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### **Research Report**

Economic outlook for representative ranches given the December 2013 FAPRI/AFPC Baseline

AFPC Briefing Paper, No. 13-4

### **Provided in Cooperation with:**

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## Economic Outlook for Representative Ranches Given the December 2013 FAPRI/AFPC Baseline

# Briefing Paper 13-4 December 2013



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### ECONOMIC OUTLOOK FOR REPRESENTATIVE RANCHES GIVEN THE DECEMBER 2013 FAPRI/AFPC BASELINE

AFPC Working Paper 13-4

James W. Richardson Joe L. Outlaw George M. Knapek Brian K. Herbst J. Marc Raulston



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#### **EXECUTIVE SUMMARY**

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate eleven representative cow/calf ranch operations in major production areas of ten states. The chief purpose of this analysis is to project those ranches' economic viability for 2013 to 2018. The data necessary to simulate the economic activity of these operations is developed through ongoing cooperation with panels of ranchers in each of these states. The Food and Agricultural Policy Research Institute (FAPRI) provided projected prices and input inflation rates in their December 2013 Baseline that were used to analyze the viability of the AFPC representative ranches.

Under the December 2013 Baseline, the Montana ranch (MTB600), the Colorado ranch (COB250), the Missouri ranch (MOB250), and the Florida ranch (FLB1155) are all considered in good liquidity condition (less than a 25 percent change of negative ending cash in 2018). The Nevada ranch (NVB650), the Wyoming ranch (WYB435) and the South Dakota ranch (SDB375) are considered in marginal liquidity position (between 25 percent and 50 percent chance of negative ending cash in 2018). The California ranch (CAB500), the New Mexico ranch (NMB160), the Texas Rolling Plains ranch (TXRB250) and the South Texas ranch (TXSB200) are all considered in poor liquidity condition (greater than a 50 percent chance of negative ending cash in 2018).

Ten of the eleven ranches (NVB650, MTB600, WYB435, COB250, NMB160, SDB375, MOB250, TXRB250, TXSB200, and FLB1155) are all in good equity position (less than a 25 percent chance of decreasing real net worth during 2013-2018). The California ranch (CAB500), with land values constrained by the Williamson Act has a greater than 50 percent probability of decreasing real net worth (poor equity position). No ranches have a marginal equity position (between 25 percent and 50 percent likelihood of losing real net worth).

Overall rankings for the representative ranches are projected in 2018 to be as follows: Seven of the eleven ranches (NVB650, MTB600, WYB435, COB250, SDB375, MOB250, and FLB1155) are classified in good condition, three (NMB160, TXRB250, and TXSB200) are in marginal condition, and the remaining ranch (CAB500) is in poor condition.

#### **FAPRI DECEMBER 2013 BASELINE**

While projected cattle prices are considered to be the primary determinant of the financial viability of the representative ranches, the prices of feed crops and bi-products can also have an impact. The ranches produce hay and are often net buyers and not net sellers. At least two of the ranches retain ownership through the backgrounding stage and feed some concentrates. The Missouri ranch produces a number of grain and oilseed crops and the smaller Texas ranches also raises broilers. Additionally, crop prices have an impact on fed cattle returns, which impacts feeder cattle prices.

Projected livestock prices for FAPRI's December 2013 Baseline are summarized in Table 1. Feeder cattle prices are expected to see growth until 2015. Cattle prices are projected to move as follows:

- Feeder cattle prices are projected to steadily increase from \$101.89/cwt in 2009 reaching \$173.85/cwt by 2015 and then falling to \$151.04/cwt in 2018.
- Fed cattle prices are expected to increase from the low in 2009 of \$83.25/cwt, ending 2018 at \$120.64/cwt.
- Culled cow prices range between \$47.01/cwt and \$78.92/cwt.

Projected crop prices for FAPRI's December 2013 Baseline are also summarized in Table 1. In general, cotton, corn, wheat, rice, sorghum, and soybean price projections decline in 2014. From 2015-2018 prices are projected to be relatively flat. Individual crop prices are projected to move as follows:

- Corn prices are projected to reach a high of \$6.89/bu in 2012. Corn prices are projected to fall to \$4.47/bu in 2013 and settle around \$4.20/bu in the latter projected years.
- Wheat prices increase significantly from 2010-2012 before declining and ending 2018 at \$5.78/bu.
- After reaching a high of \$0.883/lb. in 2011, cotton prices decline significantly in 2012 before settling around \$0.73/lb for the remainder of the projection period.
- Rice prices reach a peak of \$15.38/cwt. in 2013 before slowly declining and end 2018 at \$13.07/cwt.
- Sorghum prices decline from a high of \$6.33/bu. in 2012, ending the projection period at \$3.86/bu.
- Prices for Soybeans are expected to fall from a high of \$14.40/bu. in 2012 and remain around \$10.50/bu. during the planning horizon.

