

# *THE ART AND SCIENCE OF CREDIT ANALYSIS*

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Macro Clinic Video Blog: [www.compeer.com/education](http://www.compeer.com/education)  
Road Warrior of Agriculture: [www.comandsoybeandigest.com](http://www.comandsoybeandigest.com)  
Ag Globe Trotter: <https://www.northwestfcs.com/ag-industries/economic-updates/ag-economy-articles>  
Dave's GPS & Dashboard Indicators: [www.farmermac.com](http://www.farmermac.com)

## ***2020s- The Decade of Economic & Financial Divide***

- economic volatility in extremes
- manage the controllables & manage around the uncontrollables
- adapt, innovate, focus & follow the process
- decade of management transition
- decade of the high business IQ



# **Ten Questions for the Renewal Season Ag Lending Pilot Checklist (1)**

1. What percent of net income resulted from government payments in the last four years?
  - >50%
  - 25-50%
  - <25%
2. What percent of the government payments are reoccurring vs. nonrecurring?
  - >50%
  - 25-50%
  - <25%
3. What portion of net income is the result of export markets?
  - High
  - Average
  - Low

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# **Ten Questions for the Renewal Season Ag Lending Pilot Checklist (2)**

4. If the farm/ranch was profitable, how were the profits generated?
  - Government payments
  - Following a marketing/risk management plan
  - Speculative
  - Production, marketing, & financial operational efficiency
  - Outside revenues
5. How were the profits distributed?
  - Family living dividends
  - Build working capital
  - Investment in intermediate & long term assets
  - Taxes- state & federal
  - Investments off the farm/ranch

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## **Ten Questions for the Renewal Season Ag Lending Pilot Checklist (3)**

6. How vulnerable is the farm/ranch to supply and marketing chain issues, vertical integrators, processing, contract issues?
  - Highly
  - Average
  - Low
7. Over the past five years, what portion of net income gain was earned vs. appreciated?
  - High: >75% earned, <25% appreciated
  - Average: 25-75% earned, 25-75% appreciated
  - Low: <25% earned, >75% appreciated
8. Working capital lines of credit used:
  - Increased
  - Stayed the same
  - Decreased

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## **Ten Questions for the Renewal Season Ag Lending Pilot Checklist (4)**

9. If your customer was in the senior generation and purchased land, is a transition and estate plan in existence, being executed and monitored?
  - Definitely yes
  - In progress
  - Definitely No
10. Has your customer filled out the Business IQ scorecard and developed a plan for improvement?
  - Yes
  - In progress
  - No

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# Business IQ: Management Factors

## Critical Questions for Crucial Conversations

Farmer Checklist	Your Score	Green (3 points or 4*)	Yellow (2 points)	Red (1 point)
1. Knows cost of production		Written	In head	No idea
2. Knows cost of production by enterprise		Written*	In head	No idea
3. Goals - business, family, & personal		Written*	In head	No idea
4. Record keeping system		Accrual	Schedule F (one & done)	No idea
5. Projected cash flow		Written*	In head	No idea
6. Financial sensitivity analysis		Written*	In head	No idea
7. Understand financial ratios, break evens		Written*	In head	No idea
8. Work with advisory team and lender		Yes*	Sometimes	Never
9. Marketing plan written and executed		Yes	Sometimes	Never
10. Risk management plan executed		Yes	Sometimes	Never
11. Modest lifestyle habits, family living budget		Yes*	Sometimes	Non existent
12. Written plan for improvement executed & strong people management		Yes*	Sometimes	Non existent
13. Transition plan/Business Owner plan		Yes	Working on plan	Non existent/controversy
14. Educational seminars/courses		Yes*	Sometimes	Never attend
15. Attitude		Proactive	Reactive	Indifferent

**\*Extra Points:**

- Progressive Business may receive 4 points for #2,6,7,8,14  
 - Struggling Business Attempting Turnaround may receive 4 points for #3,5,8,11,12  
 (See pg. 2 for Progressive and Attempting Turnaround)

Score	Overall Analysis
35-50	Strong management rating, strong potential for resiliency & agility
24-34	Moderate management rating, potential issues in resiliency & agility
<24	Weak management rating, potential major issues in resiliency & agility

2021 Version - Developed by: Dr. David M. Kohl, Professor Emeritus, Ag & Applied Economics, in cooperation with Dr. Alex White, Dairy Science, Virginia Tech

## Business IQ Exercise

After completing the Business IQ: Management Factors Scorecard, what are three areas/points in your business that you will continue and three areas/points for improvement?

