services at cost in the cooperative associations is nothing other than the manifestation of their aggregate structure: as long as the cooperative remains an aggregate of enterprises of households it cannot act otherwise.

6. Finally, one more economic feature of an aggregate of economic units is explicitly expressed in the groups of cooperative purchases. This feature is of extraordinary importance in a theoretical analysis of the cooperative problem, and relates to the economic embryo of the capital stock of cooperatives. An examination of the economic nature of the capital stock of cooperative associations made in the second part of this study²² led us to the conclusion that this capital is not entrepreneurial capital. Entrepreneurial capital - the cornerstone of every enterprise - is not consistent with an aggregate of enterprises. Unfortunately, the capital stock of cooperatives has never been really studied by interpreters of cooperation. Groups of cooperative purchases offer a unique opportunity to analyze the genesis of the capital stock of cooperative associations and to trace its very origin. As Prof. E. Dana Durand and H. B. Price have found in the practices of Minnesota farmers, the members of the group of collective purchases usually make some deposits (usually about fifty percent of individual order from every participant of the collective transaction) and the group collects the necessary capital for initial payment when the order is

²²see pp. 61ff.

completed. Such capital is therefore advanced by the member participants of the transaction. Quite naturally these advances are made by the members proportionally to their respective shares in the transaction. The practice varies, however, and sometimes bank credit is used for financing transactions or some of the well-to-do members of a group advance the credit for the purpose. Such a credit, if used regularly or for a considerable period of time, calls for a payment of interest. E. Dana Durand and H. B. Price describe these practices of the Minnesota Farmers' Clubs as follows:

When goods are bought out of town, the manager of the order usually collects from the patrons, when they take the goods from the car or warehouse. The goods are usually shipped C.O.D., and since it is necessary to deposit the money before obtaining them, someone must advance it. This is often done by the manager or a few of the largest patrons. In case they do not have the ready cash, they may have the bill sent to the bank, which makes settlement and then collects from the farmers individually or from the manager of the transaction. In such cases no charge is ordinarily made for the use of money; it is used only for a few days, and the country banks like to oblige their patrons.²³

Every detail in these practices of the groups of collective purchases deserves to be most seriously considered, since obviously here is the true cradle of the capital stock of

²³*Cooperative Buying by Farmers' Clubs in Minnesota.* Minn. Agr. Experiment Station, Bulletin #167. Stock. Paul, Minn. 1917, p. 40.

cooperatives. At least three variants of practices of the mobilization of capital by the groups are discernible:

- a) the capital is advanced by the participants of the transaction themselves proportional to their individual orders; or
- b) the capital is advanced by some members of the group without strict proportionality to their shares in the transaction; or
- c) the capital is borrowed from outsiders.

In the first (a) case we have an instance of advances paid by every participant of the transaction; in the second (b) case every share of money contributed by a participant is partly his own advance payment for his order and partly a loan to other members of the group who did not advance their share of money required; and in the third (c) case, there is a distinct, clear credit transaction of the members of the group. The first case, therefore, not being a credit act does not call for any payment of interest for money deposited by the patrons themselves. The second case being partially an act of credit will (if such practices become regular) necessitate interest payments as a remuneration on money loaned. The third case, being a purely credit operation, makes an interest payment inescapable. It should be here stated with emphasis that the first method (case a) of deposits, proportional to the individual orders, is the most logical and natural in the collective transactions under discussion. However, actually, even in these transactions, credit operations are found to be necessary. If the group making collective purchases becomes a lasting organization, if this group performs a series of transactions, and if the parties to these transactions desynchronize their dealings with the group, in other words, if the group of collective purchases is transformed into a permanent purchasing cooperative association, an exact calculation of necessary deposits, proportional to individual orders becomes impossible. In such conditions a need for advances from participants of collective purchases remains, but the advances might be actually

paid only approximately in proportion to the actual transactions of every member. That is, in the permanent organizations of collective purchases (in cooperative associations) the second method of mobilization of advances (b) appears to be most fitting, though pure credit (c) might also be obviously used for the purpose. In the later chapters of this survey, an examination of the methods of mobilization of capital by the regular cooperative associations will be made: this examination will show that the cooperatives adopt all three methods traceable in their earliest stages in the groups of collective purchasers in the Farmers' Clubs.

Exceptional Case of Cooperative Purchases

One actual case of collective purchasing is described by Durand and Price of the practices of the Minnesota farmers. This case represents a still earlier phase of the development of the cooperative body, and is striking because of its extreme primitiveness and because of the fact that it reveals the economic structure of cooperative organizations still more conspicuously. We quote the description of this case as it has been presented by the authors:

Cooperative Purchasing at C.

C. is situated in a fertile, well-developed, mixed farming section of the State.... There is no formal Club or Society. When the supply of feed or flour becomes low in the community, several farmers get together and buy a large quantity, usually a carload of feed and a half ton or more of flour from the local mill....

The usual method of procedure in making these purchases is for some farmer who wishes to buy feed or flour to start a subscription paper among the neighbors. When he has orders for a considerable quantity, he takes the list to the local flour mill, which fills the order either with its own

product or with goods purchases from the other market. The farmers then procure their goods from the mill, or from the car if they have been shipped in, each farmer paying the miller as the goods are taken.... It is understood that all such buying is for cash. The miller says that a farmer occasionally does not have ready money when his goods arrive, and in such cases a few days' credit is given.... The miller notifies the farmers when the goods arrive and they get them promptly.... The miller has been selling to groups of farmers in this way for about five years, and the volume of business has steadily increased.

The history of cooperative buying by more formal farmers' organizations in this community is reported to be unfavorable. The practice is said to have been the ruination of two prosperous Farmers' Clubs, which were involved in unsuccessful undertakings. The members of one Club became dissatisfied over the handling of a lot of seed corn; in the other Club an unsuccessful potato warehouse caused its dissolution and death. The farmers around C. have a strong cooperative spirit, but seem to succeed best without any formal organization.²⁴

This actual case recorded in the descriptive publication of Durand and Price gives clear illustration of the aggregate structure of cooperative organization outlined in this study. In this extremely simplified aggregate of purchasers there is no sponsoring Farmers' Club. There are only the dotted, hardly discernible contours of a group itself. The advances paid by purchasers separately and independently and the capital of the group (embryo of capital stock) of regular cooperative associations may be perceived as plurality of individual advances not yet amalgamated into the mirage of capital of the group. It is amazing that even a manager is still almost indiscernible in this case, since the

²⁴E. Dana Durand and H. Price, pp. 8-9.

millers often sell byproducts from his own mill to the farmers. The case clearly testifies that the centrifugal tendencies previously mentioned are indeed inherent in the aggregates of economic units: the farmers in this case though "having a strong cooperative spirit ... seemed to succeed best without any formal organization" and efforts to introduce a more formal farmers' organization have destroyed two prosperous Clubs.

Elementary Marketing Cooperative Associations

Our analysis of the elementary cooperative associations will not be complete and sufficient for the scope of this study if it is limited only to an examination of cooperative purchasing groups within the Farmers' Clubs. Elementary marketing cooperative organizations require the same careful investigation as has been given the purchasing cooperative bodies. For cooperative marketing associations differ in many essential points from the groups of buyers already described. Marketing cooperatives, generally speaking are more complicated than organizations of buyers, since alienation of economic services is a more difficult task than purchasing transactions. For verification of the theoretical scheme outlined in this study, the most elementary forms of cooperative marketing should be chosen for the same reasons which have dictated the choice of the simplest cases of cooperative purchases. Such simple cases of cooperative marketing as a result practically free from legal and technical complexities and their economic skeleton may be directly perceived. Such elementary non-incorporated cooperative marketing organizations are very common in many countries and in many branches of marketing. We will take for examination the actually existing non-incorporated marketing cooperatives in this country. Among the marketing cooperatives of American farmers, the livestock shipping associations represent a particularly appropriate case for economic analysis.

