Credit Risk Management

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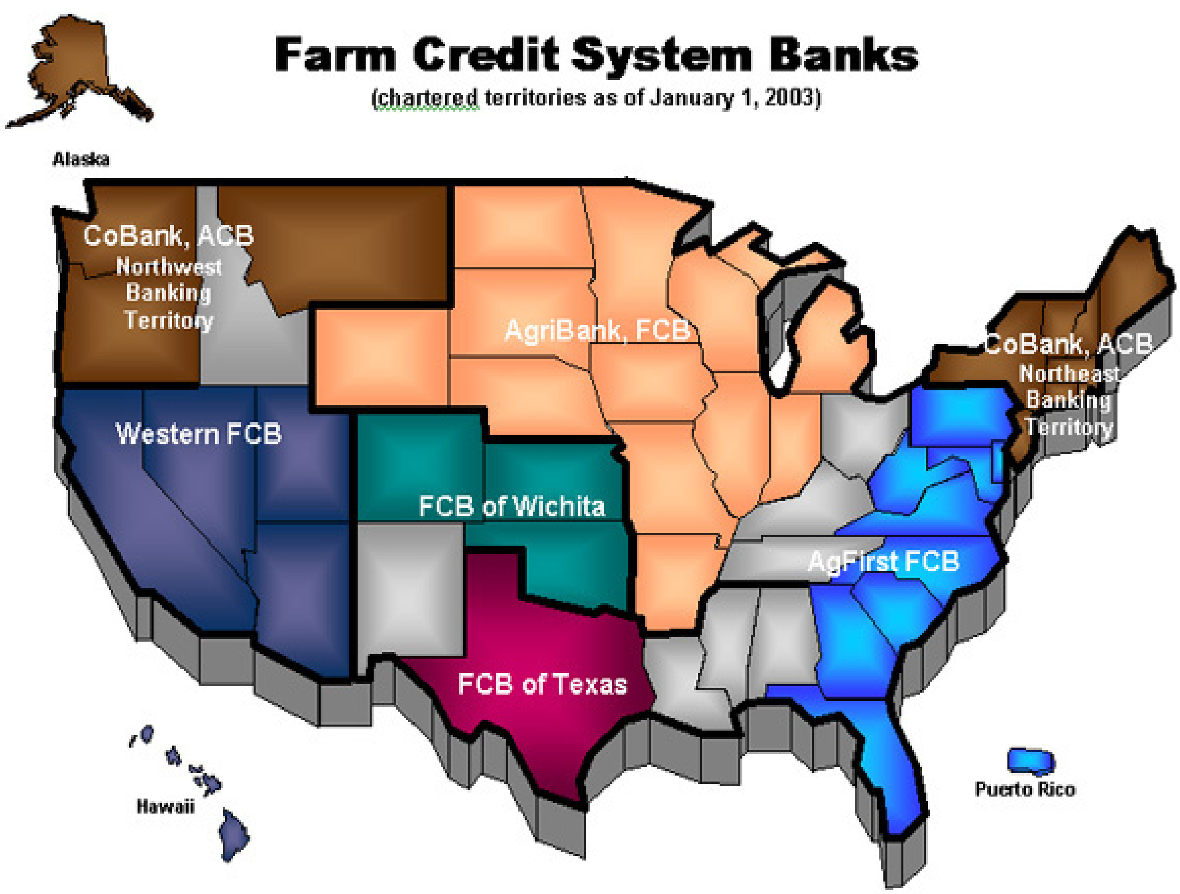
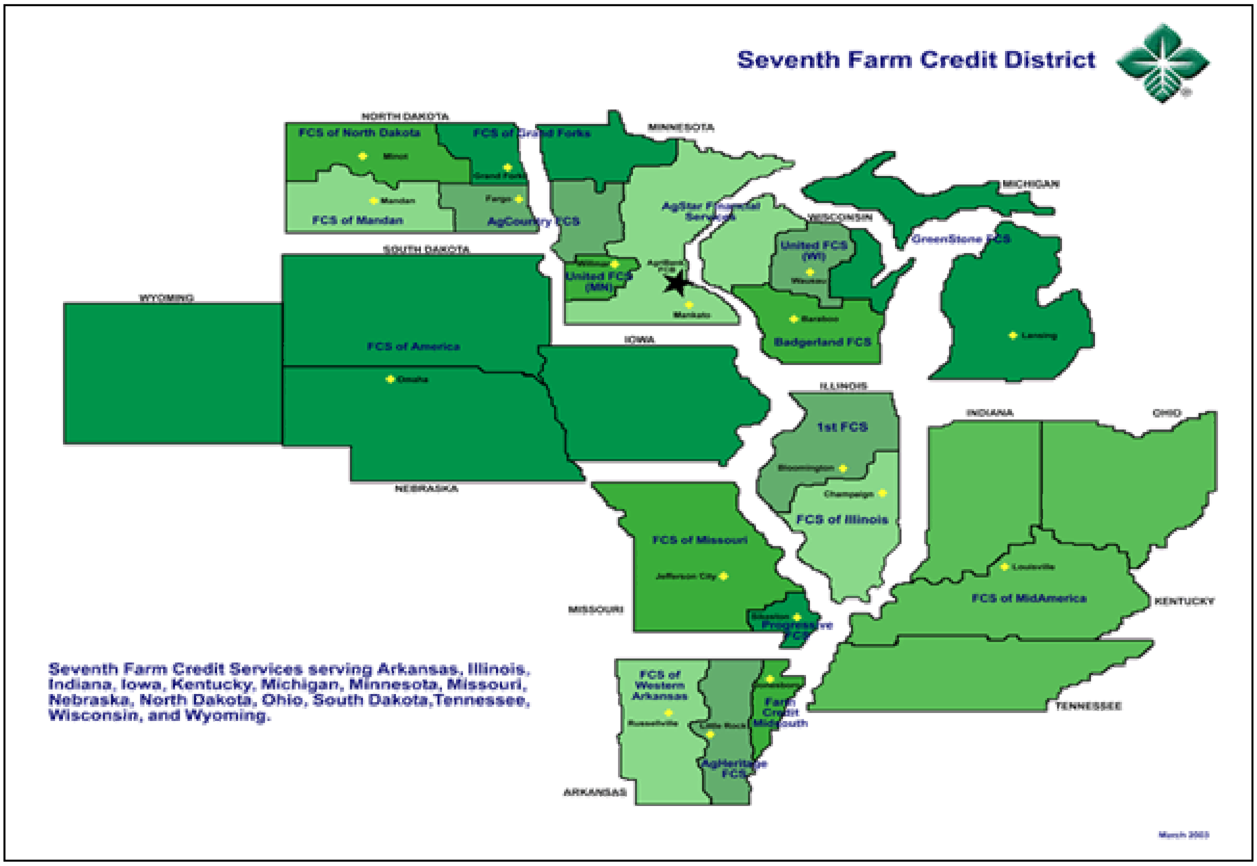