Three areas/points to continue:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Three areas/points to improve:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## ***Recent Business IQ Scores***

<b><u>Group</u></b>	<b><u>Score</u></b>
TEPAP	38.5
Crop Insurance	29.5
Farm Credit Associations	36.5
Median Score	32
FSA	22
Bank Sponsored Events	36

## ***How Can Team Members Use Business IQ as a Tool for Producers?***

- screener for attitude to improve
- each family member, business partner, spouse complete the Business IQ separately
- assists in prioritizing improvements
- communication tool- internal and external to team of advisors
- customer develops plan for improvement to improve or buy in
- objective way to measure management
- monitoring tool, year over year

**Business IQ: Management Factors**  
**Critical Questions for Crucial Conversations**

<b>Farmer Checklist</b>	<b>HUSBAND</b>	<b>WIFE</b>	<b>DAUGHTER</b>	<b>CFO</b>	<b>LENDER</b>
1. Knows cost of production	3	3	2	3	3
2. Knows cost of production by enterprise	4	2	2	3	3
3. Goals - business, family, & personal	4	3	3	3	2
4. Record keeping system	3	3	3	3	3
5. Projected cash flow	4	3	2	2	3
6. Financial sensitivity analysis	4	3	2	3	3
7. Understand financial ratios, break evens	4	1	2	2	3
8. Work with advisory team and lender	4	3	2	2	3
9. Marketing plan written and executed	2	2	2	2	1
10. Risk management plan executed	3	3	2	2	1
11. Modest lifestyle habits, family living budget	4	3	4	3	1
12. Written plan for improvement executed & strong people management	4	2	3	3	1
13. Transition plan/Business Owner plan	3	3	3	3	3
14. Educational seminars/courses	3	2	3	3	3
15. Attitude	4	3	3	3	2
<b>Business IQ Scores</b>	<b>53</b>	<b>39</b>	<b>38</b>	<b>40</b>	<b>35</b>

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## **Business IQ Summary: Areas to Continue/Improve**

**HUSBAND – BUS IQ: 53**

3 Areas to Continue

- 1 Irrigation/manure mgt
- 2 Intense office management
- 3 Improve crop/livestock efficiency

3 Areas for Improvement

- 1 Office management using CFO's talent
- 2 More efficient labor
- 3 Executing the marketing plan

**WIFE – BUS IQ: 39**

3 Areas to Continue

- 1 Record keeping - ratios, B/E
- 2 Cost of production (livestock)
- 3 Productivity of crops & livestock

3 Areas for Improvement

- 1 Financing without high interest rate
- 2 More seminars on ratios/break-even
- 3 Communications & employees' knowledge of how the business works

**DAUGHTER – BUS IQ: 38**

3 Areas to Continue

- 1 Researching cost effective crop/livestock mgt practices
- 2 Diversifying the farm in livestock
- 3 Searching for a new ag lender with better rates

3 Areas for Improvement

- 1 Employee handbook with written rules and guidelines
- 2 Lease equipment to avoid high repair bills and subscription fees
- 3 Crop/livestock KPIs

**CFO – BUS IQ: 40**

3 Areas to Continue

- 1 Crop Production
- 2 Custom Hire
- 3 Diversifying in livestock

3 Areas for Improvement

- 1 Debt restructuring-reduce interest expense-improve cash flow
- 2 Lease versus buy equipment
- 3 Pay invoices within terms to avoid finance charges