Cooperative Livestock Marketing Associations²⁵

Cooperative livestock shipping associations as a rule are organized not as casual groups for one transaction only, but as more or less lasting associations. That is also true in regard to all other cooperative marketing associations; farmers raising livestock for market get substantial economic advantages if they are able to supply a market regularly. On the other hand, in sections exporting livestock, every cattle raiser, if his enterprise is rationally organized, needs to sell livestock several times during the year, and commission dealers in the central markets offer considerable advantages to their regular shippers as compared with the occasional shipper. Thus the cooperative marketing association now under discussion differs materially from an

²⁵The data and information on the livestock marketing associations used in this chapter are taken from the following publications: (1) B. H. Hibbard, L. G. Foster and D. G. Davis, *Wisconsin Livestock Shipping Associations*, Wisc. Agr. Exper. Station, Bull. 314, 1920. (2) E. W. Gaumnitz and J. D. Black, *Organization and Management of Livestock Shipping Associations in Minnesota*, Minn. Agr. Exper. Station, Bull. 201, 1922. (3) H. B. Price, *Farmers' Cooperation in Minnesota*, Minn. Agr. Exper. Station, Bull. 202, 1922. (4) *Organization and Management of Cooperative Livestock Shipping Associations*, U.S. Department of Agriculture, Farmers' Bull., 1922, 1923. (5) R. H. Elsworth, *Development and Present Status of Farmers' Cooperative Business Organizations*, U.S. Department of Agriculture, Bull. 1302, 1926. (6) *Cooperative Livestock Associations*, U.S. Department of Agriculture, Bull. 1502, 1926. (7) Th. Macklin and A. Shaars, *Cooperative Sales Organizations for Livestock*, Wisconsin Agr. Exper. Station, Bull. 394, 1927. (8) *Cooperative Marketing*, Federal Trade Commission, 1928. (9) R. H. Elsworth, *Cooperative Marketing and Purchasing - 1920-1930*, U.S. Department of Agriculture, Circular 121, 1930. (10) *American Cooperation, 1925-1939*. (11) R. H. Elsworth, *Statistics of Farmers' Cooperative Business Organizations, 1920-1935*. Farm Credit Administration, Bull. 6, 1936. (12) F. M. Hyre, *A Statistical Handbook of Farmers' Cooperatives*. Farm Credit Administration, Bull. 26, 1938. (13) H. H. Hulbert, *Organization and Operation of the Illinois Livestock Marketing Association*. Farm Credit Administration, Bull. 5, 1936. (14) L. B. Mann, *Cooperative Marketing of Range Livestock*, Farm Credit Administration, Bull. 7, 1936.

elementary cooperative purchasing group previously examined: its new and significant characteristic is a continuity of functioning with all the additional structural and functional economic features accompanying it.

The livestock marketing cooperative associations were first organized in this country in 1882²⁶ and thereafter the movement grew rapidly. In 1923, according to the estimates of the United States Department of Agriculture, there were from 4,000 to 5,000 cooperative organizations shipping livestock in this country,²⁷ mostly in the northwestern states. Their number then declined to about 2,000 in 1935,²⁸ while only 974 local livestock shipping associations were found in the survey of the Farm Credit Administration in 1935-1936.²⁹ More than four-fifths (82.2 percent) of the livestock shipping associations in 1924 had no capital stock and only one-tenth (10.5 percent) of them have been paying dividends on stock.³⁰ In 1935-1936 only 16 percent of local livestock shipping associations were of capital stock pattern, while in the group of terminal associations this percent was equal to 34 (13 associations out of 38 were capital stock organizations).³¹ Thus these associations are mostly non-stock, non-profit cooperatives. Considerable number of these associations are informal non-incorporated bodies. According to the country-wide survey of livestock marketing cooperatives by the U.S. Department of Agriculture, sixty percent of

²⁶Hedges, Harold and Filley. *Cooperative Marketing of Livestock in Nebraska*. Nebr. Agr. Exper. Station, Bull. 209, 1925.

²⁷*Organization and management of Livestock Shipping Associations*. U.S. Department of Agriculture, Farmers' Bull. 1292, 1923.

²⁸Elsworth, R. H. *Statistics of Farmers' Coop. Business Organizations, 1925-1935*. Farm Credit Administration Bull. 6, 1936.

²⁹See above, p. 53.

³⁰Elsworth, R. H. *Development and Present Status of Farmers' Coop. Business Organizations*. U.S. Department of Agr. Bull. 1302, 1925.

³¹See above, p. 53.

them were not incorporated in 1925,³² while Gaumnitz and Black have found in 1922, that in Minnesota 96.2 percent of all livestock shipping associations were non-incorporated organizations. In 1935-1936, percent of non-incorporated livestock marketing cooperatives for the United States was equal to 35 percent for local associations and to 11 for terminal associations.³³ The relatively high percent of informal associations of this group is explained by the simplicity of their organization and functioning. The simplest forms of the livestock shipping associations are very similar in their structure to the cooperative purchasing groups, with one essential difference, however, *viz.*, that the marketing cooperatives under discussion are the lasting associations while the purchasing groups in the Farmers' Clubs are organized for one transaction only.

General Economic Character of Livestock Marketing Cooperative Associations

Such informal and elementary livestock marketing associations may be generally characterized as follows:

- a) A great majority of the livestock shipping associations have no capital stock and the membership is not dependent upon stock ownership; since membership is granted naturally only to owners of marketable livestock, and usually it is conferred automatically when shippers deliver their livestock to the association.
- b) The average number of members of these associations was 140 in 1915,³⁴ and was 343 in 1934.³⁵ The necessity to assure more or

³²Elsworth, R. H., *Op. Cit.*, p. 10.

³³*Organization and Management of Local Livestock Shipping Associations in Minnesota.* Minn. Agr. Exper. Station, Bull. 201, p. 12, 1922.

³⁴R. H. Elsworth, *Development and Present Status of Farmers' Cooperative Business Organizations.* U.S.D.A. Bull. 1302, 1925, p. 11.

less regular shipments of cattle in car lots to the central markets throughout the year influenced the size of membership.

- c) Very small capital is required for such associations to cover expenses necessary to run their work. These expenses are few and generally small, but an association needs, nevertheless, some immediate reserve fund to enable it to meet expenses or incidental losses. Therefore, a membership fee of from \$0.25 to \$2.50, paid at the time of the first shipment or deducted from the first shipment returns, was most frequently used to mobilize such a fund.
- d) The important practical question of insurance of individual shippers against losses of their stock on the way to market has been solved by the introduction of mutual insurance practices. A special sinking fund is provided by associations: each member contributes a certain sum to this fund deducted from the receipts for his livestock sold through the association - therefore proportionally to the volume of his transactions through the cooperative.
- e) The expenses for equipment in such associations are negligible. The scales are usually furnished by the railroad companies; no special office is maintained, all clerical work being done in the home of the manager or in the local bank; commission firms furnish scale pads and invoice sheets gratis; lumber, feeds, bedding and miscellaneous supplies may be secured as needed; accounting books are cheap, etc.
- f) A Board of Directors for the supervision of the work is usually elected. The Board appoints the manager who actually runs all work and is compensated, as a rule, on the commission basis by pro rata deductions from the receipts after a transaction is finished.

