15. Risk Rating Kansas Farmer Cooperatives: An Application of the Moody's Rating Methodology

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Abstract/Summary

Kansas farmer cooperatives are in a period of significant returns as well as heightened risk. According to the USDA, today's inflation adjusted net incomes have soared to the mid-1970s historical highs. But the ride up has not been smooth. Significant fluctuations in commodity prices, weather as well as other global economic factors have all contributed to the heightened risks faced by farmer cooperative board of directors and managers. This research aims at quantifying these risks for farmer cooperatives by using the Moody's risk rating methodology. Results suggest that those Kansas farmer cooperatives that generate ample cash flow, not necessarily those that are most profitable, have the most favorable risk rating. In addition, having flexibility in equity redemption plans helps improve a cooperative's risk rating.

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Risk and Profit Conference
August 22, 2013

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Why risk rate farmer cooperatives?

- Market volatility is quite high
- Assess where we are today versus the past
- Lenders
- Equity offering

Objective

- To understand what Moody's risk rating methodology emphasizes for agricultural cooperatives, and to apply this methodology to Kansas farmer cooperatives
  - Discuss methodology
  - Risk rate Kansas farmer cooperatives using CoBank data in 2005, 2008 and 2010
  - Compare risk ratings to similar farmer cooperatives in Nebraska

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Moody's Risk Rating Methodology

- Proprietary guidelines tailored to an industry
  - Global Agricultural Cooperatives
- Subjective versus Objective
- Four broad rating factors
  1. Scale and diversification
  2. Franchise strength and growth potential
  3. Financial flexibility
  4. Financial strategy and credit metrics

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Unique factors of global agricultural cooperatives

1. Legal and tax
2. Control the stream of produce payments
3. Limited access to equity capital
4. Membership stability
5. Politics
6. Operational complexity
7. Management quality and experience

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What's applicable to local farmer co-ops?

1. Scale and diversification
   – Not as Moody's defines it
2. Franchise strength and growth potential
   – Not as Moody's defines it
3. Financial flexibility
   – General thoughts do apply
4. Financial strategy and credit metrics
   – Yes…especially emphasis on cash

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Breaking down total cash flow

Total CF = Operating CF + Investing CF + Financing CF

- Operating CF = Net Earnings + Depreciation – Change in Net Working Capital
- Investing CF = Net change in fixed assets
- Financing CF = Net CF to creditors + Net CF to stockholders

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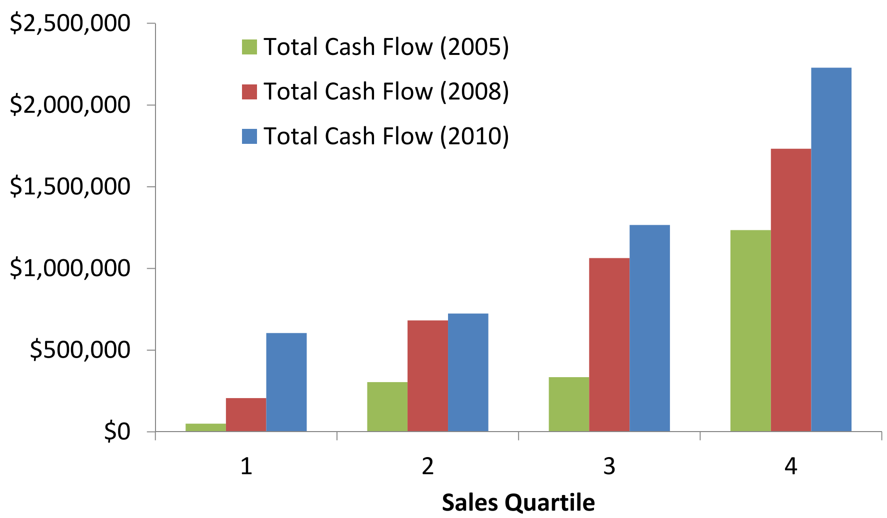
Kansas farmer cooperatives total cash flow by size (sales quartiles).