**LENDER – BUS IQ: 35**

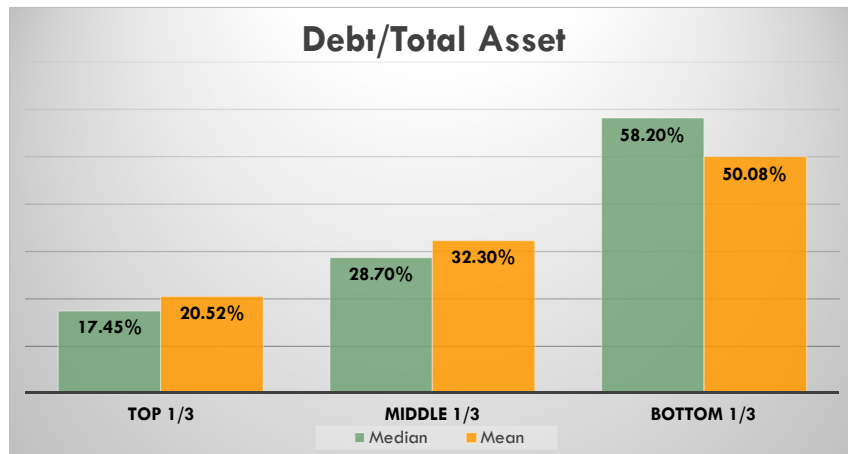
3 Areas to Continue

- 1 Crop production KPIs
- 2 Using equipment longer before trading
- 3 Getting outside advice

3 Areas for Improvement

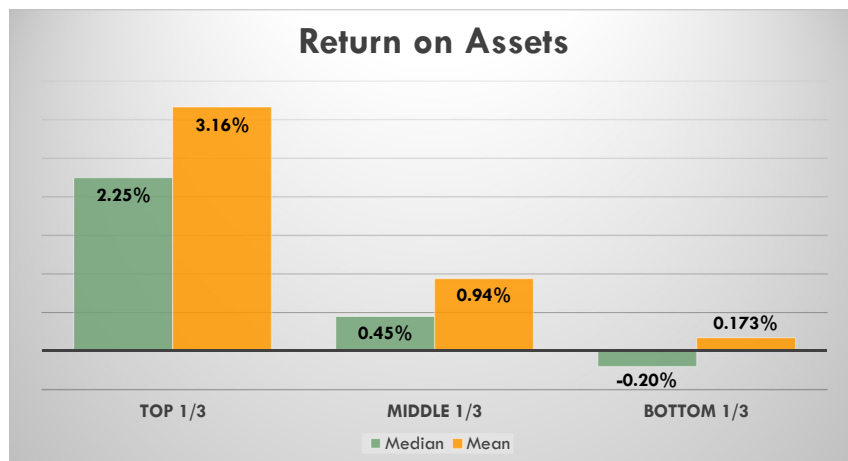
- 1 Cash flow - extending current loan terms
- 2 Comparison of budget to actual
- 3 Crop/livestock inventory

# Financial Ratios Across Business IQ Percentiles



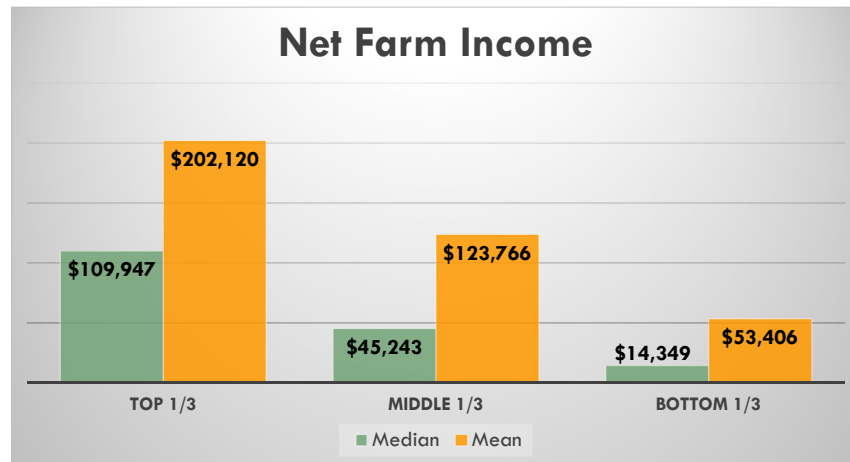
Preliminary Study of Kentucky Farm Business Management Association data - Ben Isaacs, Undergraduate Research Study at University of Kentucky