³⁵R. H. Elsworth, *Statistics of Farmers' Cooperative Business Organizations in 1920-1935*. Farm Credit Administration Bull. No. 6, 1936, p. 70.

Patronage Dividends in Cooperative Associations

All the expenses of a livestock shipping association are paid by the individual members proportionally to the individual's share of the total volume of transactions. Since in the association organized for continuous work these expenses cannot be calculated exactly in advance, and naturally vary from association to association, and vary by markets, and even by single transactions on the same market, the livestock shipping cooperatives adopt the practice of an average rate of deductions per unit of commodities handled. In so doing they assume their reasonable adequacy to cover the probable expenses, based on average costs of running the business of the association through previous years. With such an arrangement there might be three possible cases at the end of the business year:

1. the deductions made in advance might be equal to the actual expenses;
2. the deductions might be higher than expenses; or
3. the deductions might be less than the actual costs.

The manager, therefore, of the livestock marketing association at the end of a business year may face the following possibilities:

1. In the first case he will find that all the reckonings with the members of the association are done exactly and are finished.
2. In the second and third cases the reckonings will be found as being based on wrong calculations and being in need of final adjustments on the ground of exactly known deductions from the volume of commodities sold by each member and the actual costs of running the business. The management will be in a position to state that in the second case the member-patrons of the association were underpaid at the moment of the transaction, i.e., they received only a part of the actual price of their goods. This part of the price which was underpaid to them gave a surplus to the association at the end of the business year. In the third case it will be found that the members of the cooperative were overpaid at the moment of the transaction, i.e., they received more than the actual price for their goods. Thus the technical

impossibility of the exact calculation of future costs and necessary average deductions from the value of commodities sold at the moment of transactions led either to an accrual of money underpaid to members or to a lack of money to cover current expenses of an association.

There is only one way for the manager of a cooperative association to overcome these purely technical maladjustments:

- a) in the case of excessive deductions (surpluses) retained he has to distribute the underpaid sum of money to the members in order to make the final reckonings with every one of them; and he has to make this distribution proportionally to their individual shipments;
- b) in the cases where preliminary deductions from the value of commodities sold by the association have been insufficient to cover the actual expenses (deficits) of the cooperative, he has to collect from the members the sums overpaid them by the association and, obviously, also proportionally to the volume of business done by each member.

Since the first method is more advantageous technically and from the standpoint of managerial policies, the cooperators usually prefer in their practice to overestimate their potential costs and follow the unwritten rule of reasonably excessive deductions from their value of transactions with the understanding that the surpluses will certainly be distributed to them at the end of the business year. These surpluses distributed among the members of cooperative associations at the end of a business year are the mysterious patronage dividends of the cooperatives. The origin of this peculiar economic feature of a cooperative association and one of the famous Rochdale Principles is, therefore, very prosaic. These payments are inherent in cooperative associations because of their aggregate structure. These payments not being yet necessary to the aggregates of economic units organized for a single transaction (purchasing groups previously examined) become technically unavoidable³⁶ to the lasting aggregates designed for

³⁶The well-developed and stabilized cooperatives in some lines of their work can compute their expenses very closely to the actual costs and are in a position to pay to their member-customers almost a full price at the

continuous work. The traditional and the current interpretations usually put a socio-reformistic brand on this technical detail of a cooperative association and sometimes even consider it as an indirect method of realizing Owen's ideal...."³⁷

Capital Stock and Dividends on Stock in Cooperative Associations

Finally it is pertinent to examine from the standpoint of a theoretical analysis of the cooperative problem, the traces of capital stock and of profits. In the groups of cooperative purchases we have pointed out the issuance of capital stock of cooperative aggregates in the form of advanced payments by the participants of the aggregate, proportional to their individual quotas in a collective transaction. Under all conditions the cooperative organizations for single transactions with individual orders strictly synchronized, advances of every member may be estimated easily and precisely. In all cases of the lasting aggregates of economic units such individual advances normally may be estimated only approximately. In those groups of cooperative associations where some investments of capital or the mobilization of funds for successful running of business are needed, the method of mobilization of so-called capital stock is very common in practice. In contradistinction to a non-stock, non-profit association such cooperative organs are classes as associations of the Rochdale type.

According to a country-wide study of cooperative agricultural associations in this country by the U.S. Department of Agriculture in 1924, the number of the cooperatives with capital stock paying dividends on stock was, for various groups of cooperative organizations, as shown on page 135.

moment of transaction. Other cooperatives adopt a policy of retaining patronage surpluses due to their members and thus mobilize their working capital. In both cases the actual payments of patronage dividends decline in importance and even may entirely disappear from practices.

³⁷H. C. Filley, *Cooperation in Agriculture*. N.Y., 1929, p. 22.

**Cooperative Agricultural Associations by Groups
and Types of Organization***

Groups of Associations	Capital Stock Associations				Associations Paying Dividends on Stock	
	Number Reporting	With Capital Stock		Number Reporting	Assas. Paying Divs. on Stock*	
		Number	Percent		Number	Percent
MARKETING:						
Grain Elevators	3,114	3,036	97.5	3,007	2,573	85.6
Dairy Products	1,906	1,606	84.3	1,826	980	55.7
Cotton Products	103	78	75.7	97	67	69.1
Tobacco	25	11	44.0	21	5	23.8
Fruits and Vegetables	1,107	462	41.7	985	231	23.5
Poultry and Products	56	21	37.5	50	17	34.0
Nuts	48	12	25.0	48	1	2.1
Forage Crops	20	5	25.0	18	5	27.8
Livestock	1,545	275	17.8	1,340	141	10.5
Wool, Mohair	115	15	13.0	100	7	7.0
Miscellanea	697	393	56.4	646	295	45.7
PURCHASING:						
Miscellaneous Buying	424	121	28.5	376	74	12.7
Buying Merchandise (Stores)	707	667	95.8	683	556	81.4
ALL ASSOCIATIONS	9,867	6,712	68.0	9,197	4,952	53.8

* R. H. Elsworth, *Development and Present Status of Farmers' Cooperative Business Organizations*, U.S. Department of Agriculture, Bulletin 1302, 1925. The data on number of cooperative associations paying dividends on stock are latest available in the literature on cooperation in this country.