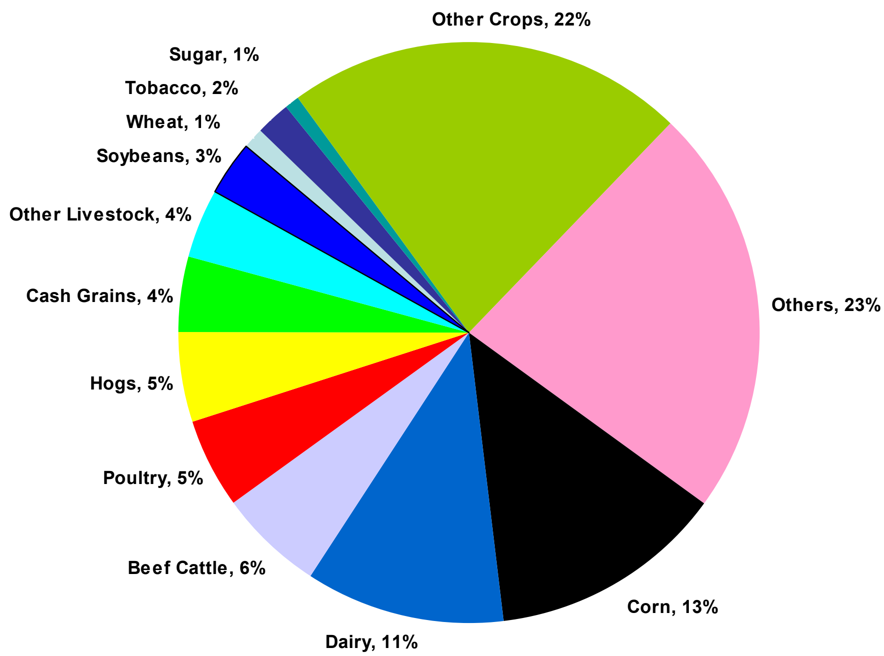


District Portfolio

(in Millions)

	1995	1996	1997	1998	1999	2000	2001	2002
Loan Volume	$13,529	$15,144	$15,876	$17,318	$17,047	$18,512	$19,949	$22,229
Adverse $	851	777	721	856	861	925	864	792
Adverse %	6.3	5.1	4.5	4.9	5.1	5.1	4.3	3.8%
Nonaccrual $	280	188	187	341	312	195	214	192
Nonaccrual %	2.1	1.2	1.2	2.0	1.8	1.1	1.1	0.9%
Nonaccrual % of Adverse Dollars	32.9	24.2	25.9	39.8	32.2	21.1	21.1	24.3

District Loan Distribution By Commodity
(As of December 31, 2002)



AgriBank Loan Portfolios
(as of December 31, 2002)

	Volume MM	% of Portfolio
Wholesale	18,365	94.8
Commercial Lending	**515**	**2.7**
Capital Markets	**323**	**1.6**
OFIs	**140**	**0.7**
RAU & NAS	**36**	**0.2**
AgriBank	19,370	100.0%

Credit Information Disclosure Today

- Accrual/nonaccrual
- Performing/nonperforming
- Restructured volume
- Type of loan—operating, IT, mortgage
- Commodity diversification
- Loan size stratifications/concentrations
- Credit quality
  - % Adverse

Disclosure Drivers Future

- Enron, WorldCom, TYCO
- Transparency:
  - AICPA SOP Allowance for losses
  - Moodys and S & P
  - Disclosure---Fannie, Freddy, SEC
  - Farm Credit System SEC?

Credit Information Disclosure

- Credit quality ----How should information be disclosed?
  - Full time, part time, commercial ?
  - By size ?
  - By primary commodity ? i.e. corn
  - By geographic area produced, or sold?
  - Allowance for losses disclosure should align with credit quality disclosure

Credit Information Disclosure

- Allowance should reflect estimated charge-off exposure in the portfolio---not forward looking.
  - Allowance information must be relevant, objective, and measurable.
  - What have been the charge-offs?
  - What criteria exists that will drive charge-offs over time?
- Charge-offs to credit risk in the portfolio
  - Today-----Uniform classification system
  - Future-----Risk rating system or other ??

Credit Information Disclosure

- Changing risk rating system
  - Each institution may have distinct rating system
  - Basel II requires less than 30% of dollars in any one risk rating category
  - Producer credits vs. commercial credits or one set of definitions
  - Current risk rating system incorporates both Probability of Default and Loss Given Default. Basel II separates the two.
  - Future----risk rating = Probability of default , not expected loss

Use of Internal Probability of Default (PD) Ratings

- Credit approval authorities and limits
- Evaluation of loan pricing
- Analysis of the Bank’s capital adequacy, allowances, and profitability
- Performing stress tests to assess capital adequacy

Alternatives from Basel

- Basel 1---most assets risk weighted 100%
- Standardized Approach---some assets rated more than 100%
- Internal Ratings Based---may be used by only the very largest banks, but concepts reflect some of the most advanced thinking in risk management

