<u>Module LL03</u>:
Small Loan Analysis & Credit Evaluation

Learning Objectives

The objectives of this module are to:

- Analyze small loans using benchmarks.
- Evaluate credit scores and apply the analysis to loan customers.
- Read a credit report and determine whether a customer can handle additional debt.
- Evaluate subjective measures about customers in order to estimate their credit risk to the organization.
- Determine the credit risk of a loan using an objective system.

Module Outline

Consumer and Agricultural Lifestyle Loans

Recently, a lifestyle producer visited the local John Deere dealer concerning trading up for a new tractor. The negotiated deal was a $22,000 difference. The dealer asked how the producer would like to pay for the difference. The options were cash, dealership financing, the local community bank, Farm Credit, and the credit card; yes, the credit card! Welcome to the day of split options of financing available to agricultural producers. Today, if you cannot make that small loan in 28 minutes or less, you may not be competitive in the marketplace. Why 28 minutes? That's the amount of time for approval through John Deere financing. However, a quick call to the community banker found a verbal "OK" over the telephone based upon character, history, and financing. Still, quicker yet was the option to finance the difference on the credit card instantaneously. In return, the customer would receive travel awards and points toward a family vacation.

This example points out the competitive environment for the smaller agricultural loan. A loan officer must be able to quickly size up risk from the credit side and develop an attractive marketing option if they want to finance 21st Century agriculture.
In a competitive environment, a skillful agrilender must extract key information from a customer's financials, conduct a credit rating check, and be able to make an instantaneous decision.

The Small Agricultural Loan

The following is an example of how a less-intensive approach to credit analysis can be applied to a small agricultural loan. The case illustrates Betty and Jim Stockwell, who have a small lifestyle farm. Both of them have non-farm employment. In this case, we will illustrate one year for purposes of brevity. Jim owns a small cow-calf operation and is a trucker part-time. Betty is a manager at a local plant. They have three small children, Adam, Jamie, and Carrie.

Eleven critical pieces of information are necessary to complete a Small Loan Analysis. If possible, three, or preferably five, years of data are required to assure that trends can be established.

In our short case (Exhibit A) you will notice that the Time Saver Worksheet includes total assets and liabilities, from the balance sheet, interest and depreciation, from the Schedule F or C, and gross non-farm revenue, from the W-2 statement. Also included are total annual payments and the value of collateral that is being financed utilizing internal loan maximums.

Once this information is gathered, the analysis of small loans consists of analysis of repayment ability, and how well the institution is collateralized. It is up to the discretion of the loan officer or institution to ascertain whether further analysis is necessary using the numbers. The next critical aspect is to conduct a credit history check.

The agricultural guidelines and yardsticks presented (Exhibit B) are based upon academic research and field experience in agricultural financial analysis. These will be presented in terms of a stoplight. A green light represents small risk while a yellow light indicates moderate risk. A red light is high risk, although not necessarily a sure sign of failure.

In our case example (Exhibit A), farm income from operations was negative $10,000, line 1. This is quite common amongst lifestyle producers and small businesses. Non-farm income, line 2, was $35,000. When interest and depreciation ($10,000) were added, the adjusted farm and non-farm income was $43,000, line 5, which is the amount available for payments, living, taxes, and new investments. Payments on an annual basis were $15,000. This included a cattle and equipment loan. This leaves $28,000, line 7, as excess capacity for family living, income taxes, and new investments.

The ratio used to measure repayment ability on small loans analyzes the payment load over the life of the loan. In our case, for example, annual payments, line 6, are divided by an adjusted farm and non-farm income, line 5, which would indicate that 35 percent of the adjusted income is going for debt service. Generally speaking, most lenders feel that a ratio under 25 percent would be strong, while a ratio between 25 to 60 percent would represent modest risk or a yellow light. When this ratio exceeds 60 percent, it is an indication of too much debt payment for the farm and off-farm income to service on an annual basis. When the ratio exceeds 50 percent, the customer must demonstrate a modest to conservative lifestyle to be sustainable.

