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Recent Trends in Agricultural Production Lending

Although farm income is projected to decline for a second consecutive year in 2015, farmers and the broader agricultural industry have had a great run since the Great Recession. The agricultural lending industry? Not so much.

Call it one of the age old conundrums of being in the business of lending money – those to whom you feel most comfortable lending are the least likely to need your services. Such has been the case for several years in the broader agricultural economy. Sure, there have been some farmers and ranchers willing to take advantage of low interest rates to increase leverage and enjoy the associated higher returns on equity and a larger fixed asset base with more profit potential. However, the painful deleveraging associated with the Great Recession left no sector of the economy untouched. Agricultural producers were no exception, with many eschewing debt in favor of fiscal conservatism.

This conservatism among most farmers is contrasted with foreign investors seeking U.S. assets and institutional investors who drove land prices to record level in many areas by 2013. The prices paid implied these investors were oblivious to generating an acceptable return. Elevated land prices have led to concerns among some that lenders could be exposed should land prices fall sharply with a

Figure 1: Quarterly Operating Loan Volume

$ in billions, four quarter moving average

Source: Ag Finance Databook, Federal Reserve Bank of Kansas City
secondary impact on production-related collateral values in a replay of the 1980s bust in the farm sector following the inflation and borrowing binge that occurred during the 1970s.

As for production-related lending, record yields and crop prices left many producers so flush with cash that borrowing needs declined. Data from the Federal Reserve Bank of Kansas City reveals a steadily declining trend in operating loan volumes at commercial banks over the 2009 to 2012 period (Figure 1). The second half of 2012 showed a rapid rise in loan volumes, but since then agricultural production loans have grown at a relatively slow pace – until recently, that is.

Volume Growth Picks Up Steam

A number of factors have finally reversed course, leading to a notable uptick in demand for financing and an expectation that ag production loan demand will remain strong in the near-term. While real estate agriculture loans also have increased, lending dollar volume in that area has been influenced by the substantial increase in farmland values in recent years. The discussion which follows focuses on production, or operating, lending.

Several years of record crop yields and high commodity prices left farmers and ranchers with little need for operating loans. However, crop receipts are expected to decline by approximately 6% in 2015 and livestock receipts are expected to decline 9%. These declines will be modestly offset by an increase in direct government payments and other income. However, input expenses should remain stable, primarily reflecting higher costs for livestock purchases and labor offset by lower energy costs, leading to an expected 36% decline in net farm income. This decline comes on the heels of a 26% decline in 2014 (Figure 2).

Throughout 2014 producers had the luxury of strong balance sheets, allowing them to avoid significant operating debt despite the downturn in net income for that year. However, during 2015 the cash cushions built up during the commodity boom will begin to be depleted, leaving many producers with little choice but to finance short-term capital investment and input costs with borrowings.

Rates Hold Steady – For Now

The average effective interest rate on non-real estate bank loans to farmers declined from 5.6% in 2008 to 3.8% in 2014, but has shown two consecutive quarter over quarter increases (albeit modest) in the first half of 2015 and measured 4.1% in second quarter 2015. One possible explanation for this slight uptick is that as demand has picked up banks have regained the smallest amount of pricing power. Alternatively, it may be the case that the average borrower credit profile has deteriorated slightly as the industry comes off its highs from the recent commodity pricing boom.

Despite the low rates, ag production loans can be very attractive from an interest rate risk standpoint, as most of the loans renew annually allowing for more rapid adjustment when rates (finally) begin to rise. That said, oftentimes collateral used for non-real estate agricultural loans is less desirable, thus increasing the risk of the loan if it were to fail.

Producers Lock in Fixed Rates

There is an argument to be made that all of the factors affecting loan volume mentioned above are just noise, and producers are simply doing what mainstream America has been doing with

