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AGRICULTURAL LENDING POLICY OF NEW YORK COMMERCIAL BANKS

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INTRODUCTION

Lending policy provides the foundation for a bank's lending activity. It determines that types of loans that enter bank portfolios, the terms of loans extended and the treatment of borrowers after loans are made. Thus, lending policy has a major influence on bank profitability and on the bank's customers, including farmers.

This paper reports the results of a survey of agricultural lending policies of New York State commercial banks. It focuses on the identification and quantification of bank lending policy. Analysis of the relationship between bank goals and lending policy variables and the impact of policy on bank loan volume will be provided in later reports.

Lending policy is defined for this study as established guidelines that provide creditors information to assist them in determining their competitive relationship with respect to other lenders, and in turn, help them to develop more effective strategic and tactical plans for future agricultural lending.

The remainder of this paper is divided into three sections: (1) survey methodology, (2) survey results, and (3) summary and conclusions. The section on survey methodology describes the development of the survey questionnaire, selection of the sample and conduct of the survey. The survey results section describes the characteristics of the responding banks and then reports on the lending policies of the banks under the general headings of:

(1) Staffing and the Loan Referral Process
(2) Terms of Credit
(3) Loan Analysis
(4) Advertising and Promotion of Agricultural Loans
(5) Risk, Profitability and Lending Goals

The summary and conclusions identify the major findings of the survey.

SURVEY METHODOLOGY

Survey Procedure

Banks studied were limited to those that commit significant resources to agricultural lending. Thus, only banks with agricultural loan volume of one million dollars or more were included in the survey. Banks meeting this definition were identified using the Report of Condition and Income for Commercial Banks and Selected Other Financial Institutions (Call Report), published by the Board of Governors of the Federal Reserve System, December 31, 1987. Forty-one New York commercial banks met this criteria.

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A bank was considered a separate unit if it was listed in the Call Report. A bank may consist of many branches. For the purposes of this research, agricultural lending policy was assumed to be consistent for all branches.

A survey of the 41 banks was conducted by a mail. The survey instrument was sent to the senior agricultural loan officer or senior loan officer responsible for agricultural loans when their identity was known. In the absence of this information, the survey was mailed to the Chief Executive Officer of the bank who was requested to forward the survey to the appropriate individual.

Forty of the 41 banks responded to the survey. This represents an outstanding response rate of 98 percent. The excellent response rate was attributed to the perceived importance of the research by lenders, the relationship maintained by the Cornell Cooperative Extension educational program for agricultural lenders and the follow-up process used in conducting the survey. Of the 40 responses, 37 were useable. The three banks submitting nonusable responses stated that they had no or very few agricultural loans and therefore had no agricultural lending policy.

Survey Instrument

The survey instrument was developed using information gathered from current literature. A preliminary draft of the questionnaire was reviewed by four officers of commercial banks. These officers were asked to comment on the clarity of the questions and whether the banks had information available with which to answer the questions. They also identified questions that respondents would not answer because bank policy would likely not permit such action. These lenders also evaluated the survey for the absence of questions relating to important policy variables and the presence of questions that related to policy variables of little importance (i.e., questions that could be stricken).

The final version of the survey instrument was 13 pages long and consisted of 35 questions. Questions addressed elements of lending policy over the 1986-88 period. It was estimated the survey would require one to two hours to complete. The survey was distributed, with a cover letter, March 23, 1989. The follow-up process included a repeat mailing and finally contact by phone for slow responders. The last response to the survey was received in July.

SURVEY RESULTS

General Characteristics of Responding Banks

Written Agricultural Lending Policy

Twenty-three New York agricultural banks possessed a written agricultural lending policy. This represented 62 percent of the banks responding to the survey instrument. One bank responded that it had a written agricultural lending policy as part of its commercial lending policy. Another bank reported having a written agricultural lending policy

"as part of our regular lending policy." These banks were counted among the 23 lenders with a written agricultural lending policy even though they did not possess a policy document devoted solely to agricultural lending. The majority of the banks with a written agricultural lending policy (13 of the 22 indicating the frequency of revision), revised their policy annually. The remaining nine banks revised their lending policy at intervals of greater than one year.

Types of Agricultural Enterprises Served

Banks were asked to rank, using a scale of one to three (one being the largest), agricultural enterprises based on their contribution to the bank's loan volume. Dairy was the predominant agricultural enterprise financed by the responding banks. Thirty-two of 36 banks reported that dairy farm loans ranked first in their contribution to agricultural loan volume. Other important farming enterprises served by the responding banks were field crops; livestock including horses, poultry, and beef cattle; nursery and orchard (Table 1).

Table 1. *Ranking of Agricultural Enterprises Served as Indicated by Volume of Loans Outstanding New York, 1988*

Agricultural Enterprise	Rank 1	Rank 2	Rank 3
	--Number of Banks--		
Dairy	32	3	0
Field Crops	2	18	3
Horse	1	1	1
Poultry	1	0	0
Vegetable Crops	0	5	14
Beef	0	3	4
Nursery	0	3	2
Orchard	0	0	3
Other	0	1	4
Total	36	34	31

The New York commercial banks ranking of agricultural enterprises, based on their contribution to loan volume, corresponds closely with the 1987 Census of Agriculture (U.S. Department of Commerce, Bureau of the Census) ranking based on the market value of agricultural products sold. The 12 largest selling commodities are listed in Table 2.

Taking into account the fact that the vast majority of cattle and calves sales listed in the census are from dairy farms (the exact level of

these sales cannot be calculated from census data), the two farm enterprises with the largest product sales value were dairy and field crops. There were two notable differences between the bankers and census rankings. One was the low ranking of the horse enterprise in the census (the market value of horses and ponies sold was $32 million in 1987), versus the banks relatively high ranking. The other incongruence was the high ranking of the nursery and greenhouse enterprise in the census, versus the relatively low ranking by bankers. This may be due in part to the fact that the census category, "nursery and greenhouse," included more enterprises than the bankers survey identification "nursery."

Table 2. *Ranking of Agricultural Enterprises by Market Value of Agricultural Products Sold New York, 1987*

Product	Sales
	-Million-
Dairy	$1,343,700
Cattle and calves[a]	210,400
Field Crops[b]	180,300
Nursery and greenhouse	168,200
Vegetables, sweet corn and melons	158,500
Fruits, nuts and berries	144,200
Other livestock and livestock products[c]	96,200
Poultry	90,300
Other crops[d]	50,100
Total	$2,441,900

[a] Includes sale of cull dairy cattle that account for the majority of these sales.
[b] Includes grains, hay, silage and field seeds sales.
[c] Includes sales of horses, swine, sheep, goats, mink, bees, etc.
[d] Specific crops not listed in 1987 Census of Agriculture.

Source: *U.S. Bureau of the Census, Census of Agriculture.*

Staffing

Respondents were asked to indicate the amount of time that individual loan officers spent on agricultural lending in 1988. The respondents reported the number of loan officers that fit into each of several percent of time intervals (i.e., from one to 25 percent devoted to agricultural lending, 26 to 50 percent, etc). The number of loan officer equivalents for each bank were computed by multiplying the number of loan officers reported involved with agricultural lending by the midpoint of the range. For example, if one loan officer was reported to be spending one to 25 percent of his/her time on agricultural lending, this would be considered .125 agricultural loan officer equivalents.

