ERM Update: Where Are They Now?

Ruth Brantsen, VP of Risk, Farm Credit of New Mexico, ACA
Brett Connally, Enterprise Risk Manager, Farm Credit Mid-America, ACA
Jerry Rose, EVP-Chief Risk Officer, American AgCredit, ACA
Overview

- Enterprise Risk Management updates from 3 Associations
  - Farm Credit of New Mexico
  - Farm Credit Mid-America
  - American AgCredit

- Progress made, lessons learned and future steps

- Three different journeys – some similarities, some differences (what works for one, might not work for others)
ERM Update: Where Are They Now?

Ruth Brantsen, VP of Risk – Farm Credit of New Mexico
August 26, 2019
Farm Credit of New Mexico

- $1.7 billion in held assets
- 120 employees
- 1,087 customers
- 5 Locations
- 25% Dairy
- 21% Cattle
Our ERM journey

2015 RMA Conference

2016 ERM was launched

• Updated Risks, RAS and dashboard reporting
• No additional training
• No great developmental leaps

2018 “Right-Sized” Role

2019 Develop Enterprise Risk Committee, Risk Surveys, Enhance Risk identification Process, Create Risk Responses, Enhance KRI
Time for a “fresh look”

- Where do we have the basics down?
- What can we incorporate to make the **biggest** difference now?
- Keep in mind ERM is a journey
  - Doesn’t need to be all done at once.....
    - You don’t get anywhere if you don’t start somewhere
Value of Enterprise Risk Committee

<table>
<thead>
<tr>
<th>MEMBERS</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP of Risk</td>
<td>Chair</td>
</tr>
<tr>
<td>Chief Credit Officer</td>
<td>Vice-Chair</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>Ex-Officio</td>
</tr>
<tr>
<td>VP of Audit</td>
<td>Member</td>
</tr>
<tr>
<td>General Counsel and SOC Officer</td>
<td>Member</td>
</tr>
<tr>
<td>Chief Services Officer</td>
<td>Member</td>
</tr>
<tr>
<td>VP of Information Technology</td>
<td>Member</td>
</tr>
<tr>
<td>VP - Controller</td>
<td>Member</td>
</tr>
<tr>
<td>VP of Product Development</td>
<td>Member</td>
</tr>
<tr>
<td>Credit Portfolio Analyst</td>
<td>Secretary</td>
</tr>
</tbody>
</table>

Oversees the risk of the organization

Enterprise Risk Committee

Staff and management know there is a central unit within the organization to bring their concerns about risk.

Also identifies opportunities that may exist throughout the organization and how capital may be deployed quickly to take advantage of those opportunities.

The purpose is to discuss risk and its mitigation holistically and not in silos.

The VP of Risk is responsible for aggregating the risk to paint a clear picture.
The Risk Identification Process
Risk Uncertainty and Impact

Template for Wording Risks

<table>
<thead>
<tr>
<th>There is a risk that....</th>
<th>Which may</th>
</tr>
</thead>
<tbody>
<tr>
<td>New government regulations will emerge that</td>
<td>May prevent the ability to raise prices</td>
</tr>
<tr>
<td>The company’s lack of understanding of customer IT capabilities</td>
<td>May lead to the launch of an online tool that is not user friendly and thus not used</td>
</tr>
</tbody>
</table>

Must reflect some aspect of uncertainty with a potential impact
Strive to identify opportunities as well as threats
Make a formal effort to look beyond known risks and identify emerging challenges
Integrate risk evaluation with the strategic planning session
Ensure the risk identification process includes “bottom-up” input in addition to senior management and business unit leaders
  - Evaluate these risks while formulating strategic objectives to ensure alignment between risk and strategy
Sample Risk Questions

For Business Development:

- What would you do to solicit business from Farm Credit if you were a competitor of Farm Credit?
- What are Farm Credit’s vulnerabilities and how might they be attacked by a competitor?
- What innovations might emerge that are disruptive technologies?
Develop a Short List

Goal:
To prioritize long list of risks to a short list of the most important risk themes.

