AN ABSTRACT OF THE THESIS OF

| Terry Dean Marshall | for the M.S. |
|-----------------------|---|
| (Name of student) | (Degree) |
| | |
| in Agricultural Econo | omics presented on September 4, 1969 |
| (Major) | (Date) |
| | |
| Title: An Examination | n of Cooperative Equity Certificate |
| Transferability and F | armer Preferences for Selected Means of |
| Financing Cooperativ | e s |
| Abstract approved: | Redacted for privacy |
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Farmer cooperatives have often maintained inflexible capital structures which severely restrict members' freedom to allocate their own capital in a most profitable manner. This study was conducted to provide insights into how cooperative finance programs might be modified to provide increased capital and, at the same time, be more acceptable to members.

The revolving equity certificate means of finance was examined in depth. Of particular interest was the option of certificate transferability which would allow "capital-short" certificate holders the opportunity to reallocate at least a part of their investment in the cooperative association to more

preferred investments on their own farms.

An anlysis was designed to determine which types of farmers, according to selected farmer characteristics, would be most likely to 1) possess the highest opportunity costs for capital investments on their farms and 2) buy and/or sell revolving equity certificates at some discounted present value of the certificates' specified face amounts.

Cooperative member and nonmember preferences for selected means of finance were also examined. The acceptability of alternatives such as long-term interest-bearing notes, stock certificates, revolving equity certificates, and high membership fees was rated by the farmers in the sample. Conclusions were then reached regarding the general acceptability among farmers of selected means of cooperative finance.

Several groups of farmers, according to selected farmer characteristics, expressed a desire to participate in a market for transferable revolving equity certificates. It was concluded that transferability of certificates would provide an opportunity for many farmers to allocate their own capital in a more profitable fashion. Examination of the potential buyer-side of the equity certificate market revealed a relatively thin participation except at high rates of discount. In general, cooperatives could better serve their memberships by carefully planning their alternative

means of finance, with special consideration of those alternatives which would allow the members a reasonable degree of investment flexibility.

An Examination of Cooperative Equity Certificate Transferability and Farmer Preferences for Selected Means of Financing Cooperatives

by

Terry Dean Marshall

A THESIS

submitted to

Oregon State University

in partial fulfillment of the requirements for the degree of

Master of Science

June 1970

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| Date thesis is presented | September 4, 1969 |
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| Typed by Velda D. Mullins | for Terry Dean Marshall |

ACKNOWLEDGMENTS

Appreciation is expressed to the following individuals for their unique and valuable contributions toward the completion of this study:

Dr. Clinton B. Reeder, the author's major professor, for his excellent guidance and encouragement.

Dr. Roger G. Petersen, who read and advised on portions of the manuscript.

Doyle A. Eiler and Leonard Bauer for the insights and assistance which they so generously provided.

A note of general appreciation is extended to all staff members and graduate students of the Department of Agricultural Economics for creating an atmosphere which was favorable for this learning experience.

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An Examination of Cooperative Equity Certificate
Transferability and Farmer Preferences for
Selected Means of Financing Cooperatives

CHAPTER I

INTRODUCTION TO COOPERATIVE FINANCE

Long term financing has always been a major problem for farmer cooperatives (13, p. 564). As they have grown and expanded their marketing, farm supply, and other business services, financial demands have increased greatly (8, p. 3). The continuing task of cooperative management is to choose the capital source or combination of capital sources which is most consistent with the specified goals and objectives of the association. Not only does management need to be concerned about choosing capital sources per se, but also whether additional financing should be in the form of equity or debt and whether it should be provided by members or nonmembers.

Historically, many cooperatives have enthusiastically embraced the concept of being ''debt free'' and completely member financed, thus discouraging the use of any nonmember capital, particularly debt, unless in the case of extreme emergency (8, p. v). Their obsession has been to remain member owned and controlled, seemingly at any cost.

Today, however, many cooperatives are discovering that members are often either unwilling or unable to provide for their cooperatives' continually rising capital needs. One possible explanation for such member reaction is that members themselves increasingly experience a problem of providing for adequate sources of capital on their farms. Further contribution to their cooperatives' capital funds may force members to seek credit for costs of normal operation and growth of their farms, which they would not need if their funds were not tied up in the cooperative. Additional concern has been expressed that members may generally be better off if the cooperative were to make more use of nonfarm capital sources and allow members freer access to their personal capital.

Part of this sentiment against increased member financing has been prompted by a more realistic consideration of the farmer's opportunity costs for investing on his own farm as compared to investing in his cooperative association. As Lloyd Ullyot, President of the St. Paul Bank for Cooperatives, has stated,

The capital supplied by owners should be looked upon as having a definite cost to the owners, because they could get a return of five per cent or so by placing the same amount of money in a minimum-risk investment like government bonds, or certificates of deposit in a commercial bank. To that basic figure, however, should be added an additional amount to compensate the owner for risks involved in having his money in a particular coop. This risk figure would vary from coop to coop and from industry to industry. On this basis, the cost of ownership capital in some coops may be calculated as high as

10 per cent or more (3, p. 3).

According to Richard Phillips, "the cooperative association is an association of firms or households for business purposes -an economic institution through which economic activity is conducted in the pursuit of economic objectives" (11, p. 75). Emelianoff and Robotka further point out that a cooperative is an organization of sovereign economic units having as its foremost objective the maximization of benefits to patrons (4, p. 249; 12, p. 144). Therefore, in order for such associations to remain viable, their memberships must be convinced that the benefits from belonging are at least equal to those attainable from any competing, noncooperative business enterprise. Accordingly, we would expect the capital structure of any particular cooperative to be consistent with this goal of maximizing benefits to patrons. By basing their decisions regarding finance structuring upon opportunity costs for member capital, as well as interest charges for borrowed capital, cooperatives may be more likely to arrange sources of funds in a manner more acceptable to members.

The Problem

Much of the recent cooperative literature and informal conversation with cooperative membership and management suggests a disaffection among members because, given the high capital

requirements of cooperative membership, they personally fail to be convinced that they are better off for being a member of a cooperative association. Members often question if they might do as well or better outside the cooperative with no stipulated capital investment (6, p. 79). On the surface, it appears that this "felt-difficulty" situation may be the result of inadequate or ineffective communication of cooperative benefits by management.

However, another possibility is that satisfactory benefits actually do not exist for some members due to their inability to allocate their own capital base in a most profitable fashion. Concern has been expressed that members feel many cooperatives require use of member-capital on a patronage basis, without proper consideration of the members' individual investment alternatives or desire to invest. "There is, for example, an old belief still widely supported that having a financial stake in a cooperative makes a member more loyal" (6, p. 78). However, one might argue that being required to provide capital for the cooperative when one had higher paying alternatives elsewhere would lead to less loyalty to the cooperative.

According to Erdman and Larsen, eager cooperative managers and boards of directors often ignore the fact that "willingness to be a good cooperative patron cannot be equated either with willingness or ability to contribute financially" (6, p. 78). Erdman further

hypothesizes that to the degree that individual cooperative members base their decisions on marginal analysis, consciously or unconsciously, they would allocate both their owned and borrowed capital "to the point where the last dollar allocated to each enterprise, including that in the cooperative, would yield the same in each enterprise" (6, p. 78). Richard Phillips has proposed a similar theoretically-based hypothesis (11, p. 79). In other words, to maximize his benefits, a member must be free to allocate his capital among every alternative, including his cooperative alternative. Erdman is among those cooperative leaders who have expressed a belief that this approach to cooperative finance warrants further examination (6, p. 80).

Specifically, the problem of interest is that many cooperatives unnecessarily maintain inflexible capital structures which severely restrict members' freedom to allocate their own capital in a most profitable fashion. According to Roy, economic research of such problems is mandatory if we are to provide significant breakthroughs in cooperative finance (13, p. 564).

Purpose and Objectives

Farm cooperatives face many challenges in the years ahead and opportunities are apparently substantial for them to be of increasing service to farmers. However, one problem that all

firms experience in gearing up to meet the challenges of coming years is adequate financing. This study was designed to explore means by which farm and farm cooperative financing might be improved in coming years. Toward that end, this study explored the acceptability to farmers of cooperative revolving equity certificate transferability and various other capital finance alternatives. For the certificate transferability analysis, Erdman's theoretically-based equal marginal hypothesis was assumed to be valid. The overall study objectives were as follows:

- To determine if selected classifications of farmers,
 according to specified personal, farm, and cooperative
 characteristics, are independent of those farmers'
 a) estimated returns on next farm investment and
 b) decisions to sell and/or buy cooperative revolving
 equity certificates. Further, to examine the existing
 trends within any nonindependent relationships.
- 2. To determine the relative proportion of a) members who would sell and/or buy cooperative revolving equity certificates and b) nonmembers who would buy revolving equity certificates.
- To determine the relative acceptability to members and nonmembers of selected capital finance methods, as well as examining general acceptability.

4. To generate useable hypotheses to guide subsequent related research.

Basically, the study proceeded in two steps: 1) examination of the market among farmers for transferable revolving equity-certificates, and 2) sampling of farmer preferences for alternative means of cooperative finance. Hopefully, the resulting information will provide substantial insights into how capital programs might be modified to provide increased capital and, at the same time, be more acceptable to members.

CHAPTER II

THE REVOLVING FUND METHOD OF FINANCE

The revolving fund method of finance is distinctively cooperative in nature (8, p. 39). Through the revolving technique, members provide cooperative capital in proportion to their patronage either via authorized deductions from sales handled directly by the cooperative or by retained savings and margins realized in the operations of the association. Such contributions are generally evidenced by cooperative certificates of equity issued to members or by credit to individual patrons on the books of the association (7, p. 101).

According to this plan, for example, a member who contributed 10 percent of a cooperative's business volume would also provide approximately 10 percent of the revolving capital. When and if the capital fund reached adequate size, the cooperative would begin to return the oldest outstanding capital obligations to those members who had contributed in earlier years (9, p. 1).

The specific details of cooperative revolving funds vary from association to association. A study by Wissman (1965) discovered that only 19.9 percent of those cooperatives using the revolving method of finance paid any interest on such capital. For those which did pay interest the mean interest rate was 4.96 percent yearly (19,

p. 58). Hulbert, Griffin and Gardner (1958) found that the revolving periods for most cooperatives varied from 9 to 14 years (8, p. 42).

The revolving equity certificate method of finance has often been challenged as an equitable means of obtaining cooperative capital, both because of its intensive use and inflexible structure (7, p. 100). Throughout the history of its use, the revolving method of finance has been regarded as a "painless" method of funding a cooperative association (5, p. 87). Perhaps this belief has been a factor contributing to the fund's wide useage, but the question of to whom the revolving method is "painless" still remains a mystery. Nevertheless, "once savings grow into a sizeable fund, the capitalshort farmer, or an heir, knows the money (invested in the revolving fund) is his and is unhappy about its unavailability" (5, p. 87). Erdman further argues that if cooperatives are to continue to expand horizontally and vertically, as many persons feel they should, they must implement a finance method which allows members who are "cooperative-minded" but "capital-short" to shift some of their financial burden to others who have both the necessary funds and the desire to invest (5, p. 87). Roy concurs with Erdman and believes further that cooperatives should not preclude themselves from 'obtaining equity and borrowed capital on a sound basis from non-farm and non-member sources" (13, p. 564).

Equity Certificate Transferability

Serious attempts have been made to devise a method of administering the revolving fund in a manner more satisfactory to members. Among the new ideas and variations of old ideas proposed has been the concept of equity certificate transferability. Some cooperatives limit certificate transfer to members only while others place no restrictions on transfer. According to this procedure, traditional revolving finance is still used, but members are allowed to sell and/or buy equity certificates representing an interest in the cooperative capital fund. Essentially, the result of such transferability is that frequently at least a limited market for cooperative equity certificates is established. Such a market, if sufficiently active, provides an opportunity for those members who are short of capital to shift part of their financial burden to members, or nonmembers if transferability is not restricted, who have "extra" capital available and a desire to invest.

Certificate Discounting Procedure

Each cooperative member who possesses revolving equity certificates essentially owns the right to receive a stream of payments which are payable to him some time in the future. Often revolving periods are not defined specifically as to the number of

years, in which case a degree of uncertainty exists as to when the payments will actually be received.

Under the certificate transferability approach, any member may transfer (buy or sell) certificates of equity if he is willing to accept some discounted present value as the trading price. For example, a member having \$10,000 in equity certificates may, rather than wait for them to be revolved out to him, be willing to sell his rights to those certificates for somewhat less than \$10,000\frac{1}{\cdot}\$. If another farmer were willing and able to buy those same rights for the stated amount, a transaction would take place with the new certificate owner then being entitled to receive the remaining payments. Having disinvested in the cooperative, the member who sold his certificates may, with cash in hand, then be in a relatively better position to initiate a preferred investment on his farm or elsewhere. In its broadest sense, then, equity

^{1/ &}quot;It is often said that the reasonable present market value of any investment is the total of future benefits (whether as income or return of principal, in cash or in services would not matter) expected from it, discounted down to the present at an interest rate consistent with the risk" (1, p. 20). In the case of equity certificate transfer, the discount rate used to arrive at a present value may also be partially determined by a farmer's 1) investment opportunity costs, 2) accessibility to and rate of borrowed funds, and 3) stock of cash or near-cash in relation to desired minimum. Once the appropriate discount rate is selected, the present value is determined by referring to a table of present values which may be found in most managerial accounting texts.

certificate transferability provides the possibility for members to invest or disinvest at their own discretion without, ceterus paribus, upsetting the cooperative's financial structure—the entire activity being generally among farmers or other interested individuals.

Such a plan of finance better allows the member to, as Erdman has stated, "allocate his capital, including that owned and that borrowed, to his various farm and cooperative enterprises so that his expected income (from all operations) would be at a maximum (5, p. 87).

CHAPTER III

PROCEDURE

Sampling Procedure

As a basis for the analysis, the population was carefully defined as being all farm owners and farm operators in Marion County, Oregon. The name and address of each of the approximately 4,000 members of the population were obtained from a master listing and prepared for sampling. Utilizing a method proposed by Snedecor (15, p. 456-458), it was determined that a sample size of 200 farmers would provide the information necessary to estimate with sufficient accuracy the means for each major farmer classification used in the study. 2/

$$n = (t^2 C^2) / (p^2)$$

where

n = required number of observations

^{2/} This method of estimating sample size is based upon a knowledge of the coefficient of variation within a classification and also the relative accuracy with which one hopes to estimate the true mean. The basic equation used for estimating sample size is

t = tabular value of "Students t" at the desired confidence limit

C = Coefficient of variation, the ratio of the standard deviation per unit to the mean

p = limit, expressed as a percent of the sample mean, within which the true mean is expected to be found

Based upon the advice of several individuals experienced in mailed-questionnaire surveys and the fact that the mailing was during a busy season for farmers, a conservative response rate of 12.5 percent was predicted indicating that the initial sample for mailing should consist of 1,600 farmers. 3/At this point, the names of all members of the selected population were listed on separate pieces of paper, placed in a large container and mixed thoroughly. From this container the initial random sample was determined by drawing out in succession the necessary 1,600 names. 4/For purposes of this study, nonrespondents were assumed to be essentially no different from respondents in terms of the information they would have provided.

where H is the highest observation expected within a given classification and L is the lowest (10, p. 1-3). In estimating the sample size for this study, a 99 percent confidence coefficient and a 10 percent limit were used.

A reasonable approximation for t at the 99 percent confidence limit is 2.8, while the coefficient of variation, C, may be estimated by the following equation

C = [(H-L) / (2) (H+L)] (100)

^{3/} Actual estimates under the conditions specified were consistently less than 25 percent response. According to Selltiz, the proportion of returns from a questionnaire mailed to a random sample of a population may be as low as 10 percent (14, p. 241).

^{4/} According to Cochran, this method of simple random sampling gives "equal chance of selection to all ... not previously drawn" (2, p. 18, 19).

Data Collection - The Mailed Questionnaire

To retrieve the necessary data for the study, a questionnaire was designed which would be particularly suitable for a mailed survey. The basic form of the questionnaire was standardized, allowing each member of the sample to respond to the same set of questions. The questions themselves were primarily of a "fixed-alternative" nature—hopefully facilitating ease in response without sacrificing pertinent detail (14, p. 255, 256).

Consistent with the study objectives which were outlined in Chapter I, the questionnaire was structured to determine selected characteristics of farm owners and farm operators in Marion County, Oregon. Of particular interest were each farmer's personal, farm, and cooperative characteristics. Also, several investment-related questions were posed to allow examination of the potential market among farmers for cooperative equity certificates.

Specifically, an attempt was made to determine return on next farm investment, minimum acceptable discount in buying equity certificates and maximum acceptable discount in selling equity certificates for each farmer. An approximation of return on next farm investment was determined through asking by what yearly amount farm sales would increase or farm costs decrease

if one additional investment of a specified sum of money were made on the farm. An average percent return for the specified investment was then computed by the following equation:

Recognizing that an investment of a certain amount may be a suitable marginal investment for one farmer but not for another, this information was obtained by asking two questions—one of which each farmer answered. Those farmers with annual farm sales of less than \$20,000 were given a \$3,000 marginal investment while those with annual farm sales of \$20,000 or more were asked to respond to a \$6,000 marginal investment.

The question regarding maximum acceptable discount in selling equity certificates was also asked on the basis of yearly farm sales--farmers with sales of less than \$20,000 based their responses on ownership of \$5,000 in equity certificates, while those with sales of \$20,000 or more answered in terms of possessing \$10,000 in certificates.

Justification for distinguishing between farmers on the basis of these particular levels of farm sales was somewhat arbitrary.

The intent, however, was to distinguish between potential behavior of large and small farmers.