The next area in the financial analysis is to determine whether the business has enough collateral to back the loan. If the lending institution has the total relationship, the debt to asset ratio is calculated. However, if the lender is financing one relationship, then the collateral coverage may be the limit to the collateral analyses.

For example, in our case illustration the debt to asset ratio is 50 percent. Generally speaking, when the debt to asset ratio is under 50 percent, it is considered strong; 50 to 75 percent is considered moderate risk. When the ratio exceeds 75 percent, it may indicate that the collateral position is marginal. The same analysis can be applied to the collateral coverage ratio. In our case example, it is 177 percent. A ratio above 150 percent would be considered strong, while 125 to 150 percent is adequate. A ratio under 125 percent would be considered a marginal collateral position. The loan to value ratio is also illustrated utilizing this scenario because some institutions use this in the analysis; however the benchmarks vary by organization.

Exhibit A
Jim & Betty Stockwell Case
Worksheets for Financial Analysis
Of Small Agricultural Loans

Time Saver Worksheet			
	Year X	Year Y	Year Z
Total Assets	250,000		
Total Liabilities	125,000		
Net Farm Income	(10,000)		

Interest Paid	10,000		
Depreciation Expense	8,000		
Gross Non-Farm Earnings	35,000		
Total Principal and Interest Payments*	15,000		
Collateral Value	85,000		
Loan Amount	48,000		

*includes consumer debt if not included in family living expense

Worksheet 1 - Repayment Analysis					
			Year X	Year Y	Year Z
1.	Net Farm Income From Operations	$	(10,000)		
2.	Plus: Non-Farm Revenue	+	35,000		
3.	Subtotal	=	25,000		
4.	Plus: Depreciation & Farm Interest	+	18,000		
5.	Capacity for Payments, Family Living, Income Taxes and New Investments	=	43,000		
6.	Total Annual Payments Including Consumer Debt	$	15,000		
7.	Excess Capacity (Margin for Family Living, etc.)	=	28,000		
8.	Total Annual Payments/Capacity (Line 6/Line 5)	=	35%		

Worksheet 2 - Solvency and Collateral Analysis

Debt-to-Asset Ratio
(Total Debts/Total Assets)

$$\frac{125{,}000}{250{,}000} = 50\%$$

Collateral Coverage Ratio
(Collateral Value/Loan Amount)

$$\frac{85{,}000}{48{,}000} = 177\%$$

Loan to Value Ratio
(Loan Amount/Collateral Value)

$$\frac{48{,}000}{85{,}000} = 56\%$$

Exhibit B

Guidelines for Small Agricultural Loans

	Green	Yellow	Red
Debt Payment/Adjusted Income	**< 25%**	**25% to 60%**	**> 60%**
Debt-to-Asset Ratio	**< 50%**	**50% to 75%**	**> 75%**
Collateral Coverage Ratio	**> 150%**	**125% to 150%**	**< 125%**

Credit History
Everyone with a credit history has a score. It's based on the records compiled by credit bureaus, which include information such as whether a customer has been late with payments on their mortgage, machinery and equipment, and credit card debt. The amount of credit and number of sources a customer owes are included.

Credit scores give lenders a measure of how likely a customer is to default on a loan. The higher the score, the lower the probability that a customer will be delinquent on payments.

The accuracy of the credit scores can be influenced by the amount and validity of information. Critics have indicated that credit scores have not been tested in a major downturn in the economy. Despite these potential flaws, the scoring systems have worked well for the aspiring to gain efficiency yet size up risk in the portfolio. The scores make it easier, faster, and less expensive to evaluate credit requests. This can be advantageous to the borrower resulting in lower loan cost. In addition, scoring can remove lender biases from the loan approval and interest rate alternatives.
These credit scores along with analysis of key information previously discussed can be an effective tool in evaluating many smaller credits.

