Richardson, James W. et al.

Research Report

Representative Farms Economic Outlook for the December 2015 FAPRI/AFPC Baseline

AFPC Briefing Paper, No. 15-3

Provided in Cooperation with:
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EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 91 representative crop, dairy, and livestock operations in major production areas in 28 states. The chief purpose of this analysis is to project the economic viability of those farms by region and commodity for 2015 through 2020. The data necessary to simulate the economic activity of these operations is developed through ongoing cooperation with panels of agricultural producers in selected states. The Food and Agricultural Policy Research Institute (FAPRI) provided projected prices, policy variables, and input inflation rates in their December 2015 Baseline.

Under the December 2015 Baseline, 26 of the 62 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash by 2020). Eight crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash, and the remaining 28 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 24 of the 62 crop farms are considered in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Eight crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and 30 crop farms have greater than a 50 percent probability of decreasing real net worth by 2020. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- FEEDGRAIN FARMS: Ten of the 23 feedgrain farms are in good overall financial condition. Four are classified in marginal condition, and nine are in poor condition.
- WHEAT FARMS: Four representative wheat farms are classified in good overall financial condition, one is in marginal condition, and six are in poor condition.
- COTTON FARMS: Three of the 15 cotton farms are classified in good condition, three are in marginal condition, and nine are in poor condition.
- RICE FARMS: Eight of the 13 rice farms are projected to be in good financial condition. One rice farm is projected to be in marginal condition; four are in poor condition.
- DAIRY FARMS: Nine of the 18 dairies are in good overall financial condition. Five are classified in marginal condition, and four are in poor condition.
- BEEF CATTLE RANCHES: Five of the 11 cattle ranches are classified in good financial condition, six are in marginal condition, and none are projected to be in poor condition.
REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE DECEMBER 2015
FAPRI/AFPC BASELINE

The farm level economic impacts of the FAPRI December 2015 Baseline on representative crop and livestock operations are projected in this report, assuming provisions of the 2014 Farm Bill continue throughout the 2014-2020 study period. Crop farms are assumed to have elected ARC or PLC on a crop by crop basis that resulted in the highest projected ending cash reserves at the end of the period. Based on interviews with a sample of producers, farms are currently assumed to not purchase SCO/STAX. The analysis was conducted over the 2014-2020 planning horizon using FLIPSIM, AFPC’s whole farm simulation model. Data to simulate farming operations in the nation’s major production regions came from two sources:

• Producer panel cooperation to develop economic information to describe and simulate representative crop, livestock, and dairy farms.

• Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) December 2015 Baseline.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the December 2015 Baseline in a risk context using selected simulated probabilities and ranges for annual net cash farm income values. The probability of a farm experiencing negative ending cash reserves and the probability of a farm losing real net worth are included as indicators of the cash flow and equity risks facing farms through the year 2020.

DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES

• Overall Financial Position, 2015-2020 -- As a means of summarizing the representative farms’ economic efficiency, liquidity, and solvency position, AFPC classifies each farm as being in either a good (green), marginal (yellow) or poor (red) position. AFPC defines a farm to be in a good financial position when it has less than a 25 percent chance each of a negative ending cash position and less than a 25 percent chance of losing real net worth through 2020. If the probabilities of these events are between 25 and 50 percent the farm is classified as marginal. A probability greater than 50 percent places the farm in a poor financial position.

• Receipts -- 2015-2020 average cash receipts from all farm related sources, including market sales, PLC/ARC payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.

• Payments -- 2015-2020 average annual PLC or ARC payments and marketing loan gains/LDPs for crop farms.

• NCFI -- 2015-2020 average net cash farm income equals average total receipts minus average total cash expenses.

• Reserve 2020 -- equals total cash on hand at the end of year 2020. Ending cash equals beginning cash reserves plus net cash farm income and interest earned on cash reserves less principal payments, federal taxes (income and self employment), state income taxes, family living withdrawals, and actual machinery replacement costs (not depreciation).

• Net Worth 2020 -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2020.

• CRNW -- annualized percentage change in the operator’s real net worth from January 1, 2015 through December 31, 2020, after adjusting for inflation.
Table 1. FAPRI December 2015 Baseline Projections of Crop and Livestock Prices, 2014-2020.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn ($/bu.)</td>
<td>3.70</td>
<td>3.64</td>
<td>3.75</td>
<td>3.88</td>
<td>4.03</td>
<td>4.09</td>
<td>4.13</td>
</tr>
<tr>
<td>Wheat ($/bu.)</td>
<td>5.99</td>
<td>4.98</td>
<td>4.96</td>
<td>5.10</td>
<td>5.47</td>
<td>5.70</td>
<td>5.76</td>
</tr>
<tr>
<td>Cotton ($/lb.)</td>
<td>0.6130</td>
<td>0.5939</td>
<td>0.6037</td>
<td>0.6135</td>
<td>0.6517</td>
<td>0.6628</td>
<td>0.6738</td>
</tr>
<tr>
<td>Sorghum ($/bu.)</td>
<td>4.03</td>
<td>3.60</td>
<td>3.47</td>
<td>3.61</td>
<td>3.72</td>
<td>3.79</td>
<td>3.84</td>
</tr>
<tr>
<td>Soybeans ($/bu.)</td>
<td>10.10</td>
<td>8.86</td>
<td>8.87</td>
<td>9.77</td>
<td>9.97</td>
<td>10.13</td>
<td>10.32</td>
</tr>
<tr>
<td>Barley ($/bu.)</td>
<td>5.30</td>
<td>5.28</td>
<td>4.60</td>
<td>4.74</td>
<td>4.95</td>
<td>5.09</td>
<td>5.17</td>
</tr>
<tr>
<td>Oats ($/bu.)</td>
<td>3.21</td>
<td>2.19</td>
<td>2.47</td>
<td>2.47</td>
<td>2.51</td>
<td>2.55</td>
<td>2.58</td>
</tr>
<tr>
<td>Soybean Meal ($/ton)</td>
<td>351.47</td>
<td>303.40</td>
<td>310.14</td>
<td>336.74</td>
<td>339.48</td>
<td>341.83</td>
<td>346.77</td>
</tr>
<tr>
<td>All Hay ($/ton)</td>
<td>172.00</td>
<td>148.94</td>
<td>151.06</td>
<td>159.33</td>
<td>164.99</td>
<td>168.39</td>
<td>170.03</td>
</tr>
<tr>
<td>Peanuts ($/ton)</td>
<td>440.00</td>
<td>372.80</td>
<td>364.29</td>
<td>385.19</td>
<td>417.13</td>
<td>435.85</td>
<td>437.70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cattle Prices</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder Cattle ($/cwt)</td>
<td>225.07</td>
<td>230.15</td>
<td>207.46</td>
<td>184.89</td>
<td>172.61</td>
<td>166.79</td>
<td>164.63</td>
</tr>
<tr>
<td>Fed Cattle ($/cwt)</td>
<td>154.56</td>
<td>149.85</td>
<td>139.40</td>
<td>129.77</td>
<td>125.07</td>
<td>123.32</td>
<td>122.79</td>
</tr>
<tr>
<td>Culled Cows ($/cwt)</td>
<td>104.09</td>
<td>101.87</td>
<td>94.80</td>
<td>89.05</td>
<td>83.10</td>
<td>79.06</td>
<td>78.06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milk Price</th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. All Milk Price ($/cwt)</td>
<td>24.07</td>
<td>17.20</td>
<td>16.52</td>
<td>17.21</td>
<td>17.87</td>
<td>18.29</td>
<td>18.50</td>
</tr>
</tbody>
</table>

