# COST OF CREDIT EXTENSION IN REPRESENTATIVE MICHIGAN AGRICULTURAL COOPERATIVES

Thesis for the Degree of M. A.

MICHIGAN STATE COLLEGE
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1940

# COST OF CREDIT EXTENSION IN REPRESENTATIVE MICHIGAN AGRICULTURAL COOPERATIVES

# Cost of Credit Extension in Representative Michigan Agricultural Cooperatives

A Thesis

Submitted to the Faculty of the Michigan State College in partial fulfillment of the requirements for the Degree of

Master of Arts

Michigan State College

by

Donavon Dale MacPherson

1940

ACKNOWLEDGMENT

The author wishes to express his indebtedness to Professor R. V. Gunn, Mr. Arthur Howland, and Mr. Gifford Patch, Jr. of the Extension Section of the Economics Department, who aided in the planning of the study; to the managers and bookkeepers of the cooperatives who gave invaluable aid in securing the data of the individual associations; to Dr. Henry Larzelere and Dr. Harald S. Patton of the Economics Department who read the manuscript and offered many valuable criticisms and suggestions; and to the Michigan State Farm Bureau whose special graduate fellowship, granted to the writer, during the academic year of 1937-1938, provided the financial assistance for this investigation.

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# INTRODUCTION

In Michigan, more than 200 farmer-owned cooperative associations are now selling farm supplies to their members and patrons according to a study made in 1937 by the Farm Credit Administration. These cooperatives sold more than $14,000,000 worth of farm supplies during the preceding year. On the basis of sample investigation, it can be estimated that about 60% of these sales were for credit. As a result of these credit sales, cooperatives carried about $2,000,000 in accounts receivable.

Extending credit and collecting accounts bring about many problems and often cause a great deal of trouble for managers and boards of directors of cooperatives. In fact, complete failure of many cooperatives can undoubtedly be traced to unsound credit practices.

This study was undertaken in an attempt to clarify the credit problems by analysis of the credit practices of representative farmers' cooperative associations in Michigan. This method of investigation was chosen because it was thought that a detailed and intimate analysis of the credit situation of a few representative cooperatives would be more informative and suggestive than a statistical survey of the credit operations of Michigan cooperatives in general.

The associations studied were chosen to represent organizations operating in the principal farming areas in the state. The following were selected: two neighboring fruit cooperatives in the fruit belt of southwestern Michigan; two members of the Michigan Potato Growers

Exchange operating in the potato, hay, and cattle area in the northwestern part of the lower peninsula; and two grain and feed cooperatives operating in the southeastern part of the state in the general farming area which borders on the Detroit milk shed.

All of the data used in this study were obtained by visits to the associations concerned. An average period of two weeks was spent at each association in compiling the data from the records and financial statements and in interviews with managers and clerical employees.

In the following chapters the subject matter of the study is presented in three parts. Chapters One and Two are concerned with an examination of the nature of the credit problems and the practices followed by the respective associations. In Chapter Three an attempt is made to measure the cost of extending credit in the cooperatives studied. Finally, in Chapters Four and Five attention is given to the feasibility of alternative sales policies and practices designed to minimize the credit problems.

# CHAPTER I

## GENERAL DESCRIPTION OF THE COOPERATIVES

All of the six cooperatives included in this survey were organized primarily as marketing agencies for farmers' produce; they later took on the selling of farm supplies as a sideline. In recent years, however, the farm supply business has become increasingly more important. In four of the six cooperatives, during the period studied, the value of the farm supplies sold exceeded the value of the farmers' produce marketed as indicated in Table 1.

The Dexter Cooperative Company is located in Dexter, Washtenaw County. In its trading area, which is in the central Michigan general farming area and partially in the Detroit milk shed, farm income is principally from dairying supplemented by corn, wheat, beef cattle, sheep, etc. During the fiscal year of 1937, this association did a total net business of $125,644 of which $110,881 or 88%, was retail sales of supplies and $14,763, or 12% was wholesale sales of grain. In addition to the patrons' grain which was marketed the cooperative purchased approximately $3,100 worth of other grain which was sold at retail as feed and seed. The association, therefore, acted as a local market for about $17,900 worth of farmers' produce.

The Howell Cooperative Company is located in Howell, Livingston County. The agricultural income in its trading area is similar to that of the Dexter cooperative in that it is from dairying and from general

Types of Farming Areas*

1. Dairying
2. General Farming
3. Fruit
4. Potatoes & Cattle

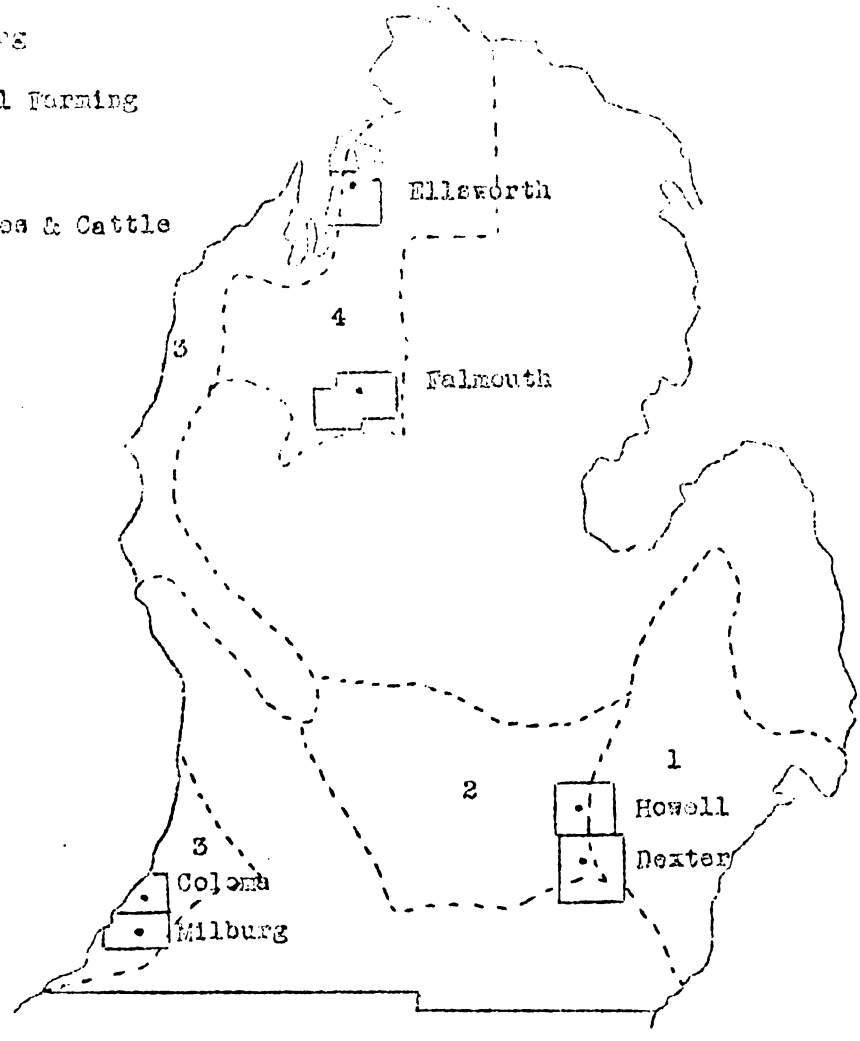


Fig. 1. Trading Areas of Cooperatives Studied.

* Source: C. O. May and H. A. Berg, This Business of Farming in Michigan, Michigan State College, Extension Bulletin 183, December, 1947, East Lansing, Michigan

farming. During the twelve-month period of December 1, 1936 to November 30, 1937 this cooperative did a total net business of $212,752 of which $148,533 or 70%, was retail sales of supplies, and $64,219 or 30%, was wholesale sales of flour. The flour sold to wholesalers was from the cooperative's own flour mill which is the only cooperative milling plant in the State of Michigan. These sales do not represent the actual value of the farm produce marketed since the total cost of the wheat was less than the sales value of the flour. Some grains were purchased locally for feed and seed supplies.

Table 1. Sales* of Farm Products and Supplies by Six Michigan Cooperative Associations

| Cooperative | Sales of Farm Products | | | Retail Sales of Supplies | Per Cent | Total Sales |
|---|---|---|---|---|---|---|
| | Fruit | Potatoes | Grain | | | |
| Coloma | $124,319 | | | $108,001 | 46.5 | $232,320 |
| Milburg | 86,416 | | | 82,406 | 48.8 | 168,822 |
| Ellsworth | | $17,531 | $522 | 53,926 | 74.9 | 71,979 |
| Falmouth | | 31,571 | 2,874 | 163,092 | 82.6 | 197,537 |
| Dexter | | | 14,763 | 110,881 | 88.0 | 125,644 |
| Howell | | | 64,219 | 148,533 | 70.0 | 212,752 |

* Sales represent the volume of business for the fiscal year of each association.

The Falmouth Cooperative Company is located in Falmouth, Missaukee County. In its scale of operations this association is different from the other five studied. Each of the others operates a single place of

business while Falmouth operates two branches at McBain and Merrit in addition to the central station. The McBain branch was obtained recently by the purchase of the assets of the bankrupt McBain Cooperative Company. It is operated as a regular branch of the Falmouth Cooperative and carries on all of the lines of business of the main organization. The Merrit branch was acquired somewhat earlier than the McBain branch. Its business is principally in hardware supplies. Potatoes, hay and cattle are the principal sources of farm income in the cooperative's trading area. In the period of July 1, 1937 to June 30, 1938, the total sales of the three stations was $197,537 of which $163,092 or 82.6% was retail sales of farm supplies, $31,571 or 16% was sales of potatoes marketed and $2,874 or 1.4% was sales of beans marketed. The farm produce was sold primarily through the Michigan Potato Growers Exchange.

The Ellsworth Farmers Exchange is located in Ellsworth, Antrim County. In its trading area potatoes are the principal source of farm income; other income is from the sales of cherries, dairy products, beans and cattle. During the fiscal year, July 1, 1937 to June 30, 1938, the total sales were $71,979 of which $53,936 or 74.9% was retail sales of supplies and $17,531 or 24.4% and $52 or 0.7% was sales of potatoes and beans respectively. As with the Falmouth association, the farm produce was sold largely through the Michigan Potato Growers Exchange.

The Milburg Growers Exchange is located at Milburg Station, Benton Harbor, in Berrien County. In its trading area fruits, melons and tomatoes are the important sources of agricultural income. During the calendar year of 1937 total sales were $168,822, of which $82,406 or

or 48.8% was retail sales of supplies and $86,416 or 51.2% was wholesale sales of apples, peaches and melons. All farm produce was sold directly to wholesalers and canners.

The Coloma Fruit Exchange is located in Coloma, Berrien County. As with the Milburg cooperative, fruits, melons and tomatoes are the important sources of farm income. For the calendar year of 1937 total sales were $232,320 of which $108,001 or 46.5% was retail sales of supplies and $124,319 or 53.5% was wholesale sales of fruits and melons. Apples, peaches and melons were sold directly to wholesalers and canners.

The farm supplies sold by the individual cooperatives varied considerably as a result of the needs of the farmers in the cooperatives' trading areas. For the Howell and Dexter cooperatives, feeds, fertilizers, coal and building materials were the most important supplies sold. For Falmouth and Ellsworth, feeds, fertilizers, coal and petroleum products had the greatest sales volume. Milburg and Coloma sold principally fertilizers, spray materials, fruit packages and feeds. All six of the cooperatives are active members of the Michigan Farm Bureau Services and consequently purchase a considerable proportion of their supplies from that organization; in addition to the Farm Bureau products each of the cooperatives handle other lines of supplies. Howell, Falmouth and Milburg sell farm machinery.

## CHAPTER II

## THE IMPORTANCE OF CREDIT EXTENSION

### Relationship of Credit Sales to Total Sales

The importance of credit extension to the six cooperatives is indicated by the fact that they made an average of 64.4% of all supply sales on credit, varying in individual cases from 48.7% to 76.4% as shown in Table 2. The items, total sales, cash sales, and credit sales as used here and in the balance of this thesis refer only to sales of supplies; they do not include the sales of farm produce marketed.

Table 2. Relationship of Credit Sales to Total Sales

| Cooperative | Total Sales | Credit Sales | Ratio of Credit Sales to Total Sales |
|---|---|---|---|
| Coloma | $ 108,001 | $52,600 | 48.7% |
| Milburg | 82,406 | 48,323 | 58.6 |
| Ellsworth | 53,926 | 29,395 | 54.5 |
| Falmouth | 163,092 | 108,345 | 66.4 |
| Dexter | 110,881 | 84,676 | 76.4 |
| Howell | 148,533 | 106,126 | 71.4 |
| Average | $ 111,140 | $ 71,577 | 64.4 % |

Apparently the extension of credit had some effect upon the volume of sales. The Coloma, Milburg and Ellsworth cooperatives had both credit sales ratios and sales volumes below the averages of the six cooperatives. On the other hand the Falmouth, Dexter and Howell cooperatives had credit sales ratios and sales volumes above the averages. However, even though there was a relationship between sales volume and the percentage of sales made on credit for the six associations as a whole, this relationship was not of great importance for the individual associations. For example: The Coloma cooperative had a credit sales ratio of only 48.7% and a total sales volume of $108,001; while the Dexter cooperative had a much higher credit ratio of 76.4% and only a slightly larger sales volume of $110,677. The Milburg cooperative had a credit sales ratio of 58.6% and a sales volume of $82,406; while the Ellsworth cooperative had a slightly smaller sales ratio of 54.5% but a much smaller sales volume of $53,926. This point may be illustrated in another way. The Falmouth cooperative had the largest volume of sales, $163,092, with a credit ratio of 66.4% which was slightly more than the average credit ratio of 64.4%; while the Coloma cooperative, which had a sales volume just below average of $111,140, had the lowest credit ratio of 48.7%.

These differences do not nullify the managers' conclusions that the ratio of sales made on credit affects the total volume of sales. The differences do indicate that while there was a general relationship between the volumes of sales and the ratios of credit sales in the six cooperatives, the individual sales volumes were not proportional to the credit ratio. Evidently there was no direct correlation between the percentage of sales made on credit and the total volume of sales for each individual cooperative.

From the above contrasts and examples, it may be seen that factors other than sales volume must be considered if the credit situation is to be understood. These factors are the nature of the agricultural income in the cooperative's trading areas, competition from other retailers, and the cooperatives' credit extension and collection practices. They are discussed in detail in the following sections.

## Factors Influencing Credit Extension

### Nature of the Agricultural Income

Types of farm supplies sold and the nature of the agricultural income in the cooperatives' trading area were generally accepted as causes of the credit situations in the various cooperatives. The managers of four of the six associations maintained that these factors peculiar to their own organizations were the important causes of the high ratios of credit sales. Analysis of the statistics of the various associations indicate that while these factors were important, they were not the deciding factors in bringing about the particular credit conditions in the individual associations.

Fruit Marketing Cooperatives. The business of the fruit marketing cooperatives was based upon two main characteristics. On the one hand, apples, peaches, cherries, melons and tomatoes were the only important sources of cash income for the farmers in their trading areas. This income was highly seasonal, realized almost entirely in the five months from August through the following January. Income from the fruit sales was realized principally during the months of December and January.