Projected annual rates of change for variable cash expenses are summarized in Table 2. The rates of change in input prices come from FAPRI's December 2013 Baseline. Fertilizer prices increase 36.9 percent in 2011 and 5.8 percent in 2012. However, fertilizer prices are projected to decline by 7.5, 11.2, and 3.7 percent from 2013 to 2015 before seeing small increases from 2016 to 2018. Fuel price projections follow the same pattern as fertilizer with declines from 2013 to 2015 and small increases afterwards. Projected annual rates of change in land values over the 2010 – 2018 period were provided by the December 2013 FAPRI Baseline and fall annually from a projected high of 10.9 percent in 2012 to 2.0 percent in 2018.

Table 1. FAPRI December 2013 Baseline Projections of Livestock and Crop Prices, 2009-2018

|                        | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cattle Prices          |        |        |        |        |        |        |        |        |        |        |
| Feeder Cattle (\$/cwt) | 101.89 | 115.40 | 141.25 | 158.19 | 160.14 | 172.72 | 173.85 | 165.1  | 159.14 | 151.04 |
| Fed Cattle (\$/cwt)    | 83.25  | 95.38  | 114.73 | 122.86 | 125.75 | 130.26 | 130.26 | 126.41 | 124.12 | 120.64 |
| Culled Cows (\$/cwt)   | 47.01  | 56.76  | 69.82  | 76.68  | 76.82  | 77.84  | 78.92  | 74.28  | 69.32  | 63.30  |
| Crop Prices            |        |        |        |        |        |        |        |        |        |        |
| Corn (\$/bu.)          | 3.55   | 5.18   | 6.22   | 6.89   | 4.47   | 4.15   | 4.12   | 4.16   | 4.21   | 4.22   |
| Wheat (\$/bu.)         | 4.87   | 5.70   | 7.24   | 7.77   | 6.93   | 5.65   | 5.62   | 5.67   | 5.73   | 5.78   |
| Cotton (\$/lb.)        | 0.6290 | 0.8150 | 0.8830 | 0.7250 | 0.7487 | 0.7199 | 0.7236 | 0.7366 | 0.7425 | 0.7506 |
| Sorghum (\$/bu.)       | 3.22   | 5.02   | 5.99   | 6.33   | 4.12   | 3.77   | 3.73   | 3.78   | 3.83   | 3.86   |
| Soybeans (\$/bu.)      | 9.59   | 11.30  | 12.50  | 14.40  | 12.26  | 10.54  | 10.40  | 10.56  | 10.68  | 10.74  |
| Barley (\$/bu.)        | 4.66   | 3.86   | 5.35   | 6.43   | 5.77   | 4.71   | 4.74   | 4.76   | 4.82   | 4.85   |
| Oats (\$/bu.)          | 2.02   | 2.52   | 3.49   | 3.89   | 3.62   | 3.34   | 3.24   | 3.24   | 3.26   | 3.27   |
| Rice (\$/cwt.)         | 14.40  | 12.70  | 14.50  | 14.90  | 15.38  | 13.89  | 12.83  | 12.99  | 12.94  | 13.07  |
| Soybean Meal (\$/ton)  | 297    | 330    | 375    | 446    | 361    | 312    | 306    | 315    | 319    | 324    |
| All Hay (\$/ton)       | 108    | 114    | 178    | 187    | 183    | 141    | 134    | 136    | 140    | 145    |
| Peanuts (\$/ton)       | 434    | 450    | 636    | 602    | 474    | 543    | 547    | 544    | 547    | 546    |

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

Table 2. FAPRI December 2013 Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 2010-2018