The minimum acceptable discounts in buying certificates were determined similarly for all farmers--each being asked to indicate what cash dollar amount he would currently pay for a specified face amount of certificates. Both in buying and in selling, where the certificates were to be paid out over a number of years, the discount rate was assumed to be constant for all years. 5/

The second section of the questionnaire was reserved for determining farmer preferences for various methods of cooperative finance. Hopefully, this information can be utilized to plan more satisfactory cooperative capital structures in the years ahead.

Additionally, one "open-ended" question was provided to allow farmers the opportunity to make any further related or unrelated comments concerning financing cooperative capital needs.

Questionnaire Pretest

After the questionnaire was initially completed, it was pretested with the cooperation of the Marion County Extension Service and several area farmers. A revised questionnaire was then prepared and mailed along with a cover letter to each of the 1,600

^{5/} In practice, the acceptable discount rate for a given farmer may actually change for certificates having maturity dates in the more distant future. Among the affecting factors most often considered are risk and uncertainty.

farmers. One week later a reminder letter was also mailed. 6/

Data Handling

The responses to each questionnaire were coded and punched into data cards. 7/ The cell values for each two-way relationship to be tested were found by sorting the cards on the appropriate columns. Data from these two-way tables were then punched into a second set of data cards and the relationships were tested for significance via a computerized contingency analysis. 8/

Procedure for Data Analysis

The statistical analysis employed throughout the majority of this study was based upon a contingency table test of enumeration data which has been outlined by Steele and Torrie (1960). Contingency tables of dimension r x c were used in testing hypotheses

^{6/} Refer to Appendix I for a copy of the questionnaire, cover letter and reminder.

^{7/} During a three-week period, 328 questionnaires were returned constituting an overall response rate of 20.55 percent. Compared to the estimated return rate of 12.5 percent, the actual return was quite favorable in terms of providing the necessary data.

^{8/} The chi-square routine used was originally programmed in 1966 by W. David Downey and Doyle A. Eiler, Department of Agricultural Economics, Purdue University.

concerning the independence of selected classifications. Statistical independence, as referred to here, implies that if A and B are independent, then the probability of the occurrence of A plus the probability of the occurrence B is equivalent to the probability of the occurrence of A plus B (15, p. 195). If an hypothesis that two classifications are independent were rejected, then the relationship was said to exhibit significant interaction. A measure of the degree of interaction among variables was included in each test.

The test criterion used was

$$\chi^2 = \sum_{i=1}^{N} \left[\frac{(O-E)^2}{E} \right]$$

where

O = observed cell value

E = expected cell value if no interaction exists

N = number of observations

For each test, this statistic was then compared to the appropriate tabular value of X² to determine the degree of significance for the relationship. For tables with 100 or fewer degrees of freedom, the computer contingency program provided for significance to be checked at the 90, 95, and 99 percent levels. Those having greater than 100 degrees of freedom were checked at only the 95 and 99 percent levels.

To facilitate interpretation of the contingency analysis, the chi-square values for each row and column, as well as the individual cell chi-squares, were used as indicators of significant variation.

Additionally, the raw data tables were each converted to percent by row, percent by column, and percent of grand total. Combined with a measure of the dependence for significant relationships, this constituted the information available for interpretation.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

A total of 65 relationships were initially examined in this study, several involving classifications of farmers' selected personal and farm characteristics which were tested for independence against five indicators of investment behavior. For the remainder of this study, the following code names were assigned to those five indicators:

- ROI estimated return on next farm investment.
- MDS maximum discount acceptable in selling ten equity certificates, each of an equal specified face value, which will mature at the rate of one per year during the next ten years.
- MDB minimum discount acceptable in buying ten equity certificates, each of an equal specified face value, which will mature at the rate of one per year during the next ten years.
- MDB 72 minimum discount acceptable in buying a specified face value of equity certificates which will all mature in 1972.
- MDB 78 minimum discount acceptable in buying a specified face value of equity certificates which will all mature in 1978.

Tables 1 and 2 include a complete description of each relationship initially tested, including the level of significance for nonindependent relationships. In each case, the null hypothesis that the two classifications were independent was rejected if and only if the sample

Table 1. Levels of Significance for Relationships Involving
Indicators of Investment Behavior Tested for
Independence with Selected Farmer Characteristics

| Farmer | Indicators of Investment Behavior | | | | | | |
|---|-----------------------------------|-------------------|------------|--------|--------|--|--|
| characteristics | ROI | MDS | MDB | MDB 72 | MDB 78 | | |
| Age | $NS^{1/2}$ | 90 ² / | NS | NS | NS | | |
| Education | NS | NS | 99 | 99 | 95 | | |
| Owner-operator status | 9 0 | 99 | NS | NS | NS | | |
| Farm investment | NS | 99 | 90 | NS | NS | | |
| Farm sales | NS | NS | NS | NS | NS | | |
| Planned farm sales | 95 | 99 | NS | NS | NS | | |
| Present cooperative membership status | NS | NS | 95 | NS | NS | | |
| Previous cooperative membership status | NS | NS | NS | NS | NS | | |
| Reason for cooperative membership termination | NS | NS | NS | NS | NS | | |
| Years cooperative membership | NS | NS | NS | NS | 90 | | |
| ROI | NT ³ / | NS | 9 0 | NS | NS | | |
| MDB | <u> </u> | 99 | NT | NT | NT | | |

^{1/} Not significant

^{2/} Level of significance in percent

^{3/} Not tested

Table 2. Levels of Significance for Relationships Involving Present
Cooperative Membership Status Tested for Independence
with Farmer Acceptability of Selected Cooperative Finance
Alternatives

| Description of relationship | Level of significance |
|---|-----------------------|
| Present cooperative membership status vs. acceptability of notes sold to members only | 90 ¹ / |
| Present cooperative membership status vs. acceptability of notes sold to anyone | 95 |
| Present cooperative membership status vs. acceptability of high membership fees | 95 |
| Present cooperative membership status vs. acceptability of cumulative preferred stock | NS <u>2</u> / |
| Present cooperative membership status vs. acceptability of noncumulative preferred stock | NS |
| Present cooperative membership status vs. acceptability of revolving equity certificates which are noninterest-bearing and without due date | NS |
| Present cooperative membership status vs. acceptability of revolving equity certificates which are interest-bearing and without due date | re 90 |
| Present cooperative membership status vs. acceptability of revolving equity certificates with definite due dates | NS |
| Present cooperative membership status vs. restrictions on revolving equity certificate transferability | 90 |
| Present cooperative membership status vs. acceptability of nonfarmer investment in cooperative | s 99 |

^{1/} Significance level in percent

^{2/} Notsignificant

chi-square value exceeded its corresponding tabular value at or above the 90 percent level of significance. Of the 65 initial relationships listed in Tables 1 and 2, twenty displayed significant dependency and became the basis for detailed analysis. 9/

Estimated Return on Next Farm Investment (ROI)

Farmers' estimated rates of return on next farm investment were originally tested for independence with ten farmer characteristics (Table 1). The tests indicated that ROI was significantly dependent upon both owner-operator status and planned farm sales.

ROI vs. Owner-Operator Status

One owner-operator status, that of "farm owner only", possessed significant variation across the various categories of ROI. Among farmers classified as "farm owner only", 63.2 percent designated a return of 3.9 percent or less, while none estimated a return of between 16.7 percent and 27.9 percent (Table 3.)

Significant variation was also present among farmers who had estimated a 3.9 percent or less return on next farm investment.

Again, the cause of the variation was a higher than expected

Refer to Appendix II for a data table of each significantly dependent relationship.

Table 3. Estimated Return on Next Farm Investment (ROI) vs. Owner-Operator Status 1/

| | ROI (Percent) | | | | | | | | |
|----------------|---------------------|--------------------|--------------|--------------------|---------------------|--------------------|--------------------|---------------------|--------------|
| Owner-operator | 3.9 or | 4- | 8 - | 12- | 16- | 20- | 24- | 28 o r | Row |
| status | le ss * | 7.9 | 11.9 | 15.9 | 19.9 | 23.9 | 27.9 | more | total |
| | | | | | | | | | |
| Part owner and | <u> 18.4</u> | <u>12. 2</u> | <u>14.3</u> | 14.3 | <u>14.3</u> | 4.0 | $\frac{8.2}{25.0}$ | $\frac{14.3}{15.2}$ | 100.0 |
| operator | 15.5 | 26.0 | 18.4 | 28.0 | 20.6 | 12.5 | 25.0 | 15.2 | 19.1 |
| Full owner and | 18 6 | 0.0 | 15 2 | 0 5 | 14 7 | 7 0 | ۷ ٥ | 10.3 | 100.0 |
| | $\frac{18.6}{56.9}$ | $\frac{9.0}{60.6}$ | <u>15.2</u> | $\frac{8.5}{60.0}$ | $\frac{14.7}{76.5}$ | $\frac{7.9}{87.5}$ | 6.8 | <u>19.2</u> | 100.0 |
| operator | 56.9 | 69.6 | 71.0 | 60.0 | 76.5 | 87.5 | 75.0 | 73.9 | 69.1 |
| Farm owner | 63.2 | <u>5.3</u> | 10.5 | <u>5.3</u> | 0 | 0 | 0 | 15.8 | 100.0 |
| only* | $\frac{1}{20.7}$ | 4.4 | 5.3 | 4.0 | 0 | 0 | 0 | 6.5 | 7.4 |
| | | | | | | | | | |
| Farm operator | <u> 36.4</u> | 0 | <u>18.2</u> | 18.2 | 9.0 | 0 | 0 | <u>18.2</u> | 100.0 |
| only | 6.9 | 0 | 5 . 2 | 8.0 | $\frac{9.0}{2.9}$ | 0 | 0 | 4.4 | 4.3 |
| | <u> </u> | | | | _ | | | | |
| Column | <u>22.7</u> | 9.0 | <u>14.8</u> | 9.8 | 13.3 | 6.2 | 6.2 | <u>18.0</u> | <u>100.0</u> |
| total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{*} Variation within this category was significant at the 90 percent level or higher.

concentration of "farm owners only" in the 3.9 percent or less category of ROI. $\frac{10}{}$

In general, "farm owners only" strongly tended to estimate very low rates of return on their next farm investment. Farmers in each other owner-operator group appeared no more likely to choose one rate of return than another.

ROI vs. Planned Farm Sales

Farmers who planned for their farm sales during the next three years to either increase slightly, decrease substantially, or remain about the same, showed significant variability in estimating their returns on next farm investment (Table 4). Farmers with plans to slightly increase sales exhibited no specific trend, while those planning a substantial decrease in sales tended to select returns of 3.9 percent or less. Farmers with plans to maintain their present levels of sales tended to estimate their returns at less than 16 percent—about 28 percent of the farmers with this sales plan estimated their return at 3.9 percent or less.

^{10/} Although almost 57 percent of those farmers who selected a return of 3.9 percent or less were classified as full owner and operator, this did not contribute significantly to the dependency of the relationship. The majority of the farmers in the sample were full owners and operators, therefore they contributed most to all categories of ROI.

Table 4. Estimated Return on Next Farm Investment (ROI) vs. Planned Farm Sales $\frac{1}{2}$

| | | | | | RO | (Percer | ıt) | | |
|-----------------------------|---------------------|---------------------|----------------------|---------------------|----------------------|---------------------|---------------------|----------------------|----------------|
| Płanned farm sales | 3.9 or | 7.9 | 8- 11.9 | 12- 15.9 | 16- 19.9 | 20 - 23.9 | 24 - 27.9 | 28 or more | Row total |
| Increase substan- tially | $\frac{17.8}{13.8}$ | <u>4.4</u> 9.1 | 11.1 13.2 | 8.9 16.0 | 20.0 26.5 | 6.7 18.8 | 2.2 | <u>28.9</u> 27.1 | 100.0 17.5 |
| Increase slightly* | 17.0 27.6 | $\frac{7.4}{31.8}$ | $\frac{17.0}{42.1}$ | $\frac{4.3}{16.0}$ | $\frac{17.0}{47.1}$ | $\frac{7.4}{43.8}$ | $\frac{11.7}{68.8}$ | $\frac{18.1}{35.4}$ | 100.0 36.6 |
| Decrease slightly | 16.7 5.2 | 16.7 13.6 | 16.7 7.9 | 5.6 4.0 | 5.6 2.9 | 5.6 | 5.6 | 27.8 10.4 | 100.0 7.0 |
| Decrease substantially* | 66.7 10.3 | 0 | 0 | $\frac{11.1}{4.0}$ | 0 | 0 | 0 | 22.2 4.2 | 100.0 3.5 |
| Remain about the same* | $\frac{27.5}{43.1}$ | $\frac{11.0}{45.4}$ | 15.4 36.8 | 16.5 60.0 | $\frac{8.8}{23.5}$ | $\frac{5.5}{31.2}$ | $\frac{3.3}{18.8}$ | 12.1 22.9 | 100.0 35.4 |
| Column total | 22.6 100.0 | $\frac{8.6}{100.0}$ | $\frac{14.8}{100.0}$ | $\frac{9.7}{100.0}$ | $\frac{13.2}{100.0}$ | $\frac{6.2}{100.0}$ | $\frac{6.2}{100.0}$ | $\frac{18.7}{100.0}$ | 100.0 100.0 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent by column. *Variation within this category was significant at the 90 percent level or higher.

Only the category of 3.9 percent or less ROI contained significant variation across the various sales plans. Farmers who had plans to substantially decrease their farm sales estimated a 3.9 percent or less return more frequently than expected assuming an independent relationship. Of all farmers who selected a 3.9 percent or less return, nearly one-half planned for farm sales to remain about the same.

In general, farmers planning to maintain or substantially decrease their farm sales tended to estimate extremely low rates of return on next farm investment. Farmers with plans to slightly increase their farm sales exhibited no specific trend.

Maximum Discount Acceptable in Selling Equity Certificates (MDS)

Farmers' decisions about their maximum discount acceptable in selling equity certificates were originally tested for independence with 12 farmer characteristics (Table 1). The tests indicated that MDS was significantly dependent upon years of age, owner-operator status, dollar farm investment, planned farm sales and minimum discount in buying equity certificates.

MDS vs. Age

Of the nine categories of age, only the 30-34, 35-39, 60-64, and 65 or older categories contained significant variation across the

various rates of discount (Table 5). Farmers who were 30-34 years of age preferred to sell at discounts of three percent or greater and were least likely not to sell. Farmers who were 35-39 years of age tended to choose discount rates of between 4 and 15 percent, while those who were 65 years or older preferred either to sell at a very high discount rate or not to sell at all.

In general, the trends within this relationship were not obvious. However, young farmers tended to be most willing to sell equity certificates at a medium discount. Maximum acceptable discount rates tended to decrease as age increased, except for those farmers older than 65 years, who tended to sell at high discounts or not at all. Of all farmers, those 65 and older appeared least likely to sell, while those between 30-39 years were most likely to sell.

MDS_vs. Owner-Operator Status

All categories of owner-operator status contained significant variation across the various categories of discount in selling equity certificates (Table 6). Farmers classified as part owner and operator exhibited no definite trend in selecting discount rates, although more than expected, assuming an independent relationship, chose to accept high discount rates and fewer accepted relatively low discount rates. "Full owners and operators" tended either to sell at discounts below five percent or not to sell at all. Farmers

Table 5. Maximum Discount in Selling Equity Certificates (MDS) vs. $Age^{\frac{1}{2}}$

| | | | | | Age | (Years) | | - | | | |
|------------------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|----|
| MDS (Percent) | 29 or less | 30- 34* | 35 - 39* | 40- 44 | 45 - 49 | 50- 54 | 55- 59 | 60- 64* | 65 or older* | Row total | |
| 20 or more | 0 | 5.6 6.7 | 0 | 5.6 2.6 | 22. 2 9. 5 | $\frac{16.7}{7.1}$ | $\frac{11.1}{7.4}$ | $\frac{11.1}{7.7}$ | 27.8 13.5 | 100.0 6.7 | |
| 20-15 | 0 | 16.7 6.7 | 0 | 16.7 2.6 | 0 | $\frac{16.7}{2.4}$ | 0 | 0 | 50.0 8.1 | 100.0 2.2 | |
| 15-10 | $\frac{8.7}{14.3}$ | 0 | $\frac{21.7}{17.9}$ | $\frac{13.0}{7.9}$ | 13.0 7.1 | $\frac{13.0}{7.1}$ | 8.7 7.4 | <u>4.4</u> 3.8 | $\frac{17.4}{10.8}$ | 100.0 8.6 | |
| 10-8 | $\frac{14.3}{14.3}$ | 7. 1 6. 7 | 14.3 7.1 | 21.4 7.9 | 7.1 2.4 | 7.1 2.4 | 0 | $\frac{14.3}{7.7}$ | 14.3 5.4 | 100.0 5.2 | |
| 8- 7 | $\frac{10.0}{7.1}$ | $\frac{10.0}{6.7}$ | $\frac{20.0}{7.1}$ | <u>20.0</u> 5.3 | 20.0 4.8 | $\frac{10.0}{2.4}$ | 0 | 10.0 3.8 | 0 | 100.0 3.7 | |
| 7- 6 | 7.7 | $\frac{7.7}{6.7}$ | 15.4 7.1 | 15.4 5.3 | 23.1 7.1 | 0 | $\frac{7.7}{3.7}$ | $\frac{23.1}{11.5}$ | 0 | 100.0 4.8 | |
| 6- 5 | 0 | $\frac{12.5}{6.7}$ | 0 | 25.0 5.3 | $\frac{25.0}{4.8}$ | $\frac{12.5}{2.4}$ | $\frac{12.5}{3.7}$ | 12.5 3.8 | <u>0</u> 0 | $\frac{100.0}{3.0}$ | |
| 5- 4 | $\frac{7.7}{14.3}$ | $\frac{3.8}{6.7}$ | 19.2 17.9 | 15.4 10.5 | 15.4 9.5 | 23.1 14.3 | 7.7 | 0 0 | 7.7 5.4 | 100.0 9.7 | ٠. |
| 4-3 | 0 | 22. 2 26. 7 | <u>5.6</u> 3.6 | 22.2 10.5 | 5.6 2.4 | 22. 2 9. 5 | $\frac{11.1}{7.4}$ | $\frac{11.1}{7.7}$ | 0 | 100.0 6.7 | |

Table 5 -- Continued

| 3- 2 | 0 | 0 | 0 | 18.2 5.3 | 18.2 4.8 | 18.2 4.8 | $\frac{27.3}{11.1}$ | 0 | 18.2 5.4 | 100.0 4.1 |
|------------------------|---------------------|---------------------|---------------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------|----------------|
| 2- 1 | $\frac{15.8}{21.4}$ | $\frac{5.3}{6.7}$ | $\frac{21.0}{14.3}$ | 0 | 21.0 9.5 | $\frac{26.3}{11.9}$ | 0 | 0 | 10.5 5.4 | 100.0 7.1 |
| 1-0 | $\frac{3.0}{7.1}$ | $\frac{6.1}{13.3}$ | 6.1 7.1 | 12.1 10.5 | $\frac{27.3}{21.4}$ | 12.1 9.5 | $\frac{12.1}{14.8}$ | $\frac{15.2}{19.2}$ | 6.1 5.4 | 100.0 12.3 |
| Premium ² / | 0 | 0 | 10.5 7.1 | 15.8 7.9 | 5.3 2.4 | 10.5 4.8 | 15.8 11.1 | 26.3 19.2 | 15.8 8.1 | 100.0 7.1 |
| Would not sell | 3.9 14.3 | 2.0 6.7 | 5.9 10.7 | 13.7 18.4 | 11.8 14.3 | $\frac{17.6}{21.4}$ | 13.7 25.9 | $\frac{7.8}{15.4}$ | 23.5 32.4 | 100.0 19.0 |
| Column total | <u>5.2</u> 100.0 | <u>5.6</u> 100.0 | 10.4 100.0 | 14.1 100.0 | 15.6 100.0 | 15.6 100.0 | 10.0 100.0 | <u>9.7</u> 100.0 | 13.8 100.0 | 100.0 100.0 |

^{1/} Number in upper half of each cell in percent of row --number in lower half is percent of column.