Risk Weights Standardized Approach -Corporates

Credit Assess	AAA to	A+ to A-	BBB to BB-	Below BB-	Unrated
Risk	20%	50%	100%	150%	100%

System Risk Management Objectives:

- Develop a tool to assist in growing and managing the total loan portfolio.
- Develop a common framework to assess risk within the System.
- Establish uniform language and definitions to maximize effective communication within and among institutions in the System.
- Establish definitional compatibility with regulation for the designation of special mention and classified loans.
- Establish definitions that support agribusiness/commercial loans, as well as production loans.
- Provide a tool to improve disclosure of System credit risk to investors in System debt.

System Risk Management Objectives: (Cont):

- Establish a risk rating model that complies with the guidelines in the Basel II Accord regarding sufficient granularity.
- Establish definitions and objective criteria that are highly predictive over the business cycle and longevity of predictive power
- Establish definitions that result in grade consistency across sub-portfolios.
- Develop definitions and a model that have a low cost to administer.
- Establish that definition of probability of default is indicated by 90 days past due or nonaccrual over a one-year timeframe.

Next Steps-Risk Rating

- Obtain PPC endorsement this fall
- Provide education—video, guidebook w/100 loan examples
- Determine if loan systems have right fields, if not, modify systems to store data
- Develop and validate initial PDs by risk rating, including standard deviations
- Develop objective criteria per risk rating to drive consistency
- Develop and validate LGDs
- Implement a national “Peer Review” process to ensure consistency

			Example 6 Objective Criteria			
			Contract Swine/Broiler			
	4	5	6	7	8	9
WC/AGI						
Current Ratio	1.35:1	1.30:1	1.25:1	1.20:1	1.0:1	1.00:1
Solvency	>40%	>35%	>30%	>25%	>25%	>20%
CDRC	>150%	>140	>125%	>120%	>115%	>105%
CDRC	>20%	>20%	>17%	>15%	>12%	>10%
Margin/AGI						
Management	Very	Strong	Above	Average	Minor	Some
Character	Strong		Average		Concern	Weakness
Performance						
Trends						

Two Dimensional
Risk Rating Model

- Probability of Default   PD
  - One year PD
  - Minimum of 3 BPS   (0.03%)
  - Average PD per grade, not a PD for each borrower
    - Bank's actual experience (based upon minimum observation period of 5 years)
    - Mapping to external data
    - Use of statistical default models

Two Dimensional
Risk Rating Model

- Probability of Default   PD
  - Issues
    - Do you measure PD based upon number of borrowers, loan numbers, or loan volume?
    - How big of a database do you need to be statistically reliable ?
    - How many years of data do you have?
    - What objective criteria is most useful in asset placement?
    - S & P's concerns about cycles and sufficiency of capital even w/stress testing

Two Dimensional Risk Rating Model

- Probability of Default
  A default is considered to have occurred with regard to a particular obligor when **one or more** of the following events have taken place:
  - It is determined that the obligor is unlikely to pay its debt obligations (principal, interest, or fees) in full;
  - A credit loss event associated with any obligation of the obligor, such as a charge-off, specific provision, or distressed restructuring involving the forgiveness or postponement of principal, interest, or fees;
  - The obligor is past due more than 90 days on any credit obligation; or
  - The obligor has filed for bankruptcy or similar protection from creditors.