On the other hand, the farm supplies of spray materials, fertilizers, and fruit packages needed for producing and marketing these products were purchased entirely in the seven months of April through October. These three commodities combined with feeds constituted about 80% of the total sales of the fruit exchanges during the period studied. Figure 3 shows the variations in sales of these principal commodities. Sales of feeds were rather evenly distributed throughout the entire year, being heaviest in the months preceding harvest. Fertilizer sales were greatest during March, April and May, and some sales of fertilizer were made during the summer months. Spray material sales which began in March, were greatest in May, and continued in decreasing volume until late in September. Sales followed the seasonal nature of fruit farming. Sales of fruit packages were large during the period of June through October when the bulk of the fruit and produce crops were harvested.

Monthly variation in sales on credit show that the fruit farmer's requirements for supplies were the heaviest during the months of March through August when he had little income. Reference to Figures 2 and 3 indicates that balances of receivables varied directly as the credit sales. It would be logical to conclude on the basis of the seasonal income of the farmers and the seasonal sales of supplies that the percentage of credit sales would be very high in the fruit marketing cooperatives. However, a study of the data shows that the Coloma and Milburg associations made only 48.7% and 58.4% respectively of their sales of farm supplies on credit. These percentages were considerably below average of 64.4% for all six cooperatives. The cause of this will be explained in a later section.

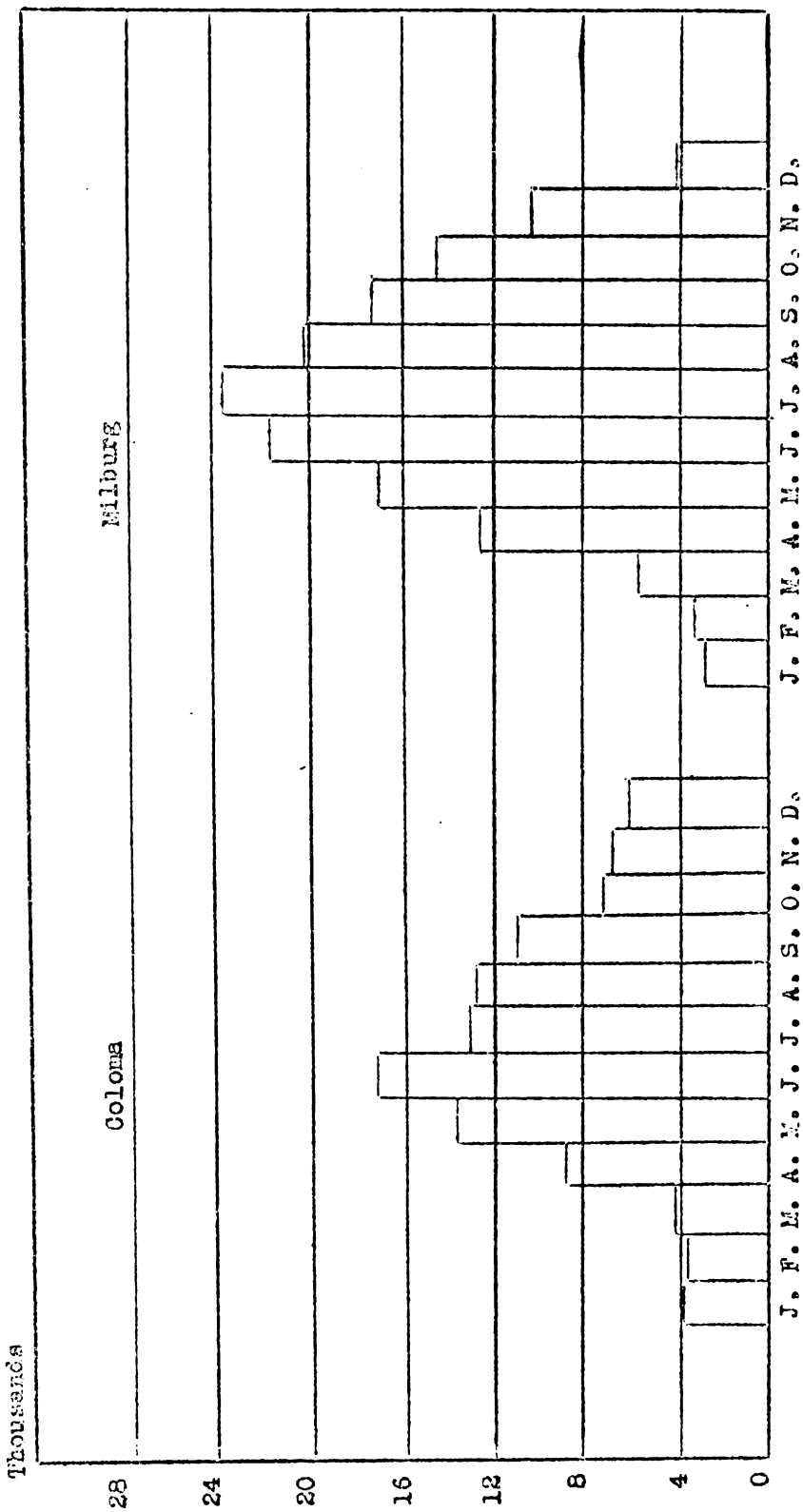


Fig. 2 - Monthly Variations of Accounts Receivable at the Fruit Marketing Cooperatives During 1937

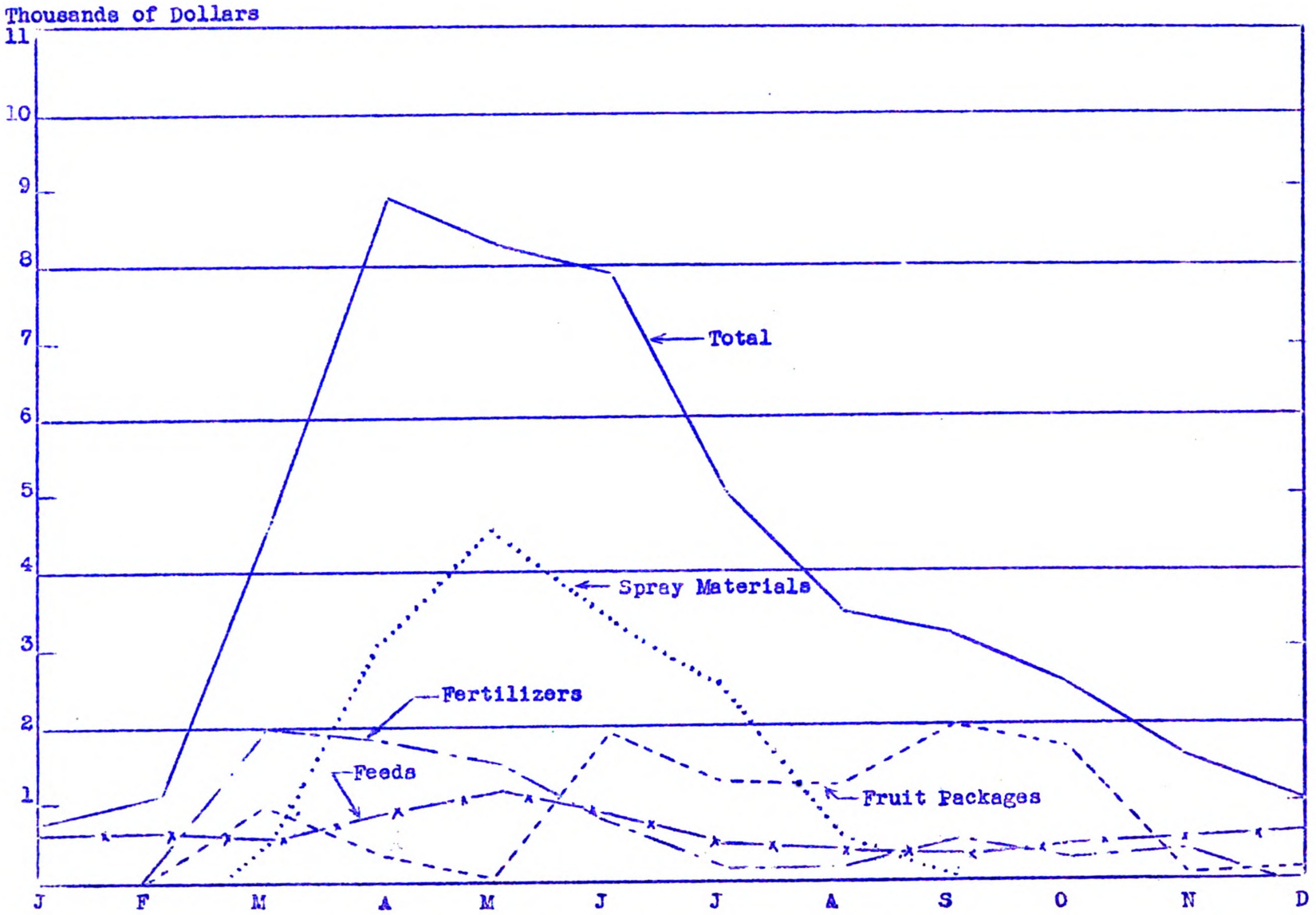


Fig. 3. Variations of Average Monthly Supply Sales by the Fruit Marketing Cooperatives (1937)

Potato Marketing Cooperatives. The business of the potato marketing cooperatives was comparable to that of the fruit marketing cooperatives in that the important source of income for the farmers was from the sale of a seasonal product--in this case, potatoes. Other income was from the sale of cherries, beans, dairy products and cattle. Here, as with the patrons of the fruit marketing cooperatives, farm income was largely limited to the relatively short period of the year when the principal crop was marketed.

Feeds, fertilizers, petroleum products, and coal were the principal supplies sold by the potato associations. Together they accounted for about 75% of the total credit sales. Monthly sales of these commodities are indicated in Figure 5. A significant point shown by this chart as compared to that for the fruit cooperatives is that total credit sales of the potato cooperatives were more evenly distributed throughout the year because the principal commodities had varying and more or less complementary seasonal demands.

Feed sales did not fluctuate to any large extent during the year. Fertilizer sales were made from April to September with the greatest sales in May. Sales of petroleum products were comparatively even throughout the year with greatest volumes in the threshing months of August, September and October, and smallest volume in the winter months. Sales of coal were made almost entirely during the period of September through February when there was need of fuel for heating; the large volume of sales began in September because customers were purchasing part or all of a winter's supply at that time.

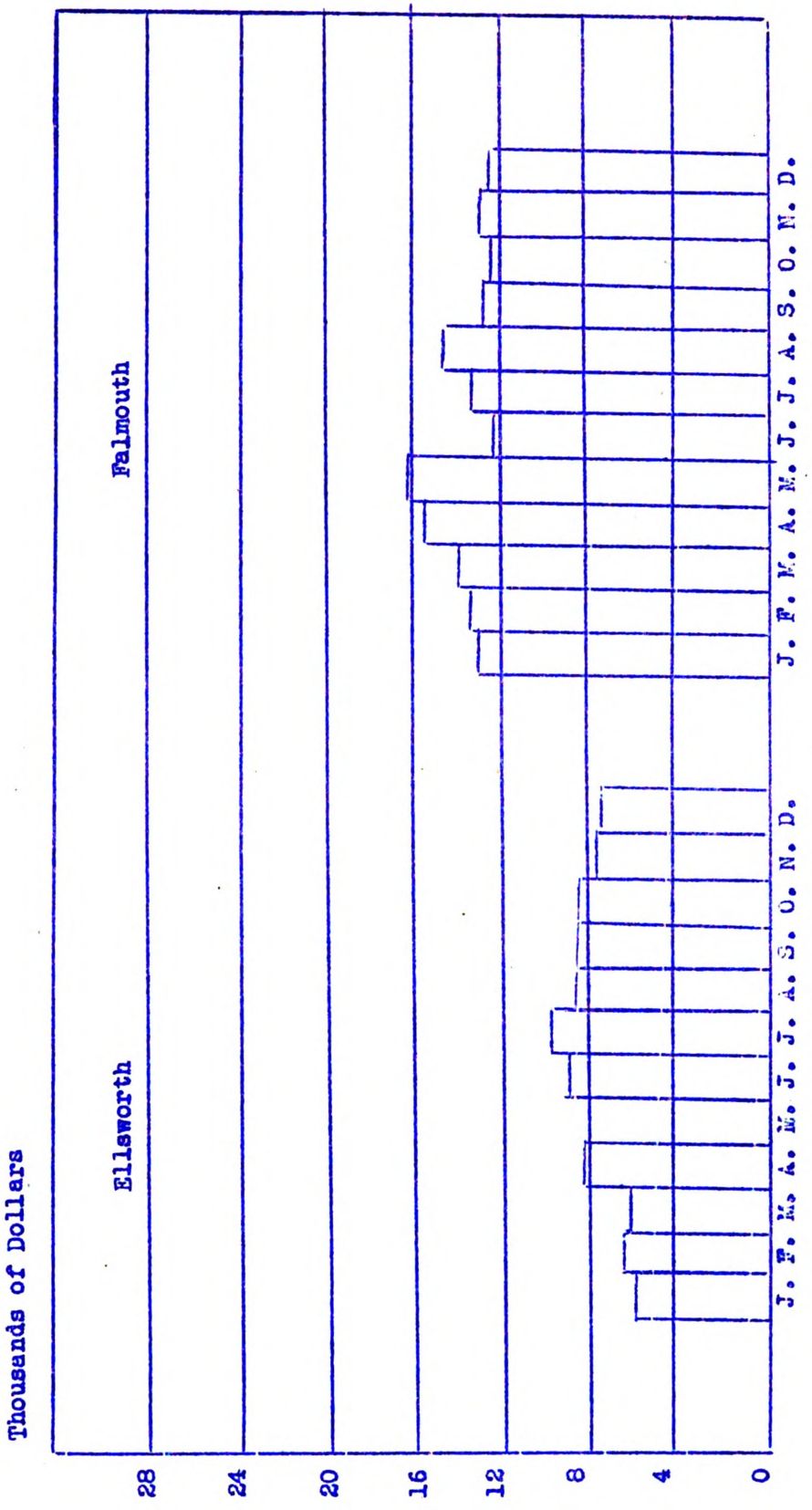


Fig. 4. Monthly Variations of Accounts Receivable at the Potato Marketing Cooperatives During 1937