The table shows a wide variation by groups of the cooperatives engaged in marketing of agricultural products, both in their need for funds for investment and operation and in their practices of paying dividends on stock. Less than one-fifth of the livestock shopping associations surveyed have capital stock and only a little more than one-tenth of them pay any dividends on stock. Because of their structural simplicity, livestock shipping associations are almost entirely free from non-economic (legal, technical, etc.) admixtures. These associations are chosen as exceptionally advantageous material for an examination of the genesis of capital stock and of dividends on stock in cooperative associations despite the fact that only a small minority of these associations

actually have capital stock. As has been previously pointed out in the cooperative purchasing groups within Farmers' Clubs, the advances proportional to the size of the individual orders were used for mobilization of funds needed for work. Further, livestock marketing cooperatives differ from the aggregates created for a single transaction (a) by the continuity of their coordinated work, and (b) by desynchronization of individual transactions within the aggregate. These two differences between lasting aggregates of economic units and single collective transactions have an important bearing on their entire economic structure. As has been said, the needed advances to start and run the business cannot be exactly estimated commonly in the lasting aggregates, since the individual members of the association usually cannot fix in advance with certainty their potential volume of transactions for a long period of time. Therefore, the size of individual advances cannot be defined precisely, but only approximately, in such aggregates. As in the case with the deductions from the value of transactions for mobilization of funds to cover the current costs of work, so there are three possibilities with the advances approximately estimated:

1. An advance from an individual member of the association might correspond to his actual volume of business done through the association,
2. it might be less than his prorated share, and
3. it might be more than the sum corresponding to his use of services of the association.

In the first case, the member of the cooperative obviously is contributing exactly his share of advance to the fund of the association. In the second case, he supplied only a part of the fund actually utilized by him and therefore he used a part of the advances contributed by the other participants. In the third case, he advanced more money than he had to, taking into account his own use of the apparatus of the association and therefore some other members made use of his advances for their transactions in the association. At first glance it would seem impossible that such insignificant maladjustments could play a tangible role in cooperative organizations, and that participants in the cooperatives could be so sensitive to their individual economic interests.

Yet these very minute encroachments upon the economic individuality of the members of cooperative aggregates are adjusted in the cooperatives by a device, which produces a surprisingly perfect balance of individual interests while eliminating the slightest signs of disharmony in the mobilization of advanced funds. In a theoretical study of cooperation, this side of the cooperative problem is cogent, not only because it throws new light on the aggregate nature of cooperatives, but also because it discloses the true economic character of the loose and utterly deceptive concepts of capital stock and of dividends on stock in cooperative associations. Considering the highly complicated character of the question under discussion, our examination will be confined to an examination of the economic essentials involved. This can best be done by the choice of a hypothetical, simplified type of cooperative association. Let us assume a livestock shipping association consisting of twenty members. Each member contributes \$100.00 as his share of advanced money (capital stock of the association). The total advanced fund of the association, therefore, is equal to \$2,000. (See the following Table 1, column a.) The annual volume of business of this association is taken as \$40,000 (column b of the succeeding table). According to the Rochdale principle "profit on capital" in cooperative associations shall not exceed the current rate of interest, and on this ground the remuneration of a capital share is assumed to be equal to 5%. That is, the total money payable to the members in the form of dividends on stock is \$100.00 (column c of the table). This money is retained from the transactions of every member at the rate of 0.25% (column d of the table). In column e the actual receipts and expenses of the members of the association are shown. These data were computed by subtracting the sums retained from every member for use of the collectively advanced fund (column d) from the sums paid to him as remuneration of his own advance (dividends on stock, column c).

Several significant conclusions follow:

- a) Firstly, the whole process of the formation of capital stock may be traced in these data: The capital stock of the lasting cooperative aggregate represents the advances of members of this aggregate invested for a lasting use. In contradistinction to advances of participants of aggregates created for a single transaction, they are only approximately proportional to the volume of

Table 1. Nominal Reckoning and Actual Payments and Receipts in Cooperative Associations

Individual members	Shares of capital advanced (a)	Volume of annual business of individual members (b)	Dividends paid on stock (a) x 0.05 (c)	Sums retained for dividend purposes (b)x0.0025 (d)	Actual payments (-) & receipts (+) of individual mbrs. (c) - (d) (e)
1	\$100.00	\$ 200.00	\$ 5.00	\$ 0.50	+ \$ 4.50
2	100.00	300.00	5.00	0.75	+ 4.25
3	100.00	400.00	5.00	1.00	+ 4.00
4	100.00	800.00	5.00	2.00	+ 3.00
5	100.00	1,000.00	5.00	2.50	+ 2.50
6	100.00	1,200.00	5.00	3.00	+ 2.00
7	100.00	1,400.00	5.00	3.50	+ 1.50
8	100.00	1,880.00	5.00	4.70	+ 0.30
9	100.00	1,920.00	5.00	4.80	+ 0.20
10	100.00	2,000.00	5.00	5.00	0.00
11	100.00	2,080.00	5.00	5.20	- 0.20
12	100.00	2,120.00	5.00	5.30	- 0.30
13	100.00	2,400.00	5.00	6.00	- 1.00
14	100.00	2,600.00	5.00	6.50	- 1.50
15	100.00	2,800.00	5.00	7.00	- 2.00
16	100.00	2,900.00	5.00	7.25	- 2.25
17	100.00	3,100.00	5.00	7.75	- 2.75
18	100.00	3,400.00	5.00	8.50	- 3.50
19	100.00	3,500.00	5.00	8.75	- 3.75
20	100.00	4,000.00	5.00	10.00	- 5.00
TOTAL	\$2,000.00	\$ 40,000.00	\$100.00	\$100.00	00.00 (+\$22.25 -\$22.25)

transactions of individual participants. In the aggregates with economically homogeneous membership, an individual's shares (advances) are approximately equal. Incidental deviations in the volume of business of a single member from the average in one year would be corrected by transactions in other years. So in the long run the average volume of annual business of each member gravitates toward equality, approximating the share of advance.

- b) Secondly, the actual genesis of profits in cooperative associations is made plain in this table: the dividends on stock are estimated in this generalized association at the rate of five percent (column c) according to the Rochdale rule. The sums for payment of such dividends are retained from the annual volume of transactions of every member; for there is no other source for such payments to the cooperative association if it represents a true aggregate of economic units, i.e., if all the members and only the members participate in its work. Thus all the reckonings of remuneration of capital stock in the cooperatives are the reckonings which take place strictly within an aggregate among its members.
- c) It has been mentioned that the dividends on stock being stipulated income cannot represent an entrepreneurial profit (which is unstipulable) and appear to be payments in the nature of interest.³⁸ The materials of the table under examination suggest that they represent interest-like reckonings only among the participants of an aggregate. In other words they cannot be interpreted as an income of the cooperative association.
- d) The dividends on stock payable by the cooperatives in the form of interest (column c) do not represent, however, true interest, since the nominal dividends received in cooperative aggregates are not a real income of the recipients. The true income of the stockholders can be determined only by subtracting from the nominal dividends paid to the member the share retained for that purpose from the total volume of his business through the cooperative association (column d of the

³⁸See above, p. 78.

table). The sums retained from the member might be less than his nominal receipts (members 1-9); they might be equal to them (member 10), or might be even more than his nominal dividends (members 11-20); all three cases are presented in column e of the above table.

