One Banker’s View of Financing Farms in the Future

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Today’s Ag Environment

- Nearly unprecedented period of **prosperity** and **profitability** for row crop and grain producers
- Spectacular increases in farm real estate
- Rapidly rising cash rents
- For the first time in years we face some headwinds
  - Could the great boom be coming to an end?
  - 28/66/6
Cycles in Production Agriculture

- Have been cycles for the last 400 years.
- Will continue to be due to greed and fear.
- Strategy is to bulletproof your balance sheet during good times.
- So you can catapult ahead of your competition in bad times.
- If you get greedy during good times you will likely be on your knees in bad times fighting for survival.
Production Ag Econ 101

“The function of a competitive market is to drive the economic return to the average producer to breakeven through supply and demand in both input and output markets. In equilibrium, the top end are profitable and growing, the average are hanging in there, and the bottom end are losing money and exiting the industry. Business success and survival depend on continuous improvement at a pace necessary to stay in the front half of the pack.”

Professor Danny Klinefelter
Texas A & M University
Recent years have been tremendous!
A Golden Era for Agriculture...

U.S. Farm Income and Equity

Billions of dollars (2009 constant dollars)

Source: USDA
What have been the primary drivers of this hot land market?

- Interest rates – capital is historically cheap
- Ethanol – RFS changes – could be a real game changer
- Exports – emerging market demand
- Commodity prices
- Weather – good and bad
- Farmland has now likely caught up to these changes
Demand expansion dramatically increased profitability
• Will rates move up as slowly as they have moved down?
• Rate impact would likely felt on valuations today
• Cash flow impact will be secondary impact unlike 70’s
• Warning sign 1 – something changes to take us out of accommodation

Sources: Iowa and Illinois data were compiled from various Land Values and Cash Rent Summary reports published by the National Agricultural Statistics Service. The Indiana data are from the Purdue Annual Land Value Survey, June 2010.
Ten Year Treasuries

1/2/62–4/10/13
High: 9/30/81 15.84%
Low: 7/25/12 1.43%, now 2.7%
Average: 6.61%
World Population: 1950 - 2050

- Population growth is seen as slowing as development rises.
- Slower growth is not no growth. Expect 9 billion by 2050.
- U.S. farmers will be challenged in new ways.
The Demand Response: Is Export Growth Done?

U.S. Agricultural Exports

Billions of dollars (2009 constant dollars)

Source: USDA
CORN OUTLOOK

- If China were to replace just 1% of their holdings of US Treasuries with corn for their reserves, this would amount to 73.1 million tons (2.88 billion bushels).
- Acreage will fall if profits don’t improve.
- Winter price lows should be in now.
- Readjust profit expectations.
- Must raise big crops to satisfy growing demand.
SOYBEAN OUTLOOK

- Strong U.S. demand until Brazil new crop avail.
- Big South American crop will pressure late winter spring prices.
- Additional acreage next year due to poor corn profits if bean prices don’t fall.
- Must raise big crops to satisfy growing demand.
Figure 6: World Harvested ACRES 13 Major Crops Total: ( Millions )

Acreage response is underway!

1972/73 = 1,872
1981/82 = 2,115
1996/07 = 2,104
2005/06 = 2,144
2012/13 = 2,267

123 Million acres added in 7 years
2012 Farm Real Estate Value by State
Dollars per Acre and Percent Change from 2011

NC = No Change
Landowner’s ultimate beneficiary of strong farm economy

- If you sell
- If you rent
- If you farm
Current Macro look at farm finances

- Poor farmers are making money – not always a good thing
- 7–10 years of prosperity (grain)
  - Time to pay up – hangover possible – Winston Churchill
  - What did you do with the money in the years that you made it?
- Most problem loans are made in good economic times
- Most mistakes by farmers made in good times
Current Macro look at farm finances (continued)

- Lots of prior year’s profits tied up in fixed assets that have been purchased with profits/cash
- Deferred tax liability – HUGE
  - Many have chosen not to pay taxes in the years they could afford to
  - Tax bill may come due when they can’t afford it – front-end loaded depreciation
  - Only one thing worse than paying income tax
- Unretired farmers – farmers farming longer – 57.1 years
Current Macro look at farm finances (continued)