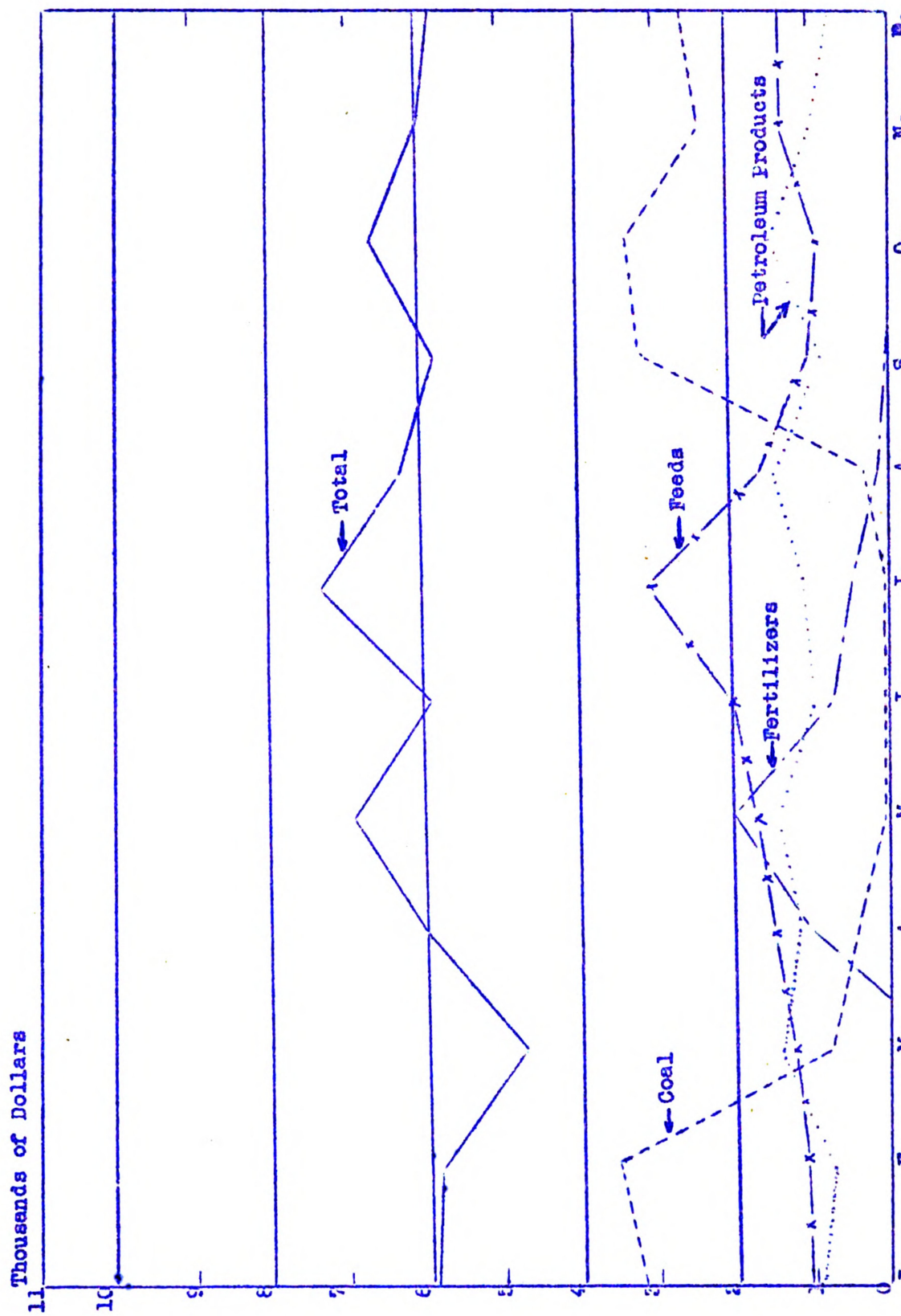


Fig. 5. Variations of Average Monthly Supply Sales by the Potato Marketing Cooperatives (1937)

These varying seasonal sales tended to keep credit sales and the accounts receivable fairly even throughout the year. Considering the seasonal nature of the farmers' income and the fact that the two co-operatives do a very comparable type of business, it would be concluded that credit sales would be high and about equal. Yet Falmouth made 66.4% of its commodity sales on credit, while Ellsworth made only 54.5% of its commodity sales on credit. Falmouth was near, and Ellsworth below the average of 64.4%.

Grain and Feed Cooperatives. The business of the grain and feed cooperatives was based on the agriculture of their trading area. Dairy products and general farming products such as wheat, corn, potatoes, beets, cattle and sheep were the important sources of income for the farmers. Since dairy products were the most important, most of the farmers had a fairly steady income in the form of semi-monthly or monthly milk checks.

Feeds, coal, building materials and fertilizer were the principal commodities sold by the two grain and feed cooperatives. Together, these commodities accounted for about 76% of the total credit sales. Figure 7 indicates that in the feed and grain cooperatives, as in the potato marketing cooperatives, seasonal demand of the four main commodities were at different periods of the year and tended to keep total credit sales rather evenly distributed throughout the year.

Feed sales were greatest in the winter and spring months reflecting the need to suppliment home grown feeds until spring pastures could be used. Coal sales were high during the fall and winter months and low during the spring and summer months, following the seasonal need for heating fuel. Building materials sales were largest in the late spring

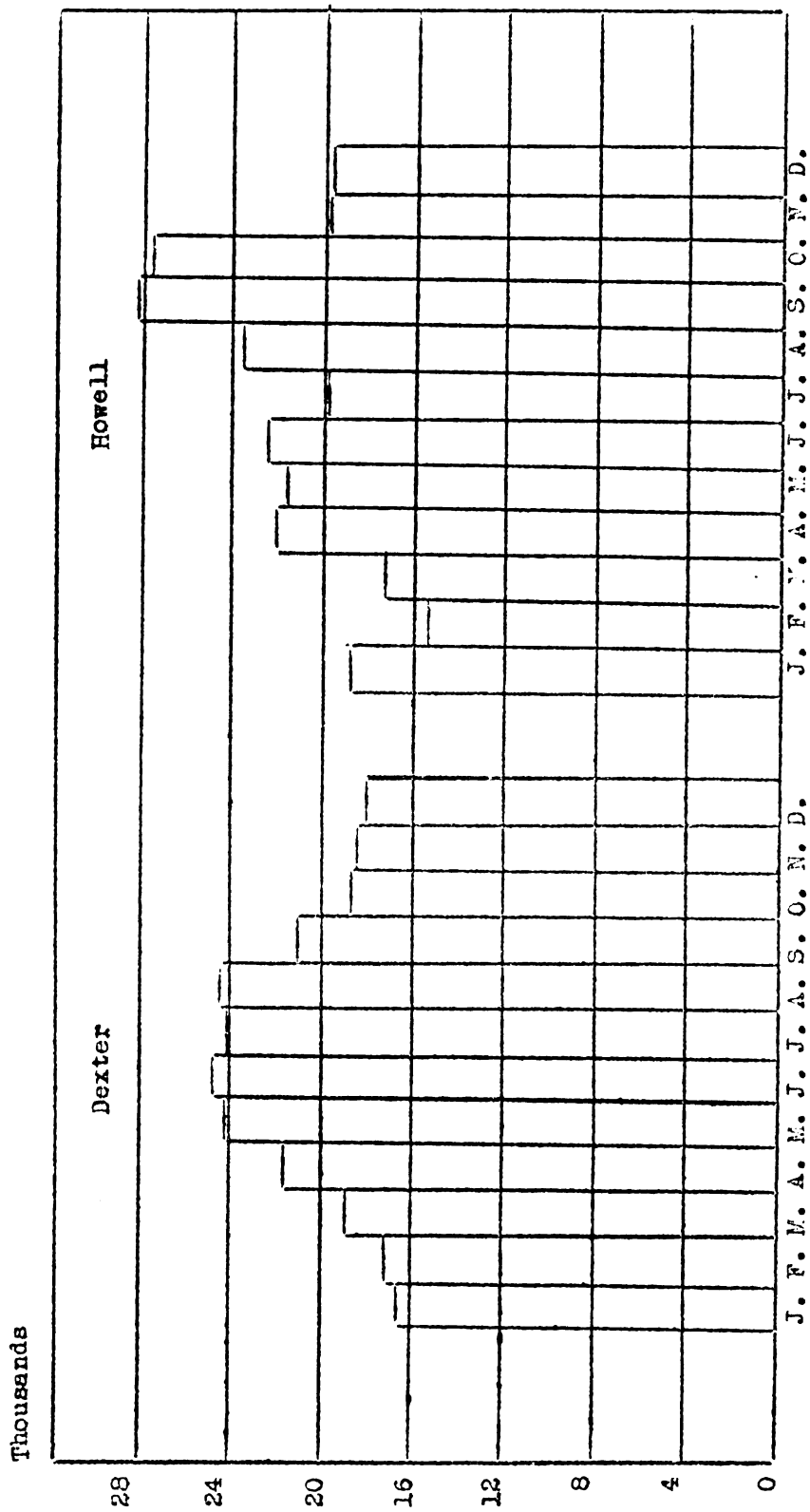


Fig. 6. Monthly Variations of Accounts Receivable at the Grain and Feed Cooperatives During 1937

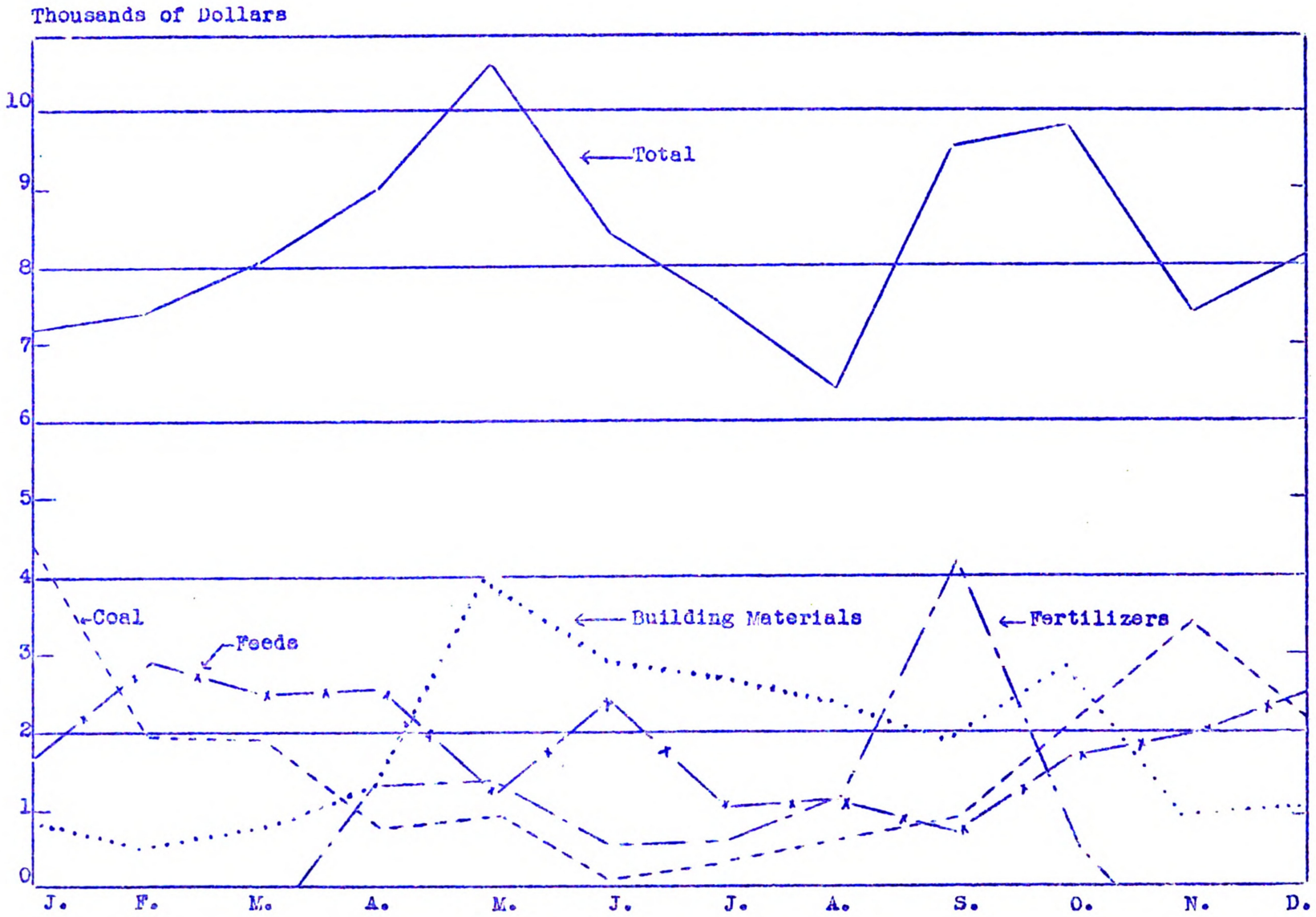


Fig. 7. Variations of Average Monthly Supply Sales by the Grain and Feed Cooperatives (1937)

and early fall, and smallest during the winter. Increased sales in October were caused probably by the fact that farmers had more time to build during that month. Fertilizer sales were high in the spring and fall months; the large purchases in September being associated with fall plowing.

These four principal types of supplies did not have the same seasonal fluctuations in demand. Coal and feed sales were generally greatest in the fall and winter months; and building materials and fertilizer sales were generally greatest in the spring and summer months. The result was that total credit sales were rather evenly distributed throughout the year. This situation tended to keep accounts receivable from varying greatly at different times of the year as indicated in Figure 6.

Considering the relatively stable income of the farmers, it would be expected that the percentage of sales made on credit would be rather low. Here, as in the fruit marketing cooperatives, the reverse was true. Dexter made 76.4% of its sales on credit; Howell made 71.4% of its sales on credit. These percentages were much higher than the average of 64.4%.

The conclusions on the relationship of the nature of the agricultural income and credit sales can be summarized as follows: the percentages of credit sales in the fruit marketing cooperatives and the grain and feed cooperatives were the opposite from that which would be expected considering the flow of agricultural income in the trading areas. The percentage sales on credit by the two potato exchanges varied nearly 12%, while the nature of the agriculture in their trading area was almost identical. Therefore, if these six cooperatives are representative, the nature and

seasonality of the agricultural income in their trading areas would not appear in itself to be a deciding factor in determining credit practices.

Competition From Other Retailers

A second factor considered of importance in determining credit practices of the cooperatives was the competition from other retailers of similar farm supplies. The effect of competition upon credit extension could not be determined by statistical analysis and so had to be largely based upon the opinions of the several managers. All six cooperatives had competitors and most of the managers recognized competition as a reason for extending credit.

Managers tended to look upon their specific credit practices as something forced upon them by their competitors. Whether or not this was true is a controversial subject. The cooperatives may have been instrumental in establishing the credit practices of all retailers of farm supplies in their respective trading areas. Under such circumstances the manager would not be justified in maintaining that liberal credit was forced upon his association. In no instance would any manager of any of the six cooperatives admit that his cooperative took the lead in granting liberal credit, yet in their efforts to maintain sales volume, cooperatives may have granted liberal credit terms. If this was true, the response of competitors to the cooperative's credit policy would be to grant even more liberal credit.

In some instances credit practices were not determined by either the cooperative or its competitors, but were rather the result of the credit habits of the customers. In other words, credit in many localities

was more or less a custom--credit extension was accepted by customers as a right and necessity. Under these circumstances it would have been necessary to offer unusual cash inducements or to re-educate the customers before the present credit situation could be corrected.

These generalizations applied more or less to all six cooperatives studied. There were, in addition, certain factors that applied to the individual associations.