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia.

Table 2. FAPRI December 2015 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2015-2020.

<table>
<thead>
<tr>
<th>Annual Rate of Change for Input Prices Paid</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed Prices (%)</td>
<td>0.00</td>
<td>-0.83</td>
<td>-1.03</td>
<td>-0.06</td>
<td>1.45</td>
<td>2.64</td>
</tr>
<tr>
<td>All Fertilizer Prices (%)</td>
<td>-9.86</td>
<td>-7.93</td>
<td>-3.11</td>
<td>4.03</td>
<td>5.39</td>
<td>4.97</td>
</tr>
<tr>
<td>Herbicide Prices (%)</td>
<td>-3.26</td>
<td>-0.40</td>
<td>4.88</td>
<td>7.03</td>
<td>5.08</td>
<td>4.93</td>
</tr>
<tr>
<td>Insecticide Prices (%)</td>
<td>-6.65</td>
<td>-1.35</td>
<td>3.30</td>
<td>5.56</td>
<td>4.50</td>
<td>4.27</td>
</tr>
<tr>
<td>Fuel and Lube Prices (%)</td>
<td>-34.35</td>
<td>0.39</td>
<td>7.67</td>
<td>16.19</td>
<td>6.65</td>
<td>7.05</td>
</tr>
<tr>
<td>Machinery Prices (%)</td>
<td>3.45</td>
<td>-0.98</td>
<td>2.60</td>
<td>3.76</td>
<td>4.35</td>
<td>3.96</td>
</tr>
<tr>
<td>Wages (%)</td>
<td>2.31</td>
<td>2.41</td>
<td>3.34</td>
<td>3.44</td>
<td>3.55</td>
<td>3.48</td>
</tr>
<tr>
<td>Supplies (%)</td>
<td>0.16</td>
<td>1.01</td>
<td>2.13</td>
<td>2.14</td>
<td>1.84</td>
<td>1.81</td>
</tr>
<tr>
<td>Repairs (%)</td>
<td>-0.47</td>
<td>1.28</td>
<td>3.02</td>
<td>2.97</td>
<td>2.73</td>
<td>2.65</td>
</tr>
<tr>
<td>Services (%)</td>
<td>2.75</td>
<td>1.45</td>
<td>2.84</td>
<td>3.28</td>
<td>3.53</td>
<td>3.41</td>
</tr>
<tr>
<td>Taxes (%)</td>
<td>1.90</td>
<td>1.36</td>
<td>1.64</td>
<td>1.41</td>
<td>1.93</td>
<td>2.16</td>
</tr>
<tr>
<td>PPI Items (%)</td>
<td>-3.24</td>
<td>-1.70</td>
<td>-0.05</td>
<td>1.74</td>
<td>1.91</td>
<td>2.11</td>
</tr>
<tr>
<td>PPI Total (%)</td>
<td>-2.60</td>
<td>-1.18</td>
<td>0.40</td>
<td>1.98</td>
<td>2.11</td>
<td>2.22</td>
</tr>
</tbody>
</table>

| Annual Change in Consumer Price Index (%)  | 0.01 | 1.80 | 2.36 | 2.84 | 2.42 | 2.49 |

| Annual Rate of Change for U.S. Land Prices (%) | 2.37 | -1.77 | -0.72 | -0.62 | -0.04 | 0.55 |

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia.
• Overall, ten feed grain farms are characterized as good, four are marginal, and nine are in poor condition.

• Eight of the twenty-three farms will be under severe cash flow stress; eleven farms have high likelihoods (greater than a 50 percent chance) of losing real net worth.
Representative Farm: Feed Grains

Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>P(Negative Ending Cash)</th>
<th>P(Real Net Worth Declines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAG1350</td>
<td>25-50</td>
<td>99-98</td>
<td>99-96</td>
</tr>
<tr>
<td>IAG3400</td>
<td>97-93</td>
<td>94-87</td>
<td></td>
</tr>
<tr>
<td>NEG2400</td>
<td>1-31</td>
<td>93-62</td>
<td></td>
</tr>
<tr>
<td>NEG4300</td>
<td>1-42</td>
<td>2-64</td>
<td></td>
</tr>
<tr>
<td>NDG3000</td>
<td>1-34</td>
<td>92-52</td>
<td></td>
</tr>
<tr>
<td>NDG8000</td>
<td>1-1</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>ING1000</td>
<td>1-8</td>
<td>1-6</td>
<td></td>
</tr>
<tr>
<td>TNG2200</td>
<td>1-47</td>
<td>1-31</td>
<td></td>
</tr>
<tr>
<td>MOCG2300</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>MOCG4000</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>MONG2300</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>LAG2640</td>
<td>42-56</td>
<td>96-61</td>
<td></td>
</tr>
<tr>
<td>LANG2500</td>
<td>1-1</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>TNG900</td>
<td>43-71</td>
<td>99-59</td>
<td></td>
</tr>
<tr>
<td>TNG2200</td>
<td>1-69</td>
<td>99-60</td>
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<tr>
<td>NCSP1800</td>
<td>71-98</td>
<td>99-99</td>
<td></td>
</tr>
<tr>
<td>SCG3500</td>
<td>1-3</td>
<td>1-14</td>
<td></td>
</tr>
<tr>
<td>TXNP3000</td>
<td>3-45</td>
<td>60-43</td>
<td></td>
</tr>
<tr>
<td>TXNP10000</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
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<tr>
<td>TXPG2500</td>
<td>2-10</td>
<td>4-4</td>
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<tr>
<td>TXHG2500</td>
<td>99-99</td>
<td>99-99</td>
<td></td>
</tr>
<tr>
<td>TXUG1600</td>
<td>8-93</td>
<td>99-99</td>
<td></td>
</tr>
<tr>
<td>TXUG1600</td>
<td>1-1</td>
<td>16-9</td>
<td></td>
</tr>
</tbody>
</table>

1. Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:
   - Viability: <25%
   - Moderate: 25-50%
   - Poor: >50%

2. P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.
3. P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Payments</th>
<th>NCFI</th>
<th>Reserve 2020</th>
<th>Net Worth 2020</th>
<th>CRNW</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAG1350</td>
<td>992.31</td>
<td>41.34</td>
<td>13.83</td>
<td>(1,344.00)</td>
<td>4,433.02</td>
</tr>
<tr>
<td>IAG3400</td>
<td>2,264.90</td>
<td>100.52</td>
<td>139.93</td>
<td>(2,044.86)</td>
<td>11,837.12</td>
</tr>
<tr>
<td>NEG2400</td>
<td>1,839.89</td>
<td>78.90</td>
<td>220.49</td>
<td>470.03</td>
<td>6,031.34</td>
</tr>
<tr>
<td>NEG4300</td>
<td>3,476.07</td>
<td>133.91</td>
<td>451.45</td>
<td>354.09</td>
<td>21,456.60</td>
</tr>
<tr>
<td>NDG3000</td>
<td>1,214.68</td>
<td>47.49</td>
<td>196.08</td>
<td>307.97</td>
<td>3,655.16</td>
</tr>
<tr>
<td>NDG8000</td>
<td>3,580.13</td>
<td>127.70</td>
<td>1,059.34</td>
<td>4,585.39</td>
<td>26,179.82</td>
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<tr>
<td>ING1000</td>
<td>603.55</td>
<td>18.48</td>
<td>200.83</td>
<td>265.51</td>
<td>3,513.78</td>
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<tr>
<td>ING2200</td>
<td>1,451.63</td>
<td>42.14</td>
<td>299.27</td>
<td>48.28</td>
<td>9,288.67</td>
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<tr>
<td>MOCG2300</td>
<td>1,520.29</td>
<td>43.95</td>
<td>738.74</td>
<td>1,798.79</td>
<td>16,610.37</td>
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<td>MOCG4000</td>
<td>2,302.67</td>
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<td>1,096.57</td>
<td>3,105.67</td>
<td>23,280.63</td>
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<td>MONG2300</td>
<td>1,663.16</td>
<td>48.41</td>
<td>473.40</td>
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<td>LAG2640</td>
<td>1,752.34</td>
<td>64.32</td>
<td>151.46</td>
<td>(145.61)</td>
<td>1,479.58</td>
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<td>LANG2500</td>
<td>1,941.03</td>
<td>72.73</td>
<td>409.55</td>
<td>1,364.06</td>
<td>9,080.58</td>
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<tr>
<td>TNG900</td>
<td>484.81</td>
<td>13.36</td>
<td>125.03</td>
<td>(144.47)</td>
<td>2,010.89</td>
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<td>TNG2200</td>
<td>1,038.58</td>
<td>40.52</td>
<td>228.40</td>
<td>(267.88)</td>
<td>4,178.83</td>
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<td>NCSP1800</td>
<td>1,171.48</td>
<td>106.91</td>
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<td>(1,054.01)</td>
<td>3,009.82</td>
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<td>SCG3500</td>
<td>2,349.11</td>
<td>137.50</td>
<td>409.49</td>
<td>1,521.38</td>
<td>11,414.79</td>
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<td>TXNP3000</td>
<td>1,656.19</td>
<td>83.22</td>
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<td>TXNP10000</td>
<td>5,809.38</td>
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<td>1,088.36</td>
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<td>21,773.14</td>
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<td>413.14</td>
<td>656.05</td>
<td>5,288.84</td>
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<td>TXHG2500</td>
<td>687.63</td>
<td>51.23</td>
<td>(83.51)</td>
<td>(2,019.14)</td>
<td>311.04</td>
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<td>TXWG1600</td>
<td>532.17</td>
<td>32.65</td>
<td>(19.42)</td>
<td>(855.89)</td>
<td>614.61</td>
</tr>
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<td>TXUG1600</td>
<td>1,377.76</td>
<td>107.65</td>
<td>215.29</td>
<td>615.81</td>
<td>1,165.68</td>
</tr>
</tbody>
</table>

1. Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)
2. Payments are average annual total government payments, 2015-2020 ($1,000)
3. NCFI is average annual net cash farm income, 2015-2020 ($1,000)
4. Reserve 2020 is average ending cash reserves, 2020 ($1,000)
5. Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)
6. CRNW is average percentage change in real net worth over 2015-2020 period, (%)
Four wheat farms are projected to be in good overall financial condition, one is in marginal condition, and six are in poor condition.

Six of the eleven wheat farms are expected to feel significant liquidity pressure over the period; those six farms also have a greater than 50 percent chance of losing real equity.


<table>
<thead>
<tr>
<th></th>
<th>Cropland (acres)</th>
<th>Assets ($1,000)</th>
<th>Debt/Asset (ratio)</th>
<th>Gross Receipts ($1,000)</th>
<th>Wheat (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAW2000</td>
<td>2,000</td>
<td>2,459.00</td>
<td>0.16</td>
<td>820.10</td>
<td>1,320</td>
</tr>
<tr>
<td>WAW7000</td>
<td>7,000</td>
<td>9,539.00</td>
<td>0.19</td>
<td>2,572.30</td>
<td>4,060</td>
</tr>
<tr>
<td>WAAW4500</td>
<td>4,000</td>
<td>2,312.00</td>
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<td>486.50</td>
<td>2,000</td>
</tr>
<tr>
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<td>2,175.00</td>
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<td>479.40</td>
<td>1,950</td>
</tr>
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<td>7,000</td>
<td>7,161.00</td>
<td>0.17</td>
<td>1,154.60</td>
<td>4,200</td>
</tr>
<tr>
<td>KSCW2000</td>
<td>2,000</td>
<td>2,977.00</td>
<td>0.23</td>
<td>469.10</td>
<td>1,000</td>
</tr>
<tr>
<td>KSCW5300</td>
<td>5,300</td>
<td>6,085.00</td>
<td>0.17</td>
<td>1,050.50</td>
<td>3,445</td>
</tr>
<tr>
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<td>4,680.00</td>
<td>0.22</td>
<td>813.00</td>
<td>1,500</td>
</tr>
<tr>
<td>KSNW5980</td>
<td>5,980</td>
<td>9,773.00</td>
<td>0.24</td>
<td>1,348.50</td>
<td>1,820</td>
</tr>
<tr>
<td>COW3000</td>
<td>3,000</td>
<td>3,116.00</td>
<td>0.18</td>
<td>419.40</td>
<td>970</td>
</tr>
<tr>
<td>COW5640</td>
<td>5,640</td>
<td>4,631.00</td>
<td>0.22</td>
<td>762.30</td>
<td>1,900</td>
</tr>
</tbody>
</table>
Representative Farm: Wheat

Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>P(Negative Ending Cash)</th>
<th>P(Real Net Worth Declines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAW2000</td>
<td>1-1</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>WAW7000</td>
<td>97-99</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>WAAW4500</td>
<td>87-96</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>MTW7000</td>
<td>1-1</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>ORW4100</td>
<td>1-14</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>KSCW2000</td>
<td>1-51</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>KSCW5300</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>KSNW4000</td>
<td>99-85</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>KSNW5980</td>
<td>99-99</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>COW3000</td>
<td>1-1</td>
<td>1-1</td>
<td></td>
</tr>
<tr>
<td>COW5640</td>
<td>1-84</td>
<td>1-8</td>
<td></td>
</tr>
</tbody>
</table>

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:
2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Receipts ($1,000)</th>
<th>Payments ($1,000)</th>
<th>NCFI ($1,000)</th>
<th>Reserve 2020 ($1,000)</th>
<th>Net Worth 2020 ($1,000)</th>
<th>CRNW (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAW2000</td>
<td>776.95</td>
<td>24.69</td>
<td>222.45</td>
<td>974.32</td>
<td>2,535.19</td>
<td>(2.38)</td>
</tr>
<tr>
<td>WAW7000</td>
<td>2,460.68</td>
<td>85.30</td>
<td>(128.73)</td>
<td>(3,850.59)</td>
<td>4,546.16</td>
<td>(6.66)</td>
</tr>
<tr>
<td>WAAW4500</td>
<td>445.64</td>
<td>18.62</td>
<td>14.28</td>
<td>(576.33)</td>
<td>1,391.42</td>
<td>(4.31)</td>
</tr>
<tr>
<td>ORW4100</td>
<td>428.70</td>
<td>22.56</td>
<td>125.58</td>
<td>242.12</td>
<td>1,794.27</td>
<td>(0.18)</td>
</tr>
<tr>
<td>MTW7000</td>
<td>1,168.57</td>
<td>78.67</td>
<td>508.29</td>
<td>2,135.83</td>
<td>7,369.65</td>
<td>2.72</td>
</tr>
<tr>
<td>KSCW2000</td>
<td>503.05</td>
<td>19.88</td>
<td>118.95</td>
<td>(9.25)</td>
<td>2,313.57</td>
<td>(0.56)</td>
</tr>
<tr>
<td>KSCW5300</td>
<td>1,157.37</td>
<td>52.66</td>
<td>399.38</td>
<td>2,140.68</td>
<td>6,433.80</td>
<td>2.96</td>
</tr>
<tr>
<td>KSNW4000</td>
<td>834.49</td>
<td>41.85</td>
<td>160.28</td>
<td>(424.70)</td>
<td>3,625.78</td>
<td>(0.38)</td>
</tr>
<tr>
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<td>1,422.21</td>
<td>63.48</td>
<td>22.97</td>
<td>(2,423.95)</td>
<td>6,140.75</td>
<td>(2.87)</td>
</tr>
<tr>
<td>COW3000</td>
<td>412.00</td>
<td>16.79</td>
<td>144.35</td>
<td>385.83</td>
<td>2,900.63</td>
<td>1.10</td>
</tr>
<tr>
<td>COW5640</td>
<td>727.96</td>
<td>32.87</td>
<td>130.30</td>
<td>(372.15)</td>
<td>3,431.37</td>
<td>(1.19)</td>
</tr>
</tbody>
</table>

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)
2 Payments are average annual total government payments, 2015-2020 ($1,000)
3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)
4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)
5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)
6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)
Three of the fifteen cotton farms are characterized in good overall financial condition over the 2015-2020 period, three are in marginal condition, and nine are in poor condition.

Nine of the farms are projected to experience severe cash flow problems (having a greater than 50 percent chance of a cash flow deficit).

Nine farms are also expected to have a greater than 50 percent chance of losing real equity over the period.


<table>
<thead>
<tr>
<th></th>
<th>Cropland (acres)</th>
<th>Assets ($1,000)</th>
<th>Debt/Asset (ratio)</th>
<th>Gross Receipts ($1,000)</th>
<th>Cotton (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSP2500</td>
<td>2,500</td>
<td>1,608.00</td>
<td>0.31</td>
<td>829.80</td>
<td>2,275</td>
</tr>
<tr>
<td>TXSP4500</td>
<td>4,500</td>
<td>3,311.00</td>
<td>0.23</td>
<td>1,886.40</td>
<td>4,047</td>
</tr>
<tr>
<td>TXEC5000</td>
<td>5,000</td>
<td>3,989.00</td>
<td>0.25</td>
<td>1,933.40</td>
<td>4,150</td>
</tr>
<tr>
<td>TXRP2500</td>
<td>2,500</td>
<td>1,238.00</td>
<td>0.24</td>
<td>350.10</td>
<td>1,000</td>
</tr>
<tr>
<td>TXMC1800</td>
<td>1,800</td>
<td>1,660.00</td>
<td>0.38</td>
<td>787.50</td>
<td>900</td>
</tr>
<tr>
<td>TXCB2500</td>
<td>2,500</td>
<td>2,064.00</td>
<td>0.33</td>
<td>820.50</td>
<td>1,250</td>
</tr>
<tr>
<td>TXCB8000</td>
<td>8,000</td>
<td>6,299.00</td>
<td>0.24</td>
<td>3,039.20</td>
<td>3,600</td>
</tr>
<tr>
<td>TXVC4500</td>
<td>4,500</td>
<td>6,299.00</td>
<td>0.17</td>
<td>1,876.90</td>
<td>1,395</td>
</tr>
<tr>
<td>TNC2500</td>
<td>2,500</td>
<td>2,970.00</td>
<td>0.09</td>
<td>1,379.10</td>
<td>250</td>
</tr>
<tr>
<td>TNC4050</td>
<td>4,050</td>
<td>7,384.00</td>
<td>0.21</td>
<td>2,512.60</td>
<td>2,025</td>
</tr>
<tr>
<td>ALC3000</td>
<td>3,000</td>
<td>2,525.00</td>
<td>0.29</td>
<td>1,504.30</td>
<td>1,050</td>
</tr>
<tr>
<td>GAC2300</td>
<td>2,300</td>
<td>10,178.00</td>
<td>0.22</td>
<td>2,274.10</td>
<td>1,200</td>
</tr>
<tr>
<td>SCC1800</td>
<td>1,800</td>
<td>4,245.00</td>
<td>0.23</td>
<td>1,296.80</td>
<td>900</td>
</tr>
<tr>
<td>NCC1700</td>
<td>1,700</td>
<td>2,831.00</td>
<td>0.18</td>
<td>1,000.60</td>
<td>225</td>
</tr>
<tr>
<td>NCNP1500</td>
<td>1,500</td>
<td>3,362.00</td>
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<td>935.40</td>
<td>375</td>
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</tbody>
</table>
Representative Farm: Cotton

Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>P(Negative Ending Cash)</th>
<th>P(Real Net Worth Declines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSP2500</td>
<td>88-95</td>
<td>89-91</td>
<td></td>
</tr>
<tr>
<td>TXSP4500</td>
<td>13-58</td>
<td>50-50</td>
<td></td>
</tr>
<tr>
<td>TXEC5000</td>
<td>24-19</td>
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<tr>
<td>TXRP2500</td>
<td>99-99</td>
<td>99-99</td>
<td></td>
</tr>
<tr>
<td>TXMC1800</td>
<td>99-99</td>
<td>99-99</td>
<td></td>
</tr>
<tr>
<td>TXCB2500</td>
<td>55-82</td>
<td>96-89</td>
<td></td>
</tr>
<tr>
<td>TXCB8000</td>
<td>1-3</td>
<td>3-8</td>
<td></td>
</tr>
<tr>
<td>TNC2500</td>
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<td>1-1</td>
<td></td>
</tr>
<tr>
<td>TNC4050</td>
<td>1-41</td>
<td>97-58</td>
<td></td>
</tr>
<tr>
<td>ALC3000</td>
<td>64-97</td>
<td>99-97</td>
<td></td>
</tr>
<tr>
<td>GAC2300</td>
<td>11-41</td>
<td>99-38</td>
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<td>SCC1800</td>
<td>18-41</td>
<td>67-39</td>
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</tr>
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<td>1-78</td>
<td>99-88</td>
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</tr>
<tr>
<td>NCNP1500</td>
<td>99-99</td>
<td>99-99</td>
<td></td>
</tr>
</tbody>
</table>

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:
2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Receipts ($1,000)</th>
<th>Payments ($1,000)</th>
<th>NCFI ($1,000)</th>
<th>Reserve 2020 ($1,000)</th>
<th>Net Worth 2020 ($1,000)</th>
<th>CRNW (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSP2500</td>
<td>888.27</td>
<td>53.43</td>
<td>0.56</td>
<td>(1,291.27)</td>
<td>335.26</td>
<td>(12.22)</td>
</tr>
<tr>
<td>TXSP4500</td>
<td>1,956.02</td>
<td>117.87</td>
<td>291.53</td>
<td>(175.51)</td>
<td>2,691.94</td>
<td>0.41</td>
</tr>
<tr>
<td>TXEC5000</td>
<td>2,190.12</td>
<td>146.25</td>
<td>459.73</td>
<td>424.76</td>
<td>4,025.45</td>
<td>4.11</td>
</tr>
<tr>
<td>TXRP2500</td>
<td>411.20</td>
<td>27.03</td>
<td>30.91</td>
<td>(383.94)</td>
<td>653.74</td>
<td>(5.52)</td>
</tr>
<tr>
<td>TXMC1800</td>
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<td>63.59</td>
<td>(18.81)</td>
<td>(1,124.81)</td>
<td>195.20</td>
<td>(13.31)</td>
</tr>
<tr>
<td>TXCB2500</td>
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<td>77.59</td>
<td>(110.94)</td>
<td>(1,809.47)</td>
<td>(27.58)</td>
<td>(17.26)</td>
</tr>
<tr>
<td>TXCB8000</td>
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<td>263.51</td>
<td>116.21</td>
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<td>1,429.65</td>
<td>(7.96)</td>
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<tr>
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<td>389.97</td>
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<td>6,240.86</td>
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</tr>
<tr>
<td>TNC2500</td>
<td>1,395.33</td>
<td>51.68</td>
<td>355.60</td>
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</tr>
<tr>
<td>TNC4050</td>
<td>2,573.52</td>
<td>160.31</td>
<td>179.00</td>
<td>194.79</td>
<td>5,987.75</td>
<td>0.06</td>
</tr>
<tr>
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<td>1,602.84</td>
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<td>25.25</td>
<td>(1,694.79)</td>
<td>416.34</td>
<td>(12.62)</td>
</tr>
<tr>
<td>GAC2300</td>
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<td>341.18</td>
<td>122.87</td>
<td>8,659.12</td>
<td>0.80</td>
</tr>
<tr>
<td>SCC1800</td>
<td>1,413.50</td>
<td>160.19</td>
<td>207.21</td>
<td>140.10</td>
<td>3,635.64</td>
<td>1.24</td>
</tr>
<tr>
<td>NCC1700</td>
<td>995.03</td>
<td>31.46</td>
<td>103.66</td>
<td>(299.01)</td>
<td>1,955.09</td>
<td>(2.51)</td>
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<tr>
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<td>1,027.41</td>
<td>129.93</td>
<td>36.08</td>
<td>(1,420.02)</td>
<td>1,735.93</td>
<td>(5.28)</td>
</tr>
</tbody>
</table>

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)
2 Payments are average annual total government payments, 2015-2020 ($1,000)
3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)
4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)
5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)
6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)
Eight of the thirteen representative rice farms are projected to be in good overall financial condition, one is in marginal condition, and four are in poor condition.