100’s

Short List

Tier 1
(Top 1-10 Risks)

Tier 2
(Top 11-20 Risks)

Top 6-8 Risk Themes
Risk Identification Process – Lessons Learned

- Be careful with the wording of risks to ensure you are not stating facts, but looking at an uncertainty and its impact
- Think about opportunities and emerging risks
- Get input from all levels of the organization
- Group risks into “themes” to make more manageable
Risk Responses

- Core Business Drivers and Strategic Initiatives
- Communication and Monitoring
- Culture and Leadership
- Risk Identification
- Risk Assessment
- Risk Response
Bow-Tie Analysis (from NC State)

**Bowtie Analysis**

**“Causes”**
- What would cause this event to happen?
- What data tied to cause?

**Risk Event**

**“Consequences”**
- What would the consequences be if this event occurs?
- What data tied to consequences?

KRI
Risk Responses – Lessons Learned

- Risk responses should be developed and documented for key risks.
- Responses should be both preventative and mitigating, in light of the priority given to the risk in the assessment phase.
- Focus on risks that may stretch beyond your risk appetite.
## Monitoring and Reporting

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Risk Owner(s)</th>
<th>Metrics</th>
<th>Green</th>
<th>Yellow</th>
<th>Red</th>
<th>Actual</th>
<th>Current Risk Level</th>
<th>Q3 2019</th>
<th>Q4 2018</th>
<th>Risk Outlook (Trend)</th>
<th>Action Items/Comments</th>
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<td>$30,322,000</td>
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<td>$0</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Root Cause Analysis to developing metrics

- Root Cause Event
  - Leading Indicator
- Intermediate Event
  - Leading Indicator
- Risk Event
Lagging vs. Leading Indicators

Example:

- Lagging indicator: unplanned downtime
- Leading indicator: Status of maintenance plans

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Targets</th>
<th>Initiatives</th>
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</thead>
<tbody>
<tr>
<td>Improve Hardware</td>
<td>Unplanned Downtime</td>
<td>Unplanned downtime 5% lower than same period</td>
<td>Re-vamp maintenance plans</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td>prior quarter</td>
<td></td>
</tr>
</tbody>
</table>
KRI Facilitate Proactive Management of Risks
ERM Goal – Risk Aware decision-making

- Assumptions
- Risk Profile
- Risk Aware Decision Making
- Risk Appetite
- Business Context
- Culture
- Strategy
Next Steps – 2019 Objectives

- Integration with internal audit
- Enhance Business Intelligence (Big Data, AI)
- Bringing Business Plan items under the ERM Umbrella
  - Segregation of Duties
  - Incident Response Program
  - Business Resumption Plan
- Education and training
  - Break risk appetite down to functional levels of understanding
- Dashboard automation
Resources

- Protiviti
- North Carolina State University
- RMA
- AICPA (for COSO certification)
- RIMS (the Risk Management Society)
- RAAW Conference (peer sharing)
Farm Credit
OF NEW MEXICO
DON'T WAIT FOR OPPORTUNITY CREATE IT
ERM Update: Where Are They Now?

Brett Connally, Enterprise Risk Manager
Farm Credit Mid-America, August 26, 2019
Farm Credit Mid-America

- Indiana, Ohio, Kentucky, Tennessee
- $24.1 billion total assets
- 53% concentration in Grains and Consumer Housing
- 1,150+ employees / 80 branch offices
FCMA ERM Journey (the early years)

- Began our journey in 2015
- Hired Protiviti to guide early efforts
- Defined ERM and identified risks material to FCMA
- Education Session for Board and Executive Committee (EC)
- Conducted Enterprise Risk Assessments
ERM Program Components

Prior to 2016 RAAW Conference

- ERM Risk Model
- Enterprise Risk Assessments

Since 2016 RAAW Conference

- Enterprise Risk Evaluations
- ERM Governance
- ERM Dashboard
- Risk Appetite
ERM Risk Model

- ERM – To identify, prioritize, monitor and manage enterprise level risks and opportunities, and develop risk response strategies to accomplish the Association’s strategic imperatives
- 16 enterprise risks
- Created Risk Sponsor and Risk Owner roles

<table>
<thead>
<tr>
<th>Financial Market</th>
<th>Human Capital</th>
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</thead>
<tbody>
<tr>
<td>Credit Default</td>
<td>Fraud</td>
</tr>
<tr>
<td>Credit Concentration</td>
<td>Data Integrity</td>
</tr>
<tr>
<td>Reputation</td>
<td>Access &amp; Infrastructure</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>Model</td>
</tr>
<tr>
<td>Competitor</td>
<td>Lending Compliance</td>
</tr>
<tr>
<td>Leadership &amp; Communication</td>
<td>Legal Risk &amp; Non-Lending Compliance</td>
</tr>
<tr>
<td>Business Model</td>
<td>Business Delivery</td>
</tr>
</tbody>
</table>
Enterprise Risk Assessments