These figures were then summed over all officer equivalent ranges to derive the total number of loan officer equivalents per bank. The average

number of loan officer equivalents per bank was 1.5 in 1988. It is important to note that 15 banks had only .25 or fewer loan officer equivalents devoted to agricultural lending. Table 3 presents the number of banks by the size of their agricultural lending staff.

Table 3. *Size of Agricultural Lending Staff New York Banks, 1988*

Loan Officer Equivalents	Number of Banks
0.00 - 0.25	15
0.26 - 1.00	6
1.01 - 2.00	6
2.01 - 3.00	5
3.01 - 7.00	5
Total	37

Loan Officer Performance Appraisal

An important part of staffing is the evaluation of personnel. The evaluation of loan officers can be used to motivate employees and also to evaluate their ability to write loans that conform with lending policy guidelines. Respondents were asked to rank specific performance criteria used to evaluate agricultural loan officers using a scale of one to six (one being the most important). A weighted average of these responses reveals that the most important criterion was the change in the quality of the loan officer's portfolio (Table 4). This was followed somewhat closely by the quality of loan evaluation. The profitability of the loan officer's portfolio ranked a modest third. The change in the loan officers volume of credits was ranked considerably less important than the profitability of the loan portfolio. Finally, sales of nonloan services of the bank and public relations were considerably less important than the other performance criteria.

Table 4. *Loan Officer Performance Evaluation Criteria Weighted Average Ranking*

Criteria	Weighted Average Ranking[a]
Change in quality of loan portfolio	1.95
Quality of loan evaluation	2.38
Profitability of loan officer's portfolio	2.95
Change in loan volume	4.14
Sales of nonloan services of bank	4.74
Public relations	4.83

[a] 1 = most important, 6 = least important.

Agricultural Loan Departments

The presence of an agricultural loan department was the exception rather than the rule for New York commercial banks in 1988. Seventeen of 37[1] banks had an agricultural loan department in 1986. The number of banks with an agricultural loan department decreased by one in 1987, and remained at 16 of 37 banks in 1988.

The mean agricultural loan officer equivalents for the banks with an agricultural loan department was 2.8. This was approximately two times the level of staffing possessed by banks without an agricultural loan department. The vast majority of banks with an agricultural lending department, 14 of 16 banks, had at least one loan officer devoting 76 percent or more of his/her time to agricultural lending. Twelve of these banks had at least one full-time loan officer. Two of the banks possessing an agricultural loan department had a total of .25 loan officer equivalents devoted to agricultural lending. Given the limited amount of human resources devoted to agriculture by these two banks, the long-term viability of these loan departments is questionable. Of the banks without an agricultural lending department, none had a loan officer devoted 100 percent to agricultural lending. In general, the banks with agricultural loan departments devoted more human resources to farm lending and allowed for a greater degree of specialization among their loan officers.

Lending Limits

A relatively small number of banks had a policy that limited the maximum loan balance to a single farm borrower. Six of 37 banks had this policy in 1988. The median[2] lending limit to a single borrower of these banks was $600,000. Seven of the responding banks reported the maximum size loan to a single borrower was the "legal lending limit." As compliance with banking laws was likely the policy of all banks, it is safe to assume that all but the six banks with established lending limits discussed above constrain lending to a single borrower to the legal lending limit.

One bank reported having a policy that specified the maximum balance of the total agricultural loan portfolio. Specifying the maximum percentage of the total loan portfolio that could be comprised of agricultural loans seemed to be the preferred approach to controlling exposure to the agricultural industry. Six banks reported having the

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1 When the frequency of banks possessing a certain attribute is specified, the number following the frequency of the attribute will be the number of respondents to the question (or portion of the question), i.e., 10 of 35 banks should be interpreted as 10 of 35 responding banks.

2 The most appropriate measure of central tendency, the median or mean, will be reported. Factors affecting the most appropriate measure include the number of responses and the skewed nature of observations.

latter policy in 1988. The median percentage of the total loan portfolio that could be represented by agricultural loans (for the five banks responding for all years) was 20 percent in each year over the 1986-88 period. Two additional banks possessed a policy of limiting the agricultural loan portfolio to a percentage of total commercial loans. In total, only nine of 37 banks had specific loan volume guidelines to control exposure to the agricultural industry.

Bank Lending Constraints

Banks with specified agricultural lending limits (i.e., lending policy stated a maximum balance for the agricultural loan portfolio or a maximum percentage of the loan portfolio that could be agricultural loans) were asked if these limits actually constrained loan volume. Seven of the nine banks with established limits responded completely to this question and had these limits in place each year over the 1986-88 period. One of the seven banks reported that specified lending limits actually constrained agricultural lending in 1986 and 1987 and that agricultural loan volume was also constrained by other factors in 1988. Other factors were defined in the survey as "...factors such as bank liquidity, reserve requirements of the Federal Reserve System, loan to deposit ratio or capital constraints." The actions taken by this bank to limit agricultural lending were, (1) to cease lending to new farm borrowers, and (2) "nonperforming borrowers were terminated." Another bank with established lending limits reported agricultural loan volume was limited by other factors over the 1986-88 period. The action taken by this bank was to make credit standards more rigorous. Both of these institutions reported other policy actions later in the survey that would tend to constrain agricultural lending (Table 5).

Banks not having specified lending limits to agriculture (i.e., a maximum balance for the agricultural loan portfolio or a maximum percentage of the loan portfolio that could be agricultural loans was not stated in policy), were asked if loan volume was limited to control exposure of the agricultural loan portfolio to the agricultural industry. Twenty-six of the 28 banks without established agricultural lending limits, responded completely to this question. Five banks reported that agricultural loan volume was limited each year of the 1986-88 period to control exposure to the agricultural industry. One bank reported constraining loan volume to control their exposure to agriculture in 1987 and 1988 (Table 5).

Banks without specified agricultural lending limits, were asked if other factors (described above) limited agricultural loan volume. Six banks reported that at least one of the other factors constrained agricultural loan volume, at some point in time over 1986-88 period. Three banks reported this occurring each year over the 1986-88 period, one bank for the years of 1986 and 1988, and two banks for 1988. Some of the banks that implemented policies to control exposure to the agricultural industry also reported that agricultural loan volume was constrained by other factors.

In total, 10 of 26 banks without an established agricultural lending limit to agriculture reported having constrained agricultural loan volume over the 1986-88 period.

Table 5. *Banks Limiting Agricultural Loans New York Banks, 1986-88*

Bank Characteristics	1986-1988 Agricultural Loan Volume Limited To Control Exposure to Agriculture	1986-1988 Agricultural Loan Volume Limited For Other Reasons[a]	Total Number of Banks Responding
	--Number of Banks--		
Banks with established agricultural loan portfolio limits	1 [b]	1	7
Banks without established agricultural loan portfolio limits	6	6 [c]	26
All Banks	7	7 [c]	33

[a] Other factors include bank liquidity, reserve requirements of the Federal Reserve System, loan to deposit ratio and capital constraints.
[b] Limited by policy limit on total agricultural loan volume.
[c] Includes two banks that limited total agricultural loan volume to control exposure to agriculture.