Five of the rice farms are expected to face severe cash flow problems; four farms also have high likelihoods of losing real equity.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cropland (acres)</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>CAR550</td>
</tr>
<tr>
<td>CAR3000</td>
</tr>
<tr>
<td>CABR1300</td>
</tr>
<tr>
<td>CACR800</td>
</tr>
<tr>
<td>TXR1500</td>
</tr>
<tr>
<td>TXR3000</td>
</tr>
<tr>
<td>TXBR1800</td>
</tr>
<tr>
<td>TXER3200</td>
</tr>
<tr>
<td>LASR2000</td>
</tr>
<tr>
<td>ARMRR6500</td>
</tr>
<tr>
<td>ARSR3240</td>
</tr>
<tr>
<td>ARWR3250</td>
</tr>
<tr>
<td>ARHR3060</td>
</tr>
</tbody>
</table>
Representative Farm: Rice

Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>2015</th>
<th>2020</th>
<th>P(Negative Ending Cash)</th>
<th>2015-2020</th>
<th>P(Real Net Worth Declines)</th>
<th>2015-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR550</td>
<td></td>
<td>99-99</td>
<td>96-99</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CAR3000</td>
<td></td>
<td>2-11</td>
<td>2-12</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CABR1300</td>
<td></td>
<td>1-1</td>
<td>1-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CACR800</td>
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<td>2-10</td>
<td>2-17</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>17-17</td>
<td>1-3</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TXR3000</td>
<td></td>
<td>1-1</td>
<td>1-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TXBR1800</td>
<td></td>
<td>1-1</td>
<td>1-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TXER3200</td>
<td></td>
<td>97-99</td>
<td>99-99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSR2200</td>
<td></td>
<td>1-1</td>
<td>38-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARMR3500</td>
<td></td>
<td>99-99</td>
<td>99-99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARSR3240</td>
<td></td>
<td>2-10</td>
<td>94-46</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARWR2500</td>
<td></td>
<td>4-62</td>
<td>91-45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARRH3000</td>
<td></td>
<td>99-99</td>
<td>99-99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:
2. P(Negative Ending Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.
3. P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Receipts ($1,000)</th>
<th>Payments ($1,000)</th>
<th>NCFI ($1,000)</th>
<th>Reserve 2020 ($1,000)</th>
<th>Net Worth 2020 ($1,000)</th>
<th>CRNW (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR550</td>
<td>784.68</td>
<td>15.82</td>
<td>82.32</td>
<td>(832.12)</td>
<td>2,303.23</td>
<td>(3.24)</td>
</tr>
<tr>
<td>CAR3000</td>
<td>4,688.79</td>
<td>89.84</td>
<td>559.15</td>
<td>1,865.58</td>
<td>12,269.59</td>
<td>1.08</td>
</tr>
<tr>
<td>CABR1300</td>
<td>2,003.49</td>
<td>38.00</td>
<td>600.82</td>
<td>2,992.36</td>
<td>9,729.59</td>
<td>2.52</td>
</tr>
<tr>
<td>CACR800</td>
<td>1,291.19</td>
<td>25.13</td>
<td>226.43</td>
<td>708.05</td>
<td>5,278.66</td>
<td>0.20</td>
</tr>
<tr>
<td>TXR1500</td>
<td>871.36</td>
<td>27.21</td>
<td>217.38</td>
<td>175.20</td>
<td>2,191.40</td>
<td>2.34</td>
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<tr>
<td>TXR3000</td>
<td>1,798.19</td>
<td>44.52</td>
<td>357.25</td>
<td>1,228.31</td>
<td>2,443.98</td>
<td>7.54</td>
</tr>
<tr>
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<td>1,057.30</td>
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<td>1,712.39</td>
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<td>1,536.55</td>
<td>36.70</td>
<td>10.61</td>
<td>(1,611.57)</td>
<td>1,075.20</td>
<td>(8.00)</td>
</tr>
<tr>
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<td>1,350.69</td>
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<td>237.72</td>
<td>906.59</td>
<td>2,850.10</td>
<td>3.02</td>
</tr>
<tr>
<td>ARMR5500</td>
<td>3,852.67</td>
<td>125.82</td>
<td>(968.08)</td>
<td>(11,677.82)</td>
<td>(1,572.06)</td>
<td>(20.88)</td>
</tr>
<tr>
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<td>326.65</td>
<td>903.32</td>
<td>5,618.53</td>
<td>6.63</td>
</tr>
<tr>
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<td>1,715.76</td>
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<td>265.93</td>
<td>(238.89)</td>
<td>6,643.68</td>
<td>0.16</td>
</tr>
<tr>
<td>ARRH3000</td>
<td>2,190.55</td>
<td>70.13</td>
<td>59.36</td>
<td>(3,303.61)</td>
<td>3,654.13</td>
<td>(5.72)</td>
</tr>
</tbody>
</table>

1. Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)
2. Payments are average annual total government payments, 2015-2020 ($1,000)
3. NCFI is average annual net cash farm income, 2015-2020 ($1,000)
4. Reserve 2020 is average ending cash reserves, 2020 ($1,000)
5. Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)
6. CRNW is average percentage change in real net worth over 2015-2020 period, (%)
• Nine of eighteen dairy operations are in good overall financial condition. Five dairies are classified in marginal condition, and four are in poor condition.

• Seven of the dairies are projected to experience severe liquidity pressure; however, only three dairies face a greater than 50 percent chance of losing real equity.