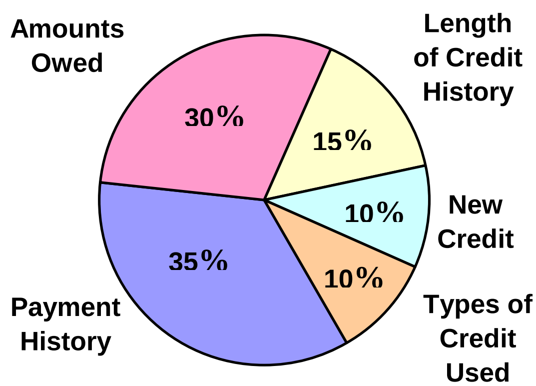
Lenders use a number of systems to calculate credit scores, but the most common -- nicknamed FICO -- was developed by Fair, Isaac, and Company, a California data-management services and consulting company. Three main credit bureaus – Equifax, Experian, and TransUnion – all provide scores based upon the FICO model. The score predicts the likelihood an account a lender is about to accept will be seriously delinquent (90 days plus) in the next 24 months. Minimum scoring criteria are that the individual is not deceased, has one trade line open in the last six months, and one undisputed trade line updated in the last six months.

The Score
The credit bureau scores range from the 300's to the 900's, with most borrowers or potential customers falling somewhere between 500 and 850. Each lender decides the

score that is acceptable and how much it constitutes in the final credit evaluation. Scores above 700 are considered high. According to an article published in USA Today, 60 percent of people will exceed a 700 score, with the average score nationwide being from 670 to just below 700. The delinquency rate on a loan will range from 5 percent for those in the 700 to 745 range to 2 percent or under above 750 points. Contrast that to individuals under a 600 score finds about 25 percent of the borrowers fall in this range. However, the delinquency rate on loans increases to a staggering 50 percent up to 87 percent for those under 500 points.

Under the Fair and Accurate Credit Transactions Act (FACT Act) consumers can request and obtain a free credit report once every 12 months from each of the three nationwide consumer credit reporting companies at www.annualcreditreport.com.

What Impacts Credit Scores?



Over 30 elements factor into one score. There are five major credit report evaluation categories according to the Fair Isaac Corporation. Previous credit performance will account for 35 percent of the total score. Have you paid debts? Were you late on payments? How recent the delinquencies were, and how often you have been delinquent in paying will determine credit worthiness.

Current level of indebtedness accounts for 30 percent of the credit history score. Balances on credit cards, mortgages, auto loans fall into this category. People who are up to their credit limits for mortgage and consumer debt are at higher risk. Maximum limits on credit cards will be scrutinized because they are an unsecured line of credit.

Length of credit history will amount to 15 percent of the credit score. Lenders will prefer borrowers with a track record. Young people who have not developed this track record and older people who are reluctant to use debt are frequently penalized in this category.

The pursuit of new credit is 10 percent of the score. This measures how many times you authorize lenders to check your credit record. For example, a customer may be truck or tractor shopping. An abnormal number of inquiries in a short period of time can lower the score. Unsolicited inquiries as well as those you make yourself will not lower your score, but those you authorize others to do will.

The types of credit used, such as credit cards or installment debt like personal loans, will influence scores and is 10 percent of the total credit score. Someone who has a mix of installment debt and revolving credit would be lower risk than those who have just one or the other.

Dealing with Errors

One has to be careful of errors and inaccuracies. For example, your customer's record may have someone else's bankruptcy or late payments on their record if the names or social security numbers are similar.

Credit bureaus defend accuracy. A recent study found them to be 97 percent accurate. People who are turned down for credit, insurance, or employment because of their credit report are entitled to a free copy of the report within 60 days of rejection.

Federal rules state that credit bureaus are not allowed to give a report to an employer without your permission.

If a customer notices any mistakes, they should contact the credit bureau immediately. The agency has to respond to consumer complaints within 30 days. A customer can correct errors, as well as enter a statement as long as 100 words explaining the circumstances of the credit blemish on their credit report.