|  | 2010  | 2011  | 2012  | 2013  | 2014   | 2015  | 2016 | 2017 | 2018 |
|--|-------|-------|-------|-------|--------|-------|------|------|------|
|  |       |       |       |       |        |       |      |      |      |
| Annual Rate of Change for Input Prices Paid    |       |       |       |       |        |       |      |      |      |
| Seed Prices (%)                                | 3.68  | 7.10  | 8.13  | 5.34  | -0.45  | 0.04  | 0.75 | 1.24 | 2.16 |
| All Fertilizer Prices (%)                      | -6.23 | 36.93 | 5.76  | -7.47 | -11.16 | -3.71 | 2.09 | 0.39 | 0.54 |
| Herbicide Prices (%)                           | -6.38 | -1.52 | 6.15  | 2.48  | 1.27   | 1.95  | 2.97 | 1.59 | 1.68 |
| Insecticide Prices (%)                         | 1.86  | 2.44  | 4.17  | 5.19  | 1.98   | 2.18  | 2.90 | 1.63 | 1.68 |
| Fuel and Lube Prices (%)                       | 24.02 | 27.46 | -0.55 | -0.83 | -2.68  | -1.64 | 0.31 | 1.37 | 2.51 |
| Machinery Prices (%)                           | 3.60  | 6.09  | 5.33  | 2.27  | 0.86   | 2.18  | 2.68 | 2.23 | 2.48 |
| Wages (%)                                      | 0.53  | 1.59  | 3.65  | 3.77  | 2.56   | 2.68  | 2.95 | 3.04 | 3.04 |
| Supplies (%)                                   | 1.31  | 4.52  | 2.47  | 0.55  | 0.62   | 1.47  | 2.06 | 1.20 | 1.31 |
| Repairs (%)                                    | 1.89  | 3.70  | 3.57  | 0.38  | 1.91   | 2.38  | 2.65 | 2.40 | 2.41 |
| Services (%)                                   | 3.21  | 1.86  | 1.83  | 2.54  | 2.01   | 2.46  | 2.96 | 2.08 | 2.29 |
| Taxes (%)                                      | 4.41  | 4.23  | 2.25  | 3.08  | 2.55   | 3.60  | 3.11 | 1.95 | 2.32 |
| PPI Items (%)                                  | 3.30  | 14.36 | 6.05  | 1.72  | -4.66  | -0.29 | 1.47 | 1.2  | 1.48 |
| PPI Total (%)                                  | 3.31  | 12.30 | 5.71  | 1.99  | -3.54  | 0.23  | 1.89 | 1.59 | 1.68 |
| Annual Change in Consumer Price Index (%)      | 1.64  | 3.14  | 2.08  | 1.48  | 1.63   | 1.72  | 1.92 | 1.87 | 1.94 |
| Annual Rate of Change for U.S. Land Prices (%) | 4.27  | 8.64  | 10.88 | 9.43  | 3.45   | 2.00  | 2.00 | 2.00 | 2.00 |

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

P(Real Net Worth Declines) 2013-2018 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 Economic Viability of Representative Farms over the 2013-2018 Period P(Negative Ending Cash) 2013-2018 <del>93-39</del> **58-31** 92-26 **66-25** 66-66 66-66 1-4 1-1 1-1 1-1 2018 **Overall Ranking** 2013 Farm Name **TXRB250 TXSB200** FLB1155 **NMB160 MTB600** WYB435 **COB250 MOB250 NVB650 SDB375 CAB500** 

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 2013 and 2018

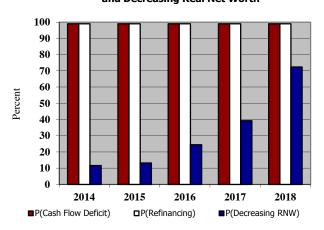
3 P(Real Net Worth Decline) is the probability that the farm will have a loss in real net worth relative to the beginning net worth. Reported values represent the probabilities for losing real net worth from 2009 to 2013 and from 2009 to 2018.

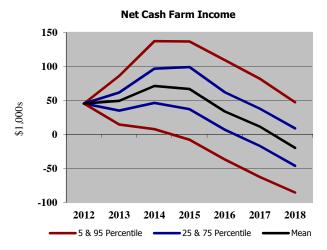
### **CAB500**

Located in the northern Sacramento Valley (Tehama County, California), this 500-cow operation covers 10,000 acres of deeded and privately owned leased range. Additionally, 2,000 AUMs are leased from the federal government. All 2012 receipts were generated by the cow-calf operation



### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 440.2       | 441.8       | 419.7       | 400.1       | 378.1       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 440.2       | 441.8       | 419.7       | 400.1       | 378.1       |
| Total Expenses (\$1,000)       | 368.9       | 374.8       | 386.0       | 388.7       | 397.8       |
| Net Cash Farm Income (\$1,000) | 71.3        | 66.9        | 33.8        | 11.4        | -19.8       |
| Ending Cash (\$1,000)          | -139.0      | -150.2      | -183.1      | -226.0      | -299.1      |
| Net Worth (\$1,000)            | 4,454.1     | 4,478.5     | 4,415.1     | 4,345.1     | 4,228.4     |
| Return on Assets (%)           | 2.9         | -1.4        | -2.5        | -2.0        | -3.2        |
| P(Cash Flow Deficit) (%)       | 99.0        | 99.0        | 99.0        | 99.0        | 99.0        |
| P(Refinancing) (%)             | 99.0        | 99.0        | 99.0        | 99.0        | 99.0        |
| P(Decreasing RNW) (%)          | 11.6        | 13.2        | 24.4        | 39.2        | 72.4        |

Producers participating in the panel include: Jerry Hemsted, Dick O'Sullivan, Britt Schumacher, Ron Masingal, and Wally Roney. Larry Forero, Josh Davy, Glenn Nader, and serve as the facilitators.