^{2/} Would sell only for an amount greater than the specified face value.

^{*} Variation within this category was significant at the 90 percent level or higher.

Table 6. Maximum Discount in Selling Equity Certificates (MDS) vs. Owner-Operator Status $\frac{1}{2}$

| , , | Owner-operator status | | | | | | | | | |
|--|--------------------------|--------------------------|---------------------|---------------------|---------------------|--|--|--|--|--|
| MDS (Percent) | Part owner and operator* | Full owner and operator* | Farm owner only* | Farm operator only* | Row total | | | | | |
| 20 or more | <u>5.9</u> 1.8 | 70.6 6.7 | $\frac{17.7}{13.6}$ | 5.9 7.7 | $\frac{100.0}{6.4}$ | | | | | |
| 20-15 | <u>0</u> | 83.3 2.8 | 16.7 4.6 | 0 | 100.0 | | | | | |
| 15-10 | $\frac{43.5}{18.5}$ | <u>52.2</u> 6.7 | 4.4 | 0 | 100.0 8.6 | | | | | |
| 10- 8 | $\frac{42.9}{11.1}$ | <u>42.9</u> 3.4 | 0 | $\frac{14.3}{15.4}$ | 100.0 5.2 | | | | | |
| 8- 7 | 20.0 3.7 | 80.0 4.5 | 0 | 0 | 100,0 3.8 | | | | | |
| 7- 6 | $\frac{53.8}{13.0}$ | 38.5 2.8 | 7.7 4.6 | 0 0 | 100.0 4.9 | | | | | |
| 6- 5 | <u>0</u> | 87.5 3.9 | 12.5 4.6 | 0 | 100.0 3.0 | | | | | |
| 5- 4 | 19.2 9.3 | 69.2 10.1 | 0 | 11.5 23.1 | 100.0 9.7 | | | | | |

Table 6 -- Continued

| 4- 3 | 16.7 5.6 | 77.8 7.9 | 0 0 | <u>5.6</u> 7.7 | <u>190.0</u> 6.7 |
|-----------------|--------------------|---------------------|---------------------|-------------------|----------------------|
| 3- 2 | 0 | 72.7 4.5 | 27.3 13.6 | 0 | 100.0 4.1 |
| 2- 1 | <u>26.3</u> 9.3 | 57.9 6.2 | 0 | 15.8 23.1 | 100.0 7.1 |
| 1- 0 | <u>6.1</u> 3.7 | $\frac{75.8}{14.0}$ | $\frac{15.2}{22.7}$ | <u>3.0</u> 7.7 | 100.0 |
| Premium 2/ | 15.8 5.6 | 73.7 | 5.3 4.6 | <u>5.3</u> 7.7 | 100.0 7.1 |
| Would not sell | 20.0 18.5 | 66.0 18.5 | $\frac{12.0}{27.3}$ | <u>2.0</u> 7.7 | $\frac{100.0}{18.7}$ |
| Column total | 20.2 100.0 | 66.7 100.0 | $\frac{8.2}{100.0}$ | 4.9 100.0 | 100.0 100.0 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{2/} Would sell only for an amount greater than the specified face value.

^{*} Variation within this category was significant at the 90 percent level or higher.

classified as "farm owner only" tended to sell at an extremely low discount or not to sell at all, while "farm operators only" exhibited no specific pattern in selecting discount rates.

In general, "farm owners only" appeared least likely to sell equity certificates, while "farm operators only" were most likely to sell. Farmers classified as part owner and operator or full owner and operator were equally likely to sell certificates, although part owners and operators tended to accept the higher discounts of the two categories.

MDS vs. Farm Investment

All categories of dollar farm investment were found to contain significant variation across the various ranges of discount in selling (Table 7). Farmers with \$29,999 or less farm investment tended to sell certificates at a 1-5 percent discount rate, although some chose to sell at higher rates. Farmers having farm investments within the \$30,000-\$59,999 and \$60,000-\$99,999 ranges exhibited no definite trend in selecting discount rates, but were most likely of all not to sell certificates. In the \$100,000-\$199,999 and \$200,000-\$349,999 investment categories, farmers' preferences ranged widely from three percent to 15 percent, while those with \$350,000 or more farm investment indicated a definite preference for discounts of between eight percent and 15 percent.

Table 7. Maximum Discount in Selling Equity Certificates (MDS) vs. Farm Investment

| | , | Investment (Dollars) | | | | | | | | | | | |
|------------------|---------------------|----------------------|--------------------|----------------------|------------------------|----------------------|--------------|--|--|--|--|--|--|
| MDS (Percent) | 29, 999 or less* | 30, 000- 59, 999* | 60,000- 99,999* | 100,000- 199,999* | 200, 000- 349, 999* | 350, 000 or more* | Row total | | | | | | |
| 20 or more | 11.8 8.0 | 41.2 10.6 | 17.6 4.2 | 11.8 3.4 | 11.8 6.9 | <u>5.9</u> 6.2 | 100.0 6.4 | | | | | | |
| 20-15 | 0 | 33.3 3.0 | 33.3 2.8 | 33.3 3.4 | 0 | 0 0 | 100.0 2.3 | | | | | | |
| 15-10 | $\frac{13.0}{12.0}$ | 8.7 3.0 | 26.1 8.3 | 30.4 12.1 | $\frac{13.0}{10.3}$ | $\frac{8.7}{12.5}$ | 100.0 8.6 | | | | | | |
| 10- 8 | 12.5 8.0 | 18.8 4.6 | 18.8 4.2 | 6.2 | 12.5 6.9 | $\frac{31.2}{31.2}$ | 100.0 | | | | | | |
| 8- 7 | 0 | 0 | <u>40.0</u> 5.6 | 50.0 8.6 | 0 | $\frac{10.0}{6.2}$ | 100.0 3.8 | | | | | | |
| 7- 6 | $\frac{7.7}{4.0}$ | 0 | 23. <u>1</u> 4. 2 | 46.2 10.3 | $\frac{23.1}{10.3}$ | 0 0 | 100.0 4.9 | | | | | | |
| 6- 5 | 0 | $\frac{37.5}{4.6}$ | $\frac{12.5}{1.4}$ | 0 | 50.0 13.8 | 0 | 100.0 3.0 | | | | | | |

Table 7--Continued

| 5- 4 | 20.0 20.0 | 20.0 7.6 | 8.0 2.8 | $\frac{44.0}{19.0}$ | 8.0 6.9 | 0 | $\frac{100.0}{9.4}$ |
|-----------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|----------------------|
| 4- 3 | $\frac{16.7}{12.0}$ | 16.7 4.6 | 16.7 4.2 | 16.7 5.2 | 22. 2 13. 8 | 11.1 12.5 | 100.0 6.8 |
| 3- 2 | 18.2 8.0 | $\frac{27.3}{4.6}$ | 18. 2 2. 8 | <u>36.4</u> 6.9 | 0 | 0 | 100.0 4.1 |
| 2- 1 | 5.6 4.0 | 27.8 7.6 | 22. 2 5. 6 | 27.8 8.6 | 11.1 6.9 | 5.6 6.2 | 100.0 6.8 |
| 1- 0 | 9.1 12.0 | $\frac{36.4}{18.2}$ | 30.3 13.9 | <u>9.1</u> 5.2 | $\frac{9.1}{10.3}$ | $\frac{6.1}{12.5}$ | $\frac{100.0}{12.4}$ |
| Premium ^{2/} | 5.3 4.0 | 21.0 6.1 | <u>52.6</u> 13.9 | $\frac{10.5}{3.4}$ | <u>5.3</u> 3.4 | <u>5.3</u> 6.2 | 100.0 7.1 |
| Would not sell | <u>4.1</u> 8.0 | 34.7 25.8 | 38.8 26.4 | $\frac{14.3}{12.1}$ | $\frac{6.1}{10.3}$ | <u>2.0</u> 6.2 | $\frac{100.0}{18.4}$ |
| Column total | 9.4 100.0 | 24.8 100.0 | 27.1 100.0 | 21.8 100.0 | 10.9 100.0 | 6.0 100.0 | 100.0 100.0 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{2/} Would sell only for an amount greater than the specified face value.

^{*} Variation within this category was significant at the 90 percent level or higher.

In general, those farmers with high dollar investments (\$200,000 or more) on their farms appeared most likely to accept an eight percent or higher discount in selling, while farmers with low farm investments (\$29,999 or less) were most likely to sell at low rates of discount. Farmers having investments of \$30,000-\$99,999 were least likely to sell equity certificates, while farmers with more than \$350,000 of farm investment were most likely to sell.

MDS vs. Planned Farm Sales

All categories of planned sales contained significant variation across the various ranges of discount in selling equity certificates (Table 8). Farmers who indicated that their sales would substantially increase during the next three years failed to concentrate within any specific discount range; however, they appeared more likely than farmers with other sales plans to choose discount rates of between two percent and ten percent. Farmers who planned to slightly increase sales were not concentrated in any particular discount range, but indicated a weak preference for discounts below four percent. Farmers with plans to decrease farm sales generally avoided the 1-4 percent discount range in favor of either not selling at all or selling at fairly high discount. No definite trend was apparent from the distribution of farmers

Table 8. Maximum Discount in Selling Equity Certificates (MDS) vs. Planned Farm Sales

| | | | Planned sales | | |
|------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| MDS | Increase | Increase | Decrease slightly | Remain about | Row |
| (Percent) | substantially* | slightly* | or substantially* | the same* | total |
| 20 or more | $\frac{11.1}{4.4}$ | 11.1 2.1 | 22.2 12.5 | 55.6 10.9 | 100.0 |
| 20-15 | 16.7 2.2 | 16.7 1.0 | 0 | 66.7 4.4 | $\frac{100.0}{2.3}$ |
| 15-10 | 19.0 8.9 | 38.1 8.2 | 19.0 12.5 | 23.8 5.4 | $\frac{100.0}{7.9}$ |
| 10- 8 | 31.2 11.1 | 37.5 6.2 | $\frac{12.5}{6.2}$ | 18.8 3.3 | 100.0 6.0 |
| 8- 7 | 10.0 2.2 | 60.0 | 0 | $\frac{30.0}{3.3}$ | $\frac{100.0}{3.8}$ |
| 7- 6 | 15.4 4.4 | 46.2 | $\frac{7.7}{3.1}$ | 30.8 4.4 | $\frac{100.0}{4.9}$ |
| 6- 5 | 37.5 6.8 | <u>25.0</u> 2.1 | 0 | $\frac{37.5}{3.3}$ | $\frac{100.0}{3.0}$ |
| 5 - 4 | 20.8 11.1 | $\frac{25.0}{6.2}$ | $\frac{12.5}{9.4}$ | $\frac{41.7}{10.9}$ | 100.0 9.0 |

 \sim

Table 8--Continued

| Column total | 16.9 100.0 | 36.5 100.0 | 12.0 100.0 | 34.6 100.0 | 100.0 100.0 |
|-----------------------|-----------------------|---------------------|-------------------|---------------------|---------------------|
| Would not sell | 7.8 8.9 | $\frac{31.4}{16.5}$ | 19.6 31.2 | <u>41.2</u> 22.8 | 100.0 19.2 |
| Premium ^{2/} | 15.8 6.7 | 36.8 7.2 | 15.8 9.4 | $\frac{31.6}{6.5}$ | 100.0 7.1 |
| 1- 0 | 21.9 15.6 | 40.6 13.4 | 6.2 | $\frac{31.2}{10.9}$ | 100.0 12.0 |
| 2- 1 | 10.5 4.4 | 47.4 9.3 | <u>5.3</u> 3.1 | 36.8 7.6 | 100.0 7.1 |
| 3- 2 | 18.2 4.4 | 54.6 6.2 | <u>9.1</u> 3.1 | 18.2 | $\frac{100.0}{4.1}$ |
| 4- 3 | $\frac{22.2}{8.9}$ | 50.0 9.3 | 5.6 3.1 | $\frac{22.2}{4.4}$ | 100.0 6.8 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{2/} Would sell only for an amount greater than the specified face value.

^{*} Variation within this category was significant at the 90 percent level or higher.

planning for sales to remain about the same.

In general, the trends within this relationship were not obvious. Those farmers most likely to sell equity certificates had plans to substantially increase farm sales, while those least likely to sell had plans to decrease sales.

MDS vs. MDB

This relationship compared farmers' maximum acceptable discount in selling equity certificates with their minimum acceptable discount in buying. Six categories of MDB and two of MDS contained significant variation (Table 9). The tendency among farmers who were willing to transfer certificates was to sell at a discount nearly equal to that for which they would buy. Those farmers who indicated they would not buy at all tended not to sell at all. Farmers who indicated they would not sell at all tended not to buy at all. Farmers who would not sell, but would buy, tended to require high discounts in buying. Farmers who would not buy, but would sell, tended to favor either very low or very high discounts.

Table 9. Maximum Discount in Selling Equity Certificates (MDS) vs. Minimum Discount in Buying Equity Certificates (MDB)

| | | | | | MDB | (Percent) | | | · · · · · · · · · · · · · · · · · · · |
|------------------|-----------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|--------------|--------------------|---------------------------------------|
| MDS (Percent) | 20 or more | 20- 15* | 15- 10* | 10- 7* | 7 - 5 | 5 - 3* | 3 - 0* | Would not buy* | Row total |
| 15 or more | $\frac{30.4}{19.4}$ | $\frac{13.0}{12.0}$ | 0 | 0 | <u>4.4</u> 9.1 | 0 | 4.4 | 47.8 10.9 | 100.0 8.9 |
| 15-10* | $\frac{14.3}{8.3}$ | 28.6 24.0 | 23.8 23.8 | 4.8 | <u>4.8</u> 9.1 | 0 | 4.8 | 19.0 4.0 | 100.0 8.1 |
| 10-7 | 17.4 11.1 | 17.4 16.0 | $\frac{17.4}{19.0}$ | $\frac{8.7}{12.5}$ | $\frac{8.7}{18.2}$ | 0 | 4.4 | <u>26.1</u> 5.9 | 100.0 |
| 7- 5 | <u>22. 2</u> 11. 1 | <u>5.6</u> 4. 0 | $\frac{16.7}{14.3}$ | $\frac{16.7}{18.8}$ | $\frac{11.1}{18.2}$ | 5.6 4.2 | 0 | 22.2 4.0 | $\frac{100.0}{7.0}$ |
| 5-4 | <u>16.7</u> 11.1 | $\frac{16.7}{16.0}$ | 4.2 | $\frac{20.8}{31.2}$ | <u>4.2</u> 9.1 | 12.5 12.5 | 4.2 | 20.8 5.0 | 100.0 9.3 |
| 4- 3* | 6.2 2.8 | <u>6.2</u> 4.0 | 0 | 6.2 | <u>0</u> | $\frac{37.5}{25.0}$ | 0 | 43.8 6.9 | 100.0 6.2 |
| 3-2 | 5.6 2.8 | 5.6 4.0 | 0 | 11.1 12.5 | <u>5.6</u> 9.1 | $\frac{16.7}{12.5}$ | 27.8 20.8 | 27.8 5.0 | 100.0 7.0 |

Continued

Table 9--Continued

| 2- 1 | 0 | 0 | 11.1 9.5 | 5.6 6.2 | 5.6 9.1 | $\frac{22.2}{16.7}$ | $\frac{22.2}{16.7}$ | $\frac{33.3}{5.9}$ | $\frac{100.0}{7.0}$ |
|-----------------------|---------------------|--------------------|--------------------|--------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 1 - 0 | $\frac{15.6}{13.9}$ | $\frac{3.1}{4.0}$ | 6.2 9.5 | <u>0</u> | $\frac{6.2}{18.2}$ | 9.4 12.5 | $\frac{21.9}{29.2}$ | $\frac{37.5}{11.9}$ | 100.0 12.4 |
| Premium ^{2/} | 11.1 5.6 | $\frac{11.1}{8.0}$ | 5.6 4.8 | 0 | 0 | 11.1 8.3 | 5.6 4.2 | <u>55.6</u> 9.9 | 100.0 7.0 |
| Would not sell | $\frac{10.6}{13.9}$ | <u>4.3</u> 8.0 | $\frac{6.4}{14.3}$ | 2.1 6.2 | 0 | <u>4.3</u> 8.3 | $\frac{6.4}{12.5}$ | 66.0 30.7 | 100.0 18.2 |
| Column total | 14.0 100.0 | 9.7 100.0 | 8.1 100.0 | 6.2 100.0 | 4.3 100.0 | <u>9.3</u> 100.0 | 9.3 100.0 | 39.2 100.0 | 100.0 100.0 |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{2/} Would sell only for an amount greater than the specified face value.