Credit bureaus will not release your score directly. However, a lender or broker can show the customer the score, if requested.

Reading a Credit Report

This is a key designed to help a person read a generic credit report that lenders, insurance companies, and employers receive to review a credit file. See Exhibit B, a sample credit report. Some areas will have the pound sign to replace numbers and years are replaced with X's to protect privacy and dating of the reading material.

<u>Inquiry Information</u>

The information at the top of the report is the data supplied to the consumer credit reporting agencies, including name, current address, previous addresses, year of birth, employer's name and address, previous employer's address, and any name variations that may have been reported by creditors about you.

<u>Profile Summary</u>

Public Records: shows the number of public records, such as bankruptcy, foreclosures, etc. reported to the agency.
Installment Balance: shows the total balance of all installment (fixed payments) type credit accounts. In this case, it was $30,630. This could be for vehicles, furniture, etc.
Real Estate Balance: Shows the total balance of real estate on accounts. In this case, there were no real estate mortgages on credit.
Revolving Balance: Shows total balance of all revolving (open credit line) type of

accounts i.e. feed store, charge cards, credit cards. The case study finds $50.
Past Due Amount: Shows the total past due amount on all credit accounts. In this case it was $956.
Scheduled estimated payments: shows the total of all monthly payments listed on the report. In this case it was $1431 per month
Real estate payments: In this situation, there was no real estate debt, so no payments are shown.
Revolving available: This illustrates the percentage of revolving credit that is available, which is 96%. If the revolving credit card line were a maximum of $10,000, $9600 would be available for immediate use.
Inquiries: Shows the number of times your credit report was accessed by creditors. The line below shows the inquiries within six months. Total was three and two occurred in the last six months.
Tradeline: This illustrates the total number of tradelines, or lines of credit you have with different credit grantors or lenders. Excluding credit cards, when this exceeds 5 it is a sign of potential credit problems. The example had five including credit cards.
Paid Account: One account was paid in full.
Payment record: The next section shows account status. In the illustration, two accounts were satisfactorily paid, two were delinquent or derogatory, and one account had previously been delinquent or derogatory.
Old Trade: This illustrates when the first account was opened, which was 1968.

Public Records
Public record information includes any bankruptcies, liens, or civil actions that have been filed. It will include the court name, number, original filing date, status, i.e. satisfied, released, vacant, discharged, or dismissed. The amount and type of public record, certificate and docket number, book and page number, plaintiff name, liability and asset amount for bankruptcy only, and voluntary indicator of bankruptcy are included as well. In the case study, three public records have been filed: one lien for $12,450, a judgment for $1200 and the third was bankruptcy court, which had $100,000 in assets and $8500 in liability that was voluntary bankruptcy.

Trades
The trades section lists the lines of credit with different credit grantors who report to this agency. Each listing may include some or all of the following information: type and term of account, date it was opened, last payment, balance date. An indicator of whether the amount is original loan (O), credit limit (L), high balance (H), initial charge off (C), or unknown blank (Unk) is shown.

In this case, there are five lines of credit open. The first one was an original loan of $500. It was opened in September, and the type and term is unknown (Unk). On April 5, the balance was $250. It has a 20-month revolving status, but as of September was a derogatory account and was charged off.

The second one, for Hemlocks, was opened in February, with a credit limit of $900. The high balance was $500, and the account is currently closed. It was a charge account with a revolving status of 17 months. The current balance is zero.

The third line of credit is with Mountain Bk. It was opened in March and the original loan was for $43,225. The account is open. The account was up to 30 days past due three times. The term is 60 months, and on May 17, the remaining balance was $19,330. The monthly payment of $956 was last paid in April.

The fourth line of credit, with Bay Company was opened in January. The credit limit is $1400, and the high balance was $1200. The payment status is current, but was 90 days past due. It is a charge account with a revolving status of 99 months. The balance on the account is $50 on May 16. This account was in dispute, but is now resolved.