The most common approach to constrain agricultural loan volume was to strengthen credit standards. Six banks reported using this strategy. Three banks reported ceasing lending to new borrowers, one sold loan participations, one implemented a "follow down policy on poorer risks" (i.e. no new loans to poorer risk borrowers) and one reported accepting new borrowers only with FmHA guarantees. Investigation of other policy changes addressed by other sections of the survey instrument showed that all of these banks implemented more conservative lending policies over the 1986-88 period. It is important to note that none of these banks implemented a more conservative policy comprehensively (i.e., only a small number of policy variables that were investigated by the survey instrument changed over the 1986-88 period).

In summary, one bank experienced constrained agricultural loan volume due to established lending limits and six banks without established limits reported limiting agricultural loan volume to control exposure to the agricultural industry in 1988. This represents seven of 33 banks that responded completely to this portion of the survey.

Eight of the 33 banks reported that other factors (such as bank liquidity, reserve requirements of the Federal Reserve System, etc.) actually constrained agricultural loan volume.

In total, 12[3] of the 33 banks, 36 percent, reported having constraints to agricultural lending in 1988. This was a relatively large proportion of banks and may have negatively impacted the availability of credit by farmers. It may also have an adverse effect on the ability of New York Commercial banks to implement a consistent lending policy over a period of years.

Loan Officer Lending Limits and the Loan Referral Process

Loan Officer Lending Limits

The vast majority of banks, 34 of 37, reported having an established loan amount that a typical loan officer could lend at his/her sole discretion in 1988. The median lending limit for a loan officer was $50,000 from 1986-88. Table 6 provides a distribution of loan officer lending limits in 1988. Only three of 33 banks responding for all years, reported a change in the typical loan officer's lending limit over the 1986-88 period. Two banks reported increasing the limit and one bank reported decreasing it.

Table 6. *Loan Officer Agricultural Lending Limits New York Banks, 1988*

Maximum Size Agricultural Loan	Number of Banks
$ 0 - 20,000	6
20,001 - 30,000	2
30,001 - 40,000	4
40,001 - 50,000[a]	11
100,000	3
150,000	2
200,000 and over	6
Total	34

[a] Ten of the 11 banks had a lending limit of $50,000.

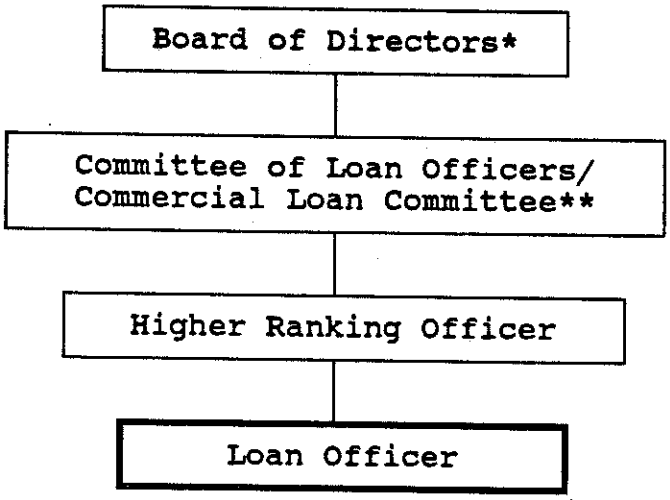
Loan Referral Process

Once a loan officer's lending limit was exceeded, a process of loan referral began. It is important to note that the maximum size loan that could be approved by a person or committee did not increase in all cases

[3] These numbers are not additive because some banks (without established lending limitations) reported that both the strategy of limiting exposure of the bank's loan portfolio to the agricultural industry, and other factors, led to constrained agricultural lending.

when moving up the referral hierarchy. This suggests that in some cases criteria other than the size of the loan request were considered when determining if a loan should be referred. The organizational structure of the bank played an integral role in this referral process. Almost every bank reported a unique hierarchy of loan referral, however, by combining committees of similar nature, two procedures were identified. The first procedure contained three referrals that began with a higher ranking officer, then moved to a committee of loan officers (three banks) or commercial loan committee (two banks), and finally was referred to the board of directors (three banks), senior loan committee (one bank), or executive committee (one bank). This loan referral process was used by five banks in 1988 (Figure 1).

Figure 1. *Hierarchy of Loan Referral Three Step Procedure Five New York Banks, 1988*

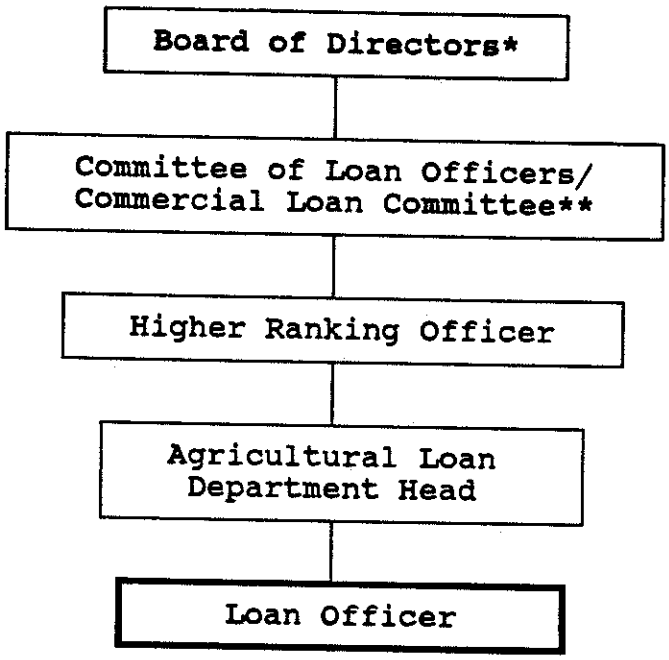


* Board of Directors (three banks), senior loan committee (one bank), executive committee (one bank).

** Committee of loan officers (three banks), commercial loan committee (two banks).

The second loan referral hierarchy consisted of a four steps, very similar to the one discussed above. The major difference was that it began with the agricultural loan department head, then moved to a higher ranking officer, a committee of loan officers (three banks) or the commercial loan committee (two banks), and finally, was referred to the board of directors (one bank reported using a Directors loan committee rather than the full board of directors). This loan referral process was used by five banks in 1988 (Figure 2).

Figure 2. *Hierarchy of Loan Referral Four Step Procedure Five New York Banks, 1988*



* Board of Directors (four banks), Directors loan committee (one bank).

** Committee of loan officers (three banks), commercial loan committee (two banks).

The maximum number of loan referrals ranged from a one to four. Table 7 illustrates the distribution of banks associated with a specified maximum number of loan referrals.

Table 7. *Distribution of Banks by Maximum Number of Referrals Per Loan New York Banks, 1988*

Number of Referrals	Number of Banks
1	2
2	3
3	9
4	9
Total	23

Terms of Credit

Loan Pricing

Interest Rate Spreads. Interest rate spreads, over the national prime rate, for real estate loans were relatively stable over the 1986-88 period. The mean spread for real estate loans in 1988 was 160 basis points (one percent of interest = 100 basis points). The spread decreased by 15 basis points on real estate loans from 1986 to 1988 (Table 8). Eight banks reported narrower spreads in 1988 than in 1986 while four banks reported larger spreads. Fifteen banks reported no change in interest rates spreads on real estate loans over the 1986-88 period.