- Young farmers
  - Technologically very savvy
  - Passionate
  - Attitude on risk – handling less than prosperous economic times?
  - FNBMD – may come to an end?
  - Family living
- What’s the “new normal” with regard to yields, etc.?
- Wealth effect – 4 cents/stock market – 9 cents/real estate
- Best cure for high prices
- Best cure for low prices
Profitability Not a Function of Size, Type of Operation, or Location

<table>
<thead>
<tr>
<th>Operation</th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>860 acres &amp; custom feeds 4,412 head pig space, 14 yr aver</td>
<td>10%</td>
<td>16.0%</td>
</tr>
<tr>
<td>1690 acres 400 head cattle fed 13 year earned NW increase</td>
<td>12.0%</td>
<td>16.5%</td>
</tr>
<tr>
<td>12,000 acres corn and soybeans 35 year average</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>2150 acres corn &amp; soybeans, 5000 sows 11 year average</td>
<td>11%</td>
<td>19.2%</td>
</tr>
<tr>
<td>900 acres &amp; 5,400 pigs spaces 9 year average</td>
<td>16%</td>
<td>23%</td>
</tr>
</tbody>
</table>

ROA (Return on Assets)  ROE (Return on equity)
The Cost of a Bad Decision?

Your child is being eaten by a camel. Do you...

a) save your child or
b) take a photo.
Financial statement thoughts

- Overall debt levels in the farm sector are reasonable
  - It’s a distribution problem
  - Lots of farm operations with little or no debt
- Cost vs. market based financial statements
- Valuation of land of financial statements
- ENW
- Cash vs. Accrual
Good records more important in challenging times than in highly profitable.

Accounting discipline.

Matching up asset and debts on financial statement.

Lots of prior year profits tied up in fixed assets (equipment, land, etc.)
Bulletproof Your Balance Sheet

- Working Capital
  - 50% of annual expenses
  - If > 5,000 acres should be 75%
  - If > 10,000 acres should be 100%
- Overall equity > 60%
- Take a profit when it presents itself and meets your goals
Bulletproof Your Balance Sheet

- Refinance Real Estate or Machinery to free up cash
- Take advantage of 50 year lows in interest rates
- Do it now
- Biggest challenge will be access to capital
### Sch F vs. Accrual Net Income

% difference for years averaged

<table>
<thead>
<tr>
<th>Years Averaged</th>
<th>All farms</th>
<th>20-40% in debt</th>
<th>&gt;40% in debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-04</td>
<td>67%</td>
<td>56%</td>
<td>60%</td>
</tr>
<tr>
<td>2003-05</td>
<td>41%</td>
<td>56%</td>
<td>61%</td>
</tr>
<tr>
<td>2004-06</td>
<td>63%</td>
<td>57%</td>
<td>63%</td>
</tr>
<tr>
<td>5-Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002-06</td>
<td>66%</td>
<td>55%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Lots of recommendations

- 1–year debt service (P&I) in cash
- 25%–35% of gross farm revenue
- Current ratio limited value
  - Shock absorber
  - Cash can have a lot more value than what’s being earned in the bank
Top 5 Liquidity Concerns

1. Sticky costs of production
2. Poor financial structure
3. Gigantic deferred tax liabilities
4. Young/aggressive farmers whose experience with risk is the last 7 years
5. Few risk management options for multi-year risks
Outlook for land

- The big question is if this is a temporary slowdown/reversal or if this is the start of a major correction
- How conditions affect the individual farm is what is important
- Each farm and farm situation is unique; a bubble burst or a tire going flat depends on your point of view
Buying land

- When does it make sense?
  - Rent is cheaper methodology?
  - Buying land is a long-term investment
  - Good land – close to you
  - Already farming property
  - Finances dictate
- Not making it anymore?
- 80% of economics is emotions/behavior
  - My recent experience
  - Buy with emotion – justify with logic
- Buyer’s remorse?
- Can the payments and taxes on land loan be serviced with average cash rents and assumed interest rates.
- Most land purchases paid for with future cash flows.
## Comparing Farmland to other Financial Assets

Here is a quick comparison of how farmland compares in its overall return — it’s the best!