The fifth line of credit is with Central Bank. It is an auto loan with a 48-month term. The original amount was $22,350. It is currently open, with a balance of $11,050 on June 15. The monthly payment is $465 and it was last paid in May.

<u>Inquiries</u>
This section shows the number of creditors that have reviewed your credit report. This could be banks, department stores, employers, landlords, insurance companies, etc. In this case, there were three inquiries

<u>Status of Payments</u>
In the right column the payment history by month is shown for each account. Use the key below to interpret this section.

Status of Payments Key
C = current
N = current account/zero balance – no updates received
0 = current account/zero balance – report on updates
1 = Paid as agreed; satisfactory; current
2 = Pays 31-60 days: not more than 2 payments past due
3 = Pays 61-90 days: not more than 3 payments past due
4 = Pays 91-120 days: not more than 4 payments past due
5 = Pays over 120 days: not more than 5 payments past due
6 = Pays over 150 days; 6 or more payments past due
7 = making regular payments or paid under wage earner plan
8 = derogatory, i.e. repossession, foreclosure
9 = derogatory, i.e. collection or charge off
B = account condition change

Exhibit B | Credit Report

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*********************** EXPERIAN CONSUMER CREDIT REPORT ***********************
 *                              consumerinfo.com                              *
 *                              Ref: 100000001                                *
 **************** Dept: CUSTOMER SERVICE / Queued by: SUPERVISOR **************

 DATE:06-30-XXXX    TIME:13:13:43    SUBJECT ID:

 CONSUMER,JONATHAN Q SS: ###-##-####;
 CA-10655 N BIRCH ST/BURBANK CA 91502;
 U-CONSUMERINFO,T-01,V-06/999/8.00,H-Y;
```

```
PAGE 1   DATE  6-30-XX  TIME 15:17:44  PCB29  V401  TCA7

 JONATHAN QUINCY CONSUMER         SS: ###-##-####     E: AJAX HARDWARE
 10655 N BIRCH ST                     ###-##-####*    2035 BROADWAY SUITE 300
 BURBANK CA 91502-1234                ###-##-####*    LOS ANGELES CA 90019
 RPTD: 11-XX TO 3-XX U 3X         YOB: 1951           RPTD: 4-XX I
 LAST SUB: #######
                                                      E:BELL AUTOMOTIVE
*2600 BOWSER ST #312                                  111 MAIN STREET
 LOS ANGELES CA 90017-9876                            BURBANK CA 91503
 RPTD: 2-XX I                                         RPTD: 10-XX TO 2-XX I

*JACK CONSUMER, JOHN SMITH, JONATHAN SMITH JONES JR

 ------------------------------ PROFILE SUMMARY ------------------------------
                                                                CNT 04/01/01/20
 PUBLIC RECORDS-------3  PAST DUE AMT------$956  INQUIRIES---3  SATIS ACCTS---2
 INSTALL BAL----$30,630  SCH/EST PAY-----$1,431  INQS/6 MO---2  NOW DEL/DRG---2
 R ESTATE BAL-------N/A  R ESTATE PAY-------N/A  TRADELINE---5  WAS DEL/DRG---1
 REVOLVNG BAL-------$50  REVOLVNG AVAIL-----96%  PAID ACCT---1  OLD TRADE--1-68

 ------------------------------- PUBLIC RECORDS ------------------------------
*SO CALIF DISTRICT COURT  11-20-XX  12-01-XX  3011111    $12,450    CO LIEN REL
 C#: 45078321                  1   BP: B476P2109

*COUNTY SPR CT SANTA ANA   2-19-XX            3019999     $1,200    CIV CL JUDG
 D#: 7505853                   1   PLAINTIFF: ALLIED COMPANY
 BP: B1234P50987

*U S BANKRUPTCY COURT      6-10-XX            3009999     $8,500-L  BK 13-PETIT
 D#: 35054539906234561         2                        $100,000-A        VOLUN