The mean spread of 28 New York banks for machinery, equipment and expansion livestock (M&E) loans, was 182 basis points in 1988. Respondents reported an 11 basis point narrowing of interest rate spreads on loans for M&E loans from 1986 to 1988 (Table 8). Eight banks reported decreasing their interest rate spread, four times the number that increased spreads. The remaining 17 banks reported no change in spreads over the 1986-88 period.

Table 8. *Interest Rate Spreads*
27 New York Banks

Year	Real Estate Loans	Machinery, Equipment, Livestock Loans
	--Basis Point Spread[a]--	
1988	160	182
1987	167	186
1986	175	194

[a] Over the national prime rate.

Differential Pricing. Differential pricing (sometimes referred to as tier rate structuring) on real estate loans was used by nine of 34 responding banks in 1988. The number and percentage of banks using differential pricing increased only slightly (from eight to nine) over the 1986-88 period.

Differential pricing was more common on M&E loans where 13 of 33 banks reported having this policy in 1988. As with real estate loans, the number of banks using differential pricing increased only slightly (from 12 to 13 banks) over the 1986-88 period.

It appears that use differential pricing for both types of loan categories outlined above was the exception rather than the rule. There was no evidence of a substantial movement toward the adoption of a differential rate policy over the 1986-88 period.

Fixed Interest Rates. The number and percentage of banks that offered fixed interest rate real estate loans, where the interest rate was fixed over the entire length of the loan, decreased over the 1986-88 period. In 1986, 11 of 36 banks offered fixed rate real estate loans. The number of banks offering a fixed rate declined to eight of 36 banks in 1988. The mean term over which real estate loans were amortized by banks offering a fixed rate in 1988 was 15.6 years.

A trend away from fixed rates also was apparent with respect to M&E loans. Twelve of 35 banks offered fixed rate M&E loans in 1986. In 1988, the number of banks offering fixed rate M&E loans decreased to 10. The mean term over which M&E loans were amortized by banks offering a fixed rate was 5.5 years in 1988.

The decrease in the number of banks offering fixed rate loans may have resulted from the desire of banks to transfer interest rate risk from the bank to the borrower. One bank reduced interest rate risk by decreasing the term over which loans were amortized, rather than dropping their fixed rate policy.

Amortization Period

Twenty-eight of 34 banks amortized most of their real estate loans over a 15 or 20 year period in 1988. The mean amortization period was 16.1 years. The amortization period decreased by a rather small 0.6 years from 1986 to 1988. The change was only 0.2 years excluding one bank that reduced its amortization period from 30 to 15 years. Over the 1986-88 period, four of 36 banks responding for all years, decreased the amortization period for which real estate loans were written and one bank increased the amortization period. The remaining 31 banks reported a constant amortization period over 1986-88.

Thirty-four of 36 banks, amortized most of their M&E loans over a five to seven year period in 1988. From 1986 to 1988 the mean amortization period decreased by 0.5 years, to 5.8 years (36 banks responded for all years). The change was only 0.1 years excluding one bank that reduced its amortization period from 20 to seven years. The mean period for which M&E loans were amortized, decreased for three banks and increased for one. The amortization period of the remaining 32 banks remained unchanged.

In summary, it appears that commercial banks offer very similar amortization schedules to borrowers. It is also apparent that the vast majority of banks held a very consistent policy during the 1986-88 period with regard to loan amortization.

Collateral

All of the 32 responding banks (those that responded for all years) had a policy of allowing lending against farm real estate, machinery and equipment over the 1986-88 period. Approximately 82 percent of the responding banks accepted expansion livestock as collateral over the 1986-88 period. The majority of banks had a policy that did not allow lending

against growing grain crops; and grain, silage and hay in storage (Table 9).

Table 9. *Proportion of Banks Accepting Assets as Collateral by Asset Type New York Banks*

Type of Asset	Year 1988	1987	1986
	--Percentage of Banks--		
Real estate	100	100	100
Machinery and equipment	100	100	100
Expansion livestock	82	82	81
Grain in storage	34	35	36
Growing grain crops	29	29	30
Silage in storage	17	21	21
Hay in storage	17	21	21

The maximum loan as a percent of asset market value (nondistress sale) varied little from one year to the next, over the 1986-88 period. Four of the 32 responding banks responding for all years reduced the maximum loan as a percent of asset value (loan to value ratio), for at least one asset category. Three banks reduced their loan to value ratio for all loan categories accepted as collateral. One bank slightly increased the loan to value ratio for one category of asset and decreased the ratio substantially for another. The loan to value ratio varied considerably with the asset category in question. Real estate was considered the best collateral, having a mean loan to value ratio of 73 percent in 1988. The least desirable types of collateral were crops, either growing or in storage. The mean loan to value ratio used by banks accepting crops as collateral, was approximately 53 percent in 1988. The rather extreme variability in mean loan to asset value illustrates that New York commercial banks perceive significant differences in the value of various types of collateral. Table 10 presents the mean loan to value ratio used by New York commercial banks for assorted types of farm assets. Only banks accepting the asset as collateral were included in the calculation of these ratios.

Security

Writing unsecured loans was allowed by 27 of 37 banks in 1988. Twenty-eight of 37 banks had this policy in 1986 and 1987. Respondents were not requested to make written comments regarding this policy, but three felt it necessary to qualify their response regarding the writing of unsecured loans. One bank stated that writing these loans was not typical. Another stated that writing unsecured loans was very limited and the third stated this practice was only acceptable for small loans. As it is general

banking practice to collateralize loans, it is safe to infer that these sentiments held for most of the banks that allowed unsecured loans. It is important to note, however, that these banks allowed loan officers some flexibility in this respect.

Table 10. *Maximum Loan as a Percentage of Asset Market Value New York Banks*

Type of Asset	Year 1988	1987	1986
	--Mean Percentage of Asset[a]--		
Real estate	73	73	74
Machinery and equipment	68	69	70
Expansion livestock	65	66	66
Grain in storage	55	57	59
Growing grain crops	54	56	58
Silage in storage	51	55	57
Hay in storage	53	56	58

[a] For banks accepting the asset as collateral.

Farmers Home Administration Loan Guarantee Program

The Farmers Home Administration (FmHA) offers programs whereby they provide banks with a 90 percent guarantee on loans to qualifying farmers. One of the purposes of this program is to reduce the risk of lending to certain agricultural borrowers, so that banks can extend credit that would be denied in the absence of the program. In 1988, 27 of 37 responding banks had a policy allowing the writing of FmHA guaranteed loans. It is important to note that the number of banks with this policy increased from 22 of 35 banks in 1986. However, two of the banks which allowed FmHA guaranteed loans in 1988 did not report for the years 1986 and 1987. Therefore, the increase in the number of banks with this policy may be overstated. A summary of these responses is listed in Table 11.