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014F</th>
<th>2015F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops</td>
<td>$198.9</td>
<td>$229.5</td>
<td>$220.4</td>
<td>$207.9</td>
<td>$195.0</td>
</tr>
<tr>
<td>Livestock</td>
<td>164.8</td>
<td>169.8</td>
<td>182.6</td>
<td>212.2</td>
<td>192.8</td>
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<tr>
<td>Direct Government Payments</td>
<td>10.4</td>
<td>10.6</td>
<td>11.0</td>
<td>9.8</td>
<td>11.4</td>
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<tr>
<td>Other Farm-related Income</td>
<td>30.7</td>
<td>39.2</td>
<td>41.0</td>
<td>35.4</td>
<td>36.1</td>
</tr>
<tr>
<td><strong>Gross Cash Income</strong></td>
<td>$404.9</td>
<td>$449.2</td>
<td>$455.0</td>
<td>$465.3</td>
<td>$435.3</td>
</tr>
<tr>
<td>Noncash Income</td>
<td>16.5</td>
<td>15.4</td>
<td>17.7</td>
<td>16.9</td>
<td>16.5</td>
</tr>
<tr>
<td>Value of Inventory Adjustment</td>
<td>(3.1)</td>
<td>(19.9)</td>
<td>10.6</td>
<td>(1.3)</td>
<td>(5.2)</td>
</tr>
<tr>
<td><strong>Total Gross Income</strong></td>
<td>$418.3</td>
<td>$444.6</td>
<td>$483.3</td>
<td>$480.9</td>
<td>$446.6</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>306.5</td>
<td>353.2</td>
<td>359.6</td>
<td>389.8</td>
<td>388.3</td>
</tr>
<tr>
<td><strong>Net Cash Farm Income</strong></td>
<td>$111.9</td>
<td>$91.4</td>
<td>$123.7</td>
<td>$91.1</td>
<td>$58.3</td>
</tr>
</tbody>
</table>

Source: USDA WASDE Report, as of August 25, 2015
residential mortgages for years – locking in these once-in-a-lifetime rates while they still can. The share of floating rate loans made by banks for non-real estate agricultural purposes fell to at least a 15-year low (60%) in the first quarter of 2015. Although it increased to 70.8% in the second quarter, that level remains well below the average exhibited since 2000.4

Fixed rate loans are most commonly used for non-feeder livestock production and machinery and equipment, while floating rate loans are more common for shorter-term financing used for feeder livestock (typically sold to a feedlot within one year of age) and current operating and production expenses (including crop production).

**Alternative Sources of Lending**

The amount of debt supporting the U.S. agricultural system is vast, and commercial banks are by no means the only player in town. The Farm Credit System (FCS), for example, funds approximately 39% of all U.S. farm business debt (according to the USDA) and commercial banks must compete with farm credit system banks for all types of agriculture and in all 50 states. While Call Report data compiled by the Federal Reserve Bank of Kansas City shows rapid recent growth in non-real estate ag lending at commercial banks, financial data from FCS paints a slightly different picture.

Figure 3 shows steady total FCS loan growth since 2001. However, loan growth in the first half of 2015 was nearly flat, and production and intermediate term loans actually declined relative to year-end 2014. FCS states this decline was driven by borrowers’ tax planning strategies at the end of 2014, resulting in significant repayments in early 2015, as well as a high level of seasonal pay-downs in the first quarter. It’s difficult to draw the conclusion, however, that this data indicates a shift in market share away from FCS toward commercial banks, given classification, measurement and timing differences. It’s worth noting that FCS relies primarily on the public debt markets for its balance sheet funding and these costs increased modestly in the first half of 2015 relative to the same period in 2014.5

Another source of credit for the agricultural industry is financing provided by heavy equipment dealers and manufacturers. Equipment loan volume can be influenced by commodity cycles somewhat differently than
for other operating loans. Producers generally prefer to invest in new equipment when times are good and net incomes are strong, electing to postpone larger capital purchases and make do with aging equipment in times of falling incomes. This effect has played out in the first part of 2015, with rather significant sales declines in what is normally an active period of highly seasonal buying patterns (Figure 4).5

**Implications for Asset Quality**

Since peaking in late 2009, delinquency and charge-off rates on ag production loans held by commercial banks have fallen consistently and dramatically, and for second quarter 2015 measured 0.81% and 0.09% (seasonally adjusted), respectively. Asset quality data from FCS exhibits a similar trend. As shown in Figure 5, delinquencies and charge-offs tend to be closely correlated with the health of farm balance sheets, which is not surprising.

We note an interesting trend since the end of 2012 in which this relationship appears to have broken down. Farm debt to equity ratios are increasing, while delinquencies and charge-offs continue to decline. Is this a harbinger of things to come? It’s probably too soon to tell, as the agriculture industry is highly susceptible to completely unpredictable events, such as weather patterns, and the health of the overall global economy (also not an easy prediction these days). One thing is certain, the trend is not sustainable indefinitely.