Mapping Model

Combined System		Existing Seventh	Producer Model	Existing CoBank	RMA
1	Highest			1	1
2	Superior			2	2
3	Exceptional	1		3	3
4	Excellent	1	1	4	4
5	Strong	2	2	4 minus	4
6	Good	3	3	5	5
7	Average	3	4	5 minus	5
8	Adequate	4	5	6	6
9	Minimally Accpt.	4	6	6 minus	6
10	OAEM	5	7	7	7
11	S-Viable	6	8	8	8
12	S-Nonviable	7	8N	8	8
13	Doubtful	8	9	9	9
14	Loss	9	10	10	10

Mapping Model

Combined System 5.29	Seventh District	Moodys One-Year Default Rates	Standard and Poors	Moodys One-Year Default	Standard and Poors	Operating	Ag Mortgage AgriBank	Rural Home	Term
1		Aaa,Aa	AAA, AA	0%	0%				
2		Aa, A	AA-A	.08%	.01%				
3	1	A	A	.01%	.04%	.38%	.35%	.25%	.57%
4	2	Baa1, Baa2	BBB+ ,BBB	.12%	.02%	.67%	.67%	.42%	.80%
5	2	Baa2,Baa3	BBB, BBB-	.12%	.26%	.67	.67%	.42%	.80%
6	3	Ba1	BB+	.78%		1.25%	1.1%	1.01%	1.44
7	3	Ba2	BB+, BB	.65%	1.12%	1.25%	1.1%	1.01%	1.44 %
8	4	Ba3	BB, BB-	2.93%		5.17	3.49%	5.29%	4.09 %
9	4	Ba3, B1	BB-,	7.71%	6.06%	5.17	3.49%	5.29	4.09
10	5		CCC	13.66%	25.22%				
11	6								
12	7								
13	8								
14	9								

4-Borrowers of Excellent Quality

- Leverage very low relative to industry standards with very strong liquidity. Long history of quality earnings. Interest coverage and cash flow is strong. Strong debt capacity. Where size allows, the borrower has ready access to national or regional debt markets. Alternative financing is available at all times. Management is highly regarded and has demonstrated industry experience and expertise. These are very strong assets.
- Placement Guidance
  Rated companies in this category would include those typically rated BBB+ or BBB (S&P) or Baa1 or Baa2 (Moodys). Would typically include the highest quality agricultural production loans and local agribusiness accounts. Would include loans with Farmer Mac standby purchase commitment.

7-Borrowers of Average Quality

- Average leverage and acceptable liquidity based on peers in the industry. Adequate earnings, cash flow, and debt service. Trends are positive but may not be consistently stable. Typically operations are profitable, but losses may periodically occur due to a difficult economic environment. Borrowers have sufficient strength and financial flexibility to offset these events. These operations are somewhat vulnerable to prolonged adverse industry conditions. Readily able to refinance debt with other financial institutions on similar terms. Management and owners have unquestioned character.
- <u>Placement Guidance</u>
  Rated companies typically include those in the BB+ and BB (S&P) or Ba1 and Ba2 (Moodys) range.

9-Borrowers of Minimally Acceptable Quality

- More leveraged than peers in the industry and/or liquidity is weak or unstable. Earnings may be marginal, but cash flow, and debt service are sufficient but may be deteriorating, exhibiting signs of strain, are inconsistent or reliant on projections. Prone to deterioration in difficult economy. Limited access to alternative lenders. Heavy reliance on debt financing. Borrower may have difficulty in obtaining similar rates and terms. Performance record is usually satisfactory. Lender relationship satisfactory. Management is either unproven or less than average. Assets are acceptable but have conditions that could bring deterioration more quickly than other acceptable loans.
- <u>Placement Guidance</u>
  Loans with deteriorating trend but still with cash flow coverage. Might have temporary setbacks to profitability. Rated companies typically in the BB- and B+ (S&P) or Ba3 and B1 (Moodys) range. Would include loans guaranteed by federal agencies (FSA, etc).

