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Member of Academic Hall of Fame, College of Agriculture & Life Sciences
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Low Margin Era

- technology - supply exceeds demand
- worldwide - new resources in production
- weather and climate changes
- base hits vs. home run profits & cash flow
- managing expectations
- focus on fiduciary fundamentals
Volatility of Profits/Cash Flow

- trade negotiations and expectations
- weather/African swine flu
- political uncertainty
- consumer demand shifts
- structural changes in industry
Generational Financial Performance Comparisons
Super Cycle & Post Super Cycle

<table>
<thead>
<tr>
<th>Financial Metric</th>
<th>2012</th>
<th>2018</th>
<th>2012</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Super Cycle Median</td>
<td>Under 10 years</td>
<td>Post Super Cycle Median</td>
<td>Under 10 years</td>
</tr>
<tr>
<td></td>
<td>10 to 40 Years</td>
<td>10 to 40 years</td>
<td>10 to 40 years</td>
<td>10 to 40 years</td>
</tr>
<tr>
<td>Number of Farms</td>
<td>2,881</td>
<td>744</td>
<td>2,451</td>
<td>836</td>
</tr>
<tr>
<td>Net Farm Income</td>
<td>$197,828</td>
<td>$90,865</td>
<td>$30,752</td>
<td>$26,855</td>
</tr>
<tr>
<td>ROA</td>
<td>10.6%</td>
<td>14.4%</td>
<td>1.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>OPM</td>
<td>30.5%</td>
<td>30.0%</td>
<td>6.8%</td>
<td>11.6%</td>
</tr>
<tr>
<td>ATO</td>
<td>45.3</td>
<td>55.3</td>
<td>21.5</td>
<td>35.9</td>
</tr>
<tr>
<td>Working Capital/Revenue</td>
<td>39.9%</td>
<td>27.6%</td>
<td>19.0%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Term Debt Coverage</td>
<td>3.37</td>
<td>3.18</td>
<td>0.94</td>
<td>1.63</td>
</tr>
<tr>
<td>Debt/Asset Ratio</td>
<td>35%</td>
<td>54%</td>
<td>38%</td>
<td>58%</td>
</tr>
<tr>
<td>NFI</td>
<td>$13,162</td>
<td>$17,891</td>
<td>$16,013</td>
<td>$28,728</td>
</tr>
<tr>
<td>Family Living</td>
<td>$53,536</td>
<td>$36,959</td>
<td>$49,987</td>
<td>$32,996</td>
</tr>
<tr>
<td>Capital Expenditures</td>
<td>$126,770</td>
<td>$69,333</td>
<td>$49,000</td>
<td>$28,705</td>
</tr>
<tr>
<td>Machinery/Equip. Invest Per Acre</td>
<td>$558</td>
<td>$290</td>
<td>$670</td>
<td>$231</td>
</tr>
<tr>
<td>Term Debt/EBITDA</td>
<td>1.10:1.0</td>
<td>1.11:1.0</td>
<td>2.59:1.0</td>
<td>1.63:1.0</td>
</tr>
</tbody>
</table>

Source: FINBIN, https://finbin.umn.edu/
### Super Cycle & Post Super Cycle Game Critique – Youth Vs. Experience

<table>
<thead>
<tr>
<th>Younger Farmers/Ranchers</th>
<th>Experienced Farmers/Ranchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ maintain operating margins</td>
<td>▪ term debt to EBITDA increased dramatically</td>
</tr>
<tr>
<td>▪ have stronger asset turnover ratios</td>
<td>▪ refinance losses and term debt decrease EBITDA</td>
</tr>
<tr>
<td>▪ preserve working capital</td>
<td>▪ have much stronger equity position, debt to asset ratio, under 40% represents resiliency</td>
</tr>
<tr>
<td>▪ have much stronger term debt coverage ratio post super cycle</td>
<td>▪ capital expenditures strong, good times</td>
</tr>
<tr>
<td>▪ more off farm income</td>
<td>▪ have twice as much machinery investment per acre</td>
</tr>
<tr>
<td>▪ less family living withdrawals</td>
<td></td>
</tr>
<tr>
<td>▪ have half as much machinery investment per acre</td>
<td></td>
</tr>
</tbody>
</table>

VS.