^{*} Variation within this category was significant at the 90 percent level or higher.

Minimum Discount Acceptable in Buying Equity Certificates (MDB)

Farmers decisions about their minimum discount acceptable in buying equity certificates (MDB, MDB 72, and MDB 78) were each tested for independence with 11 farmer characteristics (Table 1). The tests indicated that MDB was significantly dependent upon years of education, dollars farm investment, present membership status, and estimated return on next farm investment. Significant dependence also existed between MDB 72 and years of education, between MDB 78 and years of education and between MDB 78 and years of cooperative membership.

MDB vs. Education

All five categories of education contained significant variation across the various ranges of discount in selling equity certificates (Table 10). Farmers with eight years or fewer of elementary education favored either not buying at all or buying at a discount of greater than 20 percent—in fact, 78 percent of the farmers in this category of education chose one or the other of these alternatives. Farmers who had attended three or fewer years of high school exhibited no definite trend, although they selected a discount rate of from two percent to seven percent more frequently

Table 10. Minimum Discount in Buying Equity Certificates (MDB) vs. Education $\frac{1}{2}$

| | | | Educ | cation (Yea | urs) | |
|------------------|---------------------------|----------------------|---------------------|--------------------|------------------------|----------------------|
| MDB (Percent) | Elementary: 8 or less* | High school: 1-3* | High school: 4* | College: 1-3* | College: 4 or more* | Row total |
| 20 or more | 25.6 20.0 | $\frac{7.7}{11.5}$ | 23.1 9.5 | 18.0 12.5 | 25.6 22.2 | $\frac{100.0}{14.3}$ |
| 20-15 | 12.5 6.0 | <u>4.2</u> 3.8 | $\frac{54.2}{13.7}$ | 4.2 1.8 | 25.0 13.3 | 100.0 8.8 |
| 15-10 | <u>4.0</u> 2.0 | <u>4.0</u> 3.8 | 32.0 8.4 | 44.0 19.6 | 16.0 8.9 | 100.0 9.2 |
| 10-8 | 0 | 11.1 3.8 | 55.6 5.3 | 0 | $\frac{33.3}{6.7}$ | 100.0 3.3 |
| 8- 7 | 0 | 0 | 33.3 2.1 | 33.3 3.6 | 33.3 4.4 | 100.0 |
| 7- 6 | <u>0</u> | $\frac{33.3}{7.7}$ | 16.7 1.0 | 33.3 | 16.7 2.2 | 100.0 |
| 6- 5 | <u> </u> | 16.7 3.8 | $\frac{33.3}{2.1}$ | $\frac{16.7}{1.8}$ | 33.3 4.4 | 100.0 2.2 |
| 5- 4 | <u>28.6</u> 8.0 | 0 | 42.9 6.3 | 21.4 5.4 | <u>7.1</u> 2.2 | 100.0 5.2 |

Table 10--Continued

| 43 | 9.1 2.0 | $\frac{27.3}{11.5}$ | 36.4 4.2 | 18.2 3.6 | 9.1 | $\frac{100.0}{4.0}$ |
|-----------------|---------------------|---------------------|----------------------|--------------------|--------------------|----------------------|
| 3- 2 | 10.0 2.0 | $\frac{30.0}{11.5}$ | 0 | <u>50.0</u> 8.9 | 10.0 | 100.0 3.7 |
| 2- 1 | 12.5 2.0 | 0 | 37.5 3.2 | 12.5 1.8 | $\frac{37.5}{6.7}$ | 100.0 2.9 |
| 1- 0 | 0 | 50.0 7.7 | 50.0 2.1 | 0 | <u> </u> | 100.0 1.5 |
| Would not buy | <u>26.4</u> 58.0 | $\frac{8.2}{34.6}$ | 36.4 42.1 | 19.1 37.5 | 10.0 24.4 | $\frac{100.0}{40.4}$ |
| Column total | 18.4 100.0 | 9.6 100.0 | $\frac{34.9}{100.0}$ | 20.6 100.0 | 16.5 100.0 | 100.0 100.0 |

^{1/} Number in upper half of each cell is percent of row-number in lower half is percent of column.

^{*} Variation within this category was significant at the 90 percent level or higher.

than farmers in other categories of education. Those farmers with four years of high school education tended either to buy at high rates of discount (eight percent or above) or not to buy at all. Farmers with one or more years of college reacted similarly to those who had completed high school.

In general, farmers with four or more years of college education were most likely to buy equity certificates, especially at relatively high discount rates. Farmers with eight or fewer years of elementary schooling were least likely to buy.

MDB vs. Farm Investment

All five categories of farm investment within this relationship contained significant variation (Table 11). Farmers with investments of \$29,999 or less and \$30,000-\$59,999 showed no outstanding trend, although several chose either to buy at a high discount or not to buy at all. Farmers with \$60,000-\$99,999 and \$100,000-\$199,999 investments definitely tended to buy at high discount rates (ten percent or above) or not to buy at all. Farmers with investments of \$200,000 or more tended to buy at discounts of greater than eight percent or not to buy at all.

In general, farmers of all investment levels favored buying at high rates of discount or not buying at all. Those with investments of \$30,000-\$99,999 were least likely to buy certificates,

Table 11. Minimum Discount in Buying Equity Certificates (MDB) vs. Farm Investment 1/

| | | _ | Investment (| Dollars) | | |
|------------------|--------------------|----------------------|--------------------|------------------------|------------------------|---------------|
| MDB (Percent) | 29,999 or less* | 30, 000- 59, 999* | 60,000- 99,999* | 100, 000- 199, 999* | 200, 000 or more* | Row total |
| 20 or more | 12.8 17.9 | $\frac{23.1}{13.6}$ | 28.2 15.7 | $\frac{20.5}{14.0}$ | $\frac{15.4}{12.8}$ | 100.0 14.6 |
| 20-15 | 12.5 10.7 | 12.5 4.6 | 20.8 7.1 | 33.3 14.0 | 20.8 10.6 | 100.0 9.0 |
| 15-10 | 0 | <u>8.0</u> 3.0 | 36.0 12.9 | $\frac{28.0}{12.3}$ | 28.0 14.9 | 100.0 9.3 |
| 10- 8 | 0 | 11.1 1.5 | <u>44.4</u> 5.7 | <u> </u> | <u>44.4</u> 8.5 | 100.0 3.4 |
| 8-7 | 50.0 10.7 | 16.7 1.5 | 0 | $\frac{16.7}{1.8}$ | 16.7 2.1 | 100.0 2.2 |
| 7- 6 | 14.3 3.6 | 14.3 1.5 | 14.3 1.4 | <u>28.6</u> 3.5 | 28.6 4.3 | 100.0 2.6 |
| 6- 5 | 0 | <u>50.0</u> 4.6 | 0 | 50.0 5.3 | 0 | 100.0 2.2 |
| 5 - 4 | 7.1 | 50.0 10.6 | 14.3 2.9 | 14.3 3.5 | 14.3 4.3 Continu | 100.0 5.2 |

Table 11--Continued

| 4- 3 | 18.2 7.1 | 9.1 1.5 | $\frac{27.3}{4.3}$ | $\frac{36.4}{7.0}$ | 9.1 2.1 | 100.0 4.1 |
|-----------------|----------------------|--------------------|---------------------|---------------------|---------------|----------------|
| 3- 2 | 20.0 7.1 | <u>20.0</u> 3.0 | 20.0 | 20.0 3.5 | 20.0 4.3 | 100.0 3.7 |
| 2- 1 | $\frac{16.7}{3.6}$ | 66.7 6.1 | $\frac{16.7}{1.4}$ | 0 | 0 | 100.0 2.2 |
| 1- 0 | 0 | 75.0 4.6 | 0 | 0 | 25.0 2.1 | 100.0 1.5 |
| Would not buy | $\frac{9.4}{35.7}$ | 27.1 43.9 | $\frac{29.9}{45.7}$ | $\frac{18.7}{35.1}$ | 15.0 34.0 | 100.0 39.9 |
| Column total | $\frac{10.4}{100.0}$ | 24.6 100.0 | 26.1 100.0 | 21.3 100.0 | 17.5 100.0 | 100.0 100.0 |

Number in upper half of each cell is percent of row--number in lower half is percent of column.
 Variation within this category was significant at the 90 percent level or higher.

while those with \$200, 000 or more investment were most likely.

MDB vs. Present Cooperative Membership Status

Both cooperative members and nonmembers showed significant variation in selecting discounts for buying equity certificates (Table 12). Cooperative members tended either to buy at a high discount rate or to not buy at all, while relatively more nonmembers chose to buy certificates at discounts in the 2-3 percent range. Cooperative members appeared much more likely than nonmembers to buy certificates at a rate of discount exceeding ten percent and much less likely at discounts of less than ten percent.

MDB vs. ROI

The categories of 3.9 percent or less, 4-7.9 percent,

12-15.9 percent, and 20-27.9 percent estimated return on next

farm investment contained significant variation across the various

ranges of minimum discount in buying equity certificates (Table 13).

The tendency for farmers in all ROI categories was to buy only at

a high discount (ten percent or above) or to not buy at all. Notable

exceptions to this trend occurred in three ROI categories (12-15.9

percent, 20-27.9 percent, and 28 percent or more), where several

farmers indicated a willingness to buy at low discounts (0-4 percent).

Table 12. Minimum Discount in Buying Equity Certificates (MDS) vs. Present Cooperative Membership Status 1/

| | ı | Membership status | |
|------------------|---------------------|-------------------|--------------|
| MDB (Percent) | Cooperative member* | Nonmember* | Row total |
| 20 or more | 84.2 | 15.8 | 100.0 |
| | 15.4 | 10.5 | 14.3 |
| 20-15 | 86.4 | 13.6 | 100.0 |
| | 9.1 | 5.3 | 8.3 |
| 15-10 | 92.0 | 8.0 | 100.0 |
| | 11.1 | 3.5 | 9.4 |
| 10- 8 | 88.9 | 11.1 | 100.0 |
| | 3.8 | 1.8 | 3.4 |
| 8- 7 | 50.0 | 50.0 | 100.0 |
| | 1.4 | 5.3 | 2.3 |
| 7- 6 | 66.7 1.9 | 33.3 3.5 | 100.0 |
| 6- 5 | 66.7 1.9 | 33.3 3.5 | 100.0 |

Continued

Table 12--Continued

| Column | 78.5 | 21.5 | 100.0 |
|---------------|--------------------|-------------|--------------|
| total | 100.0 | 100.0 | 100.0 |
| Would not buy | 79.4 | 20.6 | 100.0 |
| | 40.9 | 38.6 | 40.4 |
| 1 - 0 | 100.0 | 0 0 | 100.0 1.5 |
| 2- 1 | 85.7 | 14.3 | 100.0 |
| | 2.9 | 1.8 | 2.6 |
| 3- 2 | 60.0 | 40.0 | 100.0 |
| | 2.9 | 7.0 | 3.8 |
| 43 | 36.4 | 63.6 | 100.0 |
| | 1.9 | 12.3 | 4.2 |
| 5-4 | $\frac{71.4}{4.8}$ | 28.6 7.0 | 100.0 5.3 |

Number in upper half of each cell is percent of row--number in lower half is percent of column. Variation within this category was significant at the 90 percent level or higher.

Table 13. Minimum Discount in Buying Equity Certificates (MDB) vs. Estimated Return on Next Farm Investment (ROI) 1/

| | ROI (Percent) | | | | | | | |
|------------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------|----------------------|
| MDB (Percent) | 3.9 or less* | 4-7.9* | 8-11.9 | 12-15.9* | 16-19.9 | 20-27.9* | 28 or more | Row total |
| 20 or more | 26.5 18.8 | <u>5.9</u> 9.5 | $\frac{11.8}{11.1}$ | 2.9 | $\frac{17.7}{18.2}$ | $\frac{11.8}{15.4}$ | 23.5 18.2 | $\frac{100.0}{14.7}$ |
| 20-15 | 0 | 9.1 9.5 | 22.7 13.9 | $\frac{18.2}{17.4}$ | 9.1 6.1 | 22.7 19.2 | 18.2 9.1 | 100.0 9.5 |
| 15-10 | 22.7 10.4 | 18.2 19.0 | 13.6 8.3 | 13.6 13.0 | <u>9.1</u> 6.0 | <u>9.1</u> 7.7 | 13.6 6.8 | 100.0 9.5 |
| 10- 8 | 12.5 2.1 | 12.5 4.8 | 12.5 2.8 | $\frac{37.5}{13.0}$ | 25.0 6.1 | 0 | 0 | 100.0 3.5 |
| 8- 7 | 33.3 | 16.7 4.8 | 0 | <u>0</u> | 0 0 | 16.7 3.8 | 33.3 4.6 | 100.0 2.6 |
| 7-6 | 0 | 50.0 14.3 | 33.3 5.6 | 0 | 0 | 0 | 16.7 2.3 | 100.0 2.6 |
| 6- 5 | $\frac{40.0}{4.2}$ | 0 | 0 | 0 | 20.0 3.0 | 20.0 3.8 | 20.0 2.3 | 100.0 2.2 |

Continued

Table 13--Continued

| 5- 4 | 16.7 4.2 | 0 | $\frac{25.0}{8.3}$ | 25.0 13.0 | $\frac{16.7}{6.1}$ | 0 | $\frac{16.7}{4.6}$ | 100.0 5.2 |
|-----------------|---------------|---------------------|--------------------|---------------|--------------------|---------------------|--------------------|---------------|
| 4- 3 | 10.0 2.1 | 0 | 20.0 5.6 | 10.0 4.4 | 10.0 3.0 | 30.0 11.5 | 20.0 4.6 | 100.0 4.3 |
| 3- 2 | 14.3 2.1 | 0 | 0 | 0 | 28.6 6.1 | 0 | <u>57.1</u> 9.1 | 100.0 3.0 |
| 2- 0 | 10.0 2.1 | 10.0 4.8 | 0 | 0 | 20.0 6.1 | $\frac{40.0}{15.4}$ | 20.0 4.6 | 100.0 4.3 |
| Would not buy | 30.0 50.0 | 7.9 33.3 | 18.0 44.4 | 9.0 34.8 | 14.6 39.4 | $\frac{6.7}{23.1}$ | 16.8 34.1 | 100.0 38.5 |
| Column total | 20.8 100.0 | <u>9.1</u> 100.0 | 15.6 100.0 | 10.0 100.0 | 14.3 100.0 | 11.3 100.0 | 19.0 100.0 | 100.0 |

 ^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.
 * Variation within this category was significant at the 90 percent level or higher.

Farmers who had estimated a 3.9 percent or less return on next investment were least likely to buy certificates, while farmers with 20-27.9 percent returns were most likely.

MDB 72 vs. Education

The education categories of seven or fewer years elementary, eight years elementary, and three or fewer years of high school contained significant variation (Table 14). Also, the MDB 72 categories of 20 percent or more, 20-15 percent, and 15-10 percent possessed significant variation across the various levels of education. Farmers with seven or fewer years of elementary education chose either to buy at a discount rate above 20 percent or not to buy at all. Those farmers with eight years of elementary school tended to select discounts in excess of five percent and were most likely of all not to buy. Farmers with three or fewer years of high school most often selected discounts in buying of 20 percent or less. The tendency among farmers with four years of high school was to select medium discounts (5-15 percent), while farmers with one or more years of college favored either high (20 percent or more) or medium discounts.

In general, farmers with advanced education were much more likely to buy certificates payable in 1972 at medium or low discount rates. Relatively few farmers of any educational level displayed

Table 14. Minimum Discount in Buying Equity Certificates Payable in 1972 (MDB 72) vs. Education $\underline{1}/$

| | | | M | DB 72 (Per | cent) | |
|--------------------|---------------------|---------------------|----------------------|----------------------|---|-----------------------|
| Education (Years) | 20 or more* | 20-15* | 15 - 10* | 10-5 | Would 5-0 not buy | Row total |
| Elementary: 0-7* | 60.0 9.1 | 0 | 0 | <u>0</u> | $\frac{0}{0}$ $\frac{40.0}{1.9}$ | 100.0 1.8 |
| Elementary: 8* | 18.6 24.2 | $\frac{9.3}{20.0}$ | 2.3 | 14.0 9.4 | $\frac{4.6}{11.8}$ $\frac{51.2}{21.0}$ | 100.0 15.3 |
| High school: 1-3* | 2.8 3.0 | 22.2 40.0 | $\frac{19.4}{16.7}$ | 16.7 9.4 | $\frac{11.1}{23.5}$ $\frac{27.8}{9.5}$ | 100.0 12.8 |
| High school: 4 | 6.3 18.2 | $\frac{5.3}{25.0}$ | 16.8 38.1 | <u>26.3</u> 39.1 | $\frac{5.3}{26.4}$ $\frac{40.0}{36.2}$ | 100.0 33.8 |
| College: 1-3 | 15.8 27.3 | $\frac{5.3}{15.0}$ | $\frac{14.0}{19.0}$ | 24.6 21.9 | $\frac{5.3}{17.6}$ $\frac{35.1}{19.0}$ | $\frac{100.0}{20.3}$ |
| College: 4 or more | $\frac{13.3}{18.2}$ | 0 | 22. 2 23. 8 | 28.9 20.3 | $\frac{6.7}{17.6}$ $\frac{28.9}{12.4}$ | 100.0 16.0 |
| Column total | 11.7 100.0 | $\frac{7.1}{100.0}$ | $\frac{15.0}{100.0}$ | $\frac{22.8}{100.0}$ | $\begin{array}{ccc} $ | $\frac{100.0}{100.0}$ |

^{1/} Number in upper half of each cell is percent of row-number in lower half is percent of column.