Table 11. *Banks Allowing Use of Farmers Home Administration Loan Guarantee Program New York*

Year	Banks Allowing Use Number	Percent	Number of Respondents
1988	27	73	37
1987	24	69	35
1986	22	63	35

The presence of a policy allowing the writing of FmHA guaranteed loans is only part of the question. A bank's receptiveness to the program may be better measured by their writing of such loans, recognizing that the writing of these guaranteed loans was also dependent on demand, and the actions of FmHA. In 1988, 20 of the 36 responding banks, stated that they wrote FmHA guaranteed loans over the year. Participation in this program increased from 1986 when 18 of 35 banks wrote FmHA guaranteed loans (Table 12).

Table 12. *Banks Writing Farmers Home Administration Guaranteed Loans New York*

Year	Banks Writing FmHA Loans		Number of Respondents
	Number	Percent	
1988	20	56	36
1987	17	50	34
1986	18	51	35

Loan Analysis

Ranking of Financial Ratio Categories

Respondents were asked to rank four categories of financial ratios, in order of importance (one being the most important and four the least important) when evaluating a loan request. The four categories were capital efficiency, liquidity, profitability, and solvency. Profitability was ranked as most important, followed by solvency, liquidity and capital efficiency. The fact that solvency was ranked as more important than liquidity is surprising. Current literature tends to promote a movement away from the collateral based lending of the 1970's, toward an emphasis on liquidity. This may be due in part to the confusion over the definition of liquidity. In addition, it may be that lenders are using profitability as a measure of repayment ability. A summary of the respondents ranking of these loan evaluation factors is shown on Table 13.

To help identify the reason for the ranking provided, participants at the "1989 Annual Agricultural Action Bankers Meetings" sponsored by the New York State Bankers Association, were given two definitions of liquidity. The submitted definition that was used by a wide majority of those in attendance was "the ability of a firm to generate cash through the sale of assets without significant loss."[4] This is a balance sheet definition of

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[4] This definition of liquidity was adapted from that submitted by Downes and Goodman (p. 213), the "ability of an individual or company to convert assets into cash or cash equivalents without significant loss."

liquidity. Two ratios commonly used to measure liquidity based on this definition are the current ratio and the acid-test ratio. The other definition submitted was "the ability of a business to meet financial obligations as they come due."[5] This definition was not in common use by the group, but, is supported by current literature and will be the definition used in subsequent discussion. Under this definition, liquidity is commonly measured by the cash flow coverage ratio. This definition also allows for the use of liquidity ratios listed under the former definition of liquidity. The fact that the lenders definition of liquidity did not include the cash flow coverage ratio may be one reason that liquidity was raked third in importance when evaluating a loan request.

Those in attendance were in almost total agreement that the solvency definition they used was "the ability of the business to pay off all debts through the sale of assets."[6] The opposing definition of solvency submitted was "the longer term ability of being able to meet maturing obligations as they come due"[7] was not preferred. The former definition will be used in subsequent discussion.

Downes and Goodman (p. 310) define profit as the "positive difference that results from selling products and services for more that the cost of producing these goods." Profitability based on this definition, is the ability of a business to generate a profit. An unpublished definition of capital efficiency submitted by LaDue is "the degree to which the operator uses capital resources to achieve the desired result with out waste of effort or resources."[8] Later discussion will be based on these definitions of profitability and capital efficiency.

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5 This definition of liquidity is supported by that of Barry, Hopkin and Baker (p. 73), "...the firm's capacity to generate sufficient cash to meet its financial commitments as they become due."

6 This definition of solvency is supported by that of Lee, Boehlje, Nelson and Murray (p. 152), "...the margin by which debt obligations would be covered if the business was terminated and all assets sold."

7 This definition of solvency was drafted from discussion on solvency by Bierman and Smidt (p. 548), "...some analysts prefer the term solvency when the analysis is measuring the long-run survival ability of the firm. And a definition submitted by Downes and Goodman (p. 385), a "state of being able to meet maturing obligations as they come due." The Downes and Goodman definition makes no reference to time as with the Bierman and Smidt discussion. This element was added to differentiate the Downes and Goodman definition of solvency from the definition of liquidity submitted by Barry, Hopkin and Baker.

8 This definition is supported by a less descriptive one submitted by Lee, Boehlje, Nelson and Murray (p. 176) "...the efficiency with which capital is being employed in the business."

Table 13. *Ranking of Loan Evaluation Categories New York Banks, 1988*

Category	Rank[a] 1	2	3	4	Weighted Average Ranking
	--Number of Banks--				
Profitability	20	9	2	2	1.6
Solvency	11	11	9	2	2.1
Liquidity	1	8	16	8	2.9
Capital efficiency	1	5	6	21	3.4
Total	33	33	33	33	

[a] 1 = most important, 4 = least important.

Ranking of Financial Ratios

Survey participants were asked to rank eight financial ratios, in order of importance (one being the most important and eight the least important) when evaluating a loan request. Each of the four financial ratio categories, capital efficiency, liquidity, profitability and solvency, were represented by two commonly used financial ratios. The respondents rated the cash flow coverage ratio and the current ratio, measures of liquidity, as the first and third most important ratios, respectively, when evaluating a farm loan. Percent equity and the long-term debt to asset ratio, measures of solvency, were ranked as the second and fourth most important ratios, respectively. The profitability measures, rate of return on total assets and rate of return on equity, were ranked as the fifth and seventh most important ratios, respectively. Finally, the capital efficiency ratios, total investment per unit of primary enterprise and turnover ratio, were ranked as the sixth and eighth most important ratios, respectively. Table 14 summarizes the lenders ranking of the importance of financial ratios when evaluating a loan request.

This ranking of financial ratios is not consistent with the survey respondents ranking of importance of the financial ratio categories discussed earlier. Based on the ranking of financial ratios, liquidity was the most important financial ratio category and profitability was ranked third. When asked to evaluate financial ratio categories (discussed earlier) profitability was ranked as most important and liquidity was ranked third. This is apparently explained by the fact that the cash flow coverage ratio was not considered a measure of liquidity. This was evidenced by the fact that based on the definition of liquidity used by lenders attending the Action Bankers Meeting, liquidity is measured using balance sheet ratios, not cash flow ratios. A second reason for this inconsistency is that survey respondents may consider the cash flow coverage ratio a measure of profitability. When asked at the Action Bankers meeting what financial ratios would be used to measure

profitability, there appeared to be some preference for the cash flow coverage ratio. The cash flow coverage ratio does not directly measure profitability. There is a large difference between net income and cash available to meet debt commitments as they come due. What lenders may have been considering was the correlation between profitability and positive cash flow.

Table 14. *Ranking of Loan Evaluation Ratios New York Banks, 1988*

Financial Ratio	Weighted Average Ranking[a]	Category
Cash flow coverage ratio	1.3	Liquidity
Percent equity	2.6	Solvency
Current ratio	3.8	Liquidity
Long-term debt to asset ratio	4.9	Solvency
Return on assets	5.7	Profitability
Total investment per unit of primary enterprise	5.7	Capital Efficiency
Return on equity	5.9	Profitability
Capital turnover	6.2	Capital Efficiency

[a] 1 = most important, 8 = least important.

Survey respondents were consistent in their ranking of financial ratios used to measure solvency and capital efficiency when compared to their previous ranking of financial ratio categories. Capital efficiency, as measured by total investment per unit of primary enterprise and capital turnover, was again ranked of least importance when evaluating a loan.