Source: CoBank RiskAnalyst Database

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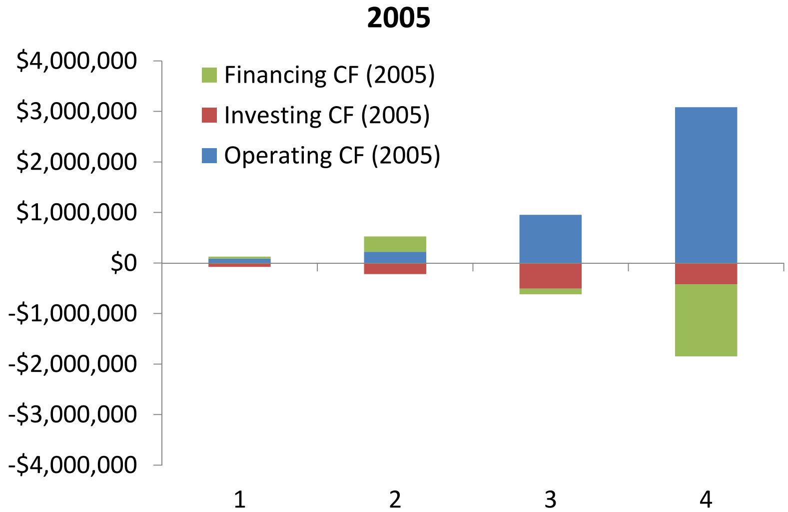
Kansas farmer cooperatives *breakdown* of total cash flow by size (sales quartiles).



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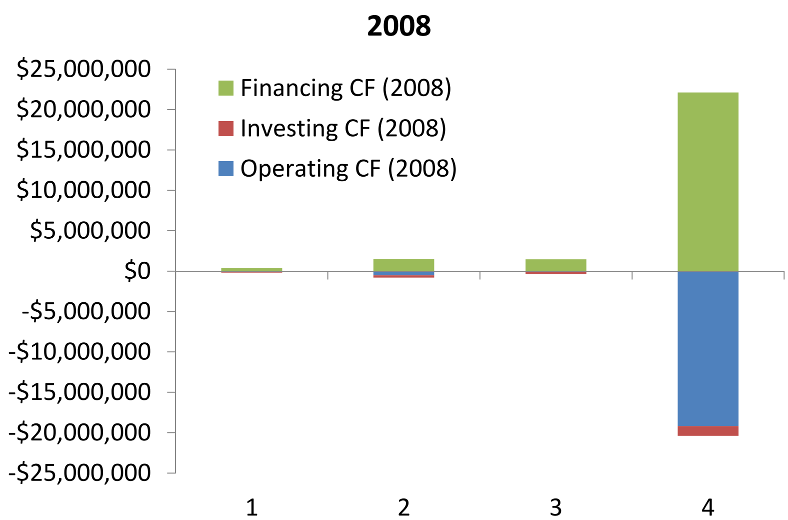

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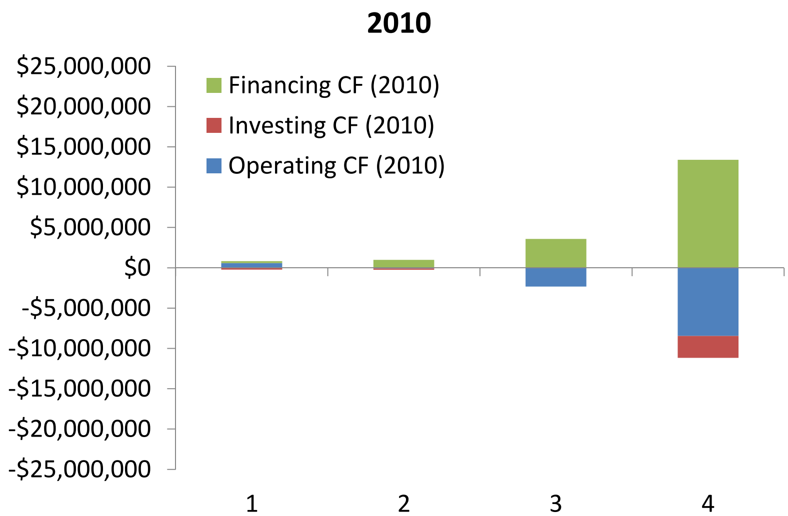

Source: CoBank RiskAnalyst Database

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Moody's key credit metrics to assess financial risk

- All four are weighted equally

1. Total Debt / Co-op EBITDA
2. Co-op Retained Cash Flow / Net Debt
3. Co-op EBITDA / Interest Expense
4. (Co-op Retained Cash Flow – Cap Exp) / Total Debt

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Global Long-Term Rating Scale