The actual payments in this intra-aggregate reckoning are made to the members who either could not use completely their quota of transactions proportional to their advanced share of money (members 1-9, table no. 1) or by the members who exceeded this quota (members 11-20). A perfect adjustment of the advances and of the volume of business by separate members of the aggregate would require, in this case, either a redistribution of the shares of advances among the members to make them strictly proportional to the individual use of services of the aggregate by its participants or an interpretation that the second group (members 11-20) was the borrowing group and the first group (members 1-9) was the lending group in their relation to the share capital of the association. The method of redistribution of advances *post factum* cannot be adopted, the more so that in the next year the borrowing group might find itself in the position of lenders and the lenders might become borrowers. Cooperatives have adopted the practice of paying nominal dividends on stock out of the money retained from transactions in definite proportion to the volume of business of members. Nominal dividends thus represent a peculiar technicality of reckoning among the members within an aggregate. By subtraction from the dividends of sums retained from every member (column d) the true payments of some members and true receipts of the other members of the association may be determined. These payments and receipts (column e of the table) represent true interest paid by the members who were undercharged in their advances (the members 11-20, column e of the table) to the members who did not use their quota of volume of transactions (the members 1-9, column e of the table) fully and therefore were overcharged with advances. It cannot be overemphasized that such a peculiar way of reckoning adopted by cooperatives is a manifestation of their aggregate economic structure, since these reckonings automatically and absolutely eliminate even minute maladjustments among the economic units which compose the aggregate in the matters relating to mobilization of their working capital. It further proves that the cooperative is not the association itself taken separately but the functioning plurality of associated economic

units each retaining its economic individuality and pursuing its own economic interests. The students and interpreters of cooperation unquestioningly assume that the cooperative is an enterprise and completely overlook its aggregate character. There is small wonder, therefore, that the true economic nature of capital stock and of dividends on stock in the cooperatives have never been even examined; their share capital has been identified with the entrepreneurial capital stock of stock companies, while their dividends on stock have been very indecisively and nebulously designated either as profits or savings.

The members of the cooperative whose business transactions correspond exactly to their share of advanced capital are in specific position within the aggregate and their economic status well deserves to be carefully examined. Member no. 10 of the above table represents such a group. As the table shows, he is neither overcharged nor undercharged in his contribution of advanced money. His volume of transactions through the association coincides exactly with the quota corresponding to his advance. In other words, he is neither a lender nor a borrower within the aggregate. Such a perfect coincidence of advanced money and volume of business done is easily attainable in the aggregate created for a single transaction, but is rather rare and casual in lasting aggregates. The theoretical interest in the economic position of such members of a cooperative aggregate is in the fact that they neither pay nor receive any interest, as is shown in our hypothetical case. Member no. 10 is the recipient of \$5.00 of dividends on stock which are retained from his own account as a patron of the association (columns c and d of the table). It is perfectly clear, therefore, that the so-called dividends on stock in the cooperatives represent, because of their aggregate nature, only a technical device for the elimination of maladjustments among the members within an aggregate in regard to their proportional contribution of advanced money needed for starting or consummating transactions of members.

In the above hypothetical cooperative association an exaggerated diversity of individual volumes of business has been taken purposely to reveal more sharply the true economic character of nominal and actual interest payments in the cooperatives. If we assume that the range of variations in individual transactions gradually contracts and all the members make transactions of approximately \$2,000 per annum, we will see that

hand in hand with this increasing homogeneity of business activity of the membership the role of actual interest payments will decline within the associations. And in case of perfect proportionality of advances and business transactions of all members, interest payments will entirely disappear. In practice it is almost impossible to attain an absolute proportionality of advances and transactions, but in the case of economically homogeneous membership a correlation between share capital contributed and volume of business done by single members may be often so close (nos. 8-12 of the above table) that for all practical purposes maladjustments may be ignored. It is for that reason that in all groups of cooperative associations where the advances (shares) and the expected volume of use of the association by its members may be reasonably fixed in advance (irrigation cooperative societies, livestock breeders associations, cow-testing cooperatives, the better organized marketing associations, etc.), the practice of paying dividends on stock becomes unimportant and usually is discarded.

Non-Patron Members of Cooperative Associations and Their Economic Position Within the Aggregates

An essential economic characteristic of an aggregate of economic units is a similarity of units coordinated into an aggregate and the identity of their functioning through an aggregate. Thus, as has been stated, a strict equality of advances and of a corresponding volume of transactions, or strict proportionality of advances to actual volume of business of each member of an aggregate, eliminate payments of interest to the members of the aggregate. These payments of interest of one group of members to the other members in a cooperative aggregate are due to a disproportionality between the advances and the volume of business done by members of an aggregate (table 1). In the first case examined we have an organization representing the perfect type of an aggregate of economic units where any dividends on stock are illogical; in the second case we deal with an organization where the aggregate economic structure is somewhat disfigured by the dividends on stock. The clarity of the aggregate structure of a cooperative association is still more beclouded if we introduce into an aggregate work of the association, such, for example, as the non-patron members. In the actual practice of existing cooperative associations, the

bona fide cooperators are, as a rule, somewhat prejudiced against those of their fellow members who contribute their shares of capital and have voting power in the association but refrain from patronizing their association. In terms of the cooperative vernacular, such members are "the capitalists interested only in profits for their capital invested in the association." The true economic character of a group of non-patron members of the cooperatives may only be revealed by examination of such a group in the light of the aggregate structure of these associations. In table 2, a cooperative association with 20 member-patrons (group A) and 2 non-patron members is represented. The share capital, the volume of business and the dividends paid for all member-patrons (table 2, group A, columns a, b, c) are assumed identical, for the sake of comparison, with the corresponding data of table 1. As is made clear by table 2, this hypothetical association is composed of two essentially different groups of members: (a) the member-patrons, composing a true economic aggregate, and (b) the non-patron members, representing a group of creditors of the aggregate. The full members of the aggregate, in this case, receive the same \$100.00 as their dividends on stock (column c of table 2) as before (table 1), but \$110.00 is retained from their accounts (column d of table 2) to pay dividends to both groups of membership. Within the aggregate (group A, column e) we do not now find perfectly balanced receipts and payments of the member-patrons, but find instead an excess of actual payments over actual receipts of \$10.00 due to the lenders of group B. The members of Group B obviously receive as their dividends on stock true interest on their capital advanced to the association and this interest is not diluted with any money retained by the association from its recipients (table 2, group B, column d). With such groups of members only partially participating in the activities of cooperative association, the pure aggregate structure of the cooperative association is obviously disfigured, though its economic essentials still remain clearly traceable. The members of group B appear to be a structural "impurity" within the aggregate; therefore, the widespread prejudices of cooperators against non-patron members find their explanation and justification in the aggregate nature of the cooperatives.

Table 2. Nominal Reckonings and Actual Payments and Receipts in Cooperative Associations

Individual members	Shares of capital advanced (a)	Volume of annual business of individual members (b)	Dividends paid on stock (a) x 0.05 (c)	Sums retained for dividend purposes (b)x0.00275 (d)	Actual payments (-) & receipts (+) of individual mbrs. (c) - (d) (e)
A. MEMBER-PATRONS (true members of the aggregate)					
1	\$100.00	\$ 200.00	\$ 5.00	\$ 0.55	+ \$ 4.45
2	100.00	300.00	5.00	0.83	+ 4.17
3	100.00	400.00	5.00	1.10	+ 3.90
4	100.00	800.00	5.00	2.20	+ 2.80
5	100.00	1,000.00	5.00	2.75	+ 2.25
6	100.00	1,200.00	5.00	3.30	+ 1.70
7	100.00	1,400.00	5.00	3.85	+ 1.15
8	100.00	1,880.00	5.00	5.17	- 0.17
9	100.00	1,920.00	5.00	5.28	- 0.28
10	100.00	2,000.00	5.00	5.50	- 0.50
11	100.00	2,080.00	5.00	5.72	- 0.72
12	100.00	2,120.00	5.00	5.83	- 0.83
13	100.00	2,400.00	5.00	6.60	- 1.60
14	100.00	2,600.00	5.00	7.15	- 2.15
15	100.00	2,800.00	5.00	7.70	- 2.70
16	100.00	2,900.00	5.00	7.98	- 2.98
17	100.00	3,100.00	5.00	8.52	- 3.52
18	100.00	3,400.00	5.00	9.35	- 4.35
19	100.00	3,500.00	5.00	9.62	- 4.62
20	100.00	4,000.00	5.00	11.00	- 6.00
GROUP A	\$2,000.00	\$ 40,000.00	\$100.00	\$110.00	-\$10.00
B. NON-PATRON MEMBERS (creditors of members of the aggregate)					
1	\$100.00	-	\$ 5.00	-	+\$ 5.00
2	100.00	-	5.00	-	+ 5.00
GROUP B	\$200.00	-	\$ 10.00	-	+\$10.00
BOTH GROUPS	\$2,200.00	\$40,000.00	\$110.00	\$110.00	00.00