Fruit Marketing Cooperatives. Coloma and Milburg, the two fruit marketing cooperatives, had competition not only from private dealers but also from other fruit marketing cooperatives such as those at Benton Center, Sodus and Watervliet. In fact, since the two cooperatives are but six miles apart, they were competitors of each other. The importance of competition was lessened in these associations by a characteristic of their business. The fruit cooperatives were organized primarily as fruit-marketing associations and not as retailers of farm supplies; fruit marketing was the most important phase of their business. To the farmers who sold fruit through the association, this marketing function was of great importance and tied them very closely to the association. Furthermore, members were permitted to buy farm supplies against their fruit delivery accounts.[1] These factors made the cooperatives less susceptible to competition from other retailers. To non-members, who could not market produce through the cooperative and who did not receive patronage dividends, the cooperatives sold supplies on the same basis as would any other retailer. In the fruit cooperatives, competition can be

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[1] See pp. 28-29

considered as an important factor in determining credit practices toward non-members, but cannot be so considered for members who market their produce through the same organization.

Potato Marketing Cooperatives. The Ellsworth association had direct competition from one other retailer of general farm supplies and several other retailers of petroleum products. In addition there was some competition from cooperatives and private retailers in neighboring towns. Here, as in the fruit cooperatives, the cooperative had a competitive advantage in that it provided the service of marketing of the farmers' produce--in this case, potatoes and beans. This marketing service was offered to all farmers on an outright purchase and resale basis. Within the immediate trading area, competition usually had considerable effect upon prices. However, it has not governed credit practices since the Ellsworth association went on a restricted credit basis in the year following this study while its competitors continued to sell on liberal credit terms.

Competition at Falmouth was different from that of any of the other cooperatives. This association operated two branches in addition to the central station. These branches were operated almost entirely independently of the central station and so followed different credit practices. At Falmouth and the Merrit branch there was no direct competition from private retailers who sold farm supplies and offered potato marketing service to the farmers. At McBain there were two competitive dealers who sold all the kinds of the farm supplies handled by the cooperative and offered the same marketing services; there were also two other dealers in petroleum

products who operated delivery trucks. The competition at McBain was strong and was a factor in determining credit practices. This was not the case at Falmouth and Merrit.

Grain and Feed Cooperatives. At the Howell and Dexter associations competition was stronger than at the other cooperatives. Both had several competitive private retailers in their trading areas selling farm supplies, coal and building materials. This situation was particularly noticeable at the Dexter association because of competitive sales of coal and building materials in Ann Arbor and other even more distant places. To these associations, competition was a real problem and had a definite effect upon their credit practices. Credit, as granted by the cooperatives, may have been more or less liberal than that of the private retailers. However, fear of loss of business to competitors has a considerable effect upon the associations' terms for credit.

The importance of the competitive factor is indicated by the percentages of total sales that were made on credit. The Coloma and Milburg and Ellsworth cooperatives, which were not strongly affected by competition, had the lowest proportion of credit sales. The Dexter and Howell cooperatives, which had strong competition, had the highest proportion of credit sales. At the Falmouth association the competitive factor apparently did not govern the extension of credit.

Most important of all factors controlling credit practices in all six cooperatives was the managers' opinions of what constituted a safe credit risk. This factor is discussed in further detail in the following section on credit practices of the various associations.

## Credit Extension Practices

The six cooperatives did not follow a definite, practical set of rules and regulations to govern all credit sales. In the actual extension of credit, however, there were some limitations which were applied in varying degrees to all patrons. Credit extension, as mentioned previously, was based principally upon the manager's estimation of the credit rating of each individual purchaser.[2] Since this limitation was necessarily a matter of opinion, wide variations of credit practices appeared in the individual associations.

### Cash and Credit Sales to Members and Non-Members

Credit sales were not limited by amount or time to either members or non-members although, generally, credit terms to members were more liberal than to non-members. Managers expressed the opinion that because members had an active and financial interest in the cooperative they were less likely to abuse the credit privilege by allowing accounts to become too large or to remain unpaid for too long. In short, members were considered to be better credit risks than non-members.[3]

Credit sales to non-members were generally limited on the same basis that a private retailer would limit sales to his customers. Managers

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[2] The Howell cooperative belonged to the local Credit Bureau but granted credit to farmers with low credit ratings when the manager thought they were safe risks.

[3] This conclusion was borne out. In the study there was but one instance of a bad debt loss from a member's account.

explain this as a result of the fact that non-members had no direct interest in the cooperative and were not particularly concerned with its success or failure. The principal reason that non-member patrons purchased from the cooperative rather than private retailers was that the cooperative offered lower prices in the form of patronage dividends.[4] Because of this factor the non-members were considered to be less secure credit risks than the members.

Table 3. Cash and Credit Sales to Members and Non-Members

| Cooperative | Members | | | Non-Members | | |
|---|---|---|---|---|---|---|
| | Cash Sales | Credit Sales | Ratio of Credit Sales to Cash Sales | Cash Sales | Credit Sales | Ratio of Credit Sales to Cash Sales |
| Coloma | $20,514 | $21,705 | 1.1 : 1 | $34,887 | $30,895 | 0.9 : 1 |
| Milburg | 7,854 | 29,077 | 3.7 : 1 | 26,229 | 19,246 | 0.7 : 1 |
| Ellsworth | 7,146 | 6,550 | 0.9 : 1 | 17,335 | 22,845 | 1.3 : 1 |
| Falmouth | 25,116 | 34,037 | 1.4 : 1 | 29,581 | 74,308 | 2.5 : 1 |
| Dexter | 5,901 | 15,276 | 2.6 : 1 | 20,304 | 69,400 | 3.4 : 1 |
| Howell | 29,607 | 47,515 | 1.6 : 1 | 12,800 | 58,611 | 4.6 : 1 |
| Average | $16,031 | $25,693 | 1.6 : 1 | $23,531 | $45,884 | 1.9 : 1 |

Table 3 shows the variations of cash and credit purchases of both members and non-members. The significant figures in this table are not

[4] Even this did not apply to all of the cooperatives. The fruit cooperatives have a closed membership and do not pay patronage dividends to non-members.

only the volume of sales given in columns 2, 3, 5 and 6 but also the ratio of credit sales to cash sales given in columns 4 and 7.

Fruit Marketing Cooperatives. As indicated above the two fruit marketing cooperatives sold similar farm supplies and marketed similar farm produce.[5] The Coloma cooperative sold to members $21,705 worth of farm supplies on credit and $20,514 worth of farm supplies for cash. The ratio of credit sales to cash sales was 1.1 to 1. The Milburg cooperative sold to member $29,077 worth of farm supplies on credit and $7,854 worth of farm supplies for cash. The ratio of credit sales to cash sales was 3.7 to 1. The difference in the ratios of 1.1 and 3.4 indicate that much more liberal credit was given to members at Milburg than at Coloma. For non-members the ratios of credit sales to cash sales were 0.9 to 1 and 0.7 to 1 at Coloma and Milburg respectively. This indicates that there was little difference in the practices of extending credit to the non-members.

Potato Marketing Cooperatives. The Ellsworth and Falmouth cooperatives although located at a considerable distance from each other sold the same types of farm supplies and marketed the same types of farm produce.[6] The ratios of credit sales to cash sales at Ellsworth were 0.9 to 1 for member and 1.3 to 1 for non-members; at Falmouth these ratios were 1.4 to 1 for members and 2.5 to 1 for non-members. This indicates that the extension of credit at Falmouth was more liberal to both members and non-members than it was at Ellsworth. These figures also indicate that in both associations the credit privilege was more freely used by non-members than by members.

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[5] See pp. 6-7

[6] See pp. 5-6-7

Feed and Grain Cooperatives. The Dexter and Howell cooperatives sold the same general types of supplies with the exception that Dexter sold relatively more building supplies.[7] For Dexter the ratio of credit sales to cash sales was 2.6 to 1 for members and 3.4 to 1 for non-members. For Howell these ratios were 1.6 to 1 for members and 4.6 to 1 for non-members. These ratios indicate that much more liberal credit was granted to members at Dexter than at Howell, but more liberal credit was extended to non-members by Howell. They also indicate that at both associations a smaller percentage of purchases on credit was made by members than by non-members.

## Assignments on Produce Marketed Through the Cooperatives

The use of assignments on farm produce marketed also had a direct effect upon the credit practices of the fruit marketing associations and an indirect effect upon those of the potato marketing associations.

At the fruit marketing associations many of the members' accounts were very large during the spring and winter months. These associations allowed this condition because all fruit marketed through the cooperatives was handled on a definite assignment basis. Under this system the cooperative had and exercised the right of deducting from the income for the sale of fruit the amount owed to the cooperative by the grower. Only the members who marketed fruit on this basis were allowed to purchase large amounts on credit. Since the ratio of credit sales to cash sales for

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[7] See pp. 3-4-7

members was 3.4 at Milburg and only 1.1 at Coloma, it is apparent that this practice was followed to a greater extent at Milburg than at Coloma. The fact that the ratios of credit sales to cash sales for non-members varied only 0.2 indicates that credit terms were much the same for those who did not market fruit through the cooperatives.

The potato marketing cooperatives did not use direct assignments on the potatoes marketed for members and non-members. However, their marketing activities affected their credit practices because producers made verbal agreements to settle accounts out of income from the sales of potatoes. In addition, the managers of both cooperatives made active efforts to encourage other patrons to settle accounts in this way. Since these associations handled potatoes for both members and non-members,[8] the marketing operations affected the extension of credit to both groups. In spite of the use of this method of collecting accounts, payments from sales of potatoes were of minor importance. Proof of this fact is in the ratios of credit sales to cash sales which indicate that more liberal credit was granted to both member and non-members at Falmouth than at Ellsworth.

Marketing operations at Dexter and Howell were of minor importance in determining credit practices because these associations were of a more strictly producer-consumer type in their relation to patrons. They did act as a marketing agent to some extent by purchasing grain from farmers to be used for flour manufacturing at Howell and for feed supplies at both associations. In addition, each of the cooperatives marketed some

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[8] Potatoes were marketed for non-members whenever storage space was adequate.

wheat.[9] These grains, however, were secured by outright purchase and were very small in dollar volume and importance to the farmers as compared to the marketing functions of the fruit and potato marketing cooperatives. In some instances farmers who sold to Dexter and Howell cooperatives did settle their accounts by book transaction but as a whole marketing had little influence on credit practices.

## Collection Practices

The collection practices of the six cooperatives were comparable to those for extending credit in that there was no set of rules and regulations that applied to all patrons. Three general methods were commonly used for collecting accounts: sending statements of account to patrons, active collection efforts of the managers, and converting accounts receivable into negotiable form. In addition to these three general collection practices, the fruit marketing cooperatives used direct assignments on fruit handled for the patrons.

### Statements of Account

Statements of account in widely varying numbers were used by all six cooperatives as a collection device. In five associations they were sent only to those purchasers whose accounts were considered delinquent or likely to become delinquent in the near future. Table 4 shows that an average of about three statements per year were sent to purchasers who bought on credit. Ellsworth, Falmouth and Howell sent less than three, while Dexter, Coloma, and Milburg sent more than three.

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[9] See pp. 3-5

Only the Dexter cooperative sent statements each month to all purchasers that had unpaid balances. Actually only about eight statements per year were sent to each credit purchaser by this organization because some customers did not have balances payable to the cooperative at the end of each month.

Table 4. Relationship of Number of Statements of Accounts to Number of Credit Customers

| Cooperative | Number of Credit Customers | Number of Statements Rendered During the Year | Number of Statements per Credit Customer (Average) |
|---|---|---|---|
| Coloma | 800 | 2610 | 3.3 |
| Milburg | 350 | 1750 | 5.0 |
| Ellsworth | 391 | 1050 | 2.7 |
| Falmouth | 1950 | 4520 | 2.3 |
| Dexter | 308 | 2540 | 8.3 |
| Howell | 910 | 3075 | 3.4 |
| Average | 785 | 2591 | 3.3 |

The other cooperatives sent fewer statements because they did not notify all customers who had unpaid balances and, perhaps, because the average customer had unpaid balances over a shorter period of the year. The figures in column two of Table 4 are for all customers and patrons who made credit purchases during the year whether they had balances at the end of one or all months. For example, the Milburg association,

which rendered an average of five statements per credit customer per year, sent out nearly 300 during the months of May and June and mailed less than 75 during January and February. Statements were therefore, sent each month to nearly all customers with unpaid balances. Only a record of the number of statements and number of active accounts for each month would show the exact ratio of statements to accounts receivable.

## Manager Efforts

The second method of collecting accounts that was used by all six cooperatives consisted of the efforts of the manager to collect overdue accounts by personal contacts. Managers of five associations estimated that they spent the equivalent of one to three days each month away from the office making collections. The Dexter association's manager spent no time away from the office but actually he spent more time collecting accounts than did any other manager. Several evenings of each week, on his own time, and at his own expense, he contacted a number of customers whose accounts were overdue. His total time spent in this way exceeded four full days each month. In addition to these contacts made away from the office, each of the managers made active efforts to collect accounts receivable from those customers who came into the office.

Managers were, in many instances, able to collect accounts from patrons who paid little or no attention to statements of accounts. They maintained that their efforts were the most effective of all the collection practices.

## Converting Accounts Receivable into Negotiable Form

A third collection practice used somewhat by the cooperatives was

the converting of accounts receivable into negotiable forms. The most commonly used practice was that of converting accounts receivable into notes receivable. This is a sound business practice. It reduces the implicit interest cost of carrying accounts through lowered balances of accounts receivable; the purchaser, under these circumstances, rightly pays for the use of the cooperative's capital. The notes can be discounted at financial institutions thus releasing working capital from receivables and making it available for other purposes such as replenishing inventories or expanding capital facilities. Further, in cases of dispute, notes give the association more right to legal action to force payment.

The Ellsworth and Falmouth managers were the most active in using this collection method. On June 30, 1938, at Ellsworth, notes receivable including those discounted at banks were $4,927.26 or 36.18% of the total receivables of $13,610.84. On June 18, 1938, at Falmouth, notes receivable including those discounted at banks were $7,815.09 or 36.35% of the total receivables of $21,493.38. The percentage of total receivables in the form of notes was much lower in the four other associations.

The Howell and Dexter managers did not actively encourage patrons to convert accounts into notes. A few accounts were so converted but the relative amount of capital involved was small. On December 31, 1937, all notes receivable at Dexter were only $669.55 or 3.72% of the total receivables of $18,010.87. At Howell, the percentage of receivables in notes was about the same as at Dexter.

The Coloma association made no active effort to convert accounts into notes. The Milburg association encouraged this practice but held only

a very few of the notes. Many of its accounts receivable were converted into cash directly through the banks in the following way: the patron gave his personal note directly to a bank and the bank credited the account of the association. The cooperative was in effect encouraging the farmer to borrow from a regular financial institution to settle his account; in this way the association released its capital from accounts without incurring a contingent liability. The Ellsworth cooperative was the only other association to encourage borrowing from a regular financial institution. The manager assisted the patrons in obtaining Production Credit Association Loans to finance production so they would not need to use the capital of the cooperative.

Assignments on Produce Marketed Through the Cooperatives

The fourth method of collecting accounts was the use of assignments on proceeds from produce sold through the cooperative. This method was used only by the Coloma and Milburg associations.[10] This was one of the important factors in determining all credit and collection practices of these cooperatives, since payment for goods sold on credit was practically assured under these circumstances. Such a practice applied only to active members since non-members could not market fruit through the association.