 ----------------------------------- TRADES ----------------------------------
 SUBSCRIBER                 OPEN    AMT-TYP1    AMT-TYP2 ACCTCOND   PYMT STATUS
 SUB#   KOB TYP TRM ECOA BALDATE     BALANCE  PYMT LEVEL  MOS REV  PYMT HISTORY
 ACCOUNT #               LAST PD   MONTH PAY    PAST DUE  MAXIMUM    BY MONTH

*CREDIT AND COLLECTION      9-XX      $500-O                             COLLACCT
 ####### YC UNK UNK  2   4-05-XX      $250        9-XX        (20) 9999999999999
 ############                                                        9999999
 ORIGINAL CREDITOR:  DR. JOHN KILDARE

 HEMLOCKS                   2-XX      $900-L      $500-H   CLOSED      CURR ACCT
 ####### DC CHG REV  3   6-01-XX        $0        2-XX        (17) BNCCCCCCCCC-C
 #############                                                       CNNC

*MOUNTAIN BK                3-XX   $43,225-O                 OPEN    30 3 TIMES
 ####### BI SEC  60  2   5-17-XX   $19,330        5-XX        (39) 1CCCCCC1CCCCC
 #####################      4-XX      $956        $956     2-XX/1  CCCCCCCCCCCC
 ###############

*BAY COMPANY                1-XX    $1,400-L    $1,200-H     OPEN    CUR WAS 90
 ####### DC CHG REV  3   5-16-XX       $50        3-XX        (99) C0C321CCCC000
 #########                  3-XX       $10-E                        CCCCCCCCCCCC
 **ACCOUNT WAS IN DISPUTE-NOW RESOLVED-REPORTED BY SUBSCRIBER**

 CENTRAL BANK              12-XX   $22,350-O                 OPEN      CURR ACCT
 ####### BI AUT  48  1   6-15-XX   $11,050       12-XX        (31) CCCCCCCCCCCCC
 ###########                5-XX      $465                          CCCCCCCCCCCC
 COLLATERAL:  1995 FORD TAURUS

 --------------------------------- INQUIRIES ---------------------------------
 HEMLOCKS                5-05-XX  ####### DC
 BAY COMPANY             5-03-XX  ####### DC     $1,500 CHG REV
 HILLSIDE BANK           3-21-XX  ####### BC
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-------------------------------- MESSAGES ---------------------------------
SSN MATCHES

END -- EXPERIAN
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Outside the Numbers

Many ag lenders are financing the tractor used for mowing the lawn or the country home and rural property of the lifestyle producer. These segments are becoming a larger number of agricultural lenders' loans, despite being a small proportion of the total portfolio.

Work by Drs. David Kohl and Alex White at Virginia Tech, who specialize in consumer credit and investing, have lead us to believe that there are four segments of consumer loans. They are the achievers, hotshots, strugglers, and miners and coasters. Let's examine ten characteristics of each segment that can be used in your credit and financial services analysis of the lifestyle loan portfolio.

Achievers

This group is approximately 10 to 20 percent of your consumer loan portfolio. Analyzing the balance sheet you will find four months or more of their earnings in liquidity reserve with a frugal to modest lifestyle.

Mortgage and debt payments are under 10 percent of income with little or no consumer debt or credit card balances. FICO or Beacon credit scores are above 700 points.

This segment includes lifecycle planners with estate plans as well as proper health and long-term care coverage. Historically, they save 10 percent or more of their income and are above average accumulators of wealth. This group is in good health, has a positive set of employment skills, and has balance in lifestyle, employment, and business obligations. The achievers should be targeted for credit and financial services as well as possible leadership positions in the organization.

Hot Shots

These were the stars in the booming economy. They earn a six- to sometimes seven-figure annual income. They were aggressive investors, thus losing up to 50 percent or more of their wealth in the bear market, and they make up 20 to 30 percent of the market place.