Another issue with the comparability of recent trends to previous points in the long-term historical agriculture cycle is the impact that the dramatic increase in land values has had on farm equity since 2009. A portion of the rise in debt to equity ratios in recent periods is not due to an increase in debt, but rather recent declines in land values (falling asset values will increase debt/equity ratios, all else equal). If land values continue to decline from their historical highs (which most reliable sources predict), and farm debt continues to increase (which all of the factors discussed above would indicate) then leverage ratios will be further strained in the coming quarters and years. Current charge-off rates are de minimis to the point where an increase in asset quality issues related to agricultural production loans will be easily absorbed by all but the most concentrated ag lenders. That said, it bears watching to see if these trends become more sustained and have deeper implications for both agricultural lending and the broader agricultural economy.

**Figure 5: Farm Equity Health vs. Charge-Offs & Delinquency Rates for Commercial Banks**

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4. Ibid.
August has become the new October for markets in terms of increased volatility and downward pressure on equities and high yield credit. This year has seen similar volatility as was the case in some memorable years such as 1998 (Russian default; LTCM implosion), 2007 (tremors in credit markets), 2008 (earthquakes in credit and equity markets) and 2011 (European debt crisis; S&P’s downgrade of the U.S.). Declining commodity markets, exchange rate volatility and a pronounced widening of credit spreads finally began to reverberate in global equity markets this year.

So far the downdraft in equities and widening high yield credit spreads has not slowed M&A activity. Preliminary data from Thomson Reuters for the third quarter indicates global M&A exceeded $1 trillion, which represents the third highest quarter on record and an increase of 11% over the year ago quarter. Activity is less broad-based though as 8,989 deals were announced compared to 10,614 a year ago.

Immediately prior to intensified pressure on risk-assets, Thomson Reuters estimated that as of August 13 global M&A was on pace for a record year with $2.9 trillion of announced transactions globally (+40% vs. LYTD) and $1.4 trillion in the U.S. (+62%). Within the U.S., strategic buyer activity rose 53% to $1.1 trillion while PE M&A rose 101% to $326 billion.

LBO multiples have been trending higher since 2009. The median LBO EBITDA multiple for broadly syndicated large deals was 10.1x through September, while middle market multiples expanded to 10.3x. Debt to EBITDA multiples for LBOs were 6.0x for large deals YTD and 5.5x for middle market transactions.

No one knows what the future holds for markets. Deal activity could slow somewhat; however, a weak environment for organic revenue growth will keep many strategic buyers engaged, while lower prices for sellers if sustained will make more targets affordable for private equity provided debt financing costs do not rise too much. As of October 14, the option-adjusted-spread (OAS) on Bank of America Merrill Lynch’s High Yield Index was 6.31%, up from 5.04% at year-end and 4.83% a year ago.

The role of the financial advisor becomes tougher too when markets are declining sharply. Obviously, sellers who do not have to sell may prefer to wait to see how market turmoil will play out while buyers may push to strike at a lower valuation. Questions of value and even fair dealing may be subjected to more scrutiny.

Fairness opinions seek to answer the question whether a proposed transaction is fair to a company’s shareholders from a financial point of view. Process and especially value are at the core of the opinion. A fairness opinion does not predict where a security—e.g. an acquirer’s shares—may trade in the future. Nor does a fairness opinion approve or disapprove a board’s course of action. The opinion, backed by a rigorous valuation analysis and review of the process that led to the transaction, is just that: an opinion of fairness from a financial point of view. Nevertheless, declining markets in the context of negotiating and opining on a transaction will raise the question: How do current market conditions impact fairness?

There is no short answer; however, the advisor’s role of reviewing the process, valuation, facts and circumstances of the transaction in a declining market should provide the board with confidence about its decision and the merits of the opinion. Some of the issues that may weigh on the decision process and the rendering of a fairness opinion in a falling market include the following:

### What We’re Reading

The 7th Annual SNL Bank M&A Symposium was held in early October and Glenn Miller and Nathan Stovall of SNL Financial provide a recap of the content from Day 1 of the conference.

http://mer.cr/1jcQPde | http://mer.cr/1Mhn5Yq

Nathan Stovall of SNL Financial has a thought-provoking piece on what is the optimal size for community banks in the current environment entitled “Community bankers question merits of scale.”

http://mer.cr/1OnQamK

Emily McCormick, Director of Research at Bank Director has an interesting piece looking at ways banks have incorporated “gamification” into building customer and employee loyalty in a piece entitled: “Say Goodbye to All Work, No Play.”

http://mer.cr/1RvZkvL
Process vs. Timing. Process can always be tricky in a transaction. A review of fair dealing procedures when markets have fallen sharply should be sensitive to actions that may favor a particular shareholder or other party. A management-led LBO after the market has fallen or a board that agrees to buyback a significant shareholder’s interest when prices were higher are examples. Even an auction of a company may be subject to second guessing if the auction occurred in a weak environment.