The potato exchanges, Ellsworth and Falmouth, did not use assignments but their managers did encourage patrons to settle accounts out of the proceeds received from the sale of potatoes marketed through the association.

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[10] See pp. 28-29

## The Effects of Credit and Collection Practices on Borrowing

Each of the cooperatives studied were dependent upon borrowed funds for operating their business. In four associations, borrowing was largely the result of the credit extension and collection practices. In fact, borrowing from banks, members, and employees, was in some instances a direct result of extending credit. The cooperatives were therefore, borrowing and paying interest so they could sell on credit.

Table 5. Relationship of Credit Sales and Collections on Accounts to Borrowing[1]

| Cooperative | Period of Years[2] | Excess of Credit Sales over Collections Accounts | Excess of Collections on Accounts over Credit Sales | Funds Borrowed | Payments on Borrowed Funds |
|---|---|---|---|---|---|
| Coloma | Jan.-Mar. | $ | $ 273 | $ 4,000 | $ |
| | Apr.-June | 13,637 | | 6,500 | |
| | July-Sept. | | 6,062 | | 7,500 |
| | Oct.-Dec. | | 4,897 | | 1,600 |
| Milburg | Jan.-Mar. | 2,587 | | 2,000 | |
| | Apr.-June | 16,428 | | 3,000 | |
| | July-Sept. | | 7,664 | | 5,000 |
| | Oct.-Dec. | | 13,784 | | |
| Dexter | July-Sept. | 898 | | 3,500 | |
| | Oct.-Dec. | 2,067 | | | 4,500 |
| | Jan.-March | 1,712 | | 5,500 | |
| | Apr.-June | 5,441 | | 2,450 | |
| Howell | Dec.-Feb. | | 3,194 | | |
| | Mar.-May | 1,632 | | 4,000 | |
| | June-Aug. | 5,506 | | 500 | |
| | Sept.-Nov. | | 1,648 | 500 | |

[1] No Data is given for cooperatives at Ellsworth and Falmouth, who did little borrowing during period studied.

[2] Periods used are for fiscal year studied.

The relationship of credit sales and collections on accounts to borrowing was most significant at Coloma; borrowing correlated very closely with credit sales, while payments on borrowed capital correlated with collections on accounts. During the period of January through March, when collections exceeded credit sales, $4,000 was borrowed to finance expansion of the inventory for anticipated credit sales during the spring and summer months. In the April to June period, when credit sales exceeded collections, $6,500 was borrowed. In the July to September and October to December period, when collections on accounts exceeded credit sales, payments were made on borrowed capital.

At Milburg credit sales exceeded collections on accounts during the months of January to March and April to June. Funds were borrowed during these periods. In the July to September period when collections exceeded credit sales, the borrowed funds were repaid.

At Dexter credit sales exceeded collections on accounts during every period of the year. Reference to Table 5 shows that $4,500 was paid on borrowed funds during the October to December period; this payment, coming at a time when there was an excess of credit sales over collections, necessitated borrowing $5,500 in the January to March period when the excess of credit sales was only $1,712. For the year as a whole, funds borrowed increased $6,950 and accounts receivable increased slightly more than $10,000 indicating that the borrowing was the result of credit sales.

At the Howell association funds were borrowed during three periods of the year. The largest amount borrowed was $4,000 in the March to May

periods when credit sales had the greatest excess over the collections on accounts. Funds borrowed during the June to August and September to November periods were apparently for some other purpose since collections on accounts exceeded credit sales.

The excesses of credit sales over collections were considerably greater than the amounts of funds borrowed. This indicates that most of the burden of financing credit sales was upon the cooperatives' own capital; it does not reduce the importance of the relationship of extending credit and borrowing funds, since the four cooperatives in Table 5 all apparently borrowed to finance credit sales. The figures in this table do not show a direct relationship of credit extension and borrowing funds but a correlation. Credit sales depletes working capital which in turn may mean borrowing to maintain inventories, etc.

## Conclusion on Credit Extension and Collection Practices

The extent to which credit was granted in these six cooperatives was dependent upon several factors. In order of importance these factors were: (1) The managers' opinion of a safe credit risk was the actual controlling factor in spite of the fact that he may have been subject to pressure from the board of directors and the members. (2) Competition from other retailers of commodities handled by the cooperatives directly or indirectly affected the terms and amounts of credit. (3) The nature of the agriculture in the cooperatives trading area, especially for the associations in areas where farmers have a highly seasonal income, had considerable effect on the seasonal demands for retail credit. This factor was not of great importance in determining the percentage of sales

for the entire year. (4) The credit habits of patrons hindered any change of policy but did not eliminate the possibilities of change.

Collection practices used by the cooperatives were: (1) Use of statements of accounts to patrons kept the customer informed of his account and was generally effective for collecting accounts. It was used in varying degrees by all six associations. (2) Managers' efforts to collect accounts as in the extension of credit, was the most important factor. His efforts were the most effective method of collecting accounts. (3) Converting accounts receivable into negotiable forms reduced the amount of capital tied up in receivables. It was a sound business practice that could have been used much more than it was. (4) Assignments on produce, for the cooperative that markets farmers' produce, were almost a form of insurance for every producer's account. It greatly reduced losses caused by overdue accounts.

The seasonal extension of credit and collection of accounts was closely corrleated with borrowing. This was particularly true in the fruit associations. In four of the six associations, extension of credit during some seasons of the year necessitated borrowing to keep up inventories and carrying on other phases of the business.

## CHAPTER III

## COMPUTABLE COSTS OF EXTENDING CREDIT

In Chapters I and II the extent of credit extension and the factors having a bearing on credit practices in the six cooperatives have been discussed. The reasons for the amount and significance of credit extension are based to some extent upon the circumstances in the trading area of each cooperative. However, the importance of credit extension is determined more exactly by the actual effects of certain credit practices upon the individual associations. These effects may be analyzed by the costs of extending credit under the conditions at the time the study was made. The costs of extending credit consist of the following three items; (1) bad account losses (2) imputed interest on receivables (3) credit administration expenses including (a) cost of accounting forms and postage necessary for a credit business (b) allowance for the time of bookkeepers and managers spent on credit problems. These costs will be discussed first as a unit and later as separate items.

### Total Credit Costs

The average total cost of extending credit in the six cooperatives was $2.12 per $100 of total sales and $3.29 per $100 of credit sales.[1]

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[1] The word average as used here and throughout this section on costs means the weighted average rather than the simple average. The averages are computed by dividing the aggregate of credit costs by the aggregate of sales. Therefore, the figures of the cooperatives that had a large volume of sales would have more effect on the average than would those of the cooperatives with a small volume of sales. This explains why, in terms of credit sales, only one association had costs below average while five had costs above average.

The credit costs for the individual associations, however, varied considerably from the average. Measured in terms of $100 of total sales, Coloma, Falmouth and Milburg with costs of $1.65, $1.74 and $1.97 respectively were below average; Howell, Ellsworth and Dexter with costs of $2.39, $2.56 and $2.67 were above average. Measured by credit sales only, Falmouth with costs of $2.62 was below average; Howell, Milburg, Coloma, Dexter and Ellsworth with costs of $3.33, $3.35, $3.38, $3.50 and $4.70 respectively, were above average.

Table 6. Relationship of Credit Costs to Total and Credit Sales

| Cooperative | Credit Sales | Percentage of Total Sales | Total Credit Costs | Costs per $100 of Total Sales | Costs per $100 of Credit Sales |
|---|---|---|---|---|---|
| Coloma | $52,600 | 48.7 | $1,777 | $ 1.65 | $ 3.38 |
| Milburg | 48,323 | 58.6 | 1,621 | 1.96 | 3.36 |
| Ellsworth | 29,395 | 54.5 | 1,382 | 2.56 | 4.70 |
| Falmouth | 108,345 | 66.4 | 2,835 | 1.74 | 2.61 |
| Dexter | 84,676 | 76.4 | 2,964 | 2.67 | 3.50 |
| Howell | 106,126 | 71.4 | 3,534 | 2.38 | 3.33 |
| Average | $71,577 | 64.4 | $2,352 | 2.11 | $3.29 |

As indicated in Table 6, credit costs did not vary according to the volume of credit sales or total sales; nor did they vary in proportion to the percentage of sales made on credit. For examples, Ellsworth with the smallest sales volume, had the greatest credit costs per $100 of total

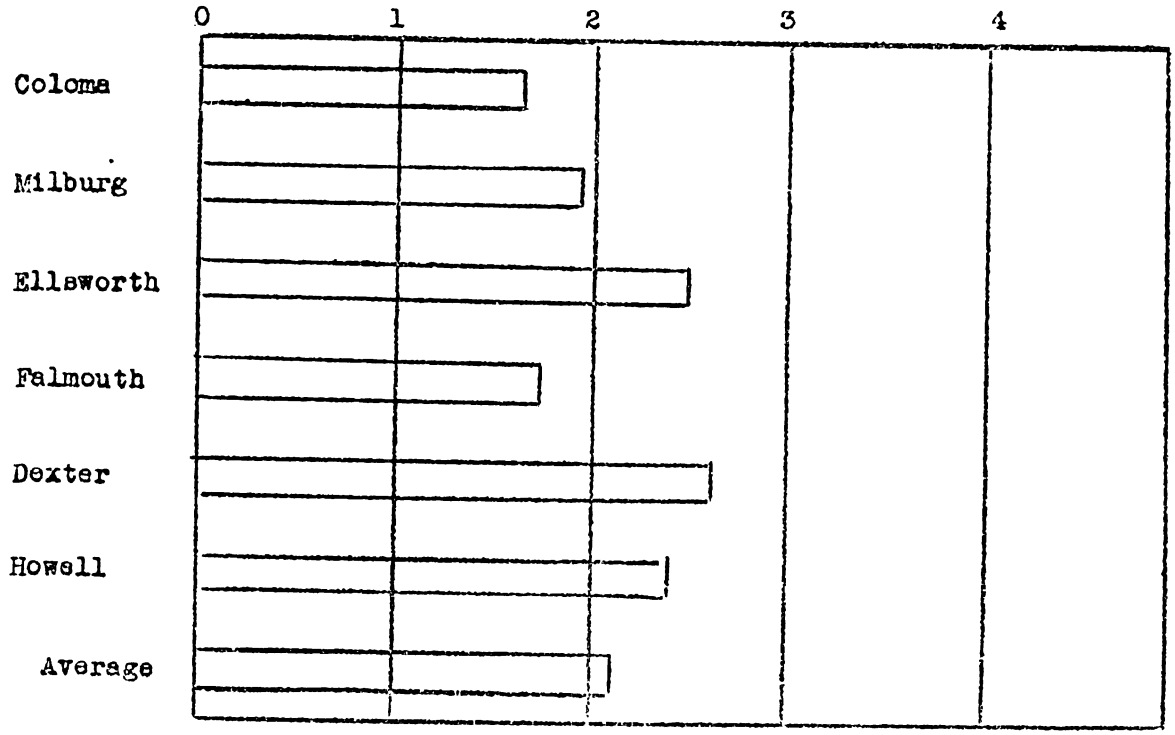


Figure 8 - Credit Costs (Dollars) Per $100 of Total Sales

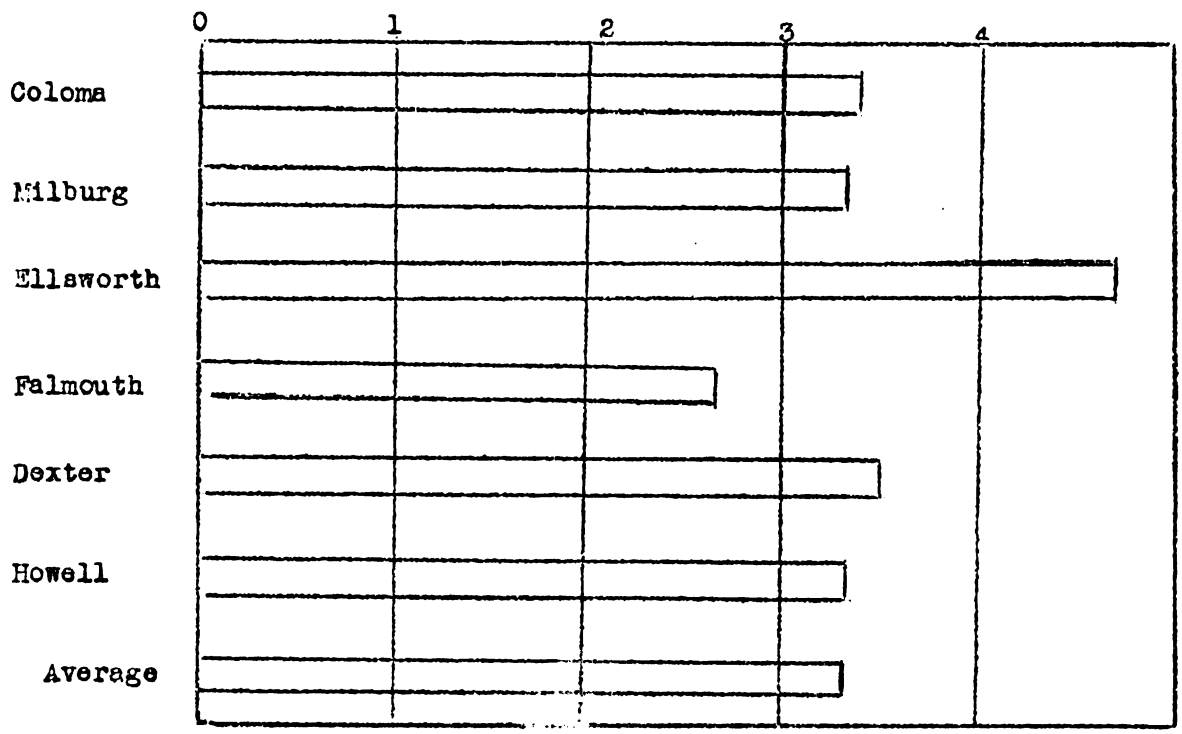


Figure 9 - Credit Costs (Dollars) per $100 of Credit Sales

sales; Falmouth with the third highest percentage of sales on credit, had the lowest credit costs per $100 of credit sales. The credit costs of the other four associations varied more directly with the percentage of sales made on credit. Actually, the credit costs in terms of credit sales were relatively higher in those associations with a low percentage of credit sales than in those with a high percentage of credit sales because the credit costs were charged against a smaller percentage of the total sales. The factors causing these variations are discussed in detail in the following sections.

## Bad Accounts Losses

Bad accounts losses were recognized by all six cooperatives as an actual cost of extending credit since it was included as a regular part of their accounting procedure. The losses caused by bad accounts represented the amounts written off as uncollectible, less the collections during the succeeding year on accounts previously written off. For all associations the data on bad accounts were taken directly from the annual financial statements.

The bad account losses when computed by the above method were subject to two modifying considerations. First, most of the accounts written off during the period studied were from sales made during preceding years. Second, some of the collections were on accounts that had been written off in years preceding the year studied. However, these two factors in themselves tended to correct one another in this way; some accounts arising from sales made during the year studied will be written off in succeeding years and some collections will be made later on the accounts written off in that year. Therefore, the net loss because of bad accounts would remain

about the same even if these adjustments were to be taken into account.