They have a high maintenance lifestyle with credit card balances often exceeding 25 percent of income, and with less than 2 months' earnings in a liquidity reserve.

Their mortgage payments will exceed 25 percent of earnings, with consumer debt above 15 percent of income. Examination of the FICO scores will find a range between 600 and 700, and some with spotty credit records. They will resort to home equity loans to refinance credit card debt because of overindulgence in purchases of killer toys, i.e.

boats, second homes, etc.

Despite having excellent employment skills, there are imbalances of work and lifestyle, which can lead to health and marital problems. Spending habits prevent accumulation of wealth for retirement.

This group contains attractive customers in good economic times, but may pose problems in a bear market or economic downturn.

Strugglers

This segment, which is 20 to 30 percent of the marketplace, is basically treading water. They are good, solid citizens but are poor financial managers, which may require them to refinance the home or business every 3 to 5 years to clean up old bills or credit cards.

They will exhibit a modest to frugal lifestyle or may have inherited some wealth. Their home may be paid for and consumer debt will be under 20 percent of income, mainly for the new pickup or tractor. Conducting a credit check will find the FICO scores between 650-750 with small balances on credit cards. Most pay their bills on time.

This group will have modest retirement investment with more than 50 percent of retirement income resulting from social security, company or military pension. Few in this group have an estate plan or proper insurances and generally are underemployed or lack up-to-date job skills. Someone in the family has health problems, which limits earnings or wealth accumulation.

This segment of customers are loyal and good, solid citizens. Often sons and daughters will leave the area for better employment and lifestyle opportunities than their parents.

Miners and Coasters

This cluster is becoming a larger proportion of the marketplace. They are living off inherited wealth or paycheck-to-paycheck. They have limited earning potential with no liquidity reserve.

FICO scores are under 650 with a very spotty credit history. Killer toys are usually smaller, such as a 4-wheeler or fishing boat. Large pickup trucks can be observed as well. Often there are family communication problems leading to divorce. Imbalances in work and lifestyle are a constant challenge with time spent on hobbies reducing earnings potential.

Credit cards are usually at their maximum limit, along with home and consumer loan mortgages, leaving very little potential for credit or financial services. The overall strategy as lenders with this group would be to be cautious and possibly de-market or reduce exposure to this group.

Consumer loans not only involve analyzing the numbers, but personal habits, for credit risk and marketing opportunities in an expedient manner.

Other Factors

First, for a producer working full-time in non-farm employment, it is imperative that they manage their time effectively. Generally speaking, most producers should not exceed 1,000 hours annually in pursuing their farm enterprise if they are under 40 years of age, and 750 hours if their age exceeds 40. Producers that exceed these time management rules frequently find that either off-farm employment performance suffers, farm performance is hindered, physical and mental health deteriorates, or the producer's family is often neglected. This is frequently called the "Bermuda Triangle" of business; that is, too small to be big, or too big to be small, concerning earnings and time management. This frequently ends in credit problems caused by divorce, neglect of family, or burnout.

Generally speaking, a farm business must generate $250,000 in sales per partner for a traditional farm business, or $40,000 to $70,000 in net income if it is a contract business. This is particularly true if the debt to asset ratio exceeds 50 percent, where non-farm income may be necessary unless the borrower closely controls family living expense.

Another rule is to examine credit history. This is closely correlated to the ability to repay. One study suggests an 80 percent correlation between delinquent taxes/payments and late payments.

Also, examine family investing patterns. Savings and investment beyond the employer contribution plan is a positive sign for good business development. Be careful of customers with high income outside of the market area. While generating significant income, they also have an extravagant lifestyle. The lifestyle farm can become the toy that in some cases becomes a burden resulting in financial disaster.

A final rule is to examine personal family liquidity. Most farm families should strive to keep two to six months of family living expenses in personal liquidity such as cash, cash value of life insurance, and other cash vehicles. This will vary, depending upon the financial obligations of the family and living patterns. For example, a family with a living cost of $40,000 annually, or $3,333 per month, would attempt to keep $6,600 to $20,000 in cash, or near cash, for emergency needs.