* Variation within this category was significant at the 90 percent level or higher.

an interest in buying such equity certificates at a discount of less than five percent.

MDB 78 vs. Education

The education levels of eight years elementary and three or fewer years of high school contained significant variation across the categories of discount (Table 15). Farmers with seven or fewer years of elementary schooling chose either to buy at a 15-20 percent discount or not to buy at all, while those with eight years of elementary education tended to favor high discounts (20 percent or more) or not buying at all. Those farmers with high school or college educations appeared most likely to buy certificates payable in 1978 at a lower discount rate, especially within the 10-15 percent discount range. Farmers with four or more years of college tended to be more evenly dispersed across the various categories of discount, with relatively more farmers choosing to buy at rates above ten percent.

In general, farmers with eight or fewer years of elementary education tended to select high discounts (15 percent or more) in buying revolving equity certificates which are payable in 1978. The acceptable discounts for farmers having either high school or college educations were more widely distributed, but these farmers tended to be willing to buy at medium or low discounts

Table 15. Minimum Discount in Buying Equity Certificates Payable in 1978 (MDB 78) vs. Education 1/

| | | | MD | 3 78 (Perce | ent) | | |
|--------------------|-------------------|---------------------|--------------------|---------------------|---------------------|----------------------|----------------------|
| Education (Years) | 20 or more | 20-15 | 15-10 | 10-5 | 5-0 | Would not buy | Row total |
| Elementary: 0-7 | 0 | 25.0 6.7 | 0 | <u>0</u> | 0 0 | 75.0 2.6 | 100.0 1.5 |
| Elementary: 8* | 16.3 25.9 | 0 | <u>4.6</u> 9.1 | <u>7.0</u> 5.0 | $\frac{9.3}{16.7}$ | 62.8 23.5 | 100.0 16.4 |
| High school: 1-3* | <u>4.2</u> 3.7 | 0 | 12.5 13.6 | $\frac{25.0}{10.0}$ | $\frac{25.0}{25.0}$ | $\frac{33.3}{7.0}$ | 100.0 9.1 |
| High school: 4 | 7.6 25.9 | $\frac{5.4}{33.3}$ | $\frac{7.6}{31.8}$ | $\frac{27.2}{41.7}$ | $\frac{6.5}{25.0}$ | $\frac{45.6}{36.5}$ | $\frac{100.0}{35.0}$ |
| College: 1-3 | 10.9 22.2 | $\frac{10.9}{40.0}$ | $\frac{7.3}{18.2}$ | 20.0 18.3 | $\frac{9.1}{20.8}$ | $\frac{41.8}{20.0}$ | $\frac{100.0}{20.9}$ |
| College: 4 or more | 13.3 22.2 | $\frac{6.7}{20.0}$ | 13.3 27.3 | 33.3 25.0 | $\frac{6.7}{12.5}$ | $\frac{26.7}{10.4}$ | 100.0 17.1 |
| Column total | 10.3 100.0 | 5.7 100.0 | 8.4 100.0 | 22.8 100.0 | <u>9.1</u> 100.0 | $\frac{43.7}{100.0}$ | 100.0 100.0 |

Number in upper half of each cell is percent of row--number in lower half is percent of column.
 Variation within this category was significant at the 90 percent level or higher.

(0-10 percent). Farmers with little education were least likely to buy equity certificates payable in 1978, while those with four or more years of college were most likely to buy.

MDB 78 vs. Years Cooperative Membership

The categories of 20 percent or more, 20-15 percent, and 15-10 percent discount in buying equity certificates payable in 1978 contained significant variation across the ranges of years membership (Table 16). Of those farmers who chose to buy certificates payable in 1978, those who had been cooperative members for three years or less exhibited the greatest tendency to buy at discount rates of ten percent or less. Farmers with more than three years of membership tended to be more dispersed across the rates of discount, with farmers who had been members for more than 27 years being most likely to buy only at high rates of discount (15 percent or more).

In general, newer members were most likely to buy at low rates of discount (0-10 percent), while older members tended to favor only high discounts (15 percent or more). Farmers least likely to buy at all had been members for 22-33 years--those most likely to buy had been members for less than 22 years or for more than 33 years.

Table 16. Minimum Discount in Buying Equity Certificates Payable in 1978 (MDB 78) vs. Years Cooperative Membership 1/

| | | | MDB 7 | 8 (Percent |) . | | |
|-----------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|----------------|
| Year s membership | 20 or more* | 20-15* | 15-10* | 10-5 | 5-0 | Would not buy | Row total |
| 0- 3 | 0 0 | <u> </u> | 13.3 13.3 | 26.7 8.5 | $\frac{13.3}{11.1}$ | $\frac{46.7}{7.3}$ | 100.0 7.1 |
| 4- 9 | $\frac{13.2}{20.8}$ | 2.6 8.3 | 0 | 26.3 21.3 | $\frac{13.2}{27.8}$ | $\frac{44.7}{17.7}$ | 100.0 17.9 |
| 10-15 | $\frac{12.5}{25.0}$ | $\frac{10.4}{41.7}$ | $\frac{4.2}{13.3}$ | 22.9 23.4 | 8.3 22.2 | <u>41.7</u> 20.8 | 100.0 22.6 |
| 16-21 | $\frac{7.7}{16.7}$ | 0 | 15.4 53.3 | 28.8 31.9 | $\frac{5.8}{16.7}$ | <u>42. 3</u> 22. 9 | 100.0 24.5 |
| 22-27 | 3.8 4.2 | $\frac{11.5}{25.0}$ | 3.8 6.7 | $\frac{19.2}{10.6}$ | $\frac{11.5}{16.7}$ | 50.0 13.5 | 100.0 12.3 |
| 28 - 3 3 | $\frac{18.2}{16.7}$ | $\frac{13.6}{25.0}$ | 4.6 | <u>4.6</u> 2.1 | 0 | 59.1 13.5 | 100.0 |
| 34 or more | 36.4 16.7 | 0 | 9.1 6.7 | 9.1 2.1 | 9.1 5.6 | 36.4 4.2 | 100.0 5.2 |
| Column total | $\frac{11.3}{100.0}$ | $\frac{5.7}{100.0}$ | $\frac{7.1}{100.0}$ | 22.2 100.0 | $\frac{8.5}{100.0}$ | 45.3 100.0 | 100.0 100.0 |

Number in upper half of cell is percent of row-number in lower half is percent of column. Variation within this category was significant at the 90 percent level or higher.

Farmer Preferences for Alternative Means of Financing Cooperatives

Farmers' preferences for various capital finance methods were found to be rather closely related to their individual membership status. In fact, present cooperative membership status was significantly dependent with farmers' acceptability of over one-half of the finance alternatives tested (Table 2).

Present Cooperative Membership Status vs. Acceptability of Notes Sold to Members Only

Relatively more cooperative members than nonmembers listed notes sold only to the membership as being either acceptable or very acceptable (Table 17). A low percentage of each group was unfamiliar with this finance alternative. In general, the alternative of long term interest-bearing notes, which are sold only to cooperative members was judged quite acceptable.

Present Cooperative Membership Status vs. Acceptability of Notes Sold to Anyone

Well over one-half of the farmers rating this alternative believed it to be either acceptable or very acceptable, with cooperative members being slightly less in favor than were nonmembers (Table 18). A higher percentage of members than

Table 17. Present Cooperative Membership Status vs. Acceptability of Notes Sold to Members Only 1/

| Acceptability of | Membership status | | | | | | | |
|----------------------------|-----------------------|---------------------|----------------------|--|--|--|--|--|
| notes sold to members only | Cooperative members | Nonmembers* | Row total | | | | | |
| Very acceptable | 85.2 31.1 | <u>14.8</u> 17.8 | $\frac{100.0}{28.0}$ | | | | | |
| Acceptable | 78.2 53.4 | 21.8 48.9 | $\frac{100.0}{52.3}$ | | | | | |
| Unacceptable | 62.5 10.1 | 37.5 20.0 | 100.0 12.4 | | | | | |
| Very unacceptable | 55.6 3.4 | <u>44.4</u> 8.9 | $\frac{100.0}{4.7}$ | | | | | |
| Unfamiliar with alternati | ve <u>60.0</u> 2.0 | $\frac{40.0}{4.4}$ | 100.0 2.6 | | | | | |
| Column total | 76.7 100.0 | 23.3 100.0 | 100.0 100.0 | | | | | |

 ^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.
 * Variation within this category was significant at the 90 percent level or higher.

Table 18. Present Cooperative Membership Status vs. Acceptability of Notes Sold to Anyone 1/

| Acceptability | Membership status | | | | | | | |
|-----------------------------|-------------------|-------|---------------------|----------------------|--|--|--|--|
| of notes sold to anyone | Cooperative men | nbers | Nonmembers* | Row total | | | | |
| Very acceptable | 60.0 15.9 | | $\frac{40.0}{34.0}$ | $\frac{100.0}{20.2}$ | | | | |
| Acceptable | 79.0 39.7 | | 21.0 34.0 | 100.0 38.4 | | | | |
| Unacceptable | 87.0 26.5 | | 13.0 12.8 | 100.0 23.2 | | | | |
| Very unacceptable | 81.8 11.9 | | 18.2 8.5 | 100.0 11.1 | | | | |
| Unfamiliar with alternative | 64.3 6.0 | | 35.7 10.6 | 100.0 7.1 | | | | |
| Column total | 76.3 100.0 | | 23.7 100.0 | 100.0 100.0 | | | | |

Number in upper half of each cell is percent of row--number in lower half is percent by column.
 Variation within this category was significant at the 90 percent level of higher.

nonmembers believed the alternative to be either unacceptable or very unacceptable. In general, although both alternatives rated favorably, notes sold to anyone were not as preferable as were notes sold only to members.

Present Cooperative Membership Status vs. Acceptability of High Membership Fees

The majority of both cooperative members and nonmembers believed high membership fees (\$300-\$500) to be either unacceptable or very unacceptable (Table 19). In general, members found this alternative to be a slightly more acceptable means of cooperative finance than did nonmembers. As a finance alternative, high membership fees proved generally unfavorable.

Present Cooperative Membership Status vs. Acceptability of Revolving Equity Certificates which are Interest-Bearing and Without Due Date

Cooperative members tended to rate revolving certificates which are interest-bearing and without due date as being either acceptable, unacceptable, or very unacceptable while nonmembers most often rated it as being unacceptable, very unacceptable, or unfamiliar (Table 20). Of the members who rated this alternative, 30.6 percent believed it to be generally acceptable, while 59.7 percent rated it generally unacceptable. Relatively more

Table 19. Present Cooperative Membership Status vs. Acceptability of High Membership Fees 1/

| Acceptability of | · | Member | ship status |
|----------------------------|-----------------------|---------------------|-----------------------|
| high membership | Cooperative member* | Nonmember * | Row total |
| Very acceptable | 100.0 8.5 | 0 0 | 100.0 6.5 |
| Acceptable | 87.5 19.9 | 12.5 9.3 | $\frac{100.0}{17.4}$ |
| Unacceptable | $\frac{67.6}{34.0}$ | 32.4 53.5 | 100.0 38.6 |
| Very unacceptable | 82.6 27.0 | $\frac{17.4}{18.6}$ | 100.0 25.0 |
| Unfamiliar with alternativ | e <u>65.2</u> 10.6 | 34.8 18.6 | 100.0 12.5 |
| Column total | 76.6 100.0 | 23.4 100.0 | $\frac{100.0}{100.0}$ |

^{1/} Number in upper half of cell is percent of row--number in lower half is percent of column.

^{*} Variation within this category was significant at the 90 percent level or higher.

Table 20. Present Cooperative Membership Status vs. Acceptability of Revolving Equity Certificates which are Interest-Bearing Without Due Date 1/

| Acceptability of revolving equity | Membership status | | | | | |
|-----------------------------------|--------------------|----------------------|----------------------|--|--|--|
| certificates | erative member | Nonmember* | Row total | | | |
| Very acceptable | $\frac{91.7}{8.2}$ | 8.3 2.3 | 100.0 6.7 | | | |
| Acceptable | 88.2 22.4 | <u>11.8</u> 9.1 | $\frac{100.0}{19.1}$ | | | |
| Unacceptable | 73.1 36.6 | <u>26.9</u> 40.9 | $\frac{100.0}{37.6}$ | | | |
| Very unacceptable | 72.1 23.1 | 27.9 27.3 | $\frac{100.0}{24.2}$ | | | |
| Unfamiliar with alternative | 59.1 9.7 | 40.9 20.4 | 100.0 12.4 | | | |
| Column total | 75.3 100.0 | $\frac{24.7}{100.0}$ | 100.0 100.0 | | | |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{*} Variation within this category was significant at the 95 percent level or higher.

nonmembers than members were unfamiliar with this means of finance. In general, revolving equity certificates which are interest-bearing and without due date were rated as an unfavorable method of financing cooperatives.

Present Cooperative Membership Status vs. Restrictions on Equity Certificate Transferability

Both cooperative members and nonmembers tended to favor equity certificates which are transferable to anyone (Table 21).

A lesser proportion of each membership category preferred transfer only among cooperative memberships. Cooperative members, as opposed to nonmembers, exhibited the greater tendency to reject any type of equity certificate transfer. In total, however, the transferability concept displayed broad appeal with 77.5 percent of the farmers in general support.

Present Cooperative Membership Status vs. Nonfarmer Investment in Cooperatives

Approximately 48 percent of the cooperative members and 64 percent of the nonmembers believed that more nonfarm sources of capital should be utilized to finance farm cooperatives in the years to come (Table 22). In general, although nonmembers exhibited the stronger preference for increased nonfarmer investment in cooperatives, both membership groups favored the proposal.

Table 21. Present Cooperative Membership Status vs. Restrictions on Equity Certificate Transferability 1/

| Restrictions on equity certificate transferability | Membership status | | | | | | |
|--|--------------------|--------------|----------------------|--|--|--|--|
| | Cooperative member | Nonmember* | Row total | | | | |
| Transferable to members only | 76.5 | 23.5 | 100.0 | | | | |
| | 30.2 | 32.8 | 30.8 | | | | |
| Transferable to anyone | 73.6 | <u>26.4</u> | 100.0 | | | | |
| | 44.9 | 56.9 | 47.5 | | | | |
| Not transferable | 89.5 24.9 | 10.5 10.3 | $\frac{100.0}{21.7}$ | | | | |
| Column | 78.0 | 22.0 | 100.0 | | | | |
| total | 100.0 | 100.0 | 100.0 | | | | |

^{1/} Number in upper half of each cell is percent of row--number in lower half is percent of column.

^{*} Variation within this category was significant at the 90 percent level or higher.

Table 22. Present Cooperative Membership Status vs. Acceptability of Non-farmer Investment in cooperatives 1/

| Acceptability | Membership status | | | | | |
|--|---------------------|--------------|---------------|--|--|--|
| of non-farmer investment in cooperatives | Cooperative member* | Nonmember* | Row total | | | |
| Strongly agree* | 55.0 | 45.0 | 100.0 | | | |
| | 10.3 | 29.5 | 14.6 | | | |
| Agree | 79.4 | 20.6 | 100.0 | | | |
| | 37.9 | 34.4 | 37.1 | | | |
| Disagree | 89.6 | 10.4 | 100.0 | | | |
| | 32.2 | 13.1 | 28.0 | | | |
| Strongly disagree | 78.3 | 21.7 | 100.0 | | | |
| | 8.4 | 8.2 | 8.4 | | | |
| No opinion | $\frac{72.7}{11.2}$ | 27.3 14.8 | 100.0 12.0 | | | |
| Column | 77.8 | 22.2 | 100.0 | | | |
| total | 100.0 | 100.0 | 100.0 | | | |

Number in upper half of each cell is percent of row--number in lower half is percent of column.
 Variation within this category was significant at the 90 percent level or higher.

General Acceptability of Nondependent Finance Alternatives

Of the ten finance alternatives which were originally each tested with present cooperative membership status, four were found not to be significantly dependent (Table 2). However, a general analysis provided insights as to their acceptability among all farmers. Members and nonmembers generally responded quite similarly in rating the acceptability of the following four finance alternatives.

Cumulative Preferred Stock

As a means of cooperative capital finance, cumulative preferred stock rated quite favorably, with 52 percent of the farmers believing it to be generally acceptable. About 18 percent of the farmers rated this alternative as generally unacceptable, while nearly 30 percent indicated they were unfamiliar with this means of finance.

Noncumulative Preferred Stock

Of those farmers responding to the noncumulative preferred stock alternative, only 21 percent rated it as being generally acceptable. Nearly 43 percent of the farmers believed it to be generally unacceptable, while about 36 percent were unfamiliar with this alternative. In general, farmers tended to rate non-cumulative preferred stock as an unfavorable means of cooperative finance.

Revolving Equity Certificates Which are Noninterest-Bearing and Without Due Date

Approximately 41 percent of the responding farmers rated this finance proposal as being acceptable. Together with those who felt the alternative was very acceptable, this indicated that 56.5 percent of the farmers were in favor of utilizing noninterest-bearing revolving certificates which have no specified due date. An unacceptable or very unacceptable rating was given this proposal by 22.3 percent of the farmers. Only about eight percent were unfamiliar with the specified alternative.