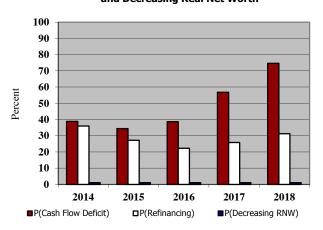
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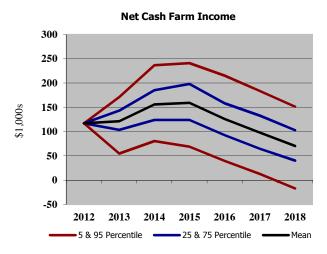
### **NVB650**

NVB650 is a 650-cow ranch located in northeastern Nevada (Elko County). The operation consists of 1,300 acres of owned hay meadow and 8,725 acres of owned range, supplemented by 4,450 AUMs leased from the U.S. Forest Service. Each year, the ranch harvests 975 acres of hay. Annually, cattle sales represent all of the ranch's receipts.



### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 544.4       | 546.9       | 519.8       | 500.6       | 472.8       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 544.4       | 546.9       | 519.8       | 500.6       | 472.8       |
| Total Expenses (\$1,000)       | 388.8       | 387.9       | 393.8       | 402.9       | 402.6       |
| Net Cash Farm Income (\$1,000) | 155.7       | 159.0       | 126.0       | 97.8        | 70.2        |
| Ending Cash (\$1,000)          | 16.1        | 47.3        | 67.7        | 67.0        | 48.2        |
| Net Worth (\$1,000)            | 7,240.7     | 7,430.3     | 7,553.7     | 7,646.3     | 7,710.3     |
| Return on Assets (%)           | 5.0         | 2.8         | 0.9         | 0.9         | -0.3        |
| P(Cash Flow Deficit) (%)       | 38.8        | 34.4        | 38.6        | 56.8        | 74.6        |
| P(Refinancing) (%)             | 36.0        | 27.2        | 22.2        | 25.8        | 31.2        |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

Producers participating in the panel include: Tom Barnes, Jay Dalton, Mitch & Rhonda H, Ed Sarman, Brad & Dani Dalto, Jon Griggs, Sam Mori, and Craig Spratling. Desiree Seal, Tom Harris, Ron Torell serve as facilitators.

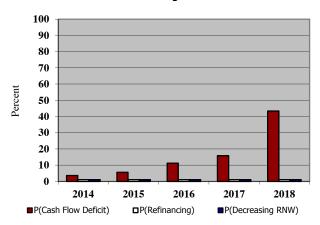
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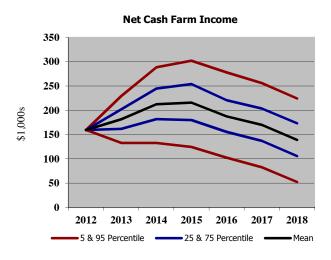
### **MTB600**

A 600-cow ranch located on the eastern plains of Montana (Custer County), MTB600 runs cows on a combination of owned land and land leased from federal, state, and private sources. The ranch owns 14,000 acres of pasture. 800 acres of hay are produced annually on the owned land. Sales of high-quality replacement females comprise a significant portion of receipts for this ranch. Also, all deeded acres are leased for hunting. Cattle sales represented 98 percent of this ranch's 2012 receipts.



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



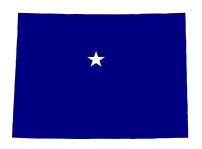


|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 502.1       | 506.4       | 478.5       | 456.0       | 429.5       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 509.1       | 513.4       | 485.5       | 463.0       | 436.5       |
| Total Expenses (\$1,000)       | 296.6       | 297.8       | 298.2       | 293.0       | 297.6       |
| Net Cash Farm Income (\$1,000) | 212.5       | 215.6       | 187.3       | 170.0       | 139.0       |
| Ending Cash (\$1,000)          | 218.9       | 291.6       | 339.9       | 383.8       | 398.2       |
| Net Worth (\$1,000)            | 7,909.7     | 8,126.2     | 8,251.9     | 8,396.9     | 8,489.1     |
| Return on Assets (%)           | 5.3         | 3.1         | 1.4         | 1.5         | 0.3         |
| P(Cash Flow Deficit) (%)       | 3.6         | 5.6         | 11.2        | 15.8        | 43.4        |
| P(Refinancing) (%)             | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

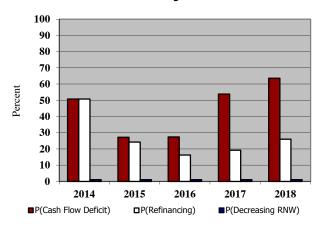
Producers participating in the panel include: Clarence Brown, Levi Foreman, Jeff Okerman, Andy Zook, Art Drange, Alyn Haughian, Scot Robinson. Michael Schuldt serves as the facilitator.