Reference to Table 7 shows that bad accounts losses, per $100 of total sales, varied from $0.12 to $1.07 with an average of $0.58, while per $100 of credit sales they varied from $0.26 to $1.49 with an average of $0.91. In terms of both of these ratios, the costs of Coloma, Milburg, Falmouth and Dexter were below average, and the costs of Ellsworth and Howell were above average.

Table 7. Relationship of Costs of Bad Accounts to Total and Credit Sales

| Cooperative | Bad Accounts Costs | Cost per $100 of Total Sales | Cost per $100 of Credit Sales |
|---|---|---|---|
| Coloma | $135 | $0.12 | $0.26 |
| Milburg | 284 | 0.34 | 0.59 |
| Ellsworth | 420 | 0.78 | 1.43 |
| Falmouth | 899 | 0.55 | 0.83 |
| Dexter | 568 | 0.51 | 0.67 |
| Howell | 1,583 | 1.07 | 1.49 |
| Average | $648 | $0.58 | $0.91 |

Bad account losses at Coloma and Milburg, the two fruit marketing cooperatives, were much lower than the average costs because of several factors: first, their practices permitted the extension of large amounts of credit only to those members who sold fruit through the associations,

the proceeds of which were applied against outstanding accounts; second, the farmers in the fruit areas seemed generally more prosperous than those in the other areas studied.[3] This last point was borne out by the fact that in the two fruit associations there was only one instance of a grower's account being charged off as uncollectible.[4] In all other instances, the accounts charged off were the results of small purchases of non-members.

For the two potato marketing cooperatives, bad accounts losses were considerably higher at Ellsworth than at Falmouth. This was because the Ellsworth cooperative changed to a restricted credit basis at the end of the year studied. Because of this change of policy many accounts were charged off as uncollectible that would otherwise have been carried in the accounts receivable.[5] It is quite probable that many of these accounts

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[3] This was perhaps because of the greater managerial skill needed to operate a fruit farm, because of the generally better market for fruit products, and because of the better protection of a greater investment in the farm itself as shown by the following figures on land values per acre:-

| Cooperative | County | 1935 | Cooperative | County | 1935 |
|---|---|---|---|---|---|
| Coloma | Berrien | $100 | Falmouth | Missaukee | $19 |
| Milburg | Berrien | 100 | Dexter | Washtenaw | 60 |
| Ellsworth | Antrim | 20 | Howell | Livingston | 67 |

Source: United States Census of Agriculture, 1935, Vol. I, pp. 172-179

[4] The one grower's account charged off as uncollectible was the Milburg Cooperative charitable contribution to the widow of a farmer who died during 1937.

[5] Many accounts receivable were converted into notes receivable. All remaining accounts were charged off if there was any question of collectibility.

were collected at a later date and bad accounts losses of the association were reduced in the subsequent year. Falmouth had low bad account losses primarily because a large staff very capably handled and checked all credit sales.

Bad account losses were low at Dexter primarily because of the manager's persistent efforts to collect slow and delinquent accounts. As explained on page 32, he spent several evenings of each week, on his own time, contacting patrons whose accounts were overdue. A second factor was that this association sent statements of account every month to each purchaser who had a balance payable. These two practices kept the bad accounts losses low in spite of the fact that the association sold over 70% of its farm supplies for credit. In contrast to Dexter's bad accounts loss of $0.67 for every $100 of credit sales, Howell, with a slightly smaller percentage of credit sales, had bad accounts losses of $1.49 for every $100 of credit sales. This difference occurred probably because Howell handled a large volume of sales from a single central store and had but three responsible employees including the manager to take care of all office work. A small number of employees at Howell may have meant a saving in salaries but apparently at the expense of operating efficiency. The credit business had grown beyond the point where it could be efficiently supervised by the office staff, thus resulting in the extension of a certain amount of unsound credit. This does not imply inefficiency on the part of any one member of the present staff, but rather inefficiency for the staff as a whole because of overwork.

## Imputed Interest on Receivables Outstanding

The second of the computable costs of credit was imputed interest on the capital tied up in accounts receivable. This cost was not recognized as a cost of extending credit by any of the six associations. Furthermore, because of its implicit nature, it was not a part of their regular accounting procedure. The interest cost of carrying accounts was considered a regular part of the merchandising service. Including imputed interest as a cost of extending credit is justified by the fact that the customer who purchased on credit was using the working capital of the cooperative until the final payment was made. If the customer had financed his purchases through any regular financial institution, he would have been forced to pay interest.

Table 8. Relationship of Interest Costs on Receivables Outstanding to Total Sales and Credit Sales

| Cooperative | Interest Cost on Receivables for Year | Cost per $100 of Total Sales | Cost per $100 of Credit Sales |
|---|---|---|---|
| Coloma | $538 | $ .50 | $ 1.02 |
| Milburg | 775 | .94 | 1.60 |
| Ellsworth | 490 | .91 | 1.67 |
| Falmouth | 828 | .51 | .76 |
| Dexter | 1,234 | 1.11 | 1.46 |
| Howell | 847 | .57 | .80 |
| Average | $ 785 | $ .71 | $ 1.10 |

This cost was computed at an interest rate of 6% per annum (0.5% per month) on the balance of receivables on record at the end of each month because this represented the average rate of interest charged by banks in the vicinities of the cooperatives studied. It was considered proper therefore, to use this rate in computing the imputed interest on receivables held by the cooperatives.

Interest at 0.5% per month on monthly balances was used rather than 6% on the balance at the end of the year because accounts receivable varied greatly during the year. For this reason, the monthly balances presented a truer picture of the credit situations in the cooperatives; particularly since the management usually put additional efforts into collecting accounts during the month preceding the annual audit in order to present a more favorable balance sheet. In the individual association interest costs for different months varied considerably. This was particularly true in the fruit marketing cooperatives. Of the six associations, Milburg had the greatest and Falmouth the least variations as shown in Table 9. Imputed interest at Milburg varied from $14.68 in January 1937 to $120.89 in July, while at Falmouth it varied only from $62.22 in June 1938 to $80.59 in May 1938. Interest by months at Coloma, the other fruit cooperative, followed the same general pattern as at Milburg, but with a smaller degree of variation. Interest by months at Ellsworth, Howell and Dexter followed the pattern of Falmouth but with a somewhat greater degrees of variation. These variations of interest in the different associations were the results of fluctations in accounts receivable which were discussed on pages 10-18.

The average annual imputed interest cost on receivables per $100 of

Table 9. Variations of Monthly Interest Costs at Milburg and Falmouth

| | Milburg | | Falmouth | |
|---|---|---|---|---|
| Month | Receivables | Interest Cost* | Receivables | Interest Cost* |
| January 1937 | $ 2,936 | $ 14.68 | $ | $ |
| February " | 3,119 | 15.59 | | |
| March " | 5,629 | 28.19 | | |
| April " | 12,678 | 63.46 | | |
| May " | 17,269 | 86.37 | | |
| June " | 22,118 | 110.60 | | |
| July " | 24,175 | 120.89 | 13,820 | 69.12 |
| August " | 20,214 | 101.10 | 15,025 | 75.17 |
| September " | 17,694 | 88.47 | 12,924 | 64.64 |
| October " | 14,633 | 73.19 | 12,778 | 63.92 |
| November " | 10,470 | 52.38 | 12,977 | 64.91 |
| December " | 3,910 | 19.59 | 12,547 | 62.77 |
| January 1938 | | | 13,488 | 67.46 |
| February " | | | 13,412 | 67.08 |
| March " | | | 14,146 | 70.77 |
| April " | | | 15,818 | 79.09 |
| May " | | | 16,114 | 80.59 |
| June " | | | 12,439 | 62.22 |
| Averages | $ 12,909 | $ 64.54 | $ 13,776 | $ 68.88 |

* At .05% per month

total sales was $0.71. Coloma, Falmouth and Howell with interest costs of $0.50, $0.51 and $0.57 respectively, were below average. Ellsworth, Milburg and Dexter with costs of $0.91, $0.94, $1.11 respectively, were above average. Measured in costs per $100 of credit sales, the average interest cost of receivables was $1.10, ranging for individual associations from $0.76 to $1.67.

Rate of Turnover of Accounts Receivable

In addition to the monthly variations in receivables another factor that had a direct effect upon the interest cost of receivables was the average length of time that credit was extended to customers, or in other words, the rate or period of turnover of accounts receivable.

Table 10. Average Age of Accounts Receivable

| Cooperative | Average Balance of Accounts Receivable | Average Daily Sales on Credit | Average Age of Accounts |
|---|---|---|---|
| Coloma | $ 9,830 | $ 172.46 | 57 days |
| Milburg | 12,925 | 158.44 | 82 " |
| Ellsworth | 8,162 | 96.38 | 84 " |
| Falmouth | 13,791 | 355.23 | 39 " |
| Dexter | 20,980 | 277.63 | 76 " |
| Howell | 14,122 | 347.95 | 41 " |
| Average | $ 13,302 | $ 234.68 | 57 " |

The rate of turnover of receivables was computed by dividing the average balance of receivables by the average daily sales on credit. This method may be simply illustrated as follows: Assume the average balance of receivables of an association is $1,000 and the average daily credit sales is $20; dividing the balance by the daily credit sales gives a turnover of once every 50 days. If the average daily credit sales were the same, that is, $20, but the average balance of receivables had been only $800, the turnover would be once every 40 days. Therefore, the shorter the period of turnover of accounts receivable, the smaller the amount of capital that will be tied up in receivables in relation to credit sales. Reference to Table 10 shows the validity of this conclusion. For example, Falmouth had an average balance of receivables of less than twice as large as Ellsworth but had daily credit sales nearly four times larger. This indicates that the period of turnover of receivables was much shorter at Falmouth than at Ellsworth. Because of this slower turnover, the interest cost of capital tied up in receivables per $100 of credit sales was much higher at Ellsworth than at Falmouth.

The average period of turnover of accounts receivable in the six cooperatives was 57 days. For the individual associations, the rates of turnover were as follows: Coloma, 57 days; Milburg, 82 days; Ellsworth, 84 days; Falmouth, 39 days; Dexter, 76 days; Howell, 41 days.

Age of Individual Accounts. The turnover of receivables indicates the average period for which all accounts were carried in each association. The importance of this factor may be further shown by indicating the period of credit for a sample number of individual accounts. Table 11 gives this

Table 11. Period of Unpaid Balances for Sample of 100 Customers in Each Cooperative

| Cooperative | Accounts With No Balances* | Total Accounts With Balances | Number of Months Carried on Books | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0-3 | 3-6 | 6-9 | 9-12 | 12-18 | 18-24 | 24-36 | 36-48 | 48-60 | Over 60 |
| Coloma | 68 | 32 | 7 | 1 | 11 | 6 | 4 | | | | 3 | |
| Milburg | 79 | 21 | 6 | 4 | 5 | 4 | 1 | 1 | | | | |
| Ellsworth | 34 | 66 | 14 | 10 | 12 | | 14 | 2 | 5 | 3 | 5 | 1 |
| Falmouth | 53 | 47 | 22 | 8 | 9 | 5 | 2 | | | 1 | | |
| Dexter | 56 | 44 | 14 | 7 | 4 | 5 | 6 | 4 | 3 | 1 | | |
| Howell | 29 | 71 | 27 | 20 | 4 | 5 | 3 | 6 | 2 | 2 | 1 | 1 |

* Total number, in sample of 100 customers, who had unpaid balances at the end of the fiscal year studied.

information for a sample of 100 customers in each association. These figures indicate a static situation true only for the audit date and for the sample studied. The data on the table is further limited in that it does not represent the amount of the accounts on the cooperatives' records at the audit date, but rather the period during which the customers account has not been paid in full.

Table 11 indicates the extent to which the cooperatives granted semi-continuous credit to some of their customers. Of the sample of 100 patrons selected in each association, the number of patrons still in debt to the organizations at the end of the fiscal year ranged from 21 at Milburg to 71 at Howell. However, the various periods that accounts had been outstanding was of more significance than the total number of accounts that had not been paid. At Milburg 11 of the 21 accounts had been outstanding for over six months; at Howell only 24 of the 71 accounts or about one-third had been outstanding as long as this. Of the 66 accounts outstanding at Ellsworth 42 or about 65% had been carried for more than six months and 30 or nearly one-half had been carried over a full year. It is these slow accounts that increase the amount of interest computed on receivables, the credit administration expense and the probability of bad debt losses.

The probability of an account becoming a loss increases and the credit administrative costs also increase as the account becomes older. The patrons who paid cash or who paid their accounts promptly were indirectly forced to share these credit expenses since increased costs reduced the amount of net earnings available for patronage dividends.

One individual example will indicate the cost of slow accounts carried by the cooperatives. One customer at Ellsworth had a continuous balance of

more than $100 for over 4 years. Careful investigation showed the average balance of this customer to be $200; the cost to the cooperative for carrying this account was $12.00 a year with implicit interest at 6% per annum. Other direct credit costs rasied this amount to at least $24.00 each year. Using 3% as the average net margin on sales this customer would have had to make purchases of $800 each year before the cooperative earned enough on his business to equal the cost of carrying the account. Many other similar examples could be given to show that the accounts of slow paying customers who had large, long-running balances paid little or no return to the cooperative; in fact, such accounts were often handled at a net loss. In contrast, Milburg had no unpaid balances running over 19 months and nearly all of the accounts outstanding for a long time were for very small amounts. This association saved much interest expense by using assignments on produce to assure collections of accounts in full within a relatively short period.

## Credit Administration Expenses

### A. Office Supply Materials

The third cost of extending credit was the expense of office supply materials necessary for carrying on a credit business. This cost consisted of stationery and postage for sending statements of account,[6] bookkeeping supplies, and other general office supplies for recording credit transactions.

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[6] For a more detailed discussion of sending statements see pp. 30-32 under Collection Practices.

It did not include the stenographer's salary for time spent on preparing statements which is a personnel expense, or the general office supplies which were needed by the cooperative for carrying on other regular business operations. Since all office supply expenses were kept in a single account in the associations' records, it was necessary to use the stenographers' estimates of the part of the expense that should be charged directly against the credit operations.

Table 12. Relationship of Cost of Office Supplies to Total Sales and Credit Sales

| Cooperative | Cost of Statement of Account | Cost of Bookkeeping Supplies | Office Supply Cost | Cost per $100 of Total Sales | Cost per $100 of Credit Sales |
|---|---|---|---|---|---|
| Coloma | $104 | $30 | $134 | $0.12 | $0.26 |
| Milburg | 75 | 10 | 85 | 0.10 | 0.18 |
| Ellsworth | 42 | 5 | 47 | 0.09 | 0.16 |
| Falmouth | 181 | 50 | 231 | 0.14 | 0.21 |
| Dexter | 102 | 150 | 252 | 0.23 | 0.30 |
| Howell | 123 | 10 | 133 | 0.09 | 0.13 |
| Average | $ 104 | $ 43 | $ 147 | $ 0.13 | $ 0.21 |

The average expense of office supplies for all six associations was $0.13 per $100 of total sales. Coloma, Milburg, Ellsworth and Howell had costs of $0.12, $0.10, $0.09 and $0.09 respectively, which were below average.