Non-Member Patrons of Cooperative Associations and Their Economic Position in Cooperative Aggregates

Participation of non-member patrons in cooperative associations creates much more consequential changes within aggregates of economic units and in practice often leads to a complete disintegration of aggregated bodies or to their degeneration into other economic organizations. As in the case of non-patron members of the cooperatives, the rank and file of cooperators instinctively feel that the expansion of transactions with outsiders is not perfectly consistent with the cooperative principles yet it is not definitely known among them why the patronage of outsiders in cooperative organizations is incompatible with the nature of cooperative association. As in all other basic economic features of cooperative associations, this important question should likewise be examined in the light of the aggregate economic structure of cooperative association. In table 3 are tabulated account data of dividends on stock and actual payments and receipts of the members of a cooperative aggregate in the hypothetical association of 20 member-patrons and 2 non-member patrons. To make the data comparable with the calculations used in tables 1 and 2, columns a, b and c are assumed to be identical with corresponding data of these tables. Since the total volume of business of this association (of table 3, group C, column b), as compared with the cases previously examined, has increased by \$10,000, i.e., by twenty-five percent, the sums retained from every member for payments of dividends have declined correspondingly (table 3, group A, column d) and all together the members of the aggregate in this case receive \$100.00 as dividends on their stock, but contribute only \$80.00 for the purpose. The difference, \$20.00, is thus acquired from the non-member patrons (group C) who pay their share of interest on the capital stock of the aggregate. The actual receipts of member-lenders (members 1-13 of group A of table 3) have increased and the actual payments of the member-borrowers (members 14-20) have declined accordingly (group A, column e). The group of non-member patrons of the cooperative association is a group of clients of the aggregate. As clients and patrons of the association

Table 3. Nominal Reckonings and Actual Payments and Receipts in Cooperative Associations

Individual members	Shares of capital advanced (a)	Volume of annual business of individual members (b)	Dividends paid on stock (a) x 0.05 (c)	Sums retained from individual members to pay dividends (b) x 0.002 (d)	Actual payments(-) or receipts (+) of individual members. (c) - (d) (e)
A. MEMBER-PATRONS (true members of the aggregate)					
1	\$100.00	\$ 200.00	\$ 5.00	\$ 0.40	+ \$ 4.60
2	100.00	300.00	5.00	0.60	+ 4.40
3	100.00	400.00	5.00	0.80	+ 4.20
4	100.00	800.00	5.00	1.60	+ 3.40
5	100.00	1,000.00	5.00	2.00	+ 3.00
6	100.00	1,200.00	5.00	2.40	+ 2.60
7	100.00	1,400.00	5.00	2.80	+ 2.20
8	100.00	1,880.00	5.00	3.76	+ 1.24
9	100.00	1,920.00	5.00	3.84	+ 1.16
10	100.00	2,000.00	5.00	4.00	+ 1.00
11	100.00	2,080.00	5.00	4.16	+ 0.84
12	100.00	2,120.00	5.00	4.24	+ 0.76
13	100.00	2,400.00	5.00	4.80	+ 0.20
14	100.00	2,600.00	5.00	5.20	- 0.20
15	100.00	2,800.00	5.00	5.60	- 0.60
16	100.00	2,900.00	5.00	5.80	- 0.80
17	100.00	3,100.00	5.00	6.20	- 1.20
18	100.00	3,400.00	5.00	6.80	- 1.80
19	100.00	3,500.00	5.00	7.00	- 2.00
20	100.00	4,000.00	5.00	8.00	- 3.00
GROUP A	\$2,000.00	\$ 40,000.00	\$100.00	\$110.00	+\$20.00
B. NON-MEMBER PATRONS (clients of members of the aggregate)					
1	-	\$4,000.00	-	\$ 8.00	-\$ 8.00
2	-	\$6,000.00	-	12.00	- 12.00
GROUP B	-	\$10,000.00	-	\$ 20.00	-\$20.00
BOTH GROUPS	\$2,000.00	\$50,000.00	\$100.00	\$100.00	00.00

they pay their share of interest on the capital stock of the association. It is not difficult to see from the table that a considerable expansion of business transactions with outsiders (group C) may lead toward complete disappearance of the group of member-patrons paying (table 3, group A, column e, members 14-20) actually any money for distribution of interest (dividends on stock).³⁹ The summary table of the interest account of various types of cooperative associations is presented in table 4. Actual payments and receipts only are included in this table. Five of the most common types of cooperatives are taken here for a comparative analysis. They represent a range of cooperative organizations deviating from the standard cooperative form. As the deviation from the pure cooperative aggregate of enterprises becomes greater (column 1), the interest account increases in complexity:

- a) a purely cooperative aggregate of enterprises is incompatible with any interest payments (column 1);
- b) the interest reckonings in the cooperatives arise as a technical device for the elimination of disproportionality of advances among the member patrons of the association (column 2);
- c) the non-patron members of cooperative associations - insofar as distribution of dividends on stock is concerned - represent a group of recipients of pure interest (column 3);
- d) the non-member patrons (column 4, group C) contribute their payments retainable for the interest fund from their transactions in the association, but do not receive any dividends, and hence they are, in relation to the cooperative aggregate, in the position of clients of the aggregate.

³⁹Such a group would disappear if the volume of business done with outsiders should expand to \$40,000 in the hypothetical association under discussion.

Table 4. Actual Receipts of and Payments to Members of a Cooperative Aggregate in Various Types of Cooperative Associations in their Account of Dividends on Stock