Corporate Forecasts. Like the market, no one knows how the economy will perform over the next several years; however, consideration should be given to whether declining equity markets and widening credit spreads point to a coming economic slowdown. A baseline forecast that projects rising sales and earnings or even stable trends may be suspect if the target’s sales and earnings typically fall when the economy enters recession. A board should consider the implications of any sustained economic slowdown on the subject’s expected financial performance with follow-through implications for valuation.

Valuation. Unless markets experience a sharp drop from a valuation level that reflects a widely held view that multiples were excessive, a sharp pullback in the market will cause uncertainty about what’s “fair” in terms of value. DCF valuations and guideline M&A transaction data may derive indications that are above what is obtainable in the current market. Transactions that were negotiated in mid-2007 and closed during 2008 may have felt wildly generous to the seller as conditions deteriorated. Likewise, deals negotiated in mid-2012 that closed in 2013 when markets were appreciating may have felt like sellers left money on the table. There is no right or wrong, only the perspective provided from the market’s “bloodless verdict” of obtaining a robust market check if a company or significant asset is being sold. It is up to the board to decide what course of action to take, which is something a fairness opinion does not address.

Exchange Ratios. Acquisitions structured as share exchanges can be especially challenging when markets are falling. Sellers will tend to focus on a fixed price, while buyers will want to limit the number of shares to be issued. The exchange ratio can be (a) fixed when the agreement is signed; (b) fixed immediately prior to closing (usually based upon a 10 day volume-weighted average price of the buyer); or (c) a hybrid such as when the ratio floats based upon an agreed upon value for the seller provided the buyer’s shares remain within a specified band. Floating exchange ratios can be seen as straightjackets for buyers and lifejackets for sellers in falling markets; rising markets entail opposite viewpoints.

Buyer’s Shares. An evaluation of the buyer’s shares in transactions that are structured as a share exchange is an important part of the fairness analysis. Like profitability, valuation of the buyer’s shares should be judged relative to its history and a peer group presently and relative to a peer group through time to examine how investors’ views of the shares may have evolved through market and profit cycles. The historical perspective can then be compared with the current down market to make inferences about relative performance and valuation that is or is not consistent with comparable periods from the past.

Financing. If consummation of a transaction is dependent upon the buyer raising cash via selling shares or issuing debt, a sharp drop in the market may limit financing availability. If so, the board and the financial advisor will want to make sure the buyer has back-up financing lined-up from a bank. The absence of back-stop financing, no matter how remote, is an out-of-no-where potential that a board and an advisor should think through. Down markets make the highly unlikely possible if capital market conditions deteriorate unabated. While markets periodically become unhinged, a board entering into an agreement without a backstop plan may open itself to ill-informed deal making if events go awry.

A market saw states that bull markets take the escalator up and bear markets take the elevator down. Maybe the August sell-off will be the pause that refreshes, leading to new highs, tighter credit spreads, and more M&A. Maybe the October rebound in equities (but not credit, so far) will fade and the downtrend will resume. It is unknowable.

What is known is that boards that rely upon fairness opinions as one element of a decision process to evaluate a significant transaction are taking a step to create a safe harbor. Under U.S. case law, the concept of the “business judgment rule” presumes directors will make informed decisions that reflect good faith, care and loyalty to shareholders. The evaluation process is trickier when markets have or are falling sharply, but it is not unmanageable. We at Mercer Capital have extensive experience in valuing and evaluating the shares (and debt) of financial and non-financial service companies engaged in transactions during bull, bear and sideways markets garnered from over three decades of business.

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### Mercer Capital's Bank Group Index Overview

![Graph showing the performance of various indices from September 30, 2014 to September 30, 2015.]