Equity Certificates with Definite Due Dates

Both cooperative members and nonmembers were overwhelmingly in support of a specified due date for revolving equity certificates--77.3 percent of the total number of farmers were either in agreement or strong agreement with this proposal. Only about 15 percent objected to definite due dates, with less than eight percent being unfamiliar with this alternative. The ratings of this

finance proposal by cooperative members failed to vary significantly from those of nonmembers.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study was designed to provide insights into how cooperative financial structures might be modified to provide increased capital and, at the same time, be more acceptable to members. The specific objectives were 1) to determine if farmers' estimated returns on next farm investment as well as their decisions to sell and/or buy revolving equity certificates were related to selected farmer characteristics and 2) to evaluate farmer preferences for selected means of cooperative finance.

Relationship of Estimated Return on Next Farm Investment (ROI) to Farmer Characteristics

Farmer's estimated returns on next farm investment were found to be essentially independent of age, education, farm investment, farm sales, present cooperative membership status, previous cooperative membership status, reason for cooperative membership termination and years cooperative membership.

Farmers' estimated returns on next farm investment were found to be related to both owner-operator status and planned farm sales. The major findings were as follows:

Owner-Operator Status

1. "Farm owners only" consistently estimated lower returns on next farm investment than did "full owners and operators", "part owners and operators", or "farm operators only."

Planned Farm Sales

2. Farmers who planned for their farm sales during the next three years to either remain about the same or decrease substantially, tended to estimate low rates of return on next farm investment, while farmers planning for sales to decrease only slightly selected either high or low rates of return. Farmers who planned for their farm sales to increase slightly or increase substantially exhibited no trend.

Relationship of Maximum Discount Acceptable in Selling Equity Certificates (MDS) to Farmer Characteristics

Farmers' decisions regarding their maximum discounts acceptable in selling equity certificates were found to be essentially independent of education, farm sales, present cooperative membership status, previous cooperative membership status,

reason for cooperative membership termination, years cooperative membership, and estimated return on next farm investment.

Farmers' decisions regarding their maximum discounts acceptable in selling were found to be related to age, owner-operator status, farm investment, and minimum discount acceptable in buying equity certificates. The major findings were:

<u>Age</u>

- Maximum discounts acceptable in selling tended to decrease as age increased, except for those farmers 65 years or older, who tended to either sell at high discounts or not at all.
- 2. Young farmers were most likely to sell equity certificates at medium rates of discount.
- 3. Of all farmers, those 65 years or older appeared most likely to sell, while those between 30-39 years were least likely to sell.

Owner-Operator Status

- 4. "Full owners and operators" and "farm owners only" tended to either sell at low discount rates or not sell at all.
- 5. "Part owners and operators" tended to accept higher

- discounts in selling than did "full owners and operators."
- 6. "Farm operators only" appeared most likely to sell equity certificates, while "farm owners only" were least likely to sell.

Farm Investment

- 7. Farmers with high dollar farm investments (\$200,000 or more) appeared most likely to accept an eight percent or higher discount in selling, while those with low farm investments (\$29,999 or less) tended to sell only at low discounts.
- 8. Farmers with \$350,000 or more farm investment were most likely to sell equity certificates, while those with \$30,000-\$99,999 farm investments were least likely to sell.

Planned Farm Sales

- 9. Farmers with plans to substantially increase farm sales during the next three years selected discounts between two percent and ten percent more often than farmers with other sales plans.
- 10. Farmers planning for sales to slightly increase

displayed only a weak preference for discounts below four percent, while those who planned either slight or substantial decreases avoided the 1-4 percent range in favor of selling at a fairly high discount or not selling at all.

11. Farmers most likely to sell equity certificates had plans to substantially increase their farm sales, while those least likely to sell planned for farm sales to decrease.

Minimum Discount Acceptable in Buying Equity Certificates

- 12. A tendency existed for farmers to select maximum discounts in selling which were about equal to their minimum discounts in buying.
- 13. Farmers who would not sell equity certificates tended not to buy--those who would not buy certificates tended not to sell.
- 14. Farmers who preferred not to sell, but would buy, tended to require high discounts in buying--farmers who preferred not to buy, but would sell, tended to require either very low or very high discounts in selling.

Relationship of Minimum Discount Acceptable in Buying Equity Certificates (MDB) to Farmer Characteristics

Farmers' decisions about their minimum discount acceptable in buying revolving equity certificates were found to be essentially independent of age, owner-operator status, farm sales,
planned farm sales, previous cooperative membership status,
and reason for cooperative membership termination. Farmers'
decisions about their minimum discount acceptable in selling were
found to be related to education, farm investment, present cooperative membership status, years cooperative membership, and estimated return on next farm investment. The major findings were:

Education

- 1. Farmers with little or no elementary education tended either to buy equity certificates at extremely high discounts or not to buy at all, while farmers with high school or college educations were more likely to buy at medium discounts.
- 2. Most likely to buy equity certificates were farmers with four or more years of college, while farmers least likely to buy had eight or fewer years of elementary schooling.

- 3. Farmers who had completed high school or attended college were most likely to buy equity certificates payable in 1972 at medium or low rates of discount.
- 4. Relatively few farmers of any educational level were interested in buying certificates payable in 1972 at discounts of less than five percent.
- 5. Farmers with either high school or college educations were most likely to buy certificates payable in 1978 at medium or low discounts.
- 6. Those farmers with four or more years of college were most likely to buy equity certificates payable in 1978, while those with little or no elementary schooling were least likely to buy.
- 7. In general, farmers appeared most likely to buy equity certificates payable in 1972, less likely to buy a series of certificates which would be revolved out over a ten year period, and least likely to buy certificates payable in 1978.

Farm Investment

8. Farmers of all levels of farm investment favored either buying at high rates of discount or not buying at all.

9. Those farmers with \$200,000 or more farm investment were most likely to buy equity certificates while farmers with investments of \$30,000-\$99,999 were least likely to buy.

Present Cooperative Membership

- 10. Cooperative members tended either to buy at high rates
 of discount or not to buy at all, while relatively more
 nonmembers chose to buy certificates at lower discounts.
- 11. Cooperative members were much more likely than nonmembers to buy certificates at discounts in excess of ten percent.

Estimated Return on Next Farm Investment (ROI)

- 12. The tendency for farmers in all ROI categories was to buy only at relatively high discounts or not to buy at all-a few farmers indicated a willingness to buy certificates at extremely low discounts.
- 13. Farmers most likely to buy equity certificates had estimated 20-27.9 percent returns on next farm investment, while farmers least likely to buy had estimated returns of 3.9 percent or less.

Years of Cooperative Membership

- 14. Newer cooperative members most often selected to buy equity certificates payable in 1978 at low rates of discount, while farmers who had been members for many years tended to favor only high discounts in buying.
- 15. Farmers most likely to buy equity certificates payable in 1978 tended to have been cooperative members for 10-21 years or more than 33 years--farmers least likely to buy had been members for 22-33 years.

<u>Farmers' Preferences for Alternative Means of Financing</u> Cooperatives

Present cooperative membership status was found to be related to farmers' preferences for several of the selected means of finance. The major findings were:

- Cooperative members were generally more in favor
 of utilizing long term interest-bearing notes, which
 would be sold only within the membership, than were
 nonmembers.
- 2. Nonmembers were generally more in favor of utilizing long term interest-bearing notes, which would be sold

- to anyone, than were cooperative members.
- 3. Cooperative members found the alternative of high membership fees to be a slightly more acceptable means of finance than did nonmembers, although this alternative was generally unacceptable to both membership categories.
- 4. Cooperative members, as opposed to nonmembers, tended most to favor useage of revolving equity certificates which are interest-bearing and without a specified due date.
- 5. In general, more of the nonmembers than members believed that revolving equity certificates should be
 transferable.
- 6. Nonmembers were in much stronger support of nonfarmer investment in cooperatives than were members.
- 7. Member and nonmember preferences for the following four alternatives were not significantly different: cumulative preferred stock, noncumulative preferred stock, revolving equity certificates which are non-interest bearing and without due date, and revolving equity certificates which have definite due dates.

Of the ten finance alternatives initially examined, seven were rated as favorable and three as unfavorable. Cooperative members and nonmembers tended to agree in their basic opposition to or support for each of the selected means of finance. Following is a list of the alternatives evaluated, in order of generally decreasing preferability. The number in parentheses indicates percent of farmers favoring that proposal.

Favorable Methods of Cooperative Finance:

- 1. Long Term Interest-Bearing Notes which are Sold Only to Members (80.3%).
- 2. Revolving Equity Certificates which are Transferable (78.3%).
- 3. Revolving Equity Certificates with Definite Due Dates (77.3%).
- 4. Long Term Interest-Bearing Notes which are Sold to Anyone (58.6%).
- 5. Revolving Equity Certificates which are Noninterest-Bearing and without Definite Due Date (56.5%).
- 6. Cumulative Preferred Stock (52.0%).
- 7. Nonfarmer Investment in Cooperatives (51.64%).

Unfavorable Methods of Cooperative Finance:

- 1. Revolving Equity Certificates which are Interest-Bearing and Without Due Date (25.8%).
- 2. High Membership Fees (23.9%).
- 3. Noncumulative Preferred Stock (21.0%).

Overall Conclusions

Selling Revolving Equity Certificates

Many cooperatives maintain inflexible capital structures which restrict members' freedom to allocate their capital in a most profitable fashion. In order for cooperative financial structures to become more acceptable among members and farmers in general, means must be devised to allow the "capital-short" farmer or the farmer who has a very high-paying return on his farm to shift at least a portion of his investment in the cooperative to other farmers (or nonfarmers) who have both the ability and desire to invest.

Results of this study indicated that the farmers most likely to sell revolving equity certificates and accept high rates of discount were members of at least one of the following categories:

1. Older than 65 years of age or younger than 34 years of age

- 2. Part owners and operators
- 3. Farm investment of \$200,000 or more
- 4. Planning a general decrease in farm sales

Discontent with the traditional revolving fund method of finance was expressed, especially by those farmers who were at or near retirement age or who were planning a general decrease in farm sales. In order for cooperatives to maintain viable memberships in the years to come, management must be increasingly attentive to the special situations in which certain of their members become involved. Means should be developed 1) to allow younger members, who may be short of capital, the opportunity to utilize in preferred alternatives some of the personal capital which is now tied up in the cooperative, 2) to provide for prompt return of capital which was previously contributed by farmers who are now at retirement age, and 3) to allow farmers with large farm investments the opportunity to exploit their highest-paying investment alternatives. If such actions are not taken, the cooperative stands to lose the participation of many members or, at least, to experience diminishing member loyalty.

Buying Revolving Equity Certificates

Several farmers expressed both a desire and an ability to invest in cooperative revolving funds. Results of this study indicated that the farmers most likely to buy revolving equity certificates and accept low or medium discounts were members of at least one of the following categories:

- 1. High school or college educations
- 2. Noncooperative members

In general, the survey indicated that a market for cooperative revolving equity certificates would have a fair number of participants at low discounts, even though the majority of farmers preferred to buy only at high discounts. Farmers most preferred buying equity certificates payable in the near future, less preferred to buy a series of certificates payable over a ten year period, and least preferred to buy certificates payable in the distant future. The indication was that sufficient farmer interest would exist in the buying side of the equity certificate market to permit many "capital-short" farmers to shift at least a portion of their investment in the cooperative to other investors.

Cooperative Means of Finance

In order to conform with farmer preferences for selected means of finance, cooperatives must carefully consider the alternatives of equity certificates which are transferable and/or specifically due dated, long term interest-bearing notes, cumulative preferred stock, and various forms of nonfarmer investment in cooperatives. Caution must always be taken in organizing sources of cooperative capital, because nonmember capitalization may lead to nonmember control. However, several sources of nonmember capital, including the Bank for Cooperatives, are presently available and may be utilized for member benefit within the reasonable limits dictated by the specific business situation.

Implications for Further Research

If cooperatives in general were to implement revolving equity certificate transferability, as this study suggests they should, the next logical step would be to examine the full effect of certificate transferability upon the cooperative as a business entity. Such examination could well include the ramifications of certificate transferability upon the internal organization of the cooperative as well as its increased appeal, if any, to those farmers who were previously nonmembers.

BIBLIOGRAPHY

- 1. Clendenin, John C. Introduction to investments. 4th ed. New York, McGraw-Hill Book Company, 1964. 593 p.
- 2. Cochran, William C., Sampling techniques. 2d ed. New York, John Wiley and Sons, 1963. 413 p.
- 3. Cooperatives Some problems and needs. Bank for Cooperative Newsletter (New Orleans, Louisiana), p. 3. July 1968.
- 4. Emelianoff, Ivan V. Economic theory of cooperation. Washington, D.C., Ivan V. Emelianoff, 1942. 269 p.
- 5. Erdman, Henry E. Cooperation forecast. In: Extension and research workshops on farmer cooperatives. American Institute of Cooperation summer session, University of California, August 7-10, 1960. Washington, D.C., American Institute of Cooperation, 1960. p. 83-88.
- 6. Erdman, Henry E. and Grace H. Larsen. Revolving finance in agricultural cooperatives. 1st ed. Madison, Mimir Publishers, 1965. 117 p.
- 7. Gray, Edward Laurence. Capital for growth and adjustment of agricultural cooperatives. Master's thesis. Corvallis, Oregon State University, 1964. 141 numb. leaves.
- Hulbert, Helim H., Nelda Griffin and Kelsey B. Gardner. Methods of financing farmer cooperatives. Washington,
 D. C., 1957. 46 p. (U.S. Dept. of Agriculture. Farmer Cooperative Service. General Report 32)
- 9. Hulbert, Helim H., Nelda Griffin and Kelsey B. Gardner. Revolving fund method of financing farmer cooperatives. Washington, D.C., 1958. 60 p. (U.S. Dept. of Agriculture. Farmer Cooperative Service. General Report 41)
- 10. Petersen, R. G., Some "quick and dirty" statistical techniques. Corvallis, Oregon State University, Dept. of Statistics, 1968. 15 p.

- 11. Phillips, Richard. Economic nature of the cooperative association. Journal of Farm Economics 35:74-87. 1953.
- 12. Robotka, Frank. Lego-economic implications of cooperation. In: Proceedings of the First Postwar session of the American Institute of Cooperation, Purdue University, August 26-30, 1946. Washington, D.C., U. S. Government Printing Office, 1946. p. 106-121.
- 13. Roy, E. P., Cooperatives today and tomorrow. Danville, Interstate Printers and Publishers, 1964. 573 p.
- Selltiz, Claire. Research methods in social relations.
 Rev. ed. New York, Henry Holt and Company, 1959. 622 p.
- 15. Snedecor, George W. Statistical methods. 4th ed. Ames, Iowa State College Press, 1946. 485 p.
- 16. Steele, Robert G. D. and James H. Torrie. Principles and procedures of statistics. New York, McGraw Hill Book Company, 1960. 481 p.
- 17. Wissman, Roger Allen. The role of borrowed funds in Oregon cooperatives. Master's thesis. Corvallis, Oregon State University, 1965. 106 numb. leaves.

APPENDIX I

MAILED QUESTIONNAIRE

CONFIDENTIAL

FARM COOPERATIVE FINANCE SURVEY

Department of Agricultural Economics
Oregon State University
May 1969

PLEASE HELP!

Farm Cooperatives face many challenges in the years ahead. The opportunities seem to be substantial for them to be of increasing service to farmers. However, one problem that all companies experience in gearing up to meet the challenges of coming years is adequate financing. This study is designed to explore means by which farm and farm cooperative financing might be improved in coming years. Your participation will be much appreciated.

