



## Representative Farms Economic Outlook for the January 2008 FAPRI/AFPC Baseline

# Briefing Paper 08-1 February 2008



#### **Agricultural and Food Policy Center**

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#### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2008 FAPRI/AFPC BASELINE

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#### EXECUTIVE SUMMARY

The Agricultural and Food Policy Center (AFPC) at Texas A&M University develops and maintains data to simulate 98 representative crop, dairy, and livestock operations in major production areas in 28 states. The chief purpose of this analysis is to project those farms' economic viability by region and commodity for 2008 through 2013. 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 January 2008 Baseline.

Under the January 2008 Baseline, 33 of the 64 crop farms are considered in good liquidity condition (less than a 25 percent chance of negative ending cash in 2013). Nine crop farms have between a 25 percent and a 50 percent likelihood of negative ending cash. The remaining 22 crop farms have greater than a 50 percent chance of negative ending cash. Additionally, 42 of the 64 crop farms are considered in good equity position (less than a 25 percent chance of decreasing real net worth during the study period). Nine crop farms have between a 25 percent and 50 percent likelihood of losing real net worth, and 13 crop farms have greater than a 50 percent probability of decreasing real net worth. The following discussion provides an overall evaluation by commodity considering both liquidity and equity measures.

- FEEDGRAIN FARMS: Sixteen of the 19 feedgrain farms are in good overall financial condition. Two are classified in marginal condition, and one is in poor condition.
- WHEAT FARMS: Ten of the 11 wheat farms are classified in good financial condition, one is marginal, and none are in poor condition.
- COTTON FARMS: Five of the 20 cotton farms are classified in good condition, seven are in marginal condition, and eight are in poor condition. Also, seven of these farms have more than a 50 percent chance of losing real net worth by 2013.
- RICE FARMS: Three of the 14 rice farms are in good condition, three are classified in marginal condition, and eight farms are projected to be in poor financial condition through 2013.
- DAIRY FARMS: Eighteen of the 22 dairy farms are in good overall financial condition. Two are considered to be in marginal condition, and two are in poor condition.
- BEEF CATTLE RANCHES: Two of the 12 cattle ranches are classified in good financial condition, eight are classified in marginal condition, and two are projected to be in poor condition.

#### REPRESENTATIVE FARMS ECONOMIC OUTLOOK FOR THE JANUARY 2008 FAPRI/AFPC BASELINE

The farm level economic impacts of the Farm Security and Rural Investment Act of 2002 on representative crop and livestock operations are projected in this report. The analysis was conducted over the 2006-2013 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) January 2008 Baseline.

The FLIPSIM policy simulation model incorporates the historical risk faced by farmers for prices and production. This report presents the results of the January 2008 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 2013.

#### **DEFINITIONS OF VARIABLES IN THE SUMMARY TABLES**

- Overall Financial Position, 2008-2013 -- 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 is 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. 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** -- 2008-2013 average of cash receipts from all farm related sources, including market sales, CCP and direct payments, marketing loan gains/LDPs, crop insurance indemnities, and other receipts.
- **Payments** -- 2008-2013 average of annual counter cyclical payments, direct payments, and marketing loan gains/LDPs for crops and the MILC program payment for dairy farms
- NCFI -- 2008-2013 average net cash farm income equals average total receipts minus average total cash expenses.
- Reserve 2013 -- equals total cash on hand at the end of year 2013. 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 2013 -- equity equals total assets including land minus total debt from all sources and is reported at the end of 2013.
- **CRNW** -- annualized percentage change in the operator's net worth from January 1, 2008 through December 31, 2013, after adjusting for inflation.

Table 1. FAPRI January 2008 Baseline Projections of Crop and Livestock Prices, 2006-2013

	2006	2007	2008	2009	2010	2011	2012	2013
Crop Prices								
Corn (\$/bu.)	3.04	3.97	3.89	3.87	3.76	3.80	3.85	3.93
Wheat (\$/bu.)	4.26	6.68	5.27	5.20	5.16	5.23	5.28	5.39
Cotton (\$/lb.)	0.4650	0.5734	0.6479	0.6358	0.6369	0.6312	0.6263	0.6243
Sorghum (\$/bu.)	3.29	3.93	3.52	3.62	3.49	3.57	3.59	3.67
Soybeans (\$/bu.)	6.43	10.30	10.44	9.84	9.99	9.88	10.03	10.12
Barley (\$/bu.)	2.85	4.14	4.07	3.96	3.81	3.84	3.85	3.90
Oats (\$/bu.)	1.87	2.46	2.51	2.53	2.49	2.49	2.50	2.52
Rice (\$/cwt.)	9.74	11.36	10.49	11.10	11.04	11.44	11.42	11.88
Soybean Meal (\$/ton)	195.95	279.92	264.09	234.72	222.71	216.16	216.02	214.07
All Hay (\$/ton)	110.00	128.30	118.69	116.30	116.78	118.28	119.92	120.55
Peanuts (\$/ton)	354.00	448.00	471.31	466.93	453.48	455.70	453.86	453.26
Cattle Prices								
Feeder Cattle (\$/cwt)	117.68	115.52	108.79	102.17	98.23	96.58	96.04	98.98
Fed Cattle (\$/cwt)	85.41	91.82	94.12	91.95	90.71	89.76	89.40	90.15
Culled Cows (\$/cwt)	47.56	51.93	53.94	52.2	51.62	51.40	51.36	52.78
Milk Price								
U.S. All Milk Price (\$/cwt)	12.97	19.15	16.68	16.67	16.69	16.67	16.70	16.56