- Increases risk awareness and helps prioritize risk management efforts (voting results determine “High Priority” risks)
- Annual process includes 3 groups (Board, Executive Committee, and a cross-functional group of leaders)
- Criteria assessed – impact, likelihood, management readiness, and velocity
- Previously used in-person group assessments, but now use an online survey
Enterprise Risk Evaluations

- Annual process to document risk management approach for each of the 16 ERM risks (completed by risk owners)
- One page form tailored each year to focus on different aspects of risk management (e.g., risk ID, risk assessment, risk monitoring)
- Last year’s form focused on the identification of emerging risks and risk mitigation strategies
ERM Governance

- Once set on our desired ERM program components and routines, we established basic ERM governance.
- Established roles and responsibilities and set baseline expectations for our ERM program.
- Consists of an Board-level ERM Policy, ERM program documentation, and key process procedures.
ERM Dashboard

- Quarterly risk report developed in 2017
- Facilitated by Risk Management
- Includes Key Risk Indicators (KRI) for each of our 16 ERM risks (~4 per risk); KRI jointly developed between Risk Owners and ERM Manager
- Developed thresholds to indicate whether each KRI is in Green, Yellow, or Red status
Risk Appetite

What?

- Articulation of the type and amount of risk that our Association is willing and able to accept in pursuit of our strategic objectives
- Combination of qualitative statements and quantitative tolerances

When?

- Approved by the Board in December 2018
Risk Appetite - How?

- **Education** – Executive Committee (EC) and the Board Risk Management Committee

- **Determine Risk Appetite** – Conducted risk appetite workshops with EC and Board Risk Management Committee *(most important step we took!)*
  - Gained insights on relative appetite for the 16 ERM risks and fostered ownership amongst Executives and Board members

- **Approval** – EC, Board Risk Management Committee, then the full Board
Risk Appetite - What?

- Overall Risk Appetite & Culture Statements
  - Direction on our approach to Risk Management
  - Relative risk appetite statements
  - Risk culture statements
  
  e.g., “we understand the risks we take”
  
  e.g., (“We are a dependable source of constructive credit at all times…”, “…more cautious approach in our acceptance of operational risks”, “…we completely avoid behaviors or decisions that are contrary to our purpose or values”)
  
  e.g., “…any employee, at any time, is empowered to call attention to any risks and can do so free from fear of any retaliation”
Risk Appetite - What? (cont.)

- Risk-Specific Statements
  
  e.g., “Reputation risk – We take a cautious approach to those risks or behaviors that would negatively impact our brand or reputation”

- Risk-Specific Tolerances
  
  Examples
  - Credit Default – % new commitments ≥ PD8
  - Credit Concentration – Single industry exposure
  - Financial Market – Net Interest Income stress
ERM Lessons Learned

- Support from senior leadership a must
- To cultivate and enhance your risk culture, ERM must be a collaboration
  - Includes Risk Management, other staff members, senior leaders, and the Board
- Crawl, then walk, then stretch...then think about running
- Don’t let the perfect be the enemy of the good
Next Steps

✦ Planned ERM program components now in place, but we will consider additional components in the future
  
  – Prefer to become really good at several things as opposed to so-so at more things

✦ Time and experience will inform important refinements in the years to come (many of our ERM program components are still not mature)
  
  – ERM is not a project to finish and put on the shelf
ERM Resources

- NC State ERM Initiative ([www.erm.ncsu.edu](http://www.erm.ncsu.edu))
  - Content rich website and various workshop/conference offerings
- COSO ([www.coso.org](http://www.coso.org))
- Each other! (other FCS Risk professionals) – experience is the best teacher, so borrow from other’s experience
ERM Update: Where Are They Now?

Jerry Rose, EVP-Chief Risk Officer, American AgCredit
August 26, 2019
American AgCredit Snapshot

TERRITORY FACTS

$11 BILLION NET ASSETS
9,600 CUSTOMERS
20 MEMBER BOARD OF DIRECTORS
550 EMPLOYEES
$169.4 MILLION NET INCOME IN 2018

As of 6/30/19

OUR PRIMARY LENDING TERRITORY
Began our journey in 2012

Early efforts based on industry research and on-line materials

Defined ERM, identified high level risk appetite, began data effort

Moved quickly to identifying key risks, and producing Board-level risk dashboard to provide full company view of risk and performance

Supplemented roadmap with consultant-led gap assessments (e.g. ERM Program, Third Party and Model Risk Management, Internal controls etc.)
## American AgCredit ERM Journey