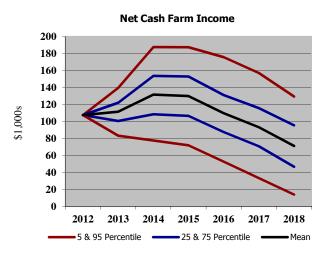
### **WYB435**

This 435-cow ranch is located in north central Wyoming (Washakie County). The ranch leases 2000 AUMs from the U.S. Forest Service and owns 1,000 acres of range. In response to drought, the ranch has begun leasing 700 acres of private pasture. Annually, the ranch harvests 305 acres of alfalfa and grass hay on owned ground. The ranch backgrounds two-thirds of its calves for ninety days. In 2012, cattle sales accounted for 92 percent of gross receipts, while hay sales accounted for seven percent



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



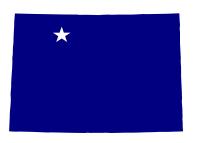


|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 21.1        | 21.1        | 22.7        | 24.7        | 27.0        |
| Livestock Receipts (\$1,000)   | 386.0       | 390.4       | 370.3       | 353.9       | 335.3       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 412.2       | 416.5       | 398.0       | 383.7       | 367.3       |
| Total Expenses (\$1,000)       | 280.7       | 286.6       | 288.3       | 290.5       | 296.2       |
| Net Cash Farm Income (\$1,000) | 131.5       | 129.9       | 109.7       | 93.2        | 71.1        |
| Ending Cash (\$1,000)          | -1.3        | 27.6        | 45.5        | 46.0        | 40.2        |
| Net Worth (\$1,000)            | 4,894.4     | 5,020.2     | 5,070.9     | 5,125.6     | 5,168.7     |
| Return on Assets (%)           | 6.6         | 3.2         | -0.3        | 0.8         | -0.9        |
| P(Cash Flow Deficit) (%)       | 50.8        | 27.2        | 27.4        | 53.8        | 63.6        |
| P(Refinancing) (%)             | 50.8        | 24.2        | 16.2        | 19.2        | 26.0        |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

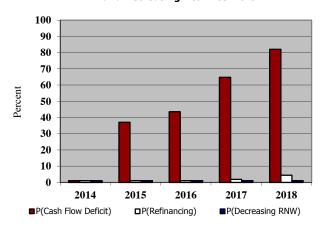
Producers participating in the panel include: Hugh Baird, Tim Flitner, Vance Lungren, Dan Rice, Gary Rice. Jim Gill serves as the facilitator.

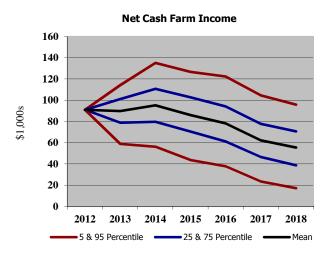
### **COB250**

This 250-cow ranch is located in northwestern Colorado (Routt County). Federal land provides seven percent of the ranch's grazing needs. The ranch owns 2,300 acres of rangeland, and the cattle graze federal land during the summer. COB250 harvests 450 acres of hay each year at a projected yield of 2.5 tons per acre. Cattle sales accounted for 73 percent of the ranch's 2012 total receipts



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth



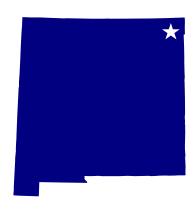


|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 47.9        | 45.5        | 46.3        | 47.9        | 49.7        |
| Livestock Receipts (\$1,000)   | 218.3       | 219.9       | 208.9       | 200.4       | 189.3       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 275.3       | 274.4       | 264.2       | 257.3       | 248.1       |
| Total Expenses (\$1,000)       | 180.1       | 188.6       | 186.1       | 195.1       | 192.7       |
| Net Cash Farm Income (\$1,000) | 95.1        | 85.9        | 78.1        | 62.1        | 55.4        |
| Ending Cash (\$1,000)          | 94.5        | 103.8       | 108.0       | 99.7        | 85.2        |
| Net Worth (\$1,000)            | 20,001.1    | 20,426.9    | 20,815.2    | 21,217.1    | 21,605.6    |
| Return on Assets (%)           | 3.9         | 1.7         | 1.9         | 1.6         | 1.8         |
| P(Cash Flow Deficit) (%)       | 1.0         | 37.0        | 43.6        | 64.8        | 82.0        |
| P(Refinancing) (%)             | 1.0         | 1.0         | 1.0         | 1.8         | 4.4         |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

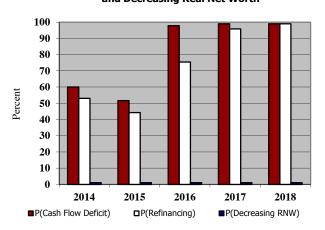
Producers participating in the panel include: Doug Carlson, Kurt Frentress, Jay Fetcher, Larry Monger, Jim Rossi, and Wayne Shoemaker. Todd Hagenbuch serves as the facilitator.