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

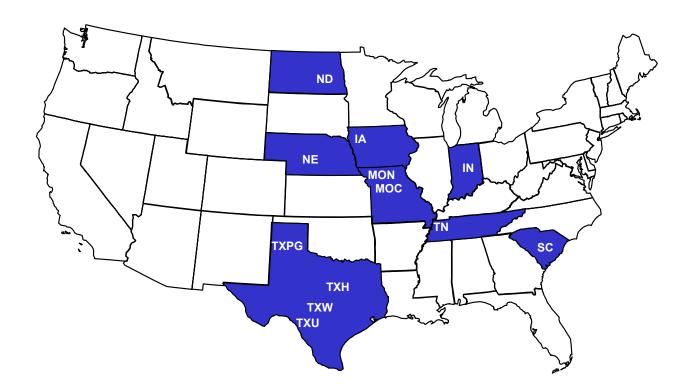
Table 2. FAPRI January 2008 Baseline Assumed Rates of Change in Input Prices and Annual Changes in Land Values, 2007-2013

	2007	2008	2009	2010	2011	2012	2013
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	12.50	4.74	2.25	2.05	1.87	1.61	1.24
All Fertilizer Prices (%)	13.11	8.84	1.71	3.97	0.08	-0.61	-2.22
Herbicide Prices (%)	0.00	0.28	-0.22	0.24	0.43	0.66	0.66
Insecticide Prices (%)	3.78	3.95	2.70	2.46	2.43	1.92	1.63
Fuel and Lube Prices (%)	10.00	11.63	-3.17	-4.67	-0.16	-0.81	-1.07
Machinery Prices (%)	3.90	2.21	2.02	2.50	2.74	3.03	3.19
Wages (%)	3.22	3.13	2.98	2.73	2.51	2.72	2.77
Supplies (%)	2.34	2.36	1.61	1.31	1.27	1.30	1.11
Repairs (%)	3.62	2.71	2.24	2.40	2.53	2.51	2.41
Services (%)	3.55	2.63	2.56	2.84	2.81	2.88	2.94
Taxes (%)	5.56	4.65	4.19	3.38	2.54	1.54	1.22
PPI Items (%)	7.02	5.76	0.20	0.93	1.37	1.42	1.24
PPI Total (%)	7.09	5.09	0.93	1.54	1.56	1.57	1.40
Annual Change in Consumer Price Index (%)	2.85	2.24	1.59	1.93	1.88	1.84	1.77
Annual Rate of Change for U.S. Land Prices (%)	13.68	7.23	8.55	3.93	2.70	3.20	3.30

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

## **Representative Farm: Feed Grains**

- Overall, sixteen feed grain farms are characterized as good, two are marginal, and one is in poor condition.
- Two of nineteen farms will be under severe cash flow stress; however, none of the farms have a high probability of losing real wealth.



**Characteristics of Panel Farms Producing Feed Grains, 2007.** 

	Cropland	Assets	Debt/Asset	Gross Receipts	Feed Grains
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
IAG1350	1,350	1,777.00	0.14	800.60	1,350
IAG3400	3,400	5,819.00	0.17	1,979.60	3,400
NEG1960	1,960	2,768.00	0.15	1,517.90	1,770
NEG4300	4,300	6,704.00	0.19	3,109.40	3,784
NDG2180	2,180	945.00	0.10	712.70	1,600
NDG7500	7,500	6,662.00	0.14	2,948.10	5,750
MOCG2050	2,050	5,560.00	0.14	750.00	2,050
MOCG4000	4,000	9,570.00	0.14	1,615.70	3,950
MONG1850	1,850	5,213.00	0.15	1,003.60	1,800
ING1000	1,000	2,314.00	0.14	542.30	1,000
ING2200	2,200	5,894.00	0.14	1,267.80	2,200
TXPG3760	3,760	4,399.00	0.17	3,130.20	1,878
TXHG2000	2,000	1,392.00	0.18	517.50	1,000
TXWG1400	1,400	865.00	0.18	416.20	900
TXUG1200	1,200	254.00	0.35	715.50	550
TNG900	900	1,005.00	0.14	400.40	900
TNG2750	2,750	3,604.00	0.14	1,321.70	2,750
SCG1500	1,500	1,249.00	0.19	945.60	600
SCG3500	3,500	6,718.00	0.16	1,926.30	3,500