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>First Board Risk Appetite Statements</td>
<td>Developed ERM Framework-Board and Mgmt Governance Risk Assessment</td>
<td>Built first risk dashboard Three Lines of Defense RAROC Loan Pricing Tool Established Data Governance Committee</td>
<td>Expanded risk governance Data Governance Program Third Party Risk Monitoring</td>
<td>GRC System Internal Controls, testing, monitoring Early warning system and detective controls Model Risk Management</td>
</tr>
</tbody>
</table>

### 2012
- First Board Risk Appetite Statements

### 2013
- Developed ERM Framework-Board and Mgmt Governance Risk Assessment
- Categorized risks and named risk owners

### 2014
- Built first risk dashboard Three Lines of Defense
- RAROC Loan Pricing Tool
- Established Data Governance Committee

### 2015
- Expanded risk governance Data Governance Program
- Third Party Risk Monitoring
- Expanded Cybersecurity Assessment Data Warehouse/ Mgmt Reporting

### 2016
- GRC System Internal Controls, testing, monitoring
- Early warning system and detective controls
- Model Risk Management
## American AgCredit ERM Journey

### 2017
- Operational Risk Management Assessment
- Int. Rate Risk Modeling for Block Funding

### 2018
- Risk based auto renewal modeling
- Expanded Performance Reporting with PowerBI
- Spreadsheet controls
- Industry Analysis (Economist)

### 2019
- Stress Testing model building
- Quantitative analytics
- Expand use of risk based decision models
- Fraud Management
- Data Privacy
- Compliance Risk Assessment
- Data Management/Governance

### 2020 Planned
- Integrated Stress Testing/CECL
- Economic Capital
- Data analytics
- Automation tools
- Integrated loan decisioning models
## Risk Categories and Subcategories

### Strategic Risk
- Current Year Strategic Initiatives
- Portfolio / Financial Performance
- Culture
- Organizational Structure
- Merger / Acquisitions
- Talent
- Products and Services

### Reputation Risk
- System Institutions / Organizations ("Inside")
- Customer / Marketplace
- Media (Traditional & Social Media)
- Outside Institutions / Groups

### Geopolitical Risk
- Regulatory Environment
- Farm Credit System Environment ("within the System")
- GSE Environments (FCS, FANNIE, FREDDIE, FHLB)
- Legislative Environment
- Global Agriculture Environment

### Credit Risk
- Credit Quality
- Concentration Risk

### Financial Risk
- Market
- Liquidity
- Interest Rate Risk

### Operational Risk
- Employment Practices and Workplace Safety
- Compliance with Laws and Regulations
- Damage to Physical Assets
- Execution and Process Management
- Reporting Risk
- Internal Controls
- Third Party Risk Management

### Technology Risk
- Identify
- Protect
- Detect
- Respond
- Recover
- Unauthorized Activities
### Risk Dashboard example

#### Tolerances and Limits

#### Trend

#### Outlook

---

**R2 2018**

<table>
<thead>
<tr>
<th>Risk Cat</th>
<th>Risk Sub Cat</th>
<th>Metric</th>
<th>Level</th>
<th>Metric</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
<th>Q4 2017</th>
<th>Q1 2018</th>
<th>Q2 2018</th>
<th>Risk Outlook (Next 12m)</th>
<th>Comments / Actionable Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board</td>
<td>Adverse Assets / Risk Funds</td>
<td>X</td>
<td>X</td>
<td>20.0%</td>
<td>50.0%</td>
<td>10.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>8.00%</td>
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<td>Critical Assets / Risk Funds</td>
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<td>20.00%</td>
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<td>19.41%</td>
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<td>0.24%</td>
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<td>Board</td>
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<tr>
<td>Board</td>
<td>OAME / Total Classified Assets</td>
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<td>5.0%</td>
<td>10.0%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>1.00%</td>
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<tr>
<td>Board</td>
<td>Adverse / Total Classified Assets</td>
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<td>X</td>
<td>5.0%</td>
<td>10.0%</td>
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<tr>
<td>Board</td>
<td>Net Charge-Offs as % of Exposure - YTD</td>
<td>X</td>
<td>X</td>
<td>0.05%</td>
<td>0.10%</td>
<td>0.05%</td>
<td>0.03%</td>
<td>0.03%</td>
<td>0.01%</td>
<td>X</td>
<td>-0.01%</td>
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</table>

2019 | One year to a stronger professional portfolio

AN FCC Services Event
Program Governance & Oversight

➢ Board level oversight

- Board of Directors
- Executive Committee

- Compensation Committee
  - Human Resources
  - Compensation
  - Employee benefits
- Governance Committee
  - Board composition
  - Committee charters
  - Director nomination
- Audit Committee
  - Disclosure
  - Internal controls
  - Financial reporting
- Strategy and Risk Committee
  - Strategy
  - Enterprise-wide risks
  - Risk appetite
  - Emerging risks
AAC Management’s Risk Committee Structure and Risk Governance

Primary benefits of Management’s risk committee and sub-committee structure:
1. A build-out of a risk/reward-based decision making culture where the risk appetite can be interpreted, challenged, and implemented throughout the Association.
2. An opportunity for risk escalation from all parts of the company.