Minimum Cash Flow Coverage Ratio

The level of liquidity required of farm borrowers was investigated by asking banks if a minimum cash flow coverage ratio was required. If they had such a requirement, they were asked to indicate the required level. The cash flow coverage ratio is commonly defined as the projected amount of cash available for debt service divided by planned debt payments (personal withdrawals from the business must be accounted for when deriving cash available for debt service). Fourteen of 36 responding banks stated they had a required minimum cash flow coverage ratio in 1988. In the case where banks did not have a required minimum, respondents were asked to provide the minimum cash flow coverage ratio below which they would not likely extend credit. This question is important since some banks use a credit scoring system that involves deriving a weighted average of borrower attributes. The cash flow coverage or other financial ratio may not in itself disqualify a loan. Other banks may not have an established minimum,

but, may in fact use the ratio when evaluating a loan. Eight banks provided a minimum cash flow coverage ratio below which they would likely not lend. The mean of the responses of the two groups were approximately the same. For this reason, figures presented in Table 15 include the responses of both groups. The median cash flow coverage ratio was 1.1 in 1988, and 1.05 in 1987 and 1986.

Table 15. *Minimum Allowable Cash Flow Coverage Ratio New York Banks, 1988*

Minimum Cash Flow Coverage Ratio	Number of Banks
1.00	9
1.01 - 1.10	3
1.11 - 1.20	4
1.21 - 1.30	3
1.31 or greater	3
Total	22

Three banks reported evaluating the liquidity of a borrower by examining cash available for debt service and business draw. No ratio was calculated by these banks and no level of margin was specifically stated. One bank reported using the "accrual ability to pay," in addition to the cash flow coverage ratio. One bank that implemented the cash flow coverage ratio requirement in 1988 had previously used "loan to value" as a measure of liquidity. The loan to value ratio is a solvency measure. For this reason, it appears this bank made the appropriate decision to implement the cash flow coverage ratio as a liquidity requirement. The other bank that implemented a required cash flow coverage ratio in 1988 had previously used the "economy" and "projections" as measures of liquidity. Finally, one bank for which a minimum cash flow coverage ratio was not required, indicated that a maximum level of debt per cow was used as a liquidity requirement. Debt per cow is one form of the debt per unit of primary enterprise ratio, which is a measure of liquidity. Other banks may be using the debt per cow ratio, but, this ratio was not specifically addressed by the survey and only one bank that stated having this requirement.

Minimum Percent Equity

Twelve of the 37 responding banks stated that they had a required minimum percent equity for farm borrowers. Banks not having an established percent equity requirement were asked to state the percent equity below which a loan would likely not be approved. As with the cash flow coverage ratio, the mean of the responses of the two groups were approximately the same. Figures presented in Table 16 include the responses of both groups.

Table 16. *Minimum Allowable Percent Equity*
New York Banks, 1988

Minimum Percent Equity	Number of Banks
Below 20%	2
21 - 30	12
31 - 40	5
41 - 50	7
51 or greater	2
Total	28

The mean minimum percent equity reported by 28 respondents (those with and without a written requirement) in 1988, was 37 percent. This was only a slight increase from 1986 and 1987, when the required percent equity was 36 percent (the number of respondents in 1986 and 1987 was 26 and 27, respectively). Other reported measures of solvency were debt per cow (three banks) and the value of loan to security (three banks). Debt per cow is a measure of liquidity. In total, five banks reported using some measure of liquidity (cash flow coverage or similar ratio) as a measure of solvency. Although participants of the "Action Bankers Meeting" were in general agreement on the definition of solvency, it appears that respondents to the survey had varying definitions. This is not surprising as the current literature seems to be divided on this definition. Discrepancies in current literature appear to follow through into the financial institutions surveyed. Indeed it may be part of the problem. Standardization of these basic terms is in the best interest of all involved with the financial industry.

Lending Policy to Existing and New Farm Borrowers

The general disposition of banks with regard to farm lending over the 1986-88 period was investigated. This was accomplished by asking lenders if they lent to specific categories of farmers over the 1986-88 period. See Table 17 for a summary of these results.

Twenty-five banks responded completely to questions regarding lending to **existing** borrowers. Only the responses of these banks will be reported so that changes in lending policy will be accurately identified.

All of the 25 responding banks extended new loans to existing accounts over the 1986-88 period. A modest three banks limited those loans only to existing borrowers with outstanding credit ratings in 1987 and 1988. Two banks had this policy in 1986.

Nine of the banks made new loans to existing borrowers only if they had average or better credit quality over the 1986-88 period.

Table 17. *Frequency of Use Specific Lending Strategies New York Banks*

Lending Strategy	Year 1988	1987	1986
	--Number of Banks--		
To Existing Farm Accounts			
Extended no new loans	0	0	0
Extended loans only to borrowers with outstanding credit rating	3	3	2
Extended loans only to borrowers with average or better credit rating	9	9	9
Extended loans to all borrowers except those with marginal credit rating	13	13	14
Total number of responding banks	25	25	25
To New Farm Accounts			
Accepted no new accounts	1	2	1
Extended loans only to borrowers with outstanding credit rating	5	4	3
Extended loans only borrowers with average or better credit rating	13	14	16
Extended loans to borrowers except those with marginal credit rating	10	9	9
Total number of responding	29	29	29

Finally, 13 banks had a policy of lending to all existing borrowers except those with marginal credit rating in 1987 and 1988. This decreased slightly from 14 banks in 1986.

Twenty-nine banks responded completely to questions regarding the lending strategy of lending to new borrowers. Only the responses of these banks will be reported.

Only two banks accepted no new farm accounts at some point in time during 1986 to 1988. One bank had this policy in 1986 and 1987, another during 1987 and 1988.

Five banks had a policy of extending new loans to potential farm borrowers only if they possessed an outstanding credit rating. This number increased from 1986 when three banks had this policy.

Thirteen banks followed a strategy of lending to new borrowers only if they possessed average or better credit quality. The number of banks lending to this category of borrower decreased from 16 in 1986.

The number of banks lending to all new borrowers with better than marginal credit rating increased only slightly over the 1986-88 period. The number of banks lending to this category of borrower increased to 10 in 1988 from nine in 1986.

Overall, the lending strategies relating to existing and new farm borrowers showed a modest trend toward more conservative lending policies.

Financial Statement Requirements and Preparation

Requirements

Respondents were asked to report the frequency with which selected financial statements and associated documents were required of farm borrowers. Four responses were allowed; always, most of the time, sometimes and never. A response of always was assigned a value of 1, most of the time - 2, sometimes - 3, and never - 4. Table 18 shows the number of banks by the frequency with which these financial statements were required and the weighted average of these responses. It can be seen by the weighted average frequency calculation that balance sheets, income statements, and previous income tax returns were required most of the time. Monthly cash flow budgets were required relatively infrequently. The other statements were sometimes required.