<table>
<thead>
<tr>
<th></th>
<th>Cropland (acres)</th>
<th>Assets ($1,000)</th>
<th>Debt/Asset (ratio)</th>
<th>Gross Receipts ($1,000)</th>
<th>Cows (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD2000</td>
<td>1,200</td>
<td>26,797.00</td>
<td>0.24</td>
<td>12,765.70</td>
<td>2,000</td>
</tr>
<tr>
<td>WAD250</td>
<td>250</td>
<td>4,724.00</td>
<td>0.26</td>
<td>1,406.10</td>
<td>250</td>
</tr>
<tr>
<td>WAD850</td>
<td>605</td>
<td>12,653.00</td>
<td>0.24</td>
<td>6,011.30</td>
<td>850</td>
</tr>
<tr>
<td>IDD3000</td>
<td>1,500</td>
<td>33,259.00</td>
<td>0.22</td>
<td>19,741.30</td>
<td>3,000</td>
</tr>
<tr>
<td>NVD1000</td>
<td>200</td>
<td>9,092.00</td>
<td>0.21</td>
<td>6,816.00</td>
<td>1,000</td>
</tr>
<tr>
<td>TXND3800</td>
<td>1,920</td>
<td>31,932.00</td>
<td>0.26</td>
<td>23,548.70</td>
<td>3,800</td>
</tr>
<tr>
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<td>11,177.00</td>
<td>0.23</td>
<td>8,617.00</td>
<td>1,500</td>
</tr>
<tr>
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<td>1,944.30</td>
<td>400</td>
</tr>
<tr>
<td>WID145</td>
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<td>1,090.40</td>
<td>145</td>
</tr>
<tr>
<td>WID1000</td>
<td>2,000</td>
<td>13,512.00</td>
<td>0.23</td>
<td>7,696.40</td>
<td>1,000</td>
</tr>
<tr>
<td>NYWD500</td>
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<td>7,031.00</td>
<td>0.21</td>
<td>3,674.40</td>
<td>500</td>
</tr>
<tr>
<td>NYWD1200</td>
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<td>17,298.00</td>
<td>0.22</td>
<td>8,529.90</td>
<td>1,200</td>
</tr>
<tr>
<td>VTD140</td>
<td>220</td>
<td>1,806.00</td>
<td>0.29</td>
<td>858.40</td>
<td>140</td>
</tr>
<tr>
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<td>5,810.00</td>
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<td>2,766.50</td>
<td>400</td>
</tr>
<tr>
<td>MOGD550</td>
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<td>4,351.00</td>
<td>0.22</td>
<td>1,874.50</td>
<td>550</td>
</tr>
<tr>
<td>MOGD180</td>
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<td>1,411.00</td>
<td>0.22</td>
<td>682.50</td>
<td>180</td>
</tr>
<tr>
<td>FLND550</td>
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<td>4,551.00</td>
<td>0.24</td>
<td>3,603.00</td>
<td>550</td>
</tr>
<tr>
<td>FLSD1750</td>
<td>400</td>
<td>13,116.00</td>
<td>0.24</td>
<td>11,039.60</td>
<td>1,750</td>
</tr>
</tbody>
</table>
## Representative Farm: Dairy

### Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>P(Negative Ending Cash)</th>
<th>P(Real Net Worth Declines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD2000</td>
<td>1-7</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>WAD250</td>
<td>1-1</td>
<td>25-50</td>
<td>1-1</td>
</tr>
<tr>
<td>WAD850</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>IDD3000</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>NVD1000</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>TXND3800</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>TXCD1500</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>TXED400</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>WI1D45</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>WI1D100</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>NYWD500</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>NYWD1200</td>
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</tr>
<tr>
<td>VTD140</td>
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<td>1-1</td>
<td>1-1</td>
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<td>MOGD550</td>
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</tr>
<tr>
<td>MOGD180</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>FLND550</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
<tr>
<td>FLSD1750</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1</td>
</tr>
</tbody>
</table>

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

| 25-50 | 25 | 50 | >50 |

2 P(NegativeEndingCash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

### Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

<table>
<thead>
<tr>
<th>Receipts $(1,000)</th>
<th>Payments $(1,000)</th>
<th>NCFI $(1,000)</th>
<th>Reserve 2020 $(1,000)</th>
<th>Net Worth 2020 $(1,000)</th>
<th>CRNW (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD2000</td>
<td>9,925.23</td>
<td>0.25</td>
<td>1,572.89</td>
<td>3,118.36</td>
<td>23,303.39</td>
</tr>
<tr>
<td>WAD250</td>
<td>1,089.72</td>
<td>3.45</td>
<td>128.65</td>
<td>(780.70)</td>
<td>3,327.93</td>
</tr>
<tr>
<td>WAD850</td>
<td>4,624.90</td>
<td>0.98</td>
<td>918.85</td>
<td>2,844.07</td>
<td>12,071.43</td>
</tr>
<tr>
<td>IDD3000</td>
<td>15,008.90</td>
<td>0.33</td>
<td>1,345.85</td>
<td>(718.02)</td>
<td>26,424.06</td>
</tr>
<tr>
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<td>5,144.92</td>
<td>0.00</td>
<td>761.64</td>
<td>2,414.44</td>
<td>8,512.47</td>
</tr>
<tr>
<td>TXND3800</td>
<td>18,124.35</td>
<td>0.14</td>
<td>1,795.58</td>
<td>232.01</td>
<td>23,700.67</td>
</tr>
<tr>
<td>TXCD1500</td>
<td>6,736.71</td>
<td>0.00</td>
<td>275.60</td>
<td>(1,088.55)</td>
<td>7,106.70</td>
</tr>
<tr>
<td>TXED400</td>
<td>1,480.63</td>
<td>0.00</td>
<td>182.54</td>
<td>(296.49)</td>
<td>2,422.52</td>
</tr>
<tr>
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<td>862.49</td>
<td>3.06</td>
<td>221.96</td>
<td>188.46</td>
<td>3,027.45</td>
</tr>
<tr>
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<td>6,055.39</td>
<td>4.08</td>
<td>1,042.35</td>
<td>3,660.96</td>
<td>12,698.54</td>
</tr>
<tr>
<td>NYWD500</td>
<td>2,912.31</td>
<td>3.87</td>
<td>821.59</td>
<td>4,100.29</td>
<td>8,285.46</td>
</tr>
<tr>
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<td>0.75</td>
<td>1,450.05</td>
<td>6,084.12</td>
<td>17,600.80</td>
</tr>
<tr>
<td>VTD140</td>
<td>674.29</td>
<td>2.30</td>
<td>(0.67)</td>
<td>(851.08)</td>
<td>688.47</td>
</tr>
<tr>
<td>VTD400</td>
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<td>8.31</td>
<td>205.22</td>
<td>(333.65)</td>
<td>4,209.81</td>
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<tr>
<td>MOGD550</td>
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<td>0.00</td>
<td>591.28</td>
<td>2,095.82</td>
<td>4,963.61</td>
</tr>
<tr>
<td>MOGD180</td>
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<td>0.00</td>
<td>182.78</td>
<td>455.20</td>
<td>1,409.90</td>
</tr>
<tr>
<td>FLND550</td>
<td>2,880.85</td>
<td>0.00</td>
<td>358.21</td>
<td>359.56</td>
<td>3,894.50</td>
</tr>
<tr>
<td>FLSD1750</td>
<td>8,882.72</td>
<td>0.00</td>
<td>628.99</td>
<td>(518.61)</td>
<td>9,863.07</td>
</tr>
</tbody>
</table>

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)
2 Payments are average annual total government payments, 2015-2020 ($1,000)
3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)
4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)
5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)
6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)
Five of eleven cow-calf operations are projected to be in good overall financial condition, six are in marginal condition, and none are in poor condition.