#### Median Valuation Multiples

<table>
<thead>
<tr>
<th>Indices</th>
<th>Median Total Return</th>
<th>Median Valuation Multiples as of September 30, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Month-to-Date</td>
<td>Quarter-to-Date</td>
</tr>
<tr>
<td>Atlantic Coast Index</td>
<td>0.35%</td>
<td>1.39%</td>
</tr>
<tr>
<td>Midwest Index</td>
<td>1.06%</td>
<td>-1.69%</td>
</tr>
<tr>
<td>Northeast Index</td>
<td>1.22%</td>
<td>-0.24%</td>
</tr>
<tr>
<td>Southeast Index</td>
<td>1.91%</td>
<td>-0.35%</td>
</tr>
<tr>
<td>West Index</td>
<td>2.75%</td>
<td>4.31%</td>
</tr>
<tr>
<td>Community Bank Index</td>
<td>1.35%</td>
<td>0.26%</td>
</tr>
<tr>
<td>SNL Bank Index</td>
<td>-3.45%</td>
<td>-8.25%</td>
</tr>
</tbody>
</table>

### Return Stratification of U.S. Banks by Asset Size

![Bar chart showing return stratification by asset size.]

- **Assets $250 - $500M**: Month-to-Date 6.21%, Quarter-to-Date 5.26%, Year-to-Date 15.58%, Last 12 Months 21.10%
- **Assets $500M - $1B**: Month-to-Date 1.64%, Quarter-to-Date 4.37%, Year-to-Date 6.89%, Last 12 Months 11.30%
- **Assets $1 - $5B**: Month-to-Date 1.81%, Quarter-to-Date -0.44%, Year-to-Date 5.35%, Last 12 Months 17.05%
- **Assets $5 - $10B**: Month-to-Date 3.19%, Quarter-to-Date -0.81%, Year-to-Date -4.91%, Last 12 Months 22.85%
- **Assets > $10B**: Month-to-Date -3.94%, Quarter-to-Date -8.67%, Year-to-Date -4.91%, Last 12 Months 0.24%
**Median Price/Earnings Multiples**

Target Banks’ Assets <$5B and LTM ROE >5%

![Graph showing median price/earnings multiples from 2004 to 2014 LTM.](image)

**Median Price/Tangible Book Value Multiples**

Target Banks’ Assets <$5B and LTM ROE >5%

![Graph showing median price/tangible book value multiples from 2004 to 2014 LTM.](image)

**Median Core Deposit Multiples**

Target Banks’ Assets <$5B and LTM ROE >5%

![Graph showing median core deposit multiples from 2004 to 2014 LTM.](image)

**Median Valuation Multiples for M&A Deals**

Target Banks’ Assets <$5B and LTM ROE >5%, 12 months ended September 2015

<table>
<thead>
<tr>
<th>Regions</th>
<th>Price / LTM Earnings</th>
<th>Price / Tang. BV</th>
<th>Price / Core Dep Premium</th>
<th>No. of Deals</th>
<th>Median Deal Value</th>
<th>Target’s Median Assets</th>
<th>Target’s LTM ROAE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Coast</td>
<td>21.17</td>
<td>1.68</td>
<td>8.2%</td>
<td>14</td>
<td>88.30</td>
<td>489,067</td>
<td>7.89%</td>
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<tr>
<td>Midwest</td>
<td>17.96</td>
<td>1.97</td>
<td>7.5%</td>
<td>71</td>
<td>41.02</td>
<td>109,633</td>
<td>9.11%</td>
</tr>
<tr>
<td>Northeast</td>
<td>22.44</td>
<td>1.48</td>
<td>7.4%</td>
<td>10</td>
<td>55.24</td>
<td>443,643</td>
<td>6.90%</td>
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<tr>
<td>Southeast</td>
<td>18.72</td>
<td>1.38</td>
<td>5.8%</td>
<td>25</td>
<td>29.78</td>
<td>187,485</td>
<td>8.14%</td>
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<tr>
<td>West</td>
<td>18.84</td>
<td>1.48</td>
<td>7.0%</td>
<td>16</td>
<td>55.28</td>
<td>200,724</td>
<td>9.68%</td>
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<tr>
<td>Nat’l Community Banks</td>
<td>19.03</td>
<td>1.48</td>
<td>7.4%</td>
<td>136</td>
<td>42.61</td>
<td>187,246</td>
<td>8.52%</td>
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</tbody>
</table>

*Source: Per SNL Financial*
Updated weekly, Mercer Capital's Regional Public Bank Peer Reports offer a closer look at the market pricing and performance of publicly traded banks in the states of five U.S. regions. Click on the map to view the reports from the representative region.
Mercer Capital assists banks, thrifts, and credit unions with significant corporate valuation requirements, transactional advisory services, and other strategic decisions.

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- Litigation support
- Loan portfolio valuation
- Tax compliance
- Transaction advisory
- Strategic planning

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