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Farmland</td>
<td>10.77%</td>
<td>10.80%</td>
</tr>
<tr>
<td>Mtg./REITS</td>
<td>9.09%</td>
<td>9.49%</td>
</tr>
<tr>
<td>Aaa (Bonds)</td>
<td>8.24%</td>
<td>6.85%</td>
</tr>
<tr>
<td>10 yr Treasury</td>
<td>7.20%</td>
<td>5.45%</td>
</tr>
<tr>
<td>Dow Jones</td>
<td>6.52%</td>
<td>6.84%</td>
</tr>
<tr>
<td>S &amp; P 500</td>
<td>6.24%</td>
<td>5.75%</td>
</tr>
<tr>
<td>CPI</td>
<td>4.29%</td>
<td>2.63%</td>
</tr>
<tr>
<td>PPI</td>
<td>4.03%</td>
<td>2.47%</td>
</tr>
<tr>
<td>CRB Spot Index</td>
<td>3.25%</td>
<td>2.40%</td>
</tr>
</tbody>
</table>

*Note – From Bruce J. Sherrick, PhD at the University of Illinois.*
1980’s vs. today

- Leverage – USDA – 78% of land is paid for – free and clear
- Asset based vs. income based
- Interest rates
  - 21% -- 11.65%
- Global economics – +/-
- Herd mentality
- 5 C’s of lending
- Lender discipline
  - Inexperienced lenders
Farm policy – does it still matter?

- Farm bill
- Apathy
- Wing nuts
  - Environmentalists – 70 million without herbicides in U.S.
  - Animal welfare
  - Food labeling – California/Washington
  - RFS
  - Regulation – IRS 2290 – OSHA/$132K
- 400 out of 435
- 320/260/60
Farm policy – does it still matter? (continued)

- Farmers are the best advocates of their own business and industry – American public likes and believes farmers
- Take control of the message – not the extremists
- Cost of complacency
- Educate public
Farm Bill: Patience and Wisdom...
Future land values thoughts

- What do the experts think? – ABA Ag Bankers
- Will there be more sellers?
  - Demographics – landowner’s age
  - Tax policy – 80 acres/millionaire in corn belt
  - Existing farmers with leverage reducing debt
  - Falling land prices
- Will there be enough buyers?
  - Farmers
  - Investors – economic sense
- Iowa values
Future land values thoughts (continued)

- Adversity for some will be opportunity for others
- Alternative returns for seller proceeds
- Commodity markets will force inefficient producers out of business
- Grain marketing will become more important
  - Best marketing strategy the past couple of years was to fall asleep
- Land improvements
  - Tiling
Future land values thoughts (continued)

- CRP coming out early or not being renewed – difference in values
- Shock test – 10/25/40
- 6–year rule
- When the cash runs out
- Mineral rights
- Interest rates
Tremendous Opportunities

- Farmers transitioning out
- Not fun any more
- Livestock potential and profitability
- Slower growth in global crop acres
- Technology
Positive Changes

- Lower Fertilizer Prices
- Lower Fuel Prices
- Increased Exports
- Increased Ethanol
- Increased Feed
Be Wary of

• Appraisal values on collateral
  – Unfortunately both the income approach and comparable sales methods have the same flaw
  – Approach lags the markets and accentuates trends

• Leveraging long-term assets to build working capital without adjustment to growth strategies/lifestyle expectations
Goldman Recommends Shorting Corn: Goldman Sachs cut forecasts for corn futures in the next three months to $4.00 a bushel and estimated 2014–15 prices to average $3.75 a bushel. The bank also recommended taking a short position. Just the day before, Morgan Stanley called corn one of its best bets, stating that investors are underestimating the potential for a rebound in US demand.
What are the Keys Going Forward

1. Interest rates/cap rates – U.S. debt – 2016??
2. Demand growth
   ◦ Biofuels
   ◦ Emerging markets/trade
3. Supply response
   ◦ Weather
   ◦ U.S.
   ◦ Rest of the world – South America
   ◦ China – 80 mm corn – 89 bushels/acre (5–year average)
4. Leverage choices
Technology

- About every 30 years there is a major technological change that changes the world.
- Last one was the microprocessor
- Next one is Fracking.
Risk Management Trends

- We are entering a whole new wave of consolidation in production agriculture.
  - No Safety Net
  - Volatility
  - Technology
  - Access to Capital
What Causes Booms to End Poorly?