None of the operations will face significant liquidity pressure over the period; however, three of the operations do face a severe threat of losing real equity.


<table>
<thead>
<tr>
<th></th>
<th>Cropland (acres)</th>
<th>Assets ($1,000)</th>
<th>Debt/Asset (ratio)</th>
<th>Gross Receipts ($1,000)</th>
<th>Cows (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVB650</td>
<td>1,300</td>
<td>8,644.00</td>
<td>0.02</td>
<td>704.80</td>
<td>650</td>
</tr>
<tr>
<td>NVSB550</td>
<td>125</td>
<td>3,070.00</td>
<td>0.03</td>
<td>735.30</td>
<td>550</td>
</tr>
<tr>
<td>MTB600</td>
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<td>8,649.00</td>
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<td>671.90</td>
<td>600</td>
</tr>
<tr>
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</tr>
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</tr>
<tr>
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</tr>
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<td>0.01</td>
<td>1,195.70</td>
<td>1,155</td>
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</table>
Economic Viability of Representative Farms over the 2015-2020 Period

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Overall Ranking</th>
<th>P(Negative Ending Cash)</th>
<th>P(Real Net Worth Declines)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVB650</td>
<td>1-1</td>
<td>1-22</td>
<td>1-1-22</td>
</tr>
<tr>
<td>NVSB550</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1-1</td>
</tr>
<tr>
<td>MTB600</td>
<td>1-1</td>
<td>1-22</td>
<td>1-1-22</td>
</tr>
<tr>
<td>WYB475</td>
<td>1-1</td>
<td>1-46</td>
<td>1-1-46</td>
</tr>
<tr>
<td>COB250</td>
<td>1-1</td>
<td>1-58</td>
<td>1-1-58</td>
</tr>
<tr>
<td>NMB240</td>
<td>1-1</td>
<td>1-54</td>
<td>1-1-54</td>
</tr>
<tr>
<td>SDB375</td>
<td>1-2</td>
<td>1-48</td>
<td>1-1-48</td>
</tr>
<tr>
<td>MOB250</td>
<td>1-1</td>
<td>1-1</td>
<td>1-1-1</td>
</tr>
<tr>
<td>TXRB400</td>
<td>99-1</td>
<td>1-49</td>
<td>1-1-49</td>
</tr>
<tr>
<td>TXSB275</td>
<td>1-21</td>
<td>1-74</td>
<td>1-1-74</td>
</tr>
<tr>
<td>FLB1155</td>
<td>1-1</td>
<td>1-35</td>
<td>1-1-35</td>
</tr>
</tbody>
</table>

1 Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities:

<table>
<thead>
<tr>
<th>Viability</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Green</td>
</tr>
<tr>
<td>Moderate</td>
<td>Yellow</td>
</tr>
<tr>
<td>Poor</td>
<td>Red</td>
</tr>
</tbody>
</table>

2 P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2015 and 2020.

3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2014 to 2015 and from 2014 to 2020.

Implications of the December 2015 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>Receipts ($1,000)</th>
<th>Payments ($1,000)</th>
<th>NCFI ($1,000)</th>
<th>Reserve 2020 ($1,000)</th>
<th>Net Worth 2020 ($1,000)</th>
<th>CRNW (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVB650</td>
<td>592.10</td>
<td>0.00</td>
<td>204.51</td>
<td>487.39</td>
<td>8,839.33</td>
<td>0.47</td>
</tr>
<tr>
<td>NVSB550</td>
<td>643.06</td>
<td>0.00</td>
<td>323.02</td>
<td>1,454.38</td>
<td>3,762.43</td>
<td>1.78</td>
</tr>
<tr>
<td>MTB600</td>
<td>558.91</td>
<td>0.00</td>
<td>252.36</td>
<td>867.10</td>
<td>8,750.00</td>
<td>0.56</td>
</tr>
<tr>
<td>WYB475</td>
<td>490.66</td>
<td>0.00</td>
<td>176.34</td>
<td>328.84</td>
<td>6,300.41</td>
<td>0.89</td>
</tr>
<tr>
<td>COB250</td>
<td>305.55</td>
<td>0.00</td>
<td>126.82</td>
<td>185.03</td>
<td>15,816.98</td>
<td>0.85</td>
</tr>
<tr>
<td>NMB240</td>
<td>297.79</td>
<td>0.00</td>
<td>154.86</td>
<td>294.23</td>
<td>7,456.30</td>
<td>0.81</td>
</tr>
<tr>
<td>SDB375</td>
<td>382.26</td>
<td>0.00</td>
<td>159.81</td>
<td>174.00</td>
<td>7,940.19</td>
<td>0.92</td>
</tr>
<tr>
<td>MOB250</td>
<td>424.04</td>
<td>4.16</td>
<td>236.47</td>
<td>812.55</td>
<td>3,813.85</td>
<td>0.41</td>
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<tr>
<td>TXRB400</td>
<td>546.12</td>
<td>0.00</td>
<td>192.20</td>
<td>253.67</td>
<td>8,719.85</td>
<td>0.83</td>
</tr>
<tr>
<td>TXSB275</td>
<td>300.46</td>
<td>0.00</td>
<td>106.41</td>
<td>53.25</td>
<td>5,152.88</td>
<td>1.16</td>
</tr>
<tr>
<td>FLB1155</td>
<td>1,016.22</td>
<td>0.00</td>
<td>448.62</td>
<td>1,933.49</td>
<td>26,568.27</td>
<td>0.41</td>
</tr>
</tbody>
</table>

1 Receipts are average annual total cash receipts including government payments, 2015-2020 ($1,000)

2 Payments are average annual total government payments, 2015-2020 ($1,000)

3 NCFI is average annual net cash farm income, 2015-2020 ($1,000)

4 Reserve 2020 is average ending cash reserves, 2020 ($1,000)

5 Net Worth 2020 is average nominal ending net worth, 2020 ($1,000)

6 CRNW is average percentage change in real net worth over 2015-2020 period, (%)
AFPC Briefing Series

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   Department of Agricultural Economics
   Texas A&M University
   College Station, TX 77843-2124

or call 979-845-5913.

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