- Have more off farm income
- Less family living withdrawals
- Have half as much machinery investment per acre
Business IQ:
Spectrum of Performance Possibilities

High Collateral

Low Collateral

High Working Capital

Low Working Capital

High Equity & High Efficiency

Low Equity & Low Efficiency

High Profits & Cash Flow

Low Profits & Cash Flow

Code Green
35+ B. IQ

Code Yellow
20-34 B. IQ

Code Red
< 20 B. IQ

Code Orange
20-40 B. IQ

Reactive

Proactive

B. IQ = Business IQ
Paddling - Upper Right Quad.  
Code Green - Disciplined Growth

- strong business IQ score of 35+
- proactive manager
- > 60% equity
- term debt to EBITDA <2.5:1
- operating expense/revenue ratio (excluding interest and depreciation) <75%
- working capital to expenses >30%
Treading Water - Upper Left Quad.  
**Code Yellow - Limited Growth**

- moderate business IQ score of 20-34
- 70% equity
- working capital to expenses >20%
- operating expenses/revenue ratio (excluding interest and depreciation) >80%
- competitive issues in industry
Paddling or Bailing Water – Lower Rt.

**Code Orange** - Excessive Growth

**Paddling towards Green**
- business IQ score >38
- ROA averages 6%
- <50% equity
- modest family living expenses
- dimensional revenue streams
- earns and turns

**Bailing towards Red**
- business IQ score of <28
- profit issues - ROA averages 1%
- <50% equity
- high living costs
- specialized revenue streams
- lack earns & turns
Bailing Water - Lower Left Quad.  
**Code Red** - Partial or Total Liquidation

- poor business IQ score of <20
- reactive manager
- <40% equity
- working capital is negative
- operating expense to revenue over 90%
- excessive family living expenses
- victims & “know-it-alls”
Financial Trip Points

- split lines of credit
  - > 10 lines
- term debt/EBITDA 6 to 1 or more
  - 3 to 5 years earnings on average
- burn rate on core equity <2.0 years
- operating expense/revenue ratio excluding interest & depreciation above 95% (three year average) with no non-farm income
- victim, know it all attitude concerning business improvement
## Business IQ: Management Factors
### Critical Questions for Crucial Conversations

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

### 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

<table>
<thead>
<tr>
<th>Score</th>
<th>Overall Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-50</td>
<td>Strong management rating &amp; viability</td>
</tr>
<tr>
<td>20-34</td>
<td>Moderate risk &amp; viability; will most likely show previous refinancing</td>
</tr>
<tr>
<td>&lt;20</td>
<td>High risk &amp; lack of long term viability</td>
</tr>
</tbody>
</table>
# Recent Business IQ Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEPAP</td>
<td>38.5</td>
</tr>
<tr>
<td>Crop Insurance</td>
<td>29.5</td>
</tr>
<tr>
<td>Farm Credit Associations</td>
<td>36.5</td>
</tr>
<tr>
<td>Median Score</td>
<td>32</td>
</tr>
<tr>
<td>FSA</td>
<td>22</td>
</tr>
<tr>
<td>Bank Sponsored Events</td>
<td>36</td>
</tr>
</tbody>
</table>
Trouble Shooting Matrix

**Insufficient Repayment Capacity**

- **Cut Business Cost**
  - Reduce Four Largest Expenses: Crop, Feed, Labor, ??