Please answer each of the following questions by placing an "X" on the line preceding the appropriate category. 1. What is your present age in years? (Check one) ____ 29 years or younger ____ 50-54 years _____30-34 years _____55-59 years _____60-64 years _____ ____ 35-39 years 40-44 years 65 years or older ____ 45-49 years 2. What is the highest year of formal schooling you have completed? (Check only one) ELEMENTARY. ____ 0-4 years 5-7 years 8 years

| | HIGH SCHOOL: 1-3 years |
|----|--|
| | 4 years |
| | COLLEGE OR OTHER TRAIN- |
| | ING BEYOND HIGH SCHOOL: |
| | |
| | 1-3 years |
| | 4 years or more |
| 3. | Which of the following classifications best describes your |
| | relationship to your farm? (Check one) |
| | Part owner and operator |
| | Full owner and operator |
| | Farm owner only (nonoperator) |
| | Farm operator only (all land rented) |
| | |
| 4. | What is the approximate market value of the farm land, buildings machinery, breeding livestock, dairy herds, and laying flocks which you own, rent, and lease? (Check one) |
| | \$ 999 or less\$ 60,000 - \$ 99,999 |
| | \$1,000 - \$ 9,999 |
| | <u>\$10,000 - \$29,999</u> \$200,000 - \$349,999 |
| | \$30,000-\$59,999\$350,000 or more |
| 5. | What was the approximate dollar amount of sales from your farm operation in 1968? (Check one) |
| | \$ 999 or less \$ 20,000 - \$ 29,999 |
| | \$ 1,000 - \$4,999 \$ 30,000 - \$ 49,999 |
| ٠. | \$5,000 - \$ 9,999 \$ 50,000 - \$ 99,999 |
| | \$10,000 - \$14,999 \$100,000 - \$149,000 |
| | \$15,000 - \$19,999 \$150,000 or more |
| | |
| 6. | Over the next three years, do you plan for the dollar amount of |
| | sales from your farm operation to: (Check one) |
| | Increase substantially |
| | Increase slightly |
| | Decrease slightly |
| | Decrease substantially |
| | Remain about the same |

| 7. | Are you presently a member of a farm cooperative? |
|-----|---|
| | Yes (If yes, skip questions No. 8, 9, and go to No. 10) |
| | No (If no, go to question No. 8) |
| | |
| 8. | Have you ever been a member of a farm cooperative? |
| | Yes (If yes, go to question No. 9) |
| | No (If no, skip questions No. 9, 10, 11, and go to No. 12) |
| 9. | What was the reason for terminating your membership? |
| | Retirement |
| | Change in farm operation |
| | Other (specify): |
| | |
| 10. | For how many years have you been/were you a member of a |
| | farm cooperative? (Check one) |
| | 0 = 3 years 22 - 27 years |
| | 0 - 3 years 22 - 27 years 4 - 9 years 28 - 33 years 10 -15 years 34 years or longer |
| | 4 - 9 years 28 - 33 years |
| | 10 -15 years 34 years or longer |
| | 16 -21 years |
| 11. | In what type(s) of cooperatives were/are you a member? |
| 11. | (Check those which apply to you) |
| | (Check those which apply to you) |
| | Forms 2000 100 100 (001) |
| | Farm supply sales (only) |
| | Marketing only (no processing) |
| | Processing and marketing (no farm supply sales) |
| | Marketing - farm supply - processing (combination) |
| | Marketing - farm supply (combination) |
| | Processing - farm supply (combination) |
| 12. | INSTRUCTIONS: |
| 12. | 11/0 11000 1101/0. |
| | If your farm sales in 1968 were less than \$20,000 (see |
| | question No. 5), answer only Part A of question No. 12. |
| | question 17, answer only lare 11 of question 170. 12. |
| | If your farm sales in 1968 were \$20,000 or more (see |
| | question No. 5), answer only Part B of question No. 12. |
| | 1 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| 12- | A. If you were to make an additional investment of approxi- |
| | mately \$3,000 on your farm today, how much do you esti- |
| | mate that your farm sales per year would increase (or your |
| | farm costs per year would decrease)? |
| | |

| \$120 | or less |
|-------|------------------|
| \$121 | - \$240 |
| \$241 | L - \$360 |
| \$361 | - \$ 4 80 |
| \$481 | - \$600 |
| \$601 | - \$720 |
| \$721 | - \$840 |
| \$841 | or more |

12-B. If you were to make an additional investment of approximately \$6,000 on your farm today, how much do you estimate that your farm sales per year would increase (or your farm costs per year would decrease)?

| \$ | 230 | or le | SS |
|----------|-----|--------|-----|
| \$ | 231 | - \$ | 470 |
| \$ | 471 | - \$ | 710 |
| \$ | 711 | - \$ | 950 |
| \$ | 951 | - \$1, | 190 |
| \$1, | 191 | - \$1, | 430 |
| \$1, | 431 | - \$1, | 670 |
| \$1, | 671 | or m | ore |

Answer question No. 13 only if your 1968 farm sales were less than \$20,000. Otherwise, skip this question and go to question No. 14.

INSTRUCTIONS:

If you are now a member of a farm cooperative, imagine that you have \$5,000 in your cooperative's capital revolving fund which is noninterest bearing and has no specific due date. However, based upon past experience, the certificates will be paid to you at the rate of \$500 per year for each of the next 10 years.

If you are not now a member of a farm cooperative, imagine that you are a member of the cooperative in your area which is most suited to your farm operation. Imagine further that you have \$5,000 in its capital revolving fund which is non-interest bearing and has no specific due date. However, based upon past experience, the certificates will be paid out to you at the rate of \$500 per year for each of the next 10 years.

| 13. | Assume that it were possible to sell your \$5,000 investment in |
|-----|---|
| | the cooperative to someone else so you could have the money to |
| | invest on your farm. What minimum amount in cash would you |
| | accept today in selling the rights to your \$500 per year, |
| | rather than wait for it to be paid out to you over the next 10 |
| | years? (Check one) |
| | |

| \$2, 100 or less | \$3,851 - \$4,050 |
|-----------------------------|-----------------------------|
| \$2, 101 - \$2, 500 | \$4,051 - \$4,300 |
| \$2, 501 - \$3, 100 | \$4, 301 - \$4, 500 |
| \$3, 101 - \$3, 350 | \$4,501 - \$4,750 |
| \$3, 351 - \$3, 500 | \$4,751 - \$5,000 |
| \$3, 501 - \$3, 700 | More than \$5,000 |
| \$3, 701 - \$3, 850 | Would not sell at any price |

Answer question No. 14 only if your 1968 farm sales were \$20,000 or greater.

INSTRUCTIONS:

If you are now a member of a farm cooperative, imagine that you have \$10,000 in your cooperative's capital revolving fund which is noninterest bearing and has no specific due date. However, based upon past experience, the certificates will be paid out to you at the rate of \$1,000 per year for each of the next 10 years.

If you are not now a member of a farm cooperative, imagine that you are a member of the cooperative in your area which is most suited to your farm operation. Imagine further that you have \$10,000 in its capital revolving fund which is non-interest bearing and has no specific due date. However, based upon past experience, the certificates will be paid out to you at the rate of \$1,000 per year for each of the next 10 years.

14. Assuming that it were possible to sell your \$10,000 investment in the cooperative to someone else so you could have money to invest on your own farm, what minimum amount in cash would you accept today in selling the rights to your \$1,000 per year, rather than wait for it to be paid out to you over the next 10 years? (Check one)

| \$4, | 200 | or less | · | \$7, | 701 | _ | \$ 8, | 100 |
|----------|-----|-----------|---|------|-----|---|----------|-----|
| \$4, | 201 | - \$5,000 | · | \$8, | 101 | | \$ 8, | 500 |

| | \$5,001 - \$6,150 \$6,501 - \$ 9,000 |
|---------|---|
| | <u>\$6, 151 - \$6, 700</u> \$9, 001 - \$ 9, 500 |
| | <u>\$6,701 - \$7,000</u> \$9,501 - \$10,000 |
| | \$7,001 - \$7,400 More than \$10,000 |
| | \$7, 401-\$7, 700 Would not sell at any price |
| | |
| | INSTRUCTION: Assume for 15-A, B, C that the revolving |
| | certificates are noninterest bearing and have no specific |
| | due date. |
| | due date. |
| 15 4 | |
| 15-A. | What maximum amount in cash would you pay a member of a |
| | farm cooperative today in buying the rights to his \$5,000 |
| | worth of revolving certificates which would be paid out at |
| | the rate of \$500 per year for each of the next 10 years. |
| | (Check one) |
| | |
| | \$2, 100 or less \$3, 851 - \$4, 050 |
| | \$2, 101 - \$2, 500 \$4, 051 - \$4, 300 |
| | \$2,501 - \$3,100 \$4,301 - \$4,500 |
| | \$3, 101 - \$3, 350 \$4, 501 - \$4, 750 |
| | \$3, 351 - \$3, 500 \$4, 751 - \$5, 000 |
| | \$3, 501 - \$3, 700 More than \$5, 000 |
| | \$3, 701 - \$3, 850 Would not buy at any price |
| | ψο, τοι ψο, σου Would not buy at any price |
| 1 E . D | What marriages amount is as all assets a marriages of |
| 15-15. | What maximum amount in cash would you pay a member of |
| | a farm cooperative today for a \$5,000 revolving certificate |
| | which the cooperative will pay off in 1972? (Check one) |
| | |
| | \$2,900 or less \$4,301 - \$5,000 |
| | \$2, 901 - \$3, 300 More than \$5,000 |
| | \$3, 301 - \$3, 800 Would not buy at any price |
| | \$3,801 - \$4,300 |
| | |
| 15-C. | What maximum amount in cash would you pay a member of |
| | a farm cooperative today for a \$5,000 revolving certificate |
| | which the cooperative will pay off in 1978? (Check one) |
| | |
| | \$1,000 or less \$3,201 - \$5,000 |
| | \$1,001 - \$1,400 More than \$5,000 |
| * | |
| | \$1, 401 - \$2, 100 Would not buy at any price |
| | \$2, 101 - \$3, 200 |

| 16. | Indicate the acceptability to you of the following alternative | | | | |
|-----|--|--|--|--|--|
| | methods of providing for the capital needs of farming coopera- | | | | |
| | tives. Circle the number 1, 2, 3, 4, or U which you believed | | | | |
| | is appropriate. | | | | |

- 1 Very acceptable
- 2 Acceptable
- 3 Unacceptable
- 4 Very unacceptable
- U Unfamiliar with alternative

| | Vous solina | A16 | | | |
|-----|--|---|--|--|--|
| | Your rating 1 2 3 4 U | Alternative | | | |
| | 1 2 3 4 0 | Long term interest-bearing notes with definite | | | |
| | | due date sold only to members. | | | |
| | 1 2 3 4 U | Long term interest-bearing notes with definite | | | |
| | | due date sold to both members and nonmembers | | | |
| | 1 2 3 4 U | High membership fees (\$300 - \$500). | | | |
| | 1 2 3 4 U | Cumulative preferred stock. | | | |
| | 1234U | Noncumulative preferred stock. | | | |
| | 1 2 3 4 U | Interest-bearing revolving fund certificates | | | |
| | | (without due date). | | | |
| | 1 2 3 4 U | Noninterest bearing revolving fund certificates | | | |
| | | (without due date). | | | |
| | 1234U | Other (specify): | | | |
| | 1 2 3 4 U | | | | |
| | 1234U | | | | |
| | | | | | |
| 17. | Do you feel farm cooperative revolving certificates should be: | | | | |
| | (Check one) | | | | |
| | | | | | |
| | Transfer | able among members of the cooperative only. | | | |
| | Transferable to anyone willing to invest in them. | | | | |
| | Should not be transferred at all? | | | | |
| | | | | | |
| 18. | Revolving certificates should have definite due dates. (Check | | | | |
| | one) | | | | |
| | Strongly a | agraa | | | |
| | Agree. | igiee, | | | |
| | Agree. Disagree. | | | | |
| | | | | | |
| | Strongly of | iisagree. | | | |

19. Farm cooperatives should develop more methods by which nonfarm investors might provide capital necessary to adequately finance farm cooperatives. (Check one)

Have no feelings one way or the other.

| Strongly agree | e. | | |
|-----------------|-------------------|------------|--|
| Agree. | | | |
| Disagree. | the second second | | |
| Strongly disag | ree. | | |
| Have no feeling | gs one way or | the other. | |
| | | | |
| A | | | |

20. Are there any additional comments you would like to make concerning the capital problems of farmer cooperatives?

Thank you for your cooperation.

APPENDIX I

COVER LETTER

May 22, 1969

Dear Mr. Oregon Farmer:

You have been selected as a representative farmer to help evaluate the need for new methods of financing capital investment in farmerowned cooperatives. You can help by filling out the enclosed questionnaire, which was designed and pre-tested with the assistance of the Marion County Extension Service and area farmers. Your answers will be treated confidentially.

Your responses, along with those of others, will provide valuable knowledge of the farmer's investment problems -- both on his own farm and in farmer-owned cooperatives. This knowledge can then be used to design better capital investment procedures for cooperatives in the years ahead.

Please fill out the questionnaire, even if you are not a cooperative member, place it in the enclosed return envelope and mail it by June 2, 1969. No stamp is required.

Thank you.

Clinton B. Reeder Agribusiness Economist Department of Agricultural Economics Oregon State University

Enclosures

APPENDIX I

REMINDER LETTER

May 22, 1969

Dear Sir:

Last week you received from the Department of Agricultural Economics at Oregon State University a questionnaire concerning the financing of farmer cooperatives.

If you have already returned the questionnaire, thank you for your assistance.

If you have not returned the questionnaire, we would appreciate your doing so. Your participation will contribute significantly to the success of the study.

Sincerely,

Clinton B. Reeder
Agribusiness Economist
Oregon State University

APPENDIX II

Table 23. Estimated Return on Next Farm Investment (ROI) vs. Owner-Operator Status

| | | | | RC | OI (Percer | nt) | · | | |
|--------------------------|----------------|-------|--------------|---------|------------|---------|---------|---------------|--------------|
| Owner-operator status | 3.9 or less | 4-7.9 | 8-11.9 | 12-15.9 | 16-19.9 | 20-23.9 | 24-27.9 | 28 or more | Row total |
| Part owner and operator | 9 | 6 | 7 | 7 | 7 | 2 | 4 | 7 | 49 |
| Full owner and operator | 33 | 16 | 27 | 15 | 26 | 14 | 12 | 34 | 177 |
| Farm owner only | 12 | 1 | 2 | 1 | 0 | 0 | 0 . | 3 | 19 |
| Farm operator only | 4 | 0 | ~ 2 . | 2 | 1 | 0 | 0 | 2 | 11 |
| Column total | 58 | 23 | 38 | 25 | 34 | 16 | 16 | 46 | 256 |

Table 24. Estimated Return on Next Farm Investment (ROI) vs. Planned Farm Sales

| | . | | | F | OI (Perce | ent) | · | _ | |
|----------------------------|----------------|-------|--------|---------|-----------|---------|---------|---------------|--------------|
| Planned farm sales | 3.9 or less | 4-7.9 | 8-11.9 | 12-15.9 | 16-19.9 | 20-23.9 | 24-27.9 | 28 or more | Row total |
| Increase sub- | | | | | | | | | |
| s tantially | 8 | 2 | 5 | 4 | 9 | 3 | 1 | 13 | 45 |
| I n crea s e | | | | | | | | | |
| slightly | 16 | 7 | 16 | 4 | 16 | 7 | 11 | 17 | 94 |
| Decrease | | | | | | | | | |
| slightly | 3 | 3 | 3 | 1 | 1 | 1. | 1 | - 5 | 18 |
| Decrea s e | | | | | | | | | |
| substantially | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 9 |
| Remain about | | | | | | | | | |
| the same | 2 5 | 10 | 14 | 15 | 8 | 5 | 3 | 11 | 91 |
| Column | | | | | | | <u></u> | | |
| total | 58_ | 22 | 38 | 25 | 34 | 16 | 16 | 48 | 257 |

Table 25. Maximum Discount in Selling Equity Certificates (MDS) vs. Age

| | | · · · · · · · · | _ | -, | Ag | e (Ye | ars) | | | |
|--------------|-------|-----------------|-----|---------------|-----|-------------|------|-----------|-------|-------------|
| MDS | | | | | : | | | | | |
| (Percent) | 29 or | 30- | 35- | 40- | 45- | 5 0- | 55- | 60- | 65 or | Row |
| | less | 34 | 39 | 44 | 49 | 54 | 59 | <u>64</u> | more | total |
| | | | | | | | | | | |
| 20 or more | 0 | 1 | 0 | 1 | 4 | 3 | 2 | 2 | 5 | 18 |
| 20-15 | 0 | 1 | 0 | 1 | 0 | 1 | . 0 | 0 | 3 | 6 |
| 15-10 | 2 | 0 | 5 | 3 | 3 | 3 | 2 | 1 | 4 | 23 |
| 10-8 | 2 | 1 | 2 | 3 | 1 | 1 | 0. | 2 | 2 | 14 |
| 8-7 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 10 |
| 7- 6 | 1 | 1 | 2 | 2 | 3 | 0 | 1 | 3 | 0 | 13 |
| 6 - 5 | 0 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 0 | 8 |
| 5-4 | 2 | 1 | 5 | 4 | 4 | 6 | 2 | 0 | 2 | 26 |
| 4-3 | 0 | 4 | - 1 | 4 | 1 | 4 | - 2 | 2 | 0 | 18 |
| 3- 2 | 0 | 0 | 0 | 2 | 2 | 2 | 3 | 0 | 2 | 11 |
| 2- 1 | 3 | 1 | 4 | 0 | 4 | . 5 | 0 | 0 | 2 | 19 |
| 1 - 0 | 1 | 2 | 2 | 4 | 9 | 4 | 4 | 5 | 2 | 33 |
| Premium | 0 | 0 | 2 | 3 | í | 2 | 3 | 5 | 3 | 19 |
| Would not | | | | - | - | | | - | - | - / |
| _sell | 2 | 1 | 3 | 7 | 6 | 9 | 7 | 4 | 12 | 51 |
| Column | _ | | | | | | | | | |
| total | 14 | 15 | 28 | 38 | 42 | 42 | 27 | 26 | 37 | 2 69 |

Table 26. Maximum Discount in Selling Equity Certificates (MDS) vs. Owner-Operator Status

| | | Owner | -operate | r status | |
|----------------|------------|----------------|----------|----------|-------|
| | Part owner | Full owner | Farm | Farm | |
| MDS | and | \mathbf{and} | owner | operator | Row |
| (Percent) | operator | operator | only | only | total |
| 20 or more | 1 | 12 | 3 | 1 | 17 |
| 20-15 | 0 | 5 | 1 | 0 | 6 |
| 15-10 | 10 | 12 | 1 | 0 | 23 |
| 10-8 | 6 | 6 | 0 | 2 | 14 |
| 8- 7 | 2 | 8 | . 0 | · . 0 | 10 |
| 7- 6 | 7 | 5 | 1 | . 0 | 13 |
| 6- 5 | . 0 | 7 | 1 | 0 | 8 |
| 5 - 4 | 5 | 18 | 0 | 3 | 26 |
| 4-3 | 3 | 14 | 0. | . 1 | 18 |
| 3- 2 | 0 | 8 | 3 | 0 | 11 |
| 2- 1 | 5 | 11 | 0 | 3 | 19 |
| 1 - 0 | 2 | 25 | 5 | 1 | 33 |
| Premium | 3 | 14 | 1 | 1 | 19 |
| Would not sell | 10 | 33 | 6 | 11 | 50 |
| Column | | | | | |
| <u>total</u> | <u>54</u> | 178 | 22 | 13 | 267 |