Rating	Definition	Short-term
Aaa	Obligations rated Aaa are judged to be of the highest quality, subject to the lowest level of credit risk.	PRIME
Aa	Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.	PRIME
A	Obligations rated A are judged to be upper-medium grade and are subject to low credit risk.	PRIME
Baa	Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.	PRIME
Ba	Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.	NOT PRIME
B	Obligations rated B are considered speculative and are subject to high credit risk.	NOT PRIME
Caa	Obligations rated Caa are judged to be speculative of poor standing and are subject to very high credit risk.	NOT PRIME
Ca	Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.	NOT PRIME
C	Obligations rated C are the lowest rated and are typically in default, with little prospect for recovery of principal or interest.	NOT PRIME

Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. Additionally, a "(hyb)" indicator is appended to all ratings of hybrid securities issued by banks, insurers, finance companies, and securities firms.*

* *By their terms, hybrid securities allow for the omission of scheduled dividends, interest, or principal payments, which can potentially result in impairment if such an omission occurs. Hybrid securities may also be subject to contractually allowable write-downs of principal that could result in impairment. Together with the hybrid indicator, the long-term obligation rating assigned to a hybrid security is an expression of the relative credit risk associated with that security.*

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Moody's credit metric rating of Kansas farmer cooperatives by total sales

Sales Quartile (2005)	Avg. Total Sales (2005)	Average "Credit Metric" Moody Rating (2005)
1	$8,301,465	A3
2	$18,040,306	Baa1
3	$28,464,234	Baa1
4	$175,368,760	Baa1
Overall	$58,470,487	Baa1
Sales Quartile (2008)	Avg. Total Sales (2008)	Average "Credit Metric" Moody Rating (2008)
1	$13,647,497	Baa1
2	$29,770,137	Baa2
3	$56,409,036	Baa2
4	$391,966,556	Baa3
Overall	$118,444,509	Baa2
Sales Quartile (2010)	Avg. Total Sales (2010)	Average "Credit Metric" Moody Rating (2010)
1	$11,276,211	A2
2	$25,415,818	A2
3	$55,835,918.	Baa3
4	$340,093,173	Baa2
Overall	$104,240,793	Baa1

Moody's credit metric rating of Kansas farmer cooperatives by cash return on local assets (CROLA)

CROLA Quartile (2005)	Avg. CROLA (2005)	Average "Credit Metric" Moody Rating (2005)
1	-5.2%	Baa3
2	3.2%	Baa3
3	7.0%	A3
4	18.8%	Aa3
Overall	5.1%	Baa1
CROLA Quartile (2008)	Avg. CROLA (2008)	Average "Credit Metric" Moody Rating (2008)
1	-6.7%	Baa1
2	2.0%	Ba2
3	6.0%	Baa3
4	19.7%	A2
Overall	5.1%	Baa2
CROLA Quartile (2010)	Avg. CROLA (2010)	Average "Credit Metric" Moody Rating (2010)
1	-6.2%	Baa2
2	1.4%	Baa3
3	5.1%	A3
4	19.4%	A2
Overall	5.9%	Baa1

Moody's credit metric rating of Kansas farmer cooperatives by total debt to total asset ratio

DA Quartile (2005)	Avg. DA (2005)	Average "Credit Metric" Moody Rating (2005)
1	6.0%	Aa3
2	23.9%	A2
3	38.8%	Baa3
4	56.1%	Ba2
Overall	30.3%	Baa1
DA Quartile (2008)	Avg. DA (2008)	Average "Credit Metric" Moody Rating (2008)
1	7.9%	A1
2	27.7%	A3
3	47.3%	Ba1
4	68.7%	Ba3
Overall	37.2%	Baa2
DA Quartile (2010)	Avg. DA (2010)	Average "Credit Metric" Moody Rating (2010)
1	6.9%	Aa3
2	26.7%	A3
3	36.3%	Baa2
4	51.2%	Ba2
Overall	30.6%	Baa1

Other factors to consider in the Moody's credit metric rating of Kansas farmer cooperatives

- Percent of sales from grain did not appear to have any perceivable trend
- Co-ops with higher profitability measures (ROA, ROLA and ROE) had high ratings
- Nebraska farmer co-ops relative to Kansas were:
  - Similar with regard to importance of financing CF
  - 2010 negative CF for smallest sales quartile
  - BIG NE co-ops! 2010 average TCF was $159M
  - Similar credit risk ratings and trends

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Conclusions

- In general, the Moody's financial metrics appear to be useful
- Total cash flow is up for all sizes of co-ops, but a larger emphasis is on financing (especially larger co-ops)
- Bigger does not necessarily mean stronger credit metric Moody risk rating
- Moody's appears to have some useful thoughts on risk rating co-ops but more work is needed:
  - Cash flow work
  - Need default rates to fully assess risk…however, how many co-ops have defaulted recently?
  - Updated data

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Thank you

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