Falmouth and Dexter had costs of $0.14 and $0.23, respectively, which were above average. The average cost per $100 of credit sales was $0.21.

The variations in costs of bookkeeping supplies were the results of varying degrees of completeness and efficiency of the association records, the particular types of materials used, and the volume of sales made on credit. To illustrate, supply costs at Coloma and Milburg were $30 and $10 respectively. This difference was caused by the more expensive type of sales ticket, the larger number of customers, and the greater volume of sales at Coloma. There was little, if any, difference in the completeness and efficiency of the records. Ellsworth and Falmouth had material costs of $5.00 and $50.00 respectively. This variation was caused by the more expensive and complete sales records, and the much larger volume of sales at Falmouth. Dexter and Howell had material costs of $150 and $10 respectively, even though Howell had the greater volume of sales. This difference was the result of the more complete and efficient sales records used at Dexter.[7]

B. Costs of Personnel Salaries

The fourth cost of extending credit was the salary expense chargeable to credit transactions. This cost was from two sources; first, the time spent by the bookkeeper for the recording of credit transactions and for the preparing of statements of accounts; second, the time spent away from the office by the manager for collecting slow accounts.[8]

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[7] The efficiency of the associations' accounting systems in terms of benefits to the cooperatives will be discussed later under "Relationship of Various Credit Costs."

[8] See p. 32 under "Collection Practices" for a more complete discussion of manager's time spent collecting accounts.

Bookkeepers spent the equivalent of from 140 to 305 days of the period studied on work directly resulting from the cooperatives' credit extension and collection practices. At Ellsworth, the equivalent of 140 days represented about 45% of the bookkeeper's time. However, this figure was not low compared with other associations, because of the much smaller volume of business. At Falmouth the two bookkeepers together spent 305 days or the equivalent of more than one full year on various phases of the credit business.

The percentage of their total time spent by the bookkeeper and manager on credit work was applied to the salary of each to determine the actual cost. The salary value of the bookkeeper's time varied from $300 to $910. These variations were the result of the time and wage differentials. Salaries paid to bookkeepers varied from $14 per week at Ellsworth to $35 per week at Coloma.

Table 13. Personnel Time and Costs

| Cooperative | Bookkeepers' Time (Days) | Cost | Managers' Time (Days) | Cost | Total Cost |
|---|---|---|---|---|---|
| Coloma | 150 | $780 | 26 | $190 | $970 |
| Milburg | 150 | 400 | 10 | 77 | 477 |
| Ellsworth | 140 | 300 | 26 | 125 | 425 |
| Falmouth | 305 | 717 | 26 | 160 | 877 |
| Dexter | 210 | 910 | * | * | 910 |
| Howell | 205 | 781 | 24 | 190 | 971 |
| Average | 193 | $648 | 22 | $148 | $772 |

* No Data available

Managers' time used for collecting accounts represented only the time spent away from the office. It did not include time spent at the office for various phases of the credit and collection business. No cost was given for Dexter because the manager collected accounts on his own time and did not, therefore, use any time away from the office.[9]

Table 14. Relationship of Personnel Costs to Total Sales and Credit Sales

| Cooperative | Personnel Cost | Cost per $100 of Total Sales | Cost per $100 of Credit Sales |
|---|---|---|---|
| Coloma | $970 | $0.91 | $1.84 |
| Milburg | 477 | 0.58 | 0.99 |
| Ellsworth | 425 | 0.78 | 1.44 |
| Falmouth | 877 | 0.54 | 0.81 |
| Dexter | 910 | 0.82 | 1.07 |
| Howell | 971 | 0.65 | 0.91 |
| Average | $772 | $0.69 | $1.08 |

In terms of costs per $100 of total sales, the average total personnel expense was $0.69. As shown in Table 14, Milburg, Falmouth, Ellsworth and

[9] There was undoubtedly an expense in collecting accounts in this way but it was the manager's personal expense. The manager did not take time off from the office. Consequently, the time was not considered a part of the cooperative's expenses which were the basis of the costs computed here.

and Dexter were more than average. The variation in the volumes of business, in the salaries paid to bookkeepers and in the collection efforts of the managers caused the differences in the personnel costs.

## Relationships of the Various Credit Costs

The limited number of associations in this study does not provide sufficient evidence to permit drawing general conclusions regarding the relationships of the various credit costs in all cooperatives. Examination of the costs, however, does show indications of certain relationships that may be applicable to many cooperative organizations.

Within each of the three types of cooperatives the expenditures for sending statements of accounts and for bookkeeping supplies apparently limited bad debt losses and reduced interest expense. To illustrate, per $100 of credit sales, Coloma had office supply expenses of $0.26 and bad debt losses of $0.26, while at Milburg these costs were $0.18 and $0.59. The relationship of these two costs are the same in the potato marketing and the feed and grain associations. These comparisons indicate that expenditures for reminding customers of their debts and for keeping an efficient accounting system more than pay for themselves in reducing bad debt losses. In the fruit marketing and potato marketing associations the same relationship exists between the cost of office supplies and the cost of implicit interest on receivables. This relationship did not exist in the feed and grain cooperatives, perhaps because of other influencing factors, one of which was that the manager at Dexter did not have complete control of the credit sales policy.

Table 15. Credit Costs per $100 of Total Sales and Credit Sales

| Cooperative | Bad Debts | | Interest | | Materials Office Supplies | | Personnel | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total Sales | Credit Sales | Total Sales | Credit Sales | Total Sales | Credit Sales | Total Sales | Credit Sales | Total Sales | Credit Sales |
| Coloma | $0.12 | $0.26 | $0.50 | $1.02 | $0.12 | $0.26 | $0.91 | $1.84 | $1.65 | $3.38 |
| Milburg | 0.34 | 0.59 | 0.94 | 1.60 | 0.10 | 0.18 | 0.58 | 0.99 | 1.96 | 3.36 |
| Ellsworth | 0.78 | 1.43 | 0.91 | 1.67 | 0.09 | 0.16 | 0.78 | 1.44 | 2.56 | 4.70 |
| Falmouth | 0.55 | 0.83 | 0.51 | 0.76 | 0.14 | 0.21 | 0.54 | 0.81 | 1.74 | 2.61 |
| Dexter | 0.51 | 0.67 | 1.11 | 1.46 | 0.23 | 0.30 | 0.82 | 1.07 | 2.67 | 3.50 |
| Howell | 1.07 | 1.49 | 0.57 | 0.80 | 0.09 | 0.13 | 0.65 | 0.91 | 2.38 | 3.33 |
| Average | $0.58 | $0.91 | $0.71 | $1.10 | $0.13 | $0.21 | $0.69 | $1.07 | $2.11 | $3.29 |

Reference to Table 15 shows that in the fruit marketing and feed and grain cooperatives, credit administrative expenses also tend to be justified in that they reduce bad debt losses. This was not true in the two potato marketing associations because the personnel at Falmouth was organized more efficiently than at Ellsworth, and because Ellsworth showed large bad debt losses resulting from changing its credit policy.

Other comparable relationships could be deducted from the figures, but would be difficult to substantiate, not only because of the number of associations was small, but also because the other factors that affected the credit situation in the individual associations could not be evaluated. Those other factors, which have been discussed in the first chapter, had considerable influence on circumstances of credit extension, collection, etc.

## Comparison with Costs Reported in Other Studies

The costs of extending credit for the cooperatives in this study were relatively low as compared with the costs shown by similar studies made in other states. In these other studies costs were computed on the same basis as used here. Names given to the costs were in some cases different, but they were made up of the same four items as defined in this study, namely, bad debt losses, implicit interest on receivables, office supplies for credit transactions, and an allowance for the time spent by bookkeepers and managers in connection with credit operations.

Leland Spencer's study, made in 1924 of rural store credit in New York State[10] gave the following results: costs of extending credit for the

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[10] An Economic Study of Rural Store Credit in New York, Cornell University Experiment Station Bulletin No. 430, 1924, Ithaca, N. Y.

Table 16. Comparison of Studies on Credit Costs

| Study | Credit Cost per $100 of Total Sales | Credit Costs per $100 of Credit Sales |
|---|---|---|
| New York Study-Spencer | $3.85 | $ ----* |
| Iowa Study-Robotka | 3.99 | ----* |
| New York Study-Maughan | | |
| Farm Supply Stores | 7.50 | ----* |
| Feed Stores | 4.00 | ----* |
| Kansas-Nebraska Study-Knapp | 2.00 | 3.80 |
| Michigan Study | 2.11** | 3.29** |

* Data not available

** For figures on individual associations in Michigan study see Table 15

sixteen farm-supply stores surveyed was $3.85 per $100 of total sales. This was $1.74 more than the average cost of $2.11 for the six cooperatives in this study. It was in fact, higher than the costs in any one of the six Michigan cooperatives.

Frank Robotka's study, made in 1929, included ninety-three Iowa co-operative elevators selling farm supplies.[11] The average cost to these ninety-three associations for extending credit was $3.99 per $100 of total sales. This cost was $1.88 greater than the average cost to the associations in the present study. Although in Robotka's study interest cost of

[11] Retail Credit in Iowa Farmers' Elevators, Iowa State College Agricultural Experiment Station Bulletin No. 283, 1931, Ames, Iowa

receivables was computed on the basis of 7% instead of the 6% used here, this difference in itself has added not more than $120 to the total credit costs, and would not have increased the cost per $100 of total sales by more than $0.20.

Orlo H. Maughan's study, made in 1931-32 in 311 stores in New York, included 43 farm supply and 62 feed stores.[12] The average costs of extending credit per $100 of credit sales was $7.50 and $4.00 respectively, for these two types of stores. These costs were larger by $4.21 and $.71 per $100 of credit sales than the similar average costs in the six Michigan associations studied. The costs here, as in the other studies, were computed on comparable bases.

Joseph G. Knapp's study was made in 1937 in 24 cooperatives which were affiliated with the Consumers Cooperative Association of North Kansas City, Missouri.[13] These cooperatives sold petroleum products to farmers in Kansas and Nebraska. The average cost of extending credit was $2.00 for every $100 of total sales and $3.80 for every $100 of credit sales as compared to $2.11 and $3.29 for the cooperatives in this study. Credit extension was, therefore, less expensive for these petroleum cooperatives on the basis of total sales and more expensive on the basis of credit sales. Another finding in Knapp's study was that the petroleum cooperatives made only 50% of their sales on credit, while the cooperatives in the Michigan

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12 The Cost of Store Credit, Cornell University Cornell Extension Bulletin No. 349, 1936, Ithaca, N. Y.

13 Joseph G. Knapp, "Credit Extension Influences Efficiency", News for Farmer Cooperatives, January 1939, pp. 9, 10, & 19, Farm Credit Administration, Washington, D. C.

study made 63% of their sales on credit. Credit costs were, therefore, relatively higher when computed on credit sales than when computed on total sales.

In summary, the cost of credit extension in the six cooperatives in this study was in terms of total sales less than the costs indicated in the studies made by Spencer, Robotka and Maughan, and in terms of credit sales less than those indicated in Knapp's study. Credit costs in the six Michigan cooperatives were generally lower perhaps because they represented better than the average Michigan cooperative and because two of the six were primarily marketing rather than farm supply organizations.

# CHAPTER IV

# CREDIT EXTENSION IN RELATION TO PROFIT MARGIN AND VOLUME OF SALES

The credit problems of the six cooperatives has thus far been analyzed in regard to the condition influencing the use of credit and the computable credit costs during the period studied. In this chapter, the computable and non-computable costs of credit extension will be considered in relation to their effects upon the net earnings and upon the volume of sales.

## Effects of Computable Credit Costs on Net Margin

The importance of the computable credit costs can be best indicated by their effects upon the net margin of the cooperatives. For the six associations the average cost of goods sold and general expenses was 96.4% of sales; of this 1.40% was bad debt losses and credit administrative expense. Adding to the 96.24%, the computed interest cost of 0.71% would make a total expense of 97.35% and would leave 2.65% as the average net margin for these associations.

If we assume a separation of the sales of supplies on credit and those for cash, the total credit costs may be charged against the credit sales. For the sales for cash the net margin would now be 4.76%. For sales on credit, the credit costs of 3.29% added to other costs of 95.24% would make a total cost of 98.53%, leaving a net margin of but 1.47%.

## Indirect Costs and Disadvantages of Extending Credit

In addition to the computable costs of extending credit discussed in Chapter III there were several non-computable costs. These costs were of such a nature that they could not be computed in dollars and cents value but they did nevertheless have definite effects upon the business of the cooperatives. These non-computable costs to be considered here are: (1) low patronage dividends, (2) dissatisfaction and disagreements over accounts, (3) higher cost of goods purchased by the cooperatives, and (4) general handicaps. All these had the general effect of decreasing the volume of sales.

### Low Patronage Dividends

The first of these non-computable costs was the effect of liberal credit extension in reducing the net margin of profit. Low profit margins meant small or no patronage dividends. Low patronage dividends, in turn, meant smaller volume of sales. In spite of the altruistic spirit of many cooperative leaders, patronage dividends are one of the strongest factors for bringing customers to a cooperative organization; they are, in effect, a form of sales discount that is paid on the basis of the net earnings of the association. Customers purchased from the cooperative for this anticipated saving. If the cooperative had no other advantage over its private competitors, and if the customer knew from his own past experience or that of his neighbors that the anticipated patronage dividend was low or nonexistent, he had no particular incentive for purchasing from the cooperative. Had these cooperatives had made all of their sales for cash and if the volume of sales had been the same, the net margin would have been 4.76%, thus

enabling them to pay a larger patronage dividend. This undoubtedly would have drawn some additional business to the associations from a greater number of cash customers.

It is probable of course that on a cash basis the cooperatives would have lost some of the business of their credit customers. Whether or not this loss would have been greater than the gain in cash customers will be discussed later. At any rate, the higher patronage dividends probably would be a decided incentive for more customers to purchase from the cooperatives.

Disagreements and Dissatisfaction Because of Accounts

Since credit extension required complicated recordings of sales and payments on accounts, disagreements sometimes arose over the standing of individual accounts. When no satisfactory adjustment was worked out the customers often transferred their business to a competitor. Furthermore, such customers sometimes refused to pay the account in question. When such conditions arose, the cooperatives lost the patronage of some customers and in addition some of the accounts receivable. This decreased the volume of sales and increased the bad debt losses.

Credit extension often caused customers to become dissatisfied with the cooperative. Regardless of the laxity of the associations' credit policy, managers were forced to make certain limitations. In the majority of cooperatives, managers controlled the credit sales and necessarily limited the amount of credit granted to customers that were considered poor credit risks. Since no person considerered himself a poor debtor, customers to whom sales were restricted, often felt that the managers

were discriminating aginst them. Usually, such customers transferred all of their business to other dealers.