Table 27. Maximum Discount in Selling Equity Certificates (MDS) vs. Farm Investment

| | | <u> </u> | Investme | ent (Dollars | 3) | - | |
|----------------|------------|----------|----------|--------------|-----------|---------|-------|
| | 29, 999 | 30,000- | 60, 000- | 100, 000- | 200, 000- | 350,000 | Row |
| MDS (Percent) | or less | 59, 999 | 99, 999 | 199, 999 | 349, 999 | or more | total |
| 20 or more | 2 | 7 | 3 | 2 | 2 | 1 | 17 |
| 20-15 | 0 | 2 | 2 | 2 | 0 | 0 | 6 |
| 15-10 | 3 | 2 | 6 | 7 | 3 | 2 | 23 |
| 10-8 | 2 | 3 | 3 | 1 | 2 | 5 | 16 |
| 8-7 | 0 | 0 | 4 | 5 | 0 | 1 | 10 |
| 7-6 | 1 | 0 | 3 | 6 | 3 | 0 | 13 |
| 6-5 | 0 | 3 | 1 | 0 | 4 | 0 | 8 |
| 5 - 4 | 5 | 5 | 2 | 11 | 2 | 0 | 25 |
| 4-3 | 3 | 3 | 3 | 3 | 4 | 2 | 18 |
| 3- 2 | 2 | 3 | 2 | 4 | 0 | 0 | 11 |
| 2- 1 | 1 | 5 | 4 | 5 | 2 | 1 | 18 |
| 1 - 0 | 3 | 12 | 10 | 3 | 3 | 2 | - 33 |
| Premium | 1 | 4 | 10 | 2 | 1 | 1 | 19 |
| Would not sell | 2 | 17 | 19 | 7 | 3_ | 1 | 49 |
| Column | | | | | _ | | |
| total | 2 5 | 66 | 72 | 58 | 29 | 16 | 266 |

Table 28. Maximum Discount in Selling Equity Certificates (MDS) vs. Planned Farm Sales

| | | P | lanned sales | | |
|----------------|---------------|------------------|-------------------|--------------|-------------|
| MDS | Increase | Increase | Decrease slightly | Remain about | Row |
| (Percent) | substantially | s lightly | or substantially | the same | total |
| 20 or more | 2 | 2 | 4 | 10 | 18 |
| 20-15 | 1 | 1 | 0 | 4 | 6 |
| 15-10 | 4 | 8 | 4 | - 5 | 21 |
| 10-8 | 5 | 6 | 2 | 3 | 16 |
| 8-7 | 1 | 6 | 0 | 3 | 10 |
| 7-6 | 2 | 6 | 1 | 4 | 13 |
| 6-5 | 3 | 2 | 0 | 3 | 8 |
| 5-4 | 5 | . 6 | 3 | 10 | 24 |
| 4-3 | 4 | 9 | 1 | 4 | 18 |
| 3-2 | 2 | 6 | 1 | 2 | 11 |
| 2- 1 | 2 | 9 | 1 | 7 | 19 |
| 1 - 0 | 7 | 13 | 2 | 10 | 32 |
| Premium | 3 | 7 | 3 | 6 | 19 |
| Would not sell | 4 | 16 | 10 | 21 | 51 |
| Column | | | | | |
| total | 4 5 | 97 | 32 | 92 | 2 66 |

Table 29. Maximum Discount in Selling Equity Certificates (MDS) vs. Minimum Discount in Buying Equity Certificates (MDB)

| | | | MD | B (Perc | ent)_ | | | _ | |
|----------------|-------|-------------|-----------------|---------|-------|-----|-----|-----------|-------|
| MDS | 20 or | 20- | 15 - | 10- | 7- | 5 - | 3 - | Would not | Row |
| (Percent) | more | 15 | 10 | 7 | 5 | 3 | 0 | buy | total |
| 15 or more | 7 | 3 | 0 | 0 | 1 | 0 | 1 | 11 | 23 |
| 15-10 | 3 | 6 | 5 | 1 | 1 | 0 | 1 | 4 | 21 |
| 10- 7 | 4 | 4 | 4 | . 2 | 2 | 0 | 1 | 6 | 23 |
| 7- 5 | 4 | 1 | 3 | - 3 | 2 | 1 | 0 | 4 | 18 |
| 5-4 | 4 | 4 | 1 | 5 | 1 | 3 | 1 | 5 | 24 |
| 4- 3 | 1 | 1 | 0 | 1 | 0 | 6 | 0 | 7 | 16 |
| 3- 2 | 1 | 1 | 0 | 2 | 1 | 3 | 5 | 5 | 18 |
| 2-1 | 0 | 0 | 2 | 1 | 1 | 4 | 4 | 6 | 18 |
| 1 - 0 | 5 | 1 | 2 | 0 | 2 | 3 | 7 | 12 | 32 |
| Premium | 2 | 2 | 1 | 0 | 0 | 2 | 1 | 10 | 18 |
| Would not sell | 5 | _2 | 3 | 1 | 0 | 2 | 3 | 31 | 47 |
| Column | | | | | • | | | | |
| total | 36 | 25 | 21 | 16 | 11 | 24 | 24 | 101 | 258 |

Table 30. Minimum Discount in Buying Equity Certificates (MDB) vs. Education

| | | | Edu | cation (Year | s) | | | |
|---------------|-------------|----------|------|--------------|-------------|-----------|-------|--|
| MDB | Elementary: | High sch | ool: | High school | l: College: | College: | Row | |
| (Percent) | 8 or less | 1-3 | | 4 | 1-3_ | 4 or more | total | |
| | | | | | | | | |
| 20 or more | 10 | 3 | | 9 | 7 | 10 | 39 | |
| 20-15 | 3 | 1 | | 13 | 1. | 6 | 24 | |
| 15-10 | 1 | 1 | | 8 | 11 | 4 | 25 | |
| 10-8 | 0 | 1 | | 5 | 0 | 3 | 9 | |
| 8- 7 | 0 | 0 | | 2 | 2 | 2 | 6 | |
| 7-6 | 0 | 2 | | 1 | 2 | 1 | 6 | |
| 6- 5 | 0 | 1 | | 2 | 1 | 2 | 6 | |
| 5-4 | 4 | 0 | | 6 | 3 | 1 | 14 | |
| 4-3 | 1 | 3 | | 4 | 2 | 1 | 11 | |
| 3- 2 | 1 | 3 | | 0 | 5 | 1 | 10 | |
| 2-1 | 1 | 0 | | 3 | 1 | 3 | 8 | |
| 1- 0 | 0 | 2 | | 2 | 0 | . 0 | 4 | |
| Would not buy | 29 | 9 | | 40 | 21 | 11 | 110 | |
| Column | | | | - | | | | |
| _total | 50 | 26 | | 95 | 56 | 45 | 272 | |

Table 31. Minimum Discount in Buying Equity Certificates (MDB) vs. Farm Investment

| | | | | Investi | ment (Dollar | s) | |
|---------------|---------|----------|---------|----------|--------------|-------|----------|
| MDB | 29, 999 | 30, 000- | 60,000- | 100,000- | 200, 000- | Row | |
| (Percent) | or less | 59, 999 | 99, 999 | 199, 999 | or more | total | <u> </u> |
| 20 or more | 5 | 9 | 11 | 8 | 6 | 39 | |
| 20-15 | 3 | 3 | 5 | 8 | 5 | 24 | |
| 15-10 | 0 | 2 | 9 | 7 | 7 | 25 | |
| 10-8 | 0 | 1 | 4 | 0 | 4 | : 9 | |
| 8-7 | 3 | 1 | 0 | 1 | 1 | 6 | |
| 7-6 | 1 | 1 | 1 | 2 | 2 | 7 | |
| 6- 5 | 0 | 3 | 0 | 3 | 0 | 6 | |
| 5-4 | 1 | 7 | 2 | 2 | 2 | 14 | |
| 4-3 | 2 | 1 | 3 | 4 | 1 | 11 | |
| 3- 2 | 2 | 2 | 2 | 2 | 2 | 10 | |
| 2- 1 | 1 | 4 | 1 | 0 | 0 | 6 | |
| 1- 0 | 0 | 3 | 0 | 0 | . 1 | 4 | |
| Would not buy | 10 | 29 | 32 | 20 | 16 | 107 | |
| Column | | | | | | | - |
| _total | 28 | 66 | 70 | 57 | 47 | 268 | |

Table 32. Minimum Discount in Buying Equity Certificates (MDS) vs. Present Cooperative Membership Status

| MDS | Membership | status | |
|---------------|--------------------|-----------|-----------|
| (Percent) | Cooperative member | Nonmember | Row total |
| | | , , | |
| 20 or more | 32 | 6 | 38 |
| 20-15 | 19 | 3 | 22 |
| 15-10 | 23 | 2 | 25 |
| 10-8 | 8 | 1 | 9 |
| 8 - 7 | 3 | . 3 | 6 |
| 7- 6 | 4 | 2 | 6 |
| 6- 5 | 4 | 2 | 6 |
| 5- 4 | 10 | 4 | 14 |
| 4-3 | 4 . | 7 | 11 |
| 3- 2 | 6 | 4 | 10 |
| 2- 1 | 6 | 1 | 7 |
| 1 - 0 | 4 | : 0 | 4 |
| Would not buy | 85 | 22 | 107 |
| Column | | | 24.5 |
| total | 208 | 57 | 265 |

Table 33. Minimum Discount in Buying Equity Certificates (MDB) vs. Estimated Return on Next Farm Investment (ROI)

| | | | | <u> </u> | ROI | (Perce | ent) | | |
|--------------------|---------|-----|------|------------|------|--------|-------|-------------|--|
| MDB | 3.9 | 4- | 8 - | 12- | 16- | 20- | 28 or | Row | |
| (Percent) | or less | 7.9 | 11.9 | 15.9 | 19.9 | 27.9 | more | total | |
| 20 or more | 9 | 2 | 4 | 1 | 6 | 4 | 8 | 34 | |
| 2 0 -15 | 0 | 2 | 5 | 4 | 2 | 5 | 4 | 22 | |
| 1 5 -10 | 5 | 4 | - 3 | 3 | 2 | 2 | 3 | 22 | |
| 10-8 | 11. | 1 | 1 | 3 . | 2 | 0 | 0 | 8 | |
| 8 - 7 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 6 | |
| 7-6 | 0 | 3 | 2 | 0 | 0 | 0 | 1 | 6 | |
| 6- 5 | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | |
| 5- 4 | 2 | 0 | 3 | 3 | 2 | 0 | 2 | 12 | |
| 4- 3 | 1 | 0 | 2 | 1 . | 1 | 3 | 2 | 10 | |
| 3- 2 | 1 | 0 | 0 | 0 | 2 | 0 | 4 | 7 | |
| 2- 0 | 1 | 1 | 0 | Ó | 2 | 4 | 2 | 10 | |
| Would not buy | 24 | 7 | 16 | 8 _ | 13 | 6 | 15 | 89 | |
| Column | | | | | | | | | |
| total | 48_ | 21 | 36 | 2 3 | 33 | 26 | 44 | 2 31 | |

Table 34. Minimum Discount in Buying Equity Certificates
Payable in 1972 (MDB 72) vs. Education

| | | M | DB 7 | 2 (Pe | rcer | ıt) | |
|------------------|--------|------|------|-------|------------|--------------|------------|
| Education | 20 or | 20- | 15- | 10- | 5 - | Would not | Row |
| (Years) | more | 15 | 10 | 5 | 0 | buy | total |
| | | | | | | | |
| Elementary: 0-7 | 3 | 0 | 0 | . 0 | 0 | 2 | 5 |
| Elementary: 8 | 8 | 4 | • 1 | 6 | 2 | 22 | 43 |
| High school: 1-3 | B v. 1 | 8 | 7 | 6 | 4 | 10 | 3 6 |
| High school: 4 | 6 | 5 | 16 | 25 | 5 | 38 | 95 |
| College: 1-3 | 9 | 3 | 8 | 14 | 3 | 20 | 57 |
| College: 4 or mo | re 6_ | _: 0 | 10 | 13_ | 3 | 13 | 45 |
| Column | • | | | | | | |
| _total | 33 | 20 | 42 | 64 | 17 | 1 0 5 | 281 |

Table 35. Minimum Discount in Buying Equity Certificates
Payable in 1978 (MDB 78) vs. Education

| MDB 78 (Percent) | | | | | t) | | |
|--------------------|---------------|-----------|-------------------|-------------|------------|---------------|--------------|
| Education _(Years) | 20 or more | 20- 15 | 15 - 10 | 1 0- | 5 <i>-</i> | Would not buy | Row total |
| | | | | | | | |
| Elementary: 0-7 | : 0 | 1 | 0 | 0 | 0 | 3 | 4 |
| Elementary: 8 | 7 | Ø | 2 | 3 | 4 | 27 | 43 |
| High school: 1-3 | 1 | 0 | 3 | 6 | 6 | 8 | 24 |
| High school: 4 | 7 | 5 | 7 | 25 | 6 | 42 | 92 |
| College: 1-3 | 6 | 6 | 4 | 11 | 5 | 23 | 55 |
| College: 4 or mo | re 6 | 3 | 6 | 15 | 3 | 12 | 4 5 |
| Column | | | _ | | , , | | |
| _total | 27 | 15 | 22 | 6 0 | 24 | 115 | 263 |

Table 36. Minimum Discount in Buying Equity Certificates Payable in 1978 (MDB 78) vs. Years Cooperative Membership

| | MDB 78 (Percent) | | | | | | |
|---------------------|------------------|-----------|-----------|----------|-----------------|---------------|--------------|
| Years membership | 20 or more | 20- 15 | 15- 10 | 10- 5 | 5 - 0 | Would not buy | Row total |
| | | | | | | | |
| 0-3 | 0 | 0 | 2 | 4 | . 2 | 7 | 15 |
| 4-9 | 5 | 1 | 0 | 10 | 5 | 17 | 38 |
| 10-15 | 6 | 5 | 2 | 11 | 4 | 20 | 48 |
| 16-21 | 4 | 0 | 8 | 15 | 3 | 22 | 52 |
| 22-27 | 1 | 3 . | 1 | - 5 | 3 | 13 | 26 |
| 28-33 | 4 | 3 | 1 | 1 | 0 | 13 | 22 |
| 34 or more | 4 | 0 | 1 | 1 | 1 | 4 | 11 |
| Column | | | | | | | |
| total | 24 | 12 | 15 | 47 | 18 | 96 | 212 |

Table 37. Present Cooperative Membership Status vs.
Acceptability of Notes Sold to Members Only

| Acceptability | Members | | |
|-------------------|---------------|-----------|--------------|
| of notes sold | Cooperative | | Row total |
| to members only | <u>member</u> | Nonmember | |
| Very acceptable | 46 | 8 | 54 |
| Acceptable | 79 | 22 | 101 |
| Unacceptable | 15 | 9 | 24 |
| Very unacceptable | 5 | 4 | 9 |
| <u>Unfamiliar</u> | | 2 | 5 |
| Column | | | |
| total | 148 | 45 | 193 |

Table 38. Present Cooperative Membership Status vs.
Acceptability of Notes Sold to Anyone

| Acceptability | Membership status | | | | |
|-------------------|-------------------|-----------|--------------|--|--|
| of notes sold | Cooperative | | Row total | | |
| to anyone | member | Nonmember | | | |
| Very acceptable | 24 | 16 | 40 | | |
| Acceptable | 6 0 | 16 | 76 | | |
| Unacceptable | 40 | 6 | 46 | | |
| Very unacceptable | 18 | 4 | -22 | | |
| <u>Unfamiliar</u> | 9 | 5 | 14 | | |
| Column | | | | | |
| _total | <u> </u> | 47 | 198 | | |

Table 39. Present Cooperative Membership Status vs.
Acceptability of High Membership Fees

| Acceptability | Mer | | |
|------------------------------|--------------------|-----------|--------------|
| of high member- ship fees | Cooperative member | Nonmember | Row total |
| | | | |
| Very acceptable | 12 | 0 | 12 |
| Acceptable | 28 | 4 | 32 |
| Unacceptable | 48 | 23 | 71 |
| Very unacceptable | 38 | 8 | 46 |
| Unfamiliar | 15 | 8 | 23 |
| Column | | | |
| _total | 141 | 43 | 184 |

Table 40. Present Cooperative Membership Status vs.

Acceptability of Revolving Equity Certificates Which

Are Interest-Bearing and Without Due Date

| Acceptability of revolving equity | Membership status | | | | |
|-----------------------------------|-------------------|------------------|---------|--|--|
| certificates (interest-bearing | Cooperative | | Row | | |
| without due date) | <u>member</u> | <u>Nonmember</u> | total . | | |
| Very acceptable | 11 | 1 | 12 | | |
| Acceptable | 30 | 4 | 34 | | |
| Unacceptable | 49 | 18 | 67 | | |
| Very unacceptable | 31 | 12 | 43 | | |
| <u>Unfamiliar</u> | 13 | 9 | 22 | | |
| Column | | | | | |
| total | 134 | 44 | _178 | | |

Table 41. Present Cooperative Membership Status vs.

Restrictions on Equity Certificate Transferability

| Restrictions on | Me | | |
|------------------------------------|-------------|-----------|-------|
| equity certificate transferability | Cooperative | 77 | Row |
| transfer ability | member | Nonmember | total |
| Transferable | | | |
| among members | | | |
| only | 62 | 19 | 81 |
| Transferable to | | | |
| anyone | 92 | 33 | 125 |
| | | | |
| Not transferable | 51 | 6 | 57 |
| Column | | | |
| total | 205 | 58 | 263 |

Table 42. Present Cooperative Membership Status vs.
Acceptability of Nonfarmer Investment in Cooperatives

| Acceptability of nonfarmer | Membership status | | | | |
|----------------------------|-----------------------|---------------------------------------|--------------|--|--|
| investment in cooperatives | Cooperative member | Nonmember | Row total | | |
| Strongly agree | 22 | 18 | 40 | | |
| Agree | 81 | 21 | 102 | | |
| Disagree | 69 | 8 | 77 | | |
| Strongly disagree | 18 | 5 | 23 | | |
| No opinion | 24 | 9 | 33 | | |
| Column | | · · · · · · · · · · · · · · · · · · · | | | |
| total | 214 | 61 | 275 | | |