Table 18. *Frequency with Which Selected Financial Statements were Required New York Banks, 1986-88*

Statement	Always	Most of the Time	Sometimes	Never	Weighted Average[a]
	--Number of Banks--				-Ranking-
Balance sheet and income statement	34	3	0	0	1.1
Proforma balance sheet	3	5	21	6	2.9
Proforma income statement	3	9	22	2	2.6
Annual cash flow budget	8	11	11	6	2.4
Monthly cash flow budget for next year	0	2	18	16	3.4
Previous income tax return/s	22	10	4	0	1.5
Profitability of the capital investment for which loan proceeds will be used	4	9	14	9	2.8

[a] Always = 1, Most of the time = 2, Sometimes = 3, Never = 4.

Preparation

Respondents were then asked to state the frequency with which balance sheets and income statements were prepared by the farmer, lender or accountant using the same scale outlined above (Table 19). In addition, respondents were asked to state the frequency with which these financial statements were audited.

Table 19. *Preparer of Balance Sheets and Income Statements New York Banks, 1986-88*

Preparer	Always	Most of The Time	Sometimes	Never	Weighted Average[a]
		--Number of Banks--			-Ranking-
Farmer	3	25	8	0	2.1
Lender	0	6	18	10	3.1
Accountant	1	4	29	3	2.9
Audited	0	0	12	24	3.7

[a] Always = 1, Most of the time = 2, Sometimes = 3, Never = 4.

It appears that the farmer was responsible for preparing his/her balance sheet and income statement in most cases. Sixty-nine percent of respondents (25 of 36 banks) reported that farmers prepared these statements most of the time. In contrast 53 percent (18 of 34 banks) reported that the lender sometimes prepared these statements. It is important to note that 29 percent (10 of 34 respondents) of commercial banks stated that they never prepare the balance sheets and income statements. Only 18 percent of respondents (six of 34 banks) stated that the bank completed these statements most of the time. The vast majority of respondents, 78 percent (29 of 37 banks), stated that balance sheets and income statements were sometimes completed by accountants. Finally, 67 percent of respondents (24 of 36 banks) stated that balance sheets and income statements were never audited. The remaining lenders responded that these statements were sometimes audited.

Required Cash Flow Statements

To fully evaluate the liquidity of a borrower, the loan officer must measure the ability of the borrower to meet debt payments as they come due. This may be accomplished through the preparation of a cash flow projection. The situations in which a cash flow statement was required was investigated in the survey. Lenders responded that in 1988, a cash flow projection was required of all farm borrowers by 22 of the 37 responding banks. This was up considerably from 17 banks in 1986 (Table 20).

Table 20. *Frequency with Which Cash Flow Projections are Required New York Banks*

Type of or Borrower	Year 1988	1987	1986
	--Number of Banks--		
All farm borrowers	22	19	17
New borrowers	35	33	31
Total responding banks	37	37	37

A cash flow projection was required of new farm borrowers by 35 of 37 banks in 1988. This represented an increase from 31 banks in 1986. Projection of cash flows appears to be more important for new farm borrowers than all farm borrowers. There are two possible reasons for this. First, lenders generally know less about new borrowers than existing ones. It may be that after the borrower/lender relationship was established, documentation requirements were relaxed. Second, in cases where the requirement of a projected cash flow statement was a newly implemented policy, lenders may have been working this into their system, beginning with new borrowers. It may be that the banks did not want to alienate existing customers who had not previously been required to submit cash flow projections.

Advertising and Promotion of Agricultural Loans

Advertising

Advertising the availability of agricultural loans appeared to be focused on the print media. One bank reported using radio advertising on a monthly basis in 1986 and 1987. Another bank reported using radio on an annual basis over the 1986-88 period. No banks reported using television to advertise agricultural loans from 1986-88.

Print media were used by 16 of 36 banks to advertise loans in each year over the 1986-88 period (Table 21). The frequency of using print advertising in 1988 was almost evenly distributed between monthly, quarterly and annually. There appears to be a trend of moving from monthly and annual advertising, to a quarterly advertising program (Table 22).

Promotion

Many banks promoted agricultural loans in ways other than media advertising. The strategy of visiting existing farm borrowers to encourage them to increase their loan balance with the bank was implemented by six of 34 responding banks, in 1988. This was up only slightly from 1986 when five banks used this strategy.

Table 21. *Use of Selected Media to Advertise Agricultural Loans*[a] *New York Banks*

Media	Year 1988	1987	1986
	--Number of Banks[b]--		
Print	16	16	16
Radio	1	2	2
Television	0	0	0
Did not advertise	20	20	20
Total responding banks[c]	36	36	36

[a] Advertised annually or more frequently.
[b] The total number of banks using various media exceeds 36 because banks using radio advertising also used the print media.
[c] The the number of banks responding to the radio portion of this question was 35.

Table 22. *Frequency of use of Print Media to Advertise Agricultural Loans New York Banks*

Frequency	Year 1988	1987	1986
	--Number of Banks--		
Monthly	6	8	8
Quarterly	5	4	2
Annually	5	4	6
Did not use	20	20	20
Total responding	36	36	36

There appears to be a modest trend toward offering reduced rates to new agricultural borrowers over the 1986-88 period. In 1988, five of 34 responding banks, offered reduced rates to new farm borrowers. This increased from 1986 when three banks used this strategy.

Making cold calls (i.e., unannounced visits) on potential farm borrowers was used by 16 of 34 responding banks in 1988. The use of cold calls increased slightly from 14 banks in 1986.

Attendance of loan officers at farm meetings was a required by a vast majority of responding banks. Loan officers from 26 of 34 banks attended farm meetings in 1988. This represented a slight increase from 1986 when 24 of 34 banks reported their loan officers attended farm meetings.

Finally, farm meetings were sponsored by nine of 34 banks in 1988. This increased from seven of 34 banks in 1986.

Risk, Profitability and Agricultural Loan Volume Goals

Perceived Relative Risk of Agricultural Lending

Risk is one of the factors banks consider when pricing a loan. Risk may also be considered when a bank is deciding whether or not to lend to a certain industry, or when determining the percentage of the loan portfolio a certain loan category may comprise. Perceived risk is important to farmers in that it may affect their access to, and cost of, borrowed capital. Respondents were asked to rank four loan categories in order of risk (one being the loan category of most risk and four being the loan category of least risk) during the 1986-88 period. They were asked to respond on the basis of their own perception. It was assumed that the perception of respondents would reflect the perception of decision makers who were responsible for establishing agricultural lending policy. The loan categories were real estate, commercial, agriculture, and consumer. Risk was not specifically defined in the survey instrument. It is assumed that the respondents based their response on the total relative risk of these loan categories, including default and interest rate risk. The relative risk ranking, based on a weighted average calculation, is shown in Table 23.

Table 23. *Perceived Relative Risk of Selected Categories of Loans New York Banks, 1986-88*

Category	Rank[a] 1	2	3	4	Weighted Average Ranking
	--Number of Banks--				
Consumer	15	9	9	1	1.88
Agriculture	12	6	13	3	2.18
Commercial	6	17	9	2	2.24
Real estate (nonfarm)	1	2	3	28	3.71
Total respondents	34	34	34	34	36[b]

[a] 1 = most risk, 4 = least risk.
[b] Two banks indicated tie rankings, they are included in the weighted average at the midpoint between the rankings.