Individual members	Types of Cooperative Associations				
	Perfect aggregate w/advances strictly proportional to volume of business of each mbr (1)	Pure aggregates w/disproportionality of advances & individual volume of business* (2)	Aggregates consisting of member patrons and non-patron members** (3)	Aggregates consisting of member patrons and outsider patrons*** (4)	Associations composed of mbr patrons, non-patron members and outsider patrons**** (5)
GROUP A (true members of the cooperative aggregate)					
1	\$0.00	+\$ 4.50	+\$ 4.45	+\$ 4.60	+\$ 4.56
2	0.00	+ 4.25	+ 4.17	+ 4.40	+ 4.34
3	0.00	+ 4.00	+ 3.93	+ 4.20	+ 4.12
4	0.00	+ 3.00	+ 2.79	+ 3.40	+ 3.24
5	0.00	+ 2.50	+ 2.25	+ 3.00	+ 2.80
6	0.00	+ 2.00	+ 1.69	+ 2.60	+ 2.36
7	0.00	+ 1.50	+ 1.14	+ 2.20	+ 1.92
8	0.00	+ 0.30	+ 0.17	+ 1.24	+ 0.86
9	0.00	+ 0.20	+ 0.28	+ 1.16	+ 0.78
10	0.00	0.00	- 0.50	+ 1.00	+ 0.60
11	0.00	- 0.20	- 0.72	+ 0.84	+ 0.42
12	0.00	- 0.30	- 0.83	+ 0.76	+ 0.34
13	0.00	- 1.00	- 1.60	+ 0.20	- 0.28
14	0.00	- 1.50	- 2.15	- 0.20	- 0.72
15	0.00	- 2.00	- 2.70	- 0.60	- 1.16
16	0.00	- 2.25	- 2.95	- 0.80	- 1.38
17	0.00	- 2.75	- 3.52	- 1.20	- 1.82
18	0.00	- 3.50	- 4.35	- 1.80	- 2.48
19	0.00	- 3.75	- 4.62	- 2.00	- 2.70
20	0.00	- 5.00	- 6.00	- 3.00	- 3.80
Total A	\$0.00	\$ 0.00	- \$10.00	+ \$20.00	+ \$12.00
GROUP B (non-patron members of the aggregate)					
1	-	-	+ \$5.00	-	+ \$5.00
2	-	-	+ 5.00	-	+ 5.00
Total B	-	-	\$ 10.00	-	+\$10.00
GROUP C (non-member patrons (clients) of the aggregate)					
1	-	-	-	- \$8.00	-\$ 8.80
2	-	-	-	- 12.00	- 13.20
Total C	-	-	-	-\$20.00	-\$22.00

* See table 1.

** See table 2.

*** See table 3.

**** Calculated from data of tables 2 and 3.

The conceptions of capital stock and of dividends on stock thus interpreted, being the corollaries of the aggregate structure of cooperative associations, are justified by the practice of existing cooperative associations. They throw light on the empirical prejudices of *bona fide* cooperators against such members as refuse to patronize the cooperative, and such patrons as for various reasons do not assume the rights and responsibilities of membership.

From the standpoint of such a setting of the problem of capital stock and of dividends on stock in cooperatives, one cooperative principle appears to be perfectly clear, namely, that all the members are obliged and only the members are entitled to be the patrons of or the active participants in the cooperative associations.

Illustration: The following table based on the information available with regard to 28,392 currently operating agricultural cooperative associations in the United States shows that the agricultural cooperative associations existing in this country are essentially the associations of member-patrons. As it may be easily anticipated there are deviations from this pattern among the cooperatives and that such deviations have a different amplitude in different groups of cooperative associations: some groups of cooperatives are strictly associations of member-patrons (credit or insurance associations, for instance); in other groups (such as cooperative irrigation societies and service associations) the outsider-participants are normally rare and their role is indeed negligible; in the group of marketing and purchasing cooperatives the business transactions with non-member patrons are rather common and in some associations are dangerously excessive. The table indicates it unmistakably.

The table represents a comprehensive survey of the agricultural cooperatives in the United States, yet its representative character for all cooperatives in all countries should not be overestimated: the number of outside clientele in the American marketing and purchasing cooperatives appears to be abnormally high and suggests that many of such associations are far on their way of transformation into acquisitive economic units (enterprises). About two thirds of all cooperative

Number and Percent of Member Non-Patrons, Member-Patrons and Non-Member Patrons
In Various Groups of Farmers' Cooperative Associations in the United States, 1936-1937

Groups of cooperative associations	Number of						Percent of						
	Number of associations	Member non-patrons	Member-patrons	Non-member patrons	All partici-pants	Member non-patrons	Member-Patrons	Non-member patrons	All partici-pants	Member non-patrons	Member-Patrons	Non-member patrons	All partici-pants
I. CREDIT	11,763	-	4,574,125	-	4,574,125	-	100.0	-	100.0	-	-	-	100.0
NFL Ass-s	4,205	-	610,000	-	610,000	-	100.0	-	100.0	-	-	-	100.0
Prod. C. A-s	232	-	255,869	-	255,869	-	100.0	-	100.0	-	-	-	100.0
B. for Coop-s	13	-	1,840,000*	-	1,840,000	-	100.0	-	100.0	-	-	-	100.0
F. C. Un-ns	2,763	-	627,256	-	627,256	-	100.0	-	100.0	-	-	-	100.0
Stock. C. Un-ns	4,250	-	1,241,000	-	1,241,000	-	100.0	-	100.0	-	-	-	100.0
II. SERVICE	5,877	3,754	3,909,578	3,879	3,917,211	0.1	99.8	0.1	100.0	-	-	-	100.0
Insurance	1,909	-	3,263,264	-	3,263,264	-	100.0	-	100.0	-	-	-	100.0
Telephones	2,067**	-	302,686*	-	302,686	-	100.0	-	100.0	-	-	-	100.0
Electr. Power	259	-	170,000***	-	170,000	-	100.0	-	100.0	-	-	-	100.0
Irrigation	2,442	3,754	173,628	3,879	181,261	2.1	95.8	2.1	100.0	-	-	-	100.0
III. MARKETING	8,151	410,585	2,002,984	972,197	3,385,766	12.1	59.2	28.7	100.0	-	-	-	100.0
Nuts	49	686	12,615	53	13,354	5.1	94.5	0.4	100.0	-	-	-	100.0
Citrus Fruits	294	2,050	24,812	1,534	28,396	7.2	87.4	5.4	100.0	-	-	-	100.0
Milk barg-ing	114	17,523	128,489	2,098	148,110	11.8	86.8	1.4	100.0	-	-	-	100.0
Poultry	180	18,593	93,847	9,287	121,723	15.2	77.1	7.7	100.0	-	-	-	100.0
Milk mark-ing	240	13,741	89,004	12,917	115,662	11.8	77.0	11.2	100.0	-	-	-	100.0
Other fruits	255	4,456	30,758	5,638	40,852	10.9	75.3	13.8	100.0	-	-	-	100.0
Livestock term.	38	9,731	343,446	112,868	466,045	2.1	73.7	24.2	100.0	-	-	-	100.0
Misc. products	300	8,583	56,867	12,052	77,505	11.0	73.4	15.6	100.0	-	-	-	100.0
Cotton	22	86,737	202,733	12,425	301,531	28.8	67.2	4.0	100.0	-	-	-	100.0
Vegetables	316	6,786	39,126	12,639	58,551	11.6	66.8	21.6	100.0	-	-	-	100.0
Livestock local	974	23,857	171,948	64,194	259,999	9.2	66.1	24.7	100.0	-	-	-	100.0