Enterprise Risk Committee (ERC)

- Credit Risk Committee
  - Credit Policies and Procedures
  - Underwriting guidelines
  - Limit Setting
- Security Risk Committee
  - Information Security
  - Physical Security
  - Business Continuity
  - Disaster Recovery
  - Fraud Management
- Operational Risk Committee
  - Operational risks
  - Internal Controls
  - Risk Control Self Assessments
  - Model and vendor risk
  - Privacy Oversight
- Market Risk Committee
  - Loan Pricing
  - Interest Rate Risk
  - Funding Strategies
  - Equity positioning
Three Lines of Defense Framework

This has been critical to how we approach risk taking, monitoring, and reporting.
Completing Maturity Models of specific areas has been helpful to assess where we are and discuss where we want to be in the future.

Maturity assessments completed: internal controls, third-party risk management, model risk management, cybersecurity, data management
## Operational Risk: Basel Fundamental Principles (Mature State - Highlights)

<table>
<thead>
<tr>
<th>Category</th>
<th>Characteristics</th>
</tr>
</thead>
</table>
| 1. Board of Directors | ➢ Establish strong risk culture  
➢ Develop, maintain, and implement a operational risk framework fully implemented into risk management processes |
| 2. Governance      | ➢ Board periodically reviews framework;  
➢ Board oversees Sr. Mgmt; Policies, processes implemented at all decision levels  
➢ Board review and approve risk appetite and tolerance statement articulating risk level association is willing to assume. |
| 3. Senior Management | ➢ Implements clear and robust governance structure w/clear lines of responsibility  
➢ Consistently maintains processes and systems for managing operational risk for products, activities w/in risk appetite. |

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Rating</th>
<th>Where do you want to be in 3 years?</th>
<th>Gap (Future - Current)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Board of Directors</td>
<td>4.0</td>
<td>4.6</td>
<td>0.6</td>
</tr>
<tr>
<td>2. Governance</td>
<td>5.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
<tr>
<td>3. Senior Management</td>
<td>5.0</td>
<td>5.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
## Operational Risk: Basel Fundamental Principles (Mature State - Highlights)

<table>
<thead>
<tr>
<th>Category</th>
<th>Characteristics</th>
<th>Current Rating</th>
<th>Where do you want to be in 3 years?</th>
<th>Gap (Future - Current)</th>
</tr>
</thead>
</table>
| 4. Identification and Assessment | ➢ Identification and assessment of inherent operational risks inherent in all activities and products  
➢ Approval process for all new activities and products that fully assesses operational risk | 3.0            | 5.0                                 | 2.0                    |
| 5. Monitoring and Reporting       | ➢ Process to regularly monitor operational risk profiles & material exposures.  
➢ Reporting mechanisms in place at all levels to proactively manage operational risk. | 3.0            | 4.0                                 | 1.0                    |
| 6. Control and Mitigation         | ➢ Strong control environment utilizing policies, processes, and systems  
➢ Appropriate internal controls and risk mitigation strategies | 4.0            | 4.0                                 | 0.0                    |
What we underestimated

- Time and effort required in building data warehouse
- Software application changes required for automation
- Number of people to staff risk efforts
- Internal controls program to monitor enterprise risks
What we got right

- Began building ERM Program for a $10 billion Association when we were $6 billion
- Didn’t wait to get perfect before implementing
- Stimulated risk appetite conversations throughout company
- Hired specialists (e.g., third party risk management, interest rate risk management, data management)
- Put self-service data and reporting analytics platforms in hands of users
- Used agile development to build data warehouse
Benefits of using ERM to lean into Risk Appetite

- Risk based decision making (i.e. RAROC-based pricing tool)
- Increased hold positions, Increased scorecard limits
- Resource allocation
- Improved capital deployment
- Auto-renewal program
- Automated real estate appraisal evaluations
- Risk aware culture
Discussion