- **Non-Farm Revenue**
  - Job Stability/Availability, Job Cost
  - Job Earnings, Skills, Time Management

- **Increase Income**
  - Sell Capital Assets, Deferred Taxes,
  - Increase Production, Increase Price

- **Cut Living Withdrawals**
  - Purchase Financial Software, Small Cost Containment

- **Restructure Debt**
  - Longer Term, Interest Only,
  - Principal/Interest Deferred

- **Capital Infusion**
  - Equity Capital, Family Capital,
  - Supplemental Cash Flow

- **Bankruptcy**
  - Voluntary, Involuntary,
  - Chapter 7, 11, 12, 13
The Burn Rate – Working Capital Adversity vs. Opportunity

Defensive “Adversity Oriented”
- Current Assets: $2,000,000
- Current Liabilities: $1,000,000
= Working Capital: $1,000,000

Projected Loss: $500,000

Working Capital = # of years
Projected Loss

$1,000,000 = 2 years
$500,000

Red < 1.0 Year = Vulnerable
Yellow 1.0-3.0 Years = Resilient
Green >3.0 Years = Agile

Offensive “Opportunity Oriented”
- Current Assets: $1,200,000
- Current Liabilities: $500,000
= Working Capital: $700,000

Opportunity: Buy a farm with $300,000 working capital leaves $400,000 working capital.

Debt Service (Existing & New) Payments: $100,000

Working Capital = # of years
Total Debt Service Payments

$400,000 = 4 Years
$100,000

Red < 2.5 Years = Vulnerable
Yellow 2.5-5.0 Years = Resilient
Green >5.0 Years = Agile
## Burn Rate on Core Equity

**Adversity vs. Opportunity**

(Assume $500,000 Earnings Loss & 20% land value decline)

<table>
<thead>
<tr>
<th>Assets- Market Value</th>
<th>Estimated Value</th>
<th>Loan Maximum</th>
<th>Collateral Position</th>
<th>Remaining Principal</th>
<th>Equity Excess Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Long Term (20% Decline on Land)</td>
<td>$6,000,000</td>
<td>X 70%</td>
<td>$4,200,000</td>
<td>- $2,200,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td></td>
<td>$4,800,000</td>
<td>X 70%</td>
<td>$3,360,000</td>
<td>- $2,200,000</td>
<td>$1,160,000</td>
</tr>
<tr>
<td>2. Intermediate</td>
<td>$3,000,000</td>
<td>X 60%</td>
<td>$1,800,000</td>
<td>- $800,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>3. Current</td>
<td>$1,650,000</td>
<td>X 80%</td>
<td>$1,320,000</td>
<td>- $860,000</td>
<td>$460,000</td>
</tr>
</tbody>
</table>

### Burn Rate: Land & Long Term Equity Reserves

\[ \text{Excess Reserves} = \frac{\text{Earnings Loss}^1}{\text{Burn Rate}} \]

- **Red**: $2,000,000 = 4.0 Years
- **Yellow**: $1,160,000 = 2.32 Years

1 Assume Earnings Loss of $500,000

- **Green**: >7.0 Years = Agile

<table>
<thead>
<tr>
<th>Name</th>
<th>Burn Rate</th>
<th>\</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>&lt; 4.0 Years = Vulnerable</td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>4.0-7.0 Years = Resilient</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>&gt;7.0 Years = Agile</td>
<td></td>
</tr>
</tbody>
</table>

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Bridge or Pier Concept

- **before:**  
  Term Debt = $1,000,000 = 4 to 1  
  EBITDA = $250,000

- **after:**  
  Term Debt = $1,250,000 = 5 to 1  
  EBITDA = $250,000

- no improvement in EBITDA
- refinancing using land equity
- debt levels higher
- owner equity loss, more debt service
- water is deeper near the end of pier
- the longer the pier, then the narrower the pier
Worst Lending Experiences

- fraud: missing grain, livestock and/or machinery
- excessive family living based upon good times
- attempting to bash an existing customer
- didn’t follow the plan
- continued refinances, switched lenders
- hidden account payables
- didn’t use line of credit properly
- rumors that were verified
- inherited business debt free/next generation broke
Best Lending Experiences

- family business, transition old to young- lender transition at the same time
- young producer FSA/bank now 10 years later, million in equity 5-45-50 program
- successfully developed and executed marketing plan
- followed a business plan, very successful advocate for other producers
- used financial benchmarking as a tool to improve the business
- developed a young producer educational program- investment paying off a decade later
- assist a customer work out of the business without losing all the equity