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# Financial Ratios Across Business IQ Percentiles



*Preliminary Study of Kentucky Farm Business Management Association data - Ben Isaacs, Undergraduate Research Study at University of Kentucky*

## Other Key Ratios

- coverage ratio
  - top third - 114%
  - bottom third - 10%
- operating expense to revenue ratio<sup>1</sup>
  - top third 68%
  - bottom third 90%

<sup>1</sup> excluding interest and depreciation



## ***Credit Traps in Good Economic Times***

- split lines of credit, non-traditional lenders
- new lender on the block
- expansion depletes true working capital, quickness to cash
- economic winning streak creates low priority on the basics of finance and marketing management
- long term debt service based on non-reoccurring revenues
- inflated capital structure, cash leases & rents reduces competitiveness
- marginal assets come into production

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## ***Financial Monitoring & Perspectives***

- government payments as percent of accrual net farm income
  - green light <20%
  - yellow light 20-50%
  - red light >50%
- lines of credit- percentage of usage
- accounts payable vs. prepaid expenses
- coverage ratio “shock test”
  - with government support: 248%
  - without support: 114%
- six questions for accrual analysis without the numbers

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# Wisdom by the Numbers



- **Dave's "Double Dip of Death"** (3 year trend analysis)
  - Debt to asset ratio >50%
  - Operating expense/revenue ratio (excluding interest & depreciation) >80%
- **Triple Witch** (3 year trend analysis)
  - Debt to asset ratio >50%
  - Operating expense/revenue ratio (excluding interest & depreciation) >80%
  - Government payments/net income >50%
- **Quadruple Canyon** (3 year trend analysis)
  - Debt to asset ratio >50%
  - Operating expense/revenue ratio (excluding interest & depreciation) >80%
  - Government payments/net income >50%
  - Business IQ <30

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## Global Composite Credit Index: Emerging Ag Entrepreneurs

*This risk model is designed for startup/growing businesses with minimal land equity that rent or lease much of their asset base and have specialized or diversified revenue streams.*

Variable	Criteria	Year A	Year B	Year C	Year D
<b>Repayment Ability</b>					
		Index	Index	Index	Index
Term Debt and Lease Coverage Ratio	more than 200 percent	4	4	4	4
	150 - 200 percent	3	3	3	3
	125 - 149 percent	2	2	2	2
	100 - 124 percent	1	1	1	1
	less than 100 percent	0	0	0	0
<b>Liquidity</b>					
		Index	Index	Index	Index
Working Capital / Expenses	more than 25 percent	4	4	4	4
	16 - 25 percent	3	3	3	3
	11 - 15 percent	2	2	2	2
	0 - 10 percent	1	1	1	1
	negative	0	0	0	0
<b>Liquidity/Debt Service</b>					
		Index	Index	Index	Index
Working Capital / Debt Service	more than 5:1	4	4	4	4
	4:1 - 5:1	3	3	3	3
	2.5:1 - 4:1	2	2	2	2
	1:1 - 2.5:1	1	1	1	1
	less than 1:1	0	0	0	0
<b>Debt Servicing Efficiency</b>					
		Index	Index	Index	Index
Term Debt / EBITDA	less than 2.5:1	4	4	4	4
	2.5:1 - 3.5:1	3	3	3	3
	3.5:1 - 4.5:1	2	2	2	2
	4.5:1 - 6.0:1	1	1	1	1
	more than 6.0	0	0	0	0
<b>Profitability</b>					
		Index	Index	Index	Index
Return on Assets Ratio	more than 8 percent	4	4	4	4
	6 - 8 percent	3	3	3	3
	3 - 5 percent	2	2	2	2
	1 - 2 percent	1	1	1	1
	less than 1 percent	0	0	0	0
<b>Financial Efficiency</b>					
		Index	Index	Index	Index
Operating Expense / Revenue Ratio (excluding interest & depreciation)	less than 65 percent	4	4	4	4
	65 - 74 percent	3	3	3	3
	75 - 85 percent	2	2	2	2
	86 - 100 percent	1	1	1	1
	more than 100 percent	0	0	0	0
<b>Business IQ Score</b>					
		Index	Index	Index	Index
Business IQ Score	greater than 40	4	4	4	4
	35-40	3	3	3	3
	30-34	2	2	2	2
	25-29	1	1	1	1
	less than 25	0	0	0	0
<b>Solvency</b>					
		Index	Index	Index	Index
Debt to Asset Ratio	less than 25 percent	4	4	4	4
	25-39	3	3	3	3
	40-59	2	2	2	2
	60-75	1	1	1	1
	greater than 75 percent	0	0	0	0
<b>Total of All Indexes</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					