Loss Given Default Definitions

- Default: Earlier of nonaccrual or 90 days past due
- Economic Loss: Principal plus interest at date of default (plus any unpaid fees less the present value of subsequent cash flows
- Discount rate: Loan rate at time of default

Loss Given Default

- Minimum of 7 years of data (either internal or external)
- Represent entire business cycle
- *Issues:*
  - *Does historical data reflect modern assets? i.e. are hog facilities today = hog facilities in 1990*
  - *Do we have accurate data on actual costs incurred?*

Two Dimensional Risk Rating Model

- Loss Given Default: LGD
  - Applied to facility/transaction, not borrower.
  - LGD needs to be analyzed at each institution as the institution's policies and procedures will impact LGD.
  - Average expected loss for each LGD grade
    - Seniority of position
    - Amount and nature of collateral
    - Loan covenants

Two Dimensional Risk Rating Model

- Loss Given Default: LGD
  - Economic costs
    - Advances
    - Charge-offs
    - Recoveries
    - Legal fees
    - Staff costs
    - Collection fees

Loss Given Default

LGD Terminology	Code	Range %	LGD %
Low Well secured	L W	0-15	3
Moderate Adequately secured	M A	15-25	20
High Marginally secured	H M	25-50	50
Severe Under secured	S U	50+	75

Loss Given Default
Grades and Characteristics

- Low Range: 0-15% LGD : 3%
  - Loans that have a substantial positive collateral margin
  - Loans with FSA or other guarantor with unquestioned financial strength (absent any loan servicing issues)
  - Loans to customers that may have a short term cash flow problem, but have other financial strengths

Loss Given Default
Grades and Characteristics

- Medium   Range: 15-25%   LGD: 20%
  - Loans where collateral is positive, but the margin is limited.
  - Loans that are secured by assets that may not be easily converted to cash, may decline in value rapidly, or may disappear.
  - Loans where the operation/asset is not typical for the region.
  - Loans where collateral is marginal and where an unsecured guarantee may exist.
  - Loans that may be positively collateralized but where a lengthy shutdown period may be required, generating operating losses that may erode the collateral margin.

Loss Given Default
Grades and Characteristics

- High   Range: 25-50%   LGD: 50%
  - Senior unsecured loans.
  - Loans where total legal obligation greatly exceeds the NRV of collateral.
  - Loans to entities where inventory represents work-in-process and further processing is necessary to make the assets marketable.
  - Loans where branded products represent a significant part of the inventory.
  - Loans secured by assets that represent economically obsolete technology, either in size, design, location, or utility.
  - Loans to entities where the diversion of collateral or collateral proceeds is high, possibility of fraud is high, or where commodities are traded and internal controls are limited.

Loss Given Default
Grades and Characteristics

- Severe Range: >50% LGD: 75%
  - Unsecured loans that are legally and contractually subordinated to other facilities.
  - Loans on special purpose facilities.
  - Loans to entities funding accounts receivable with characteristics in terms of size, location, and state laws that make the collection uneconomic.
  - Loans on assets where regulatory problems exist (EPA, DNR, USDA) which may restrict the sale or use of the asset.
  - Loans secured by legal documents that are deficient or not perfected.

Two Dimensional
Risk Rating Model

- Exposure at Default ED
  - 100% of drawn plus 75% of undrawn commitments
  - 100% of direct credit substitutes such as letters of credit or guarantees
  - 20% of short-term self-liquidating trade-related exposures such as documentary credits

Two Dimensional
Risk Rating Model

- Maturity: M
  - Under foundation approach, all loans are assumed to have an average maturity of 3 years
  - Under IRB approach, the greater of 1 year or:
    - Nominal maturity of the instrument
    - Weighted maturity of the remaining contractual principal payments
    - Cap of 7 years

Retail Exposure Characteristics

- Specific product types
- Loan to person or persons
- Large pool of loans
- Each individual exposure has low value
- What loans in our portfolios are “Retail?”

Recovery Rates

- Operating
- IT
- Scorecard
- Mortgage ≥50% L/AV
- Mortgage <50% L/AV
- Rural Home

Primary Issues

- Change…. lender mind set =
  - Today
    - RR = PD * LGD
  - Future
    - RR = PD
    - Loss = LGD
    - Expected loss = PD * LGD
- Do I have to risk rate more loans?
- 14 vs. 10 categories
- Best producer loans are not A1s
- Combining producer and capital market loans into one grid
- Placement of FSA guarantees
- Placement of Farmer Mac stand-bys
- Consistency of implementation