Consumer lending was considered the loan category of most risk. Real estate lending was ranked, by a wide margin, the loan category of least risk. Agriculture and commercial loans were closely rated when observing the weighted average figures. However, the number of banks ranking agricultural loans in the greatest risk category was twice that of commercial loans and almost equal to that of consumer loans. Twelve of 36 banks ranked agriculture as being the loan category of greatest risk. This may have had important ramifications relative to the accessibility and cost of capital to farmers over the 1986-88 period and may impact the same in the future.

Perceived Relative Profitability of Agricultural Lending

Risk is only one of many factors used in evaluating the attractiveness of a category of loans. The bottom line in the analysis is profitability. Respondents were asked to rank the same four categories of loans, in order of profitability (one being the most profitable loan category and four being least profitable). Again this was based on their perception of the profitability of these loan categories over the 1986-88 period. The weighted average profitability rating showed that respondents perceived consumer loans to be the most profitable loan type, followed closely by commercial loans. Real estate loans were ranked considerably less profitable than commercial loans and agricultural loans were ranked the least profitable loan category. A close examination of Table 24, shows that consumer loans were ranked most profitable three times as often as agricultural loans. Real estate and commercial loans were ranked the most profitable loan category approximately twice as frequently as agricultural loans. This relatively low ranking of agricultural loans likely results, at least in part, from the fact that many farming enterprises were economically depressed in the early and mid 1980's.

Table 24. *Loan Officers Perception of the Relative Profitability of Selected Categories of Loans New York Banks, 1986-88*

Category	Rank[a] 1	2	3	4	Weighted Average Ranking
	--Number of Banks--				
Consumer	13	8	8	3	2.07
Commercial	8	11	10	3	2.26
Real estate (nonfarm)	7	6	7	12	2.66
Agriculture	4	7	7	14	3.00
Total respondents	32	32	32	32	34[b]

[a] 1 = most profitable, 4 = least profitable.
[b] Two banks indicated tie rankings, they are included in the weighted average at the midpoint between the rankings.

Agricultural Loan Volume Goals

Respondents were asked to report their bank's goal relative to agricultural loan volume. One would expect other lending policies to reflect this goal. Therefore, commercial banks loan volume goals may have affected farmers access to, and the terms associated with, borrowed capital. In 1988, 15 of 35 banks had a goal of increasing agricultural loan volume. About an equal number of banks, 16 of 35, stated that their goal was to have no change in agricultural loan volume. Five of 35 banks stated that their goal was to decrease agricultural loan volume. The number and percentage of banks with the various goals remained relatively unchanged over the 1986-88 period (Table 25).

Table 25. *Banks Goal Relative to Agricultural Loan Volume New York Banks*

Agricultural Loan Volume Goal	Year		
	1988	1987	1986
	--Number of Banks--		
Increase	15	16	15
No change	16	15	15
Decrease	4	4	5
Total responding	35	35	35

These results are interesting in that a significant number of respondents perceived agricultural lending to be relatively risky and not very profitable over the 1986-88 period. It may be that these banks were expecting better economic times for the dairy and field crop enterprises.

SUMMARY AND CONCLUSIONS

The agricultural lending policy of New York commercial banks shows great diversity. Although some characteristics of policy exhibited more bank to bank variability than others, the net effect of all differences imply substantial diversity.

The banks agricultural lending staff varied from very small (less than .25 loan officer equivalents) to relatively large (seven loan officer equivalents). Forty-three percent of the banks had agricultural loan departments. Loan officer lending limits ranged from zero to over $200,000. Once this lending limit was exceeded, a process of loan referral was initiated. The loan referral process was quite varied, ranging from one to four referrals. One of two similar loan referral processes were used by many banks. One of these consisted of three referrals and the other four.

One-third of the banks constrained agricultural lending over the 1986-88 period. About half of these limited agricultural loans to control exposure to agriculture. The rest limited such loans for other reasons.

Terms of credit was one area where banks had similar policies. The spread above the national prime rate in 1988 averaged 160 basis points for real estate loans and 182 basis points for machinery, equipment, and livestock (M&E) loans. A few banks had considerably higher or lower spreads, but the majority priced their loans close to this figure. The trend over the 1988-89 period was toward a narrowing of spread. Roughly one-fifth of banks offered a fixed rate on their real estate loans and one-third offered fixed rate M&E loans. The general trend was away from offering fixed rates.

The amortization period associated with real estate and M&E loans was similar for nearly all banks. In 1988, almost all banks amortized real estate loans over a 15 or 20 year period and the vast majority of banks amortized M&E loans over five to seven years.

The types of assets accepted as collateral and the loan to asset ratios associated with these assets varied considerably. All banks accepted real estate and machinery and equipment as collateral. The loan to asset ratios associated with these were fairly consistent. In 1988 the mean loan to asset ratio was 73 percent for real estate and 68 percent for machinery and equipment.

Several banks did not except expansion livestock as collateral. The loan to asset value of those that did ranged considerably. The mean loan to value ratio for expansion livestock was 65 percent in 1988. Accepting growing or harvested crops as collateral was the exception rather than the rule. The loan to asset ratio (of banks accepting these assets as collateral) for these assets varied considerably among banks. The mean was approximately 50 percent.

Another method used to reduce the potential loan loss is to obtain an FmHA loan guarantee. Seventy percent of banks had a policy of allowing participation in this program in 1988. However, only 56 percent of banks wrote FmHA guaranteed loans during that year.

Loan analysis criteria used by New York banks varied considerably. This was true for both the measures of credit worthiness employed and the required levels of each. When asked to rank four categories of financial ratios used for loan analysis, banks ranked profitability as most important, followed by solvency, liquidity, and capital efficiency, respectively. This is in contrast to the ranking of specific financial ratios which showed liquidity as most important, followed by solvency, profitability and capital efficiency. This incongruence may be caused in part by a lack of standardization of the definitions of financial ratio categories.

The minimum cash flow coverage ratio used by New York banks ranged from one to over 1.3, with a median of 1.1 in 1988. The minimum percent equity reported by banks was equally variable ranging from below 20 percent to over 50 percent, with an average of 37 percent. This substantial

variation and may be indicative of bank aggressiveness and the types of loans the banks desired in their portfolio.

The financial statements required of borrowers were similar for most banks. Almost all banks required balance sheets and income statements from borrowers. Previous years income tax returns were required most of the time. Other financial statements, including projected cash flow; and proforma income statements and balance sheets, were required less frequently. The balance sheets and income statements were completed by the farmer most of the time, but, sometimes were completed by the lender.

Advertising of agricultural loans was accomplished primarily through the print media. Forty-four percent of the banks used this media each year over the 1986-88 period. In 1988, banks were approximately equally divided in their frequency of print advertising (i.e. monthly, quarterly and annually). The general trend of banks using the print media was toward quarterly advertising.

Finally, banks perceived the risk associated with agricultural loans to be about equal to commercial loans over the 1986-88 period. The number of banks reporting agricultural and commercial loans as the most risky category of loans was about equal. When asked to rate the profitability of agricultural loans over the 1986-88 period, agricultural loans were rated the least profitable. In contrast, the vast majority of banks possessed the goal of increasing or maintaining their agricultural loan volume. It is apparent that these banks are looking forward to better economic times for the agricultural industry and an increase in the profitability of their agricultural loan portfolio.

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