Developed by  
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Level	Index	Description <sup>1</sup>
Level 1	27 - 32	Acceptable Risk, positioned to grow.
Level 2	20 - 26	Modest Risk, growth limitations.
Level 3	12 - 19	High Risk, growth inhibited, need risk mitigation tools.
Level 4	< 12	Excessive Risk, need risk mitigation plan.

<sup>1</sup>Any classification could be countered with intangibles described in the art of lending, co-signatures, government guarantees, grants, and other special circumstances.

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## ***Favorable Odds for Business Success (1)***

- volatility will place a high priority on working capital
  - block adversity
  - capitalize on opportunity
- profitability plan 60-30-10
  - better is better before bigger is better
- profitability & cash flow will require balanced management

<b>Production</b>	<b>Financial</b>
<b>Marketing/Risk Mgt.</b>	<b>Operational Efficiency</b>

- strong business IQ managers:
  - generate a profit in seven of 10 years
  - score about 35
  - write plans for improvement

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## ***Favorable Odds for Business Success (2)***

- a good defense is a business' best offense
  - profits is your defensive line
  - liquidity is your linebackers
  - collateral is your safeties & cornerbacks
- more zeros and commas on the financial statement requires more focus and intensity
  - ownership of numbers
  - line by line management
  - 5% rule
- family living budgets are just as important as business budgets
  - number of families
  - Corvette Rule

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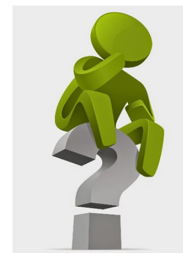
## *Favorable Odds for Business Success (3)*

- transition plan is more important than an estate plan
  - transitioning the right skill sets
  - 1% Rule
- advisory team is trend of the 2020s
  - your network of people will be equal to your self worth & financial net worth
- **DAIRY** for life:
  - **D**iscipline
  - **A**ttitude and Accountability
  - **I**nitiative, passion and zest
  - **R**espectful, **R**eliable and open to **R**eason
  - **Y**ou - It's all up to **Y**ou. "Look in the mirror."

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## *Top Questions That Impact Producers' Financials*

- What is an example of "lender speak" vs. "producer speak"?
- Why were there three debt ratios in the original Farm Financial Standards Task Force recommendations?
- Why is ROI a dangerous ratio?
- What is the most producer friendly ratio?
- In a workout, what are the two most valuable ratios?
- What is the number one sign of a business headed south financially?
- In a lender's analysis, what danger signs do you see related to family living costs?
- What are some budget busters in family living costs?
- What is your 1980's scenario for agriculture?
- Why are you optimistic concerning young farmers and ranchers in agriculture?



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## ***Championship DNA – Lenders/Producers (1) Quotes, Perspectives & Wisdom***

- Small business makes small banks which make small rural communities.
- I left \$500,000 of net profit on the table this year by following a marketing plan, however ten of my twelve years in farming have been profitable by following a market plan & the process.
- There is a worker shortage in 2021 but an employment shortage in 2025-30.
- Worry is part of the lender's DNA.
- People lose their way when they lose their why.
- Good economic times are never as great as touted or bad times as bad as they think they are going to be.



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## ***Championship DNA – Lenders/Producers (2) Quotes, Perspectives & Wisdom***

- Manage the controllables and manage around the uncontrollables.
- Credit starts in the top of the economic cycle & business development starts in the bottom of the economic cycle.
- Championship lenders have an education in their DNA.
- The vision is way you see your business, the brand is the way your customer sees the business.
- If it grows to fast, it is a weed.
- There is no magic silver bullet, next big thing & A,B,C student.



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