Berries	134	6,441	15,904	3,911	26,456	25.1	60.1	14.8	100.0
Gins	362	9,085	41,925	20,532	71,542	12.7	58.6	28.7	100.0
Creameries	1,385	58,979	324,796	173,712	557,487	10.6	58.3	31.1	100.0
Wool	139	31,661	47,491	4,561	83,713	37.8	56.7	5.5	100.0
Tobacco	14	38,376	52,848	5,980	97,204	39.5	54.4	21.3	100.0
cream	56	3,055	6,815	2,675	12,342	17.0	53.4	29.6	100.0
Cheese	543	3,303	10,992	6,081	20,576	5.8	48.4	45.8	100.0
Pointoles	105	3,292	7,663	5,967	17,122	19.3	45.9	34.8	100.0
Grain elevators	2,614	63,131	299,709	500,109	862,949	7.3	34.7	58.0	100.0
Misc. cotton	17	683	999	2,964	4,646	14.7	21.5	63.8	100.0
IV. PURCHASING	2,601	85,158	770,862	706,478	1,562,498	5.4	49.4	45.2	100.0
Feeds	490	7,048	244,331	134,205	385,784	1.8	63.4	34.8	100.0
Miscellaneous	334	11,363	85,515	51,197	148,075	7.6	57.8	34.6	100.0
Gas. stations	1,057	34,020	287,966	272,522	594,508	5.8	48.4	45.8	100.0
Exchanges	396	8,709	61,065	89,088	156,862	5.5	38.4	56.1	100.0
Misc. supplies	324	24,018	91,785	159,466	275,269	8.8	33.3	57.9	100.0
ALL ASSOCNS.	28,392	499,497	11,257,549	1,682,354	13,439,600	3.7	83.8	12.5	100.0

SOURCES: This table was compiled from materials contained in the following publications of the Farm Credit Administration:

- A Statistical Handbook of Farmers' Cooperatives*, by F. Hyre, 1939;
- The Story of Farmers' Cooperatives*, by R. H. Elsworth, 1939; and
- The Sixth Annual Report of the Farm Credit Administration*, 1939.

- Estimated membership of 1,680 stockholder associations.
- Only those with switchboards included.
- Customers, estimated.

associations in all countries are the cooperative credit associations, i.e., pure associations of member-patrons and the rough estimate of possible total number of non-member-patrons in all cooperatives is that it can hardly exceed five percent of their aggregate membership.

Conclusions on the Non-Incorporated Cooperative Associations

An examination of representative cases of elementary non-incorporated cooperative groups and associations leads to the following inferences:

1. All cooperative organizations examined represent aggregates of economic units, coordinating their acquisitive or spending functions, but each economic unit participating retains its complete economic integrity.
2. Their aggregate character is most clear in the simplest forms of such organizations, namely, in the cooperatives created for single transaction;
3. In the lasting cooperative organizations their aggregate structure is beclouded because of (a) desynchronization of the economic actions of the members, and (b) adoption of necessary technicalities designed to protect the individual economic interests of the participants of the aggregate.
4. These technicalities deceive superficial observers since they imitate certain functional features of collective enterprises.
5. The principal technical devices necessitated by the continuity of cooperative organizations are:

- a) the interest-reckoning among the members of cooperative associations to correct the disproportionality between the advances contributed and the volume of business done by the individual members; such intra-aggregate interest reckonings imitate the distribution of profit (dividends on stock) in collective enterprises and are usually confused with this procedure;
- b) the final reckoning with the members on their current transactions (patronage payments); such reckonings are commonly misinterpreted as a process of distribution of profit among the members of the cooperative aggregates.

Both devices are used by only those cooperative aggregates in which, because of the continuity of their functioning, the advances proportional to future volume of the individual transactions and the future current expenses of the aggregate cannot be adequately computed in advance.

6. To be a perfect aggregate of economic units the cooperative organization - as analysis of these representative cases suggests - should be composed of the active patron-members only and only the members should be allowed to participate in its work.

Incorporated Cooperative Associations

The analysis of the economic nature of cooperative associations previously made is based on an examination of informal non-incorporated associations. An act of incorporation facilitates all economic activities of cooperatives. With incorporation not only economic relations among the members of association become legally regulated, but all the economic transactions of membership with outsiders are legally and technically simplified. For all practical purposes an act of incorporation enables the cooperative aggregates to

act on a market as if they were the regular economic units despite their structural complexity.

Such practical importance of incorporation increases, obviously, with the growth of the volume of business of the association or of the complexity of its functions. Hence, incorporation is needed more:

- a) in the lasting or permanent associations than in the temporary cooperative groups;
- b) in associations with large membership than in the aggregates composed of a small number of participants;
- c) in associations with many and diverse lines of economic activities than in those designated to perform few or simple economic functions;
- d) in cooperatives with a more or less lasting investment of capital than in those which can normally work with relatively small funds for current expenses only and because of the nature of their work are not in need to operate any establishment worthy of consideration; and
- e) in cooperative aggregates unable to work without considerable credit transactions than in associations which by the very nature of their functions (some marketing associations) have no pressing need for credit.

It is noteworthy, however, that regardless of the practical importance of incorporation, this procedure is not absolutely necessary for the completion of cooperative organization and for its normal existence and work; for informal non-incorporated cooperative associations may come into being and live as accomplished cooperative aggregates. An act of incorporation by itself does not add any new economic element to cooperative associations, it only covers its aggregated body with legal vestments. Impressive testimony in favor of the possibility of perfect economic aggregates without legal clothes is

given in the fact that all Danish cooperative associations, universally accepted as the patterns of purely cooperative bodies, are non-incorporated organizations. There is not even a law in Denmark providing for the incorporation of cooperatives.

For the purposes of this study, the true meaning of incorporation is of considerable importance. Every student of cooperative problems should constantly and clearly keep in mind that in the process of an economic analysis of cooperation he should sooner or later emancipate himself from the legal shades of the problem with all their implications.

Basic Legal Conventionality

Emphasis has previously been laid upon the necessity of maintaining distinctly the economic aspect of cooperative organizations in the course of their examination. Of special significance is the necessity of keeping separate their economic and legal aspects. This is because the legal form of cooperative associations does not exactly correspond to their economic character. This aberration of the legal and economic contours of the cooperatives is misleading to such a degree that it makes impossible an exhaustive economic analysis of the problem. And yet this momentous side of the problem has been unnoticed and disregarded.

Such aberration of legal and economic aspects of organizations is not alone confined to cooperative organizations but can be traced in many other economic formations. Not only their structure, but also their economic behaviour and economic policies cannot be adequately conceived nor properly interpreted as long as this divergence between their economic bodies and their legal superstructure is overlooked.

A few illustrations may help to reveal the significance of the divergence under discussion. An attempt has been made in the foregoing discussion to outline pointedly the conception of economic units, individual and collective, as one of the cardinal economic con-

cepts in the analysis of cooperative associations. A legal form for a collective economic unit is the stock corporation. This may explain but does not excuse, however, the fact that in popular economic literature the concept of stock corporation is customarily identified and very often uncritically confused with the conception of the collective economic (business) unit. Among actually existing organizations there are wide deviations from this basic case of perfect legal and economic unity of organization. Such deviations might be traced in the following three principal cases:

1. one economic unit may be embodied in more than one legal unit;
2. one economic unit can be incorporated as an independent single legal unit; and
3. more than one economic unit may function through one legal unit.

These three basic types of correlation of legal form and economic character of organization are presented as embracing, with numerous intervening transitory forms, the entire range of economic formations. They deserve to be examined in some details:

- a) An economic unit organized in a plurality of legal units can be best illustrated by the cases of stock companies which find it necessary or expedient to incorporate some parts of their activities as separate legal bodies. There are usually very important practical reasons behind such decisions. The management of the company, for instance, might be willing to organize a new department within existing enterprise with the idea of experimenting in some untried fields involving considerable risks in case of failure. The management would be perfectly justified in taking every possible precaution to assure the economic interests of the company in the hazardous endeavor, e.g., the incorporation of such experimental branch of the economic unit as a legally separate subsidiary company, owned by the parent organization. This procedure is perfectly justifiable, efficient, and commonly used in practice, viz., a legal device to protect the vital interests of the parent company.