1. Dramatic reduction in demand (1980s) particularly exports, but now watch out for RFS
2. Over response on the supply side coinciding with #1 – Farmers perfect economic model – respond to stimulus
3. Too much leverage – watch W.C. levels
4. Turmoil in broader economy

If we can keep these from happening we likely can have a soft landing. **Problem**: Of the 4 we only strongly influence #3 and can potentially influence #1 through policy
Vulnerabilities to Continued Prosperity

- Increased supplies from productivity and acreage increases
- Slowdown in demand growth (exports and biofuels)
- Cost increases – locked in higher cost structure on land
- Higher interest rates
- Margin compression
- Asset value declines
Vulnerabilities to Continued Prosperity (Continued)

- Weak working capital positions
- Excess and/or poorly structured debt
- Availability of credit
- Increased tax burdens/reduced preferences
Big Demand Increases From Ethanol are Likely Over

**Corn to Meet RFS2**

- **2005 to 2010 Crops Average 689 million bushels ADDITIONAL/year**
- **2011 to 2015 Crops Average 215 million bushels ADDITIONAL/year**

Storm clouds building?

- Input supplier credit
- Less than 1 to 1 debt service coverage projections
- Family living creep
- Commodity markets can stay irrational much longer than farmers can remain solvent
- Sensitivity analysis –10/10/3
- Cash rents
Farm Journal Website Survey
Cash Rents For 2014
1013 Votes

20% Higher          10%
10% Higher           15%
No Change            62%
10% Lower            6%
20% Lower            7%
US Farm Lease Code of Farm Management

1. We shall respect the land
2. We shall attain the best operator possible
3. We shall have a comprehensive written lease
4. We shall keep the soil in place
5. We shall maximize production
6. We shall maintain fertility levels
7. We shall keep accurate production records
8. We shall be a good neighbor
9. We shall respect the legacy of the land
10. We shall leave the land better than we found it
Farm debt is on the rise.

Farm Debt Outstanding at Commercial Banks

Percent change from previous year

Source: FDIC, Call Report data
Family living

- Well north of $100k per year in many operations
- Like concrete
- Schedule F
- Corvette rule
- KT’s
- Non-earning, non-farm assets – ventures outside the farm
- Global cash flows come into play
- Off-farm income declining
What to Watch for in Slowdown

- Impacts on main street in rural economies
- Equipment dealers and other input suppliers are on the front line of any slowdown
- Highly leveraged farms – farms with lots of recently purchased land
- Poorly managed farms with adequate financial strength today
- Farms with lots of long-term cash leases and other off-balance sheet financing
Farming and Ranching is a Margin Game!!

- Once You Lock In Your Rent, Lock In Your Profit: Marketing Program and Lock in Inputs
- You Don’t Go Broke Making A Profit
- Dunteman Rule 43: Pigs Get Fed, Yet Hogs Get Slaughtered!
Return to Management by Thirds: Iowa Farm Business Association
Catalysts for the Nightmare

- slowdown or crash of emerging nations
- rise in interest rates, less accommodative Federal Reserve
- bio-energy policy change, crop insurance
- major black swans in agricultural industry
- mother nature
- inflation & cost-price margin squeeze
So What Ends the Up Cycle?

- Exports slow
- Supply response continues
- Weather returns to “normal”
- Policy changes (it could get better)
  - Ethanol
  - Trade
  - Farm bill? How important today
- Monetary policy changes
  - Increases in real interest rates
- Communicate early, often, and honestly with your lender
- Minimize surprises

What will amplify the cycle? CREDIT use and TERMS!
What’s Ahead

- Uncertain supply & demand will lead to rapid swings in prices and profitability
- Land value increases should moderate but profitability this year will determine how much
- Major collapse in ag. isn’t likely w/o significant outside events
Final Thoughts

- Tremendous volatility in the ag marketplace
- For crop farmers it has been all favorable
  - How good are they at managing risk? (It has been easy so far)
  - How exposed are they to others risk management activities? Volatility creates winners and losers
  - How are they managing costs?
  - What about non-land capital investment?
  - When need for operating capital comes it will be substantial and much larger than before the boom
  - Lenders need to be part of the solution, not part of the problem by overreacting
  - Forget past 6–7 years
One Last Thought:

“If you eat - then you are a part of Agriculture.”

Leland Glazebrook
Farm Broadcaster
WDZQ Radio