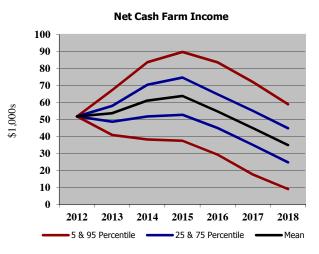
### **NMB160**

NMB160 is a 160-cow ranch located in northeastern New Mexico (Union County). In 2011, this ranch liquidated 33 percent of its mature cowherd in response to oppressive drought, culling 80 of its 240. During 2012, 94 percent of gross receipts were derived from cattle sales with the balance of receipts generated from fee hunting.



### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 155.5       | 156.8       | 148.6       | 142.2       | 133.8       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 164.7       | 166.0       | 157.8       | 151.4       | 143.0       |
| Total Expenses (\$1,000)       | 103.6       | 102.2       | 103.2       | 106.5       | 108.1       |
| Net Cash Farm Income (\$1,000) | 61.1        | 63.8        | 54.7        | 44.9        | 34.9        |
| Ending Cash (\$1,000)          | -1.4        | 2.4         | -12.4       | -36.0       | -68.7       |
| Net Worth (\$1,000)            | 6,844.2     | 6,975.0     | 7,071.2     | 7,171.8     | 7,258.9     |
| Return on Assets (%)           | 3.8         | 1.2         | 1.2         | 0.7         | 0.9         |
| P(Cash Flow Deficit) (%)       | 60.0        | 51.6        | 97.8        | 99.0        | 99.0        |
| P(Refinancing) (%)             | 53.0        | 44.2        | 75.4        | 95.8        | 99.0        |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |

Producers participating in the panel include: Justin Bennett, Damon Brown, John Gilbert, John Vincent, and Derek Walker. Blair Clavel, Manny Encinias serve as facilitators.

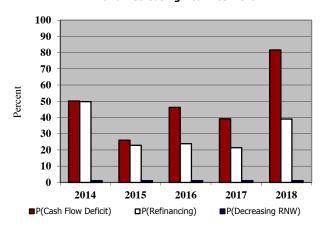
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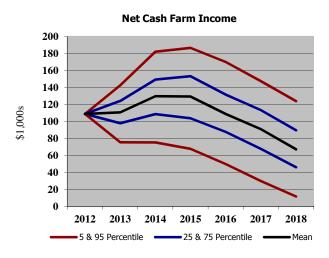
### **SDB375**

SDB375 is a 375-cow West River (Meade County, South Dakota) beef cattle ranch. This operation produces hay on 1,150 acres of owned cropland, and runs its cows on 6,700 acres of owned native range. In 2012, calf and culled cow/bull sales accounted for 100 percent of gross receipts



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 348.9       | 351.8       | 333.3       | 319.0       | 300.6       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 348.9       | 351.8       | 333.3       | 319.0       | 300.6       |
| Total Expenses (\$1,000)       | 219.4       | 222.5       | 224.6       | 228.2       | 233.5       |
| Net Cash Farm Income (\$1,000) | 129.6       | 129.2       | 108.7       | 90.8        | 67.1        |
| Ending Cash (\$1,000)          | -2.3        | 25.9        | 30.8        | 40.8        | 15.0        |
| Net Worth (\$1,000)            | 7,469.7     | 7,602.4     | 7,736.2     | 7,872.8     | 7,957.2     |
| Return on Assets (%)           | 4.3         | 1.8         | 1.2         | 1.0         | 0.0         |
| P(Cash Flow Deficit) (%)       | 50.2        | 26.0        | 46.2        | 39.2        | 81.6        |
| P(Refinancing) (%)             | 49.8        | 22.8        | 23.8        | 21.4        | 39.0        |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

Producers participating in the panel include: Alan & Jill Bishop, John & Lance Frei, Lynn C. Frey, Leo E. Grubl, Larry Stomprud, Wayne Oedekoven. Adele Harty, Dan Oedekoven, Dave Ollila, Ken Olson, Shannon Sand serve as facilitators.

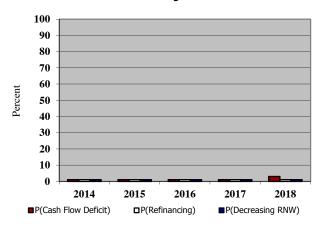
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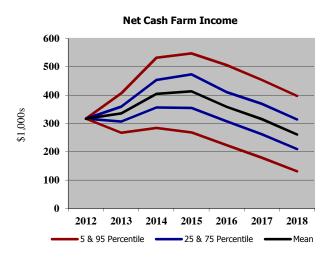
### **FLB1155**

This is a 1,155-cow ranch located in central Florida (Osceola County). FLB1155 runs cows on 5,400 acres of owned improved pasture, from which 3,560 acres of hay are harvested annually. Sales of sod are a burgeoning source of agricultural income for area ranches. During 2012, cattle sales represented 89 percent of total receipts.