Small Loan Risk Rating System

Exhibit C represents a risk rating system for the small agricultural loan. This system is generally recommended for those farms that have non-farm income and gross revenues under $150,000, who have a history of dealing with the institution, and are consumer rural property owners.

The system that is illustrated is 100 percent objective or quantitative. This system is quick and simple, and analyzes three criteria: 1) ability to repay; 2) solvency; and 3) credit history, utilizing FICO scores.

The total debt payment to income ratio is utilized to risk rate repayment ability. The debt to asset ratio and collateral coverage ratio are utilized to analyze solvency. A credit history analysis is critical in the evaluation process. Care must be taken to observe general patterns in credit history and to determine the accuracy of credit reports. For example, a person who has two late payments over a 5-year period would receive a much higher score compared to one who has had charge-offs or bankruptcy, or a pattern of payments 30 to 90 days late. Also, credit history overrides all other financial aspects of this system. A poor credit history is generally a sign of poor financial discipline. This is why negative numerical scores are listed for those with a credit score below 500.

Apply this system to the agricultural consumer loan case involving Betty and Jim Stockwell (Exhibit A). In Betty and Jim’s situation (Exhibit C) the total annual payment to income ratio was 35 percent, which would be two points. The debt to asset ratio and collateral coverage ratio was 50 and 177 percent, respectively. This would equate to a score of three points each when applied to the risk rating system. In the Stockwell’s case, their credit history exhibits no pattern of late payments and the FICO score is 720. Thus, they earned a score of five points. The total score for the Stockwells is 13. This would be a level two loan, which is serviceable but requires second tier rate and loan structuring.

Research has shown that when applied to a total small loan portfolio, approximately 10 to 20 percent of all loans classify level one. Level two covers about 50 to 70 percent of the portfolio of small loans, while level three applies to 10 to 20 percent of the small loan portfolio. Level three loans usually require guarantees or stricter covenants.

Composite Credit Index for Smaller Agricultural Loans

Variable	*Criteria*	*Year X*	*Year Y*	*Year Z*
Repayment Ability		**Index**	**Index**	**Index**
Debt Payment to Income Ratio[1]	less than .20	4	4	4
	.20 - .30	3	3	3
	.31 - .40	2	2	2
	.41 - .50	1	1	1
	greater than .50	0	0	0
Solvency		**Index**	**Index**	**Index**
Debt-to-Asset Ratio	less than .30	4	4	4
	.30 - .50	3	3	3
	.51 - .70	2	2	2
	.71 - .90	1	1	1
	greater than .90	0	0	0
Collateral		**Index**	**Index**	**Index**
Collateral Coverage Ratio (specific items financed)	2.00 or more	4	4	4
	1.50 - 1.99	3	3	3
	1.25 - 1.49	2	2	2
	1.00 - 1.24	1	1	1
	less than 1.00	0	0	0
Credit History[2]		**Index**	**Index**	**Index**
FICO & Beacon Scores	greater than 800	8	8	8
	750-800	6	6	6
	700-749	5	5	5
	650-699	4	4	4
	600-649	3	3	3
	500-599	2	2	2
	450-499	-1	-1	-1
	less than 450	-5	-5	-5
	Total of All Indexes	13		

[1] Total Annual Principal & Interest Payments / (Net Farm Income + Gross Non-Farm Income + Interest + Depreciation)

[2] Credit history overrides all financial ratios.

Level	Index	Description
Level 1	16 - 20	This loan is very serviceable and would require minimal supervision and qualify for best rates.
Level 2	12 - 15	This loan is serviceable and would require covenants, supervision, and second tier rates.
Level 3	8 - 11	This loan is questionable: if made, strict covenants, close supervision and rates that reflect risk.
Level 4	< 8	Reject; if you have one, it may require workout.

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