Higher Cost of Goods Purchased by the Cooperatives

Credit practices of some of the cooperatives reduced their earnings by increasing the cost of goods sold. This came about in the following way: excessive sales on credit, slow collections, etc., increased the amount of accounts receivable carried by the association. Or, in other words, increased the amount of capital tied up in receivables. During some seasons of the year so much capital was tied up in receivables that there was not enough left for other normal business operations. In a very direct way this increased the cost of goods purchased by the cooperatives. When the cooperative did not have enough money on hand it could not take the cash discounts offered by wholesalers. This added cost of the goods was absorbed directly by the association, or was passed on to the customers in the form of higher prices. Either way the association lost. In the first way, by decreased earnings and lost business because of decreased or non-existent patronage dividends, in the second way by decreased business because of higher prices. If all discounts had been taken the patrons would have gained by lower prices or higher patronage dividends. One of the six associations in this study lost some of its cash discounts and three associations were forced to borrow during part of the year in order to take advantage of the discounts.[1]

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[1] See pp. 35-37 on the relationship of borrowing to seasonal sales.

General Handicaps of Excessive Credit

Excessive amounts of capital tied up in receivables affected the cooperatives in other less direct ways. When the working capital of the cooperatives was used for financing accounts and notes receivable, it was not available for other purposes. Using the working capital in this way hindered the cooperative from making improvements that would increase the efficiency of the organization as a whole.

Among the ways that capital could have been used advantageously by the majority of the cooperatives was for expanding into new lines of business and for improving the fixed assets. These improvements would have enabled the cooperative to provide more and better services for its members and through increased efficiency would have increased the percentage of net profit. The members of these associations strongly favored such improvements. Of the six cooperatives in this study, managers of four stated that improved equipment would have increased the efficiency of the entire business. Managers of two stated that there was a definite need and desire for entering new lines of business. In each instance the reason for delaying these improvements was lack of capital.

The problem was not necessarily one of inadequate but of wrong use of capital. The cooperatives were not organized as credit institutions, yet they had a large percentage of their capital in receivables. On their audit dates, the receivables of the six cooperatives averaged 48% of current assets and 22% of total assets. Had the funds so used been available the associations would have been able to carry out some of the needed improvements in their business such as expanding inventories and improving fixed assets.

## Practicability of Changing to a Strictly Cash or Restricted Credit Policy

The managers of the cooperative organizations maintained that, to keep up the volume of sales, it was necessary to extend credit. Considering competition, the nature of the farm income in their trade territories, credit buying habits of the customers and other factors, this contention was true in some instances. Even though such was the case, the cooperatives in many instances could have made as much, if not more, profit on a smaller volume of sales, if restricted credit practices would have eliminated the accounts of the least desirable group of credit customers. In this study the net profit on credit sales was only 1.47% while costs of credit sales was 3.29%. From these figures it may be concluded that a large number of credit accounts not only did not bring any net profit to the associations, but were actually handled at a loss after deducting credit costs. This was particularly true of all accounts written off as uncollectible and all slow accounts.[2]

Furthermore, it is rather doubtful that credit extension as practiced by the cooperatives was necessary for maintaining or building the volume of sales. There are in Michigan, as well as elsewhere, numerous examples of highly successful cooperatives operating on a strictly cash or restricted credit basis. Ellsworth, one of the cooperatives in this study, in July 1938, changed from a liberal to a very restricted credit policy and the manager and members are well satisfied with the results. Knapp, in his study states, "sales volume depended more upon other factors than on the

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[2] See pp. 49-53 for a more detailed discussion of costs of slow accounts.

extent of sales on credit.-----Some large associations had a relatively small percentage of credit sales, while many small associations had a very large percentage of credit sales."[3] The number of cooperatives in this study was too small for drawing this general conclusion. However, there was little relationship between percentage of sales on credit and the volume of business.[4]

Undoubtedly, a cooperative that made a sudden change from a liberal credit policy to a strictly cash or restricted credit policy would lose the business of some customers. A carefully prepared change, however, would not necessarily decrease the volume of sales. The cooperative would lose the business of the permanent "slow-payers". This would, however, involve no loss because the accounts of these customers should be avoided regardless of sales policy. Such accounts bring no net income to the cooperatives. In spite of losing these accounts, the increases in sales from the advantages of the new policy would probably bring a net increase in total sales. Under a restricted credit policy the measurable and immeasurable costs of extending credit would be decreased. Higher patronage dividends would result in additional business from the regular customers and from new customers. Definite, restricted credit terms or strictly cash terms would decrease or eliminate all costs of credit. Therefore, such policies would actually tend to increase the net earnings.

It may be maintained that certain credit costs such as managers' and

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[3] Joseph G. Knapp, "Credit Extension Influences Efficiency," News for Farm Cooperatives, January 1939, p. 10. Farm Credit Administration, Washington, D. C.

[4] See pp. 8-10 and Table 2 for relationship of percentage of sales made on credit and volume of sales.

bookkeepers' salary expenses can not be eliminated under any sales policy, because the personnel work is essential to the successful operation of the cooperatives. Under a restricted credit policy, however, the managers and other employees could devote more of their time for other activities, such as increasing the efficiency of the records, carrying on educational and promotional programs, contacting better sources of supplies and pursuing numerous other activities which would be definitely advantageous to the organization.

## Summary of Effects of Extending Credit

In summary it may be stated that extending credit may have many effects upon the cooperatives studied. These effects were as follows;

1. Credit was a definite cost. In the six cooperatives studied the computable cost averaged $3.29 for every $100 of credit sales.
2. Credit costs reduced the net earnings of the cooperatives by increasing the operating expenses.
3. Credit costs tended to reduce the volume of sales by decreasing patronage dividends.
4. Disagreements over accounts many times caused the cooperative to lose customers.
5. Discrimination of the manager in granting credit caused dissatisfaction and resulted in lost customers.
6. Capital used for financing receivables during certain seasons of the year was not available for taking advantage of cash discounts offered by wholesalers. This raised the cost of goods purchased by the cooperative.

7. Capital used for permanently financing receivables was not available for other needs such as expansion into new lines of business or improving the fixed assets.

All of these tangible and intangible costs of extending credit had a vital effect upon the entire financial status and business operations of the cooperatives. The effects were so wide-reaching that they constituted a powerful incentive for selling on some other basis that would eliminate most of these costs. There are two general solutions; first, to sell on a strictly cash basis; second, to carefully restrict all extension of credit.

## CHAPTER V

## POSSIBILITIES OF ELIMINATING OR MINIMIZING CREDIT EXTENSION BY COOPERATIVES

Numerous methods have been used to eliminate or minimize the difficulties arising from extending credit. Whatever the method used, the purpose has been the same. Managers, boards of directors, and members of organizations have become convinced that the costs and problems resulting from sales on credit were sufficient reason for departing from a policy of extending liberal credit. In some instances cooperatives have been forced to change their policies to avoid bankruptcy or obtain new financing. In others, failures of other cooperatives have brought to mind the need for change.

Many arguments are offered against restricting credit sales. Most common of the arguments advanced is that credit is necessary to maintain the volume of sales. This aspect was discussed above, and it was indicated that restricting credit may be justified even though sales volume is decreased to some extent. If the manager of a cooperative wishes to change its credit policy, the greatest obstacles to be overcome are experienced in convincing the board of directors and members of the cooperative of the advantages of a sound credit policy. Members of the board are often the worst violators of the privilege of buying on credit; they often have large balances and are slow payers. In cases of this sort, it would be necessary to convince the members of the board that they are elected to office to promote the cooperative rather than their own private interests. Long continued liberal credit has often tended to establish

among the members of a cooperative the attitude that credit is a right rather than a special privilege. Pointing out the costs of credit would do much toward re-educating these members.

Regardless of the difficulties to be overcome, many cooperatives can correct their credit problems by some procedure that has been tried and found successful by other cooperatives. These procedures fall under two general headings: first, sales on a strictly cash basis; second, sales on a restricted credit basis.

## Strictly Cash Sales

Sales on a strictly cash basis is the best of all methods of avoiding the evils of credit. The payment of larger patronage dividends would provide a strong incentive for increased business from present, as well as new, patrons. All computable costs, with resulting disagreements, lost customers, etc., would thus be eliminated.

Despite all arguments that might be presented against a strictly cash sales policy, it may be pointed out that many cooperatives have adopted this policy and most of them have succeeded. They have left credit problems and worries to their competitors and have taken over the business of the better cash customers in their communities. Among the Michigan cooperatives that have succeeded on a cash basis are: Gratiot Farmers Supply Company, Breckenridge Oil Company, Holland Co-Operative Company and Constantine Co-Op, Inc.

## Restrictive Credit Practices

While a strictly cash basis for sales is the best method of correcting all credit problems, the change to a cash policy from one of liberal credit is a definite break that is not always possible. For those

cooperatives that cannot make such a change, restricting credit sales is the most logical method of avoiding the credit problems.

Restricting credit may follow several different practices all of which are aimed at reducing the costs of credit. Such practices have been used by cooperatives in all sections of the country and have proved effective. They are as follows: (1) adhering to a definite credit policy, (2) placing responsibility for all credit sales, and (3) offering inducements for cash purchases and short credit periods. The first practice directly controls credit sales, while the other two indirectly control credit sales by increasing the proportion of cash sales.

## Adherence to a Definite Credit Policy

If a cooperative has large credit costs and many credit problems and cannot change to a strictly cash basis, the first step toward improving conditions is to establish and to adhere to a definite credit policy. The second part is the more important because most cooperatives already have declared a definite policy but few have adhered thereto.

In a definite credit policy, two limitations should be established for all credit sales. First, the length of the credit period should be short, ranging from ten to sixty days. A period of less than ten days would be too short to be of any advantage to the patrons, yet the cooperative would still have the task of recording credit sales and payments on accounts. A period of over sixty days would be too long to be considered a restricted credit policy. The exact period to be used must depend largely upon the nature of the agriculture in the cooperatives' trading area. For example, the fruit associations would be more justified

in setting a long credit period, such as 30-60 days, than would the associations in general farming areas. The farmers in the fruit areas have a highly seasonal income, while those in the general farming areas have a rather steady monthly income. Credit periods for various commodities may vary. Credit for fertilizers and seeds, which are seasonal production goods, may be extended for a longer period than for coal and flour, which are consumption goods. Second, the amount of credit that will be extended to each customer should be definitely limited. The amount can vary according to needs of the farmers and, most important, according to the total amount of capital the cooperative can wisely have tied up in receivables. The amount should be conservatively set to leave available funds for emergency purposes. For individual customers, the most commonly used limit is $100. Occasionally the limit for members is higher than for non-members. The amount can also be limited in terms of the percentage of the total purchases that are made by the individual customer rather than by an absolute amount.

Whatever the terms of credit may be, they should be adhered to with no exceptions. The manager or the board of directors should have no authority to permit anyone, directors included, to exceed these limits. Purchasers whose accounts have reached the limit should not be allowed to make any further credit purchases until payment is received. This point is most important for, although most cooperatives have limitations of some type, continued exceptions eventually become the regular practice. If a policy of restricted credit sales is to succeed, there must be no exceptions to the established terms of credit.

Definite Responsibility for Credit Sales

Among the practices that have proved very effective for reducing

credit costs is that of placing definite responsibility for all credit sales. This practice is, briefly, intended to eliminate bad debt losses by making some one individual responsible for any losses that may ensue from any credit sale. The responsibility is placed upon the individual who gives permission for the sale. In actual practice, the plan works as follows. Members of the board should have no authority to overrule the manager's decision as to whom is to be allowed to purchase on credit. If, however, they do have this authority, they are required to deposit a certain amount of their own money in a special fund for bad debts. A portion of the salaries of the manager and other members of the personnel are withheld each month until a certain amount is deposited for each in the special fund. All credit sales are on a permissive basis. When an account is judged worthless an equivalent amount is taken from the reserve of the person who gave the authority for the sale. That person is then required to build up the reserve to the amount needed by making another deposit or by further salary deductions. As long as there are no bad debt losses, the members of the board need make no additional deposits and the members of the personnel receive their full salaries.

This practice accomplishes more than the reduction of bad debt losses. It puts the managerial authority into the hands of the manager, where it rightfully belongs. Members of the board will hesitate about overruling the manager's decisions if they know in advance that the responsibility for any loss rests entirely with them. Furthermore, clerks and other employees will not attempt to assume some of the managerial duties under these circumstances.

Many objections are offered against this practice to the effect that it makes the manager too conservative in granting credit. Actually, most of the objections can be reduced to the fact that the members of the board and personnel do not wish to assume the responsibility that properly belongs to them as the directors and operators of the cooperative's business. Farmers' Union Cooperatives in Minnesota and the Dakotas follow this practice and have found that it is highly effective in reducing bad debt losses and increasing the net income of the associations.

Inducements for Cash Payments and Short Credit Periods

Credit costs may be reduced by offering an incentive to customers to pay cash and by penalizing those customers who abuse the privilege of purchasing on credit. This is accomplished in three ways; offering cash discounts, charging interest on over-due accounts, and encouraging patrons to finance their purchases through credit unions and production credit unions and Production Credit Associations.

Cash discounts are not widely used by cooperatives. Of the six associations in this study, four offered cash discounts, but only on fertilizer sales. Discounts, if they are to be effective must be on all sales, and must be large enough to encourage the customer to pay cash. This practice of offering a discount to the customer who pays cash cuts down credit costs and by reducing the capital tied up in receivables, provides the cooperative with more available working capital which may be used for other purposes. This practice would reduce the effective margin available for patronage dividends but since the cash customer receives a discount, only the credit customer would be penalized.

Charging interest on overdue accounts and encouraging loans from regular credit institutions forces the customer to pay his own credit costs. Under such practices the individual pays the costs that are ordinarily paid by the cooperative. In this study, only one association charged interest on accounts and only three encouraged borrowing from credit institutions. Interest can be charged on all accounts that are outstanding longer than the established credit period. With a definite credit period of 30 days, for example, interest can be charged on all accounts that exceed that period. An interest rate of 1% per month would be very effective in encouraging customers to pay promptly. If this rate appears to be too high, it may be pointed out that 1% a month is less than the carrying charges many private retailers add to the cost of goods sold on credit and is less than the rate of most small loan institutions. Encouraging the customers to finance their business through regular credit institutions may be accomplished by establishing a credit union or by aiding the customers in receiving Production Credit Association loans. Either procedure gives the business of financing to a regular institution established for that purpose. Merchandising cooperatives are organized to sell commodities but not to sell financing service.

All of the above practices are justified by the following facts. At present most credit costs are borne by all patrons of the cooperative. Under a practice of restricted credit that will be effective the customer who purchases on credit and is a slow payer is forced to bear the expense. The cash customers are not penalized because cash discounts are equivalent to a premium at the time of the purchase. On the other hand, charging interest on overdue accounts and encouraging borrowing from financial

institutions increases the net income of the cooperative by eliminating credit costs. The credit customers pay their own credit costs and all patrons stand to receive larger patronage dividends.

Such measures not only reward the good customers and penalize the poor customer, but also help the organization as a whole. The financial and business conditions are improved and the cooperative builds up goodwill with those customers whose trade is the most worthwhile.

These measures for reducing credit problems and costs are not applicable to all cooperatives. However, some form of many of the measures can help those associations that now have credit difficulties. The definite practices to be used must be determined by the members themselves according to the specific credit problem of their cooperative.

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