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 843.2       | 849.0       | 806.2       | 771.9       | 728.2       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 937.2       | 943.0       | 900.2       | 865.9       | 822.2       |
| Total Expenses (\$1,000)       | 532.7       | 529.7       | 542.0       | 550.7       | 561.6       |
| Net Cash Farm Income (\$1,000) | 404.5       | 413.3       | 358.3       | 315.2       | 260.6       |
| Ending Cash (\$1,000)          | 683.1       | 913.1       | 1,112.3     | 1,282.2     | 1,411.7     |
| Net Worth (\$1,000)            | 24,672.9    | 25,364.6    | 25,933.8    | 26,494.0    | 27,016.0    |
| Return on Assets (%)           | 5.4         | 3.2         | 1.9         | 2.0         | 1.5         |
| P(Cash Flow Deficit) (%)       | 1.0         | 1.0         | 1.0         | 1.0         | 3.0         |
| P(Refinancing) (%)             | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

Producers participating in the panel include: Mike Adams, Wes Carlton, Ralph Pelaez, Alan Kelley, Cary Lightsey, Bert Tucker, Fred Tucker, and Wes Williamson.

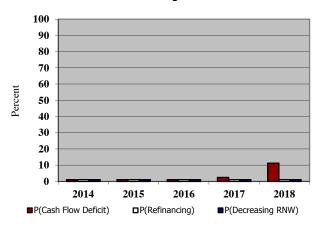
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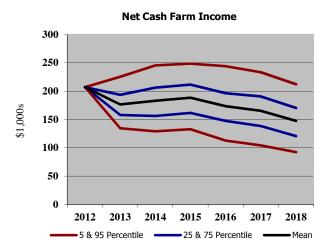
### **MOB250**

A 250-cow beef cattle operation is the focal point of this diversified livestock and crop farm located in southwest Missouri (Dade County). MOB250 plants 120 acres of corn, 120 acres of wheat, 160 acres of soybeans, and 280 acres of hay. Improved pasture makes up another 570 acres of this ranch. During 2012, cattle sales comprised 50 percent of gross receipts



#### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 135.0       | 135.1       | 138.2       | 140.4       | 142.6       |
| Livestock Receipts (\$1,000)   | 226.2       | 226.5       | 216.0       | 205.8       | 195.4       |
| Government Payments (\$1,000)  | 3.2         | 3.2         | 3.2         | 3.2         | 3.2         |
| Total Receipts (\$1,000)       | 369.5       | 369.7       | 362.2       | 354.2       | 346.1       |
| Total Expenses (\$1,000)       | 186.5       | 181.5       | 189.1       | 189.1       | 198.9       |
| Net Cash Farm Income (\$1,000) | 183.0       | 188.3       | 173.2       | 165.2       | 147.3       |
| Ending Cash (\$1,000)          | 286.4       | 356.2       | 413.0       | 463.2       | 498.8       |
| Net Worth (\$1,000)            | 3,774.7     | 3,908.6     | 3,995.4     | 4,083.3     | 4,168.2     |
| Return on Assets (%)           | 6.5         | 4.3         | 2.3         | 2.3         | 0.3         |
| P(Cash Flow Deficit) (%)       | 1.0         | 1.0         | 1.0         | 2.4         | 11.2        |
| P(Refinancing) (%)             | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |

Producers participating in the panel include: Steve Allison, Scott Daniel, James A. Nivens, Gary D. Wolf, Chuck Daniel, Randall Erisman, and Mike Theurer. Brian Gillen serves as the facilitator.

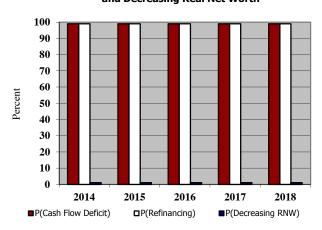
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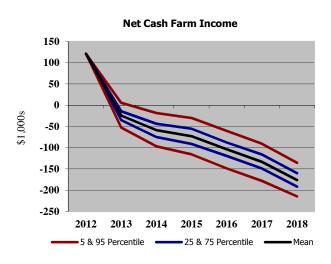
### **TXRB250**

The western Rolling Plains of Texas (King County) is home to this 250-head cow-calf operation. This ranch operates on 20,000 acres (half owned, half leased) of native range. Due to extended drought in the area, the ranch sold 250 cows in 2011 and 2012 and move 75 cows to 5,000 acres of leased land. After weaning, calves are placed on wheat pasture and then either sold as feeder cattle or retained as replacement females. Seventy-eight percent of 2012 receipts came from cattle sales, while 22 percent came from fee hunting.



### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





|                                | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Market Receipts (\$1,000)      | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Livestock Receipts (\$1,000)   | 230.4       | 232.4       | 218.9       | 209.0       | 195.7       |
| Government Payments (\$1,000)  | 0.0         | 0.0         | 0.0         | 0.0         | 0.0         |
| Total Receipts (\$1,000)       | 310.4       | 312.4       | 298.9       | 289.0       | 275.7       |
| Total Expenses (\$1,000)       | 369.2       | 385.7       | 402.8       | 422.6       | 451.9       |
| Net Cash Farm Income (\$1,000) | -58.8       | -73.3       | -103.9      | -133.6      | -176.2      |
| Ending Cash (\$1,000)          | -287.5      | -419.9      | -581.8      | -780.5      | -1,014.5    |
| Net Worth (\$1,000)            | 7,673.0     | 7,699.6     | 7,664.6     | 7,611.2     | 7,505.7     |
| Return on Assets (%)           | 3.0         | 0.7         | -0.2        | -0.7        | -0.8        |
| P(Cash Flow Deficit) (%)       | 99.0        | 99.0        | 99.0        | 99.0        | 99.0        |
| P(Refinancing) (%)             | 99.0        | 99.0        | 99.0        | 99.0        | 99.0        |
| P(Decreasing RNW) (%)          | 1.0         | 1.0         | 1.0         | 1.0         | 1.0         |
|                                |             |             |             |             |             |

Producers participating in the panel include: Duane Daniel, Leland Foster, Glenn Springer, Greg Arnold, and Steve Drennan. Kevin Brendle, Stan Bevers, Toby Oliver, and Ryan Martin serve as facilitators.

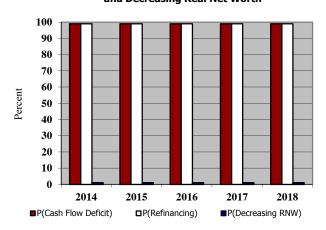
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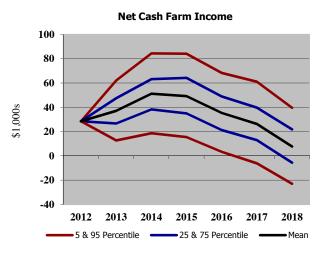
### **TXSB200**

A 200-head cow-calf operation is the central focus of this full-time agricultural operation in south central Texas (Gonzales County). Faced with continued drought, the ranch has been able to only slightly rebuild its numbers from its 30 percent liquidation in 2006. Contract broiler production is an important source of agricultural revenue for this ranch; even so, cattle sales accounted for 84 percent of 2012 gross receipts.



### Probabilities of a Cash Flow Deficit, Refinancing, and Decreasing Real Net Worth





| <u>2014</u> | <u>2015</u>   | <u>2016</u>   | <u>2017</u>   | <u>2018</u>   |
|-------------|---|---|---|---|
| 0.0         | 0.0   | 0.0   | 0.0   | 0.0   |
| 177.1       | 180.2   | 169.6   | 164.7   | 156.0   |
| 0.0         | 0.0   | 0.0   | 0.0   | 0.0   |
| 209.6       | 212.7   | 202.1   | 197.2   | 188.5   |
| 158.4       | 163.4   | 166.8   | 170.8   | 180.8   |
| 51.2        | 49.2  | 35.3  | 26.3  | 7.7   |
| -177.8      | -184.8  | -203.8  | -235.0  | -323.9  |
| 4,969.9     | 5,050.7   | 5,104.6   | 5,154.0   | 5,174.7   |
| 3.2         | 1.8   | 0.7   | 0.6   | -1.6  |
| 99.0        | 99.0  | 99.0  | 99.0  | 99.0  |
| 99.0        | 99.0  | 99.0  | 99.0  | 99.0  |
| 1.0         | 1.0   | 1.0   | 1.0   | 1.0   |
|             | 0.0<br>177.1<br>0.0<br>209.6<br>158.4<br>51.2<br>-177.8<br>4,969.9<br>3.2<br>99.0 | 0.0 0.0 177.1 180.2 0.0 0.0 209.6 212.7 158.4 163.4 51.2 49.2 -177.8 -184.8 4,969.9 5,050.7 3.2 1.8 99.0 99.0 99.0 99.0 | 0.0     0.0     0.0       177.1     180.2     169.6       0.0     0.0     0.0       209.6     212.7     202.1       158.4     163.4     166.8       51.2     49.2     35.3       -177.8     -184.8     -203.8       4,969.9     5,050.7     5,104.6       3.2     1.8     0.7       99.0     99.0     99.0       99.0     99.0     99.0 | 0.0       0.0       0.0       0.0         177.1       180.2       169.6       164.7         0.0       0.0       0.0       0.0         209.6       212.7       202.1       197.2         158.4       163.4       166.8       170.8         51.2       49.2       35.3       26.3         -177.8       -184.8       -203.8       -235.0         4,969.9       5,050.7       5,104.6       5,154.0         3.2       1.8       0.7       0.6         99.0       99.0       99.0       99.0         99.0       99.0       99.0       99.0 |

Producers participating in the panel include: Steve Breitschopf, Brian Fink, Michael Kuck, Mitchell Hardcastle and William L. Quinney. Dwight Sexton serves as the facilitator.

Agricultural and Food Policy Center, Texas A&M University System

### **AFPC Briefing Series**

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or call 979-845-5913.

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