#### **Representative Farm: Feed Grains**

**Economic Viability of Representative Farms over the 2008-2013 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
16/2/1	2008	2013	2008-2013	2008-2013
IAG1350			1-1	1-1
IAG3400			1-1	1-1
NEG1960			1-1	1-1
NEG4300			1-1	1-1
NDG2180			1-1	1-1
NDG7500			1-1	1-1
MOCG2050			1-1	1-1
MOCG4000			1-1	1-1
MONG1850			1-2	1-1
ING1000			5-8	1-1
ING2200			1-1	1-1
TXPG3760			37-40	1-18
TXHG2000			73-23	1-5
TXWG1400			67-82	1-42
TXUG1200			83-55	1-43
TNG900			23-15	1-7
TNG2750			1-1	1-1
SCG1500			1-1	1-1
SCG3500			1-1	1-1

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

<25

25-50

>50

Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Feed Grains and Oilseeds

	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
IAG1350	822.78	27.99	323.45	1,087.35	2,888.89	10.65
IAG3400	2,034.45	69.00	876.00	2,566.52	8,731.92	9.76
NEG1960	1,486.93	50.24	579.70	1,808.04	4,281.54	12.44
NEG4300	3,055.76	98.71	1,214.95	3,837.79	9,870.88	11.71
NDG2180	735.17	23.66	358.66	1,309.06	2,110.27	16.77
NDG7500	3,133.29	94.49	1,667.40	6,781.48	12,829.00	14.49
MOCG2050	1,031.52	31.81	584.87	1,572.33	8,226.25	8.94
MOCG4000	2,050.94	57.29	1,300.39	4,345.97	15,327.85	10.31
MONG1850	1,051.31	29.09	449.49	1,022.08	7,276.79	7.58
ING1000	554.95	20.31	200.80	260.94	3,075.84	6.70
ING2200	1,298.51	44.51	518.67	1,472.66	8,458.35	8.17
TXPG3760	3,080.03	141.39	227.30	60.44	5,020.18	4.34
TXHG2000	526.12	36.50	120.56	158.36	1,620.73	5.64
TXWG1400	419.57	34.36	44.73	(231.51)	794.57	1.06
TXUG1200	747.66	55.23	83.61	(52.82)	150.49	(43.14)
TNG900	409.48	10.93	106.51	181.27	1,195.29	4.81
TNG2750	1,333.37	35.91	597.79	1,535.66	5,486.88	9.55
SCG1500	955.84	106.07	216.29	592.45	1,747.80	8.44
SCG3500	1,908.53	123.59	707.82	2,694.91	9,740.25	8.76

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

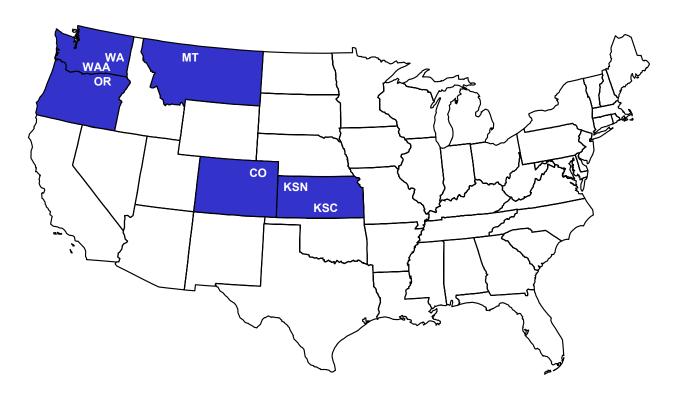
<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

## **Representative Farm: Wheat**

- Ten wheat farms are projected to be in good overall financial condition. One farm is expected to be in marginal condition, and none are in poor condition.
- Only one of the eleven wheat farms will feel moderate liquidity pressure over the period.
- None of the wheat farms have a 25 percent or greater chance of losing real equity.



Characteristics of Panel Farms Producing Wheat, 2007.

	Cropland	Assets	Debt/Asset	Gross Receipts	Wheat
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
WAW1725	1,725	1,491.00	0.13	621.10	1,121
WAW5000	5,000	5,778.00	0.17	1,833.10	2,915
WAAW3500	3,500	1,411.00	0.15	391.20	1,500
ORW4000	3,600	1,472.00	0.14	482.00	1,600
MTW4500	4,500	2,834.00	0.14	630.80	2,330
KSCW1600	1,600	1,225.00	0.15	407.30	1,072
KSCW4000	4,000	2,623.00	0.14	994.40	2,000
KSNW2800	2,800	1,752.00	0.14	531.00	1,400
KSNW5000	5,000	3,143.00	0.13	1,294.80	2,325
COW3000	3,000	1,342.00	0.13	432.70	970
COW5640	5,640	2,265.00	0.14	838.70	2,256

#### **Representative Farm: Wheat**

**Economic Viability of Representative Farms over the 2008-2013 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
10/1/0	2008	2013	2008-2013	2008-2013
WAW1725			1-1	1-1
WAW5000			2-10	1-1
WAAW3500			1-1	1-1
MTW4500			1-1	1-1
ORW4000			1-3	1-1
KSCW1600			9-10	1-5
KSCW4000			1-1	1-1
KSNW2800			7-28	1-3
KSNW5000			1-1	1-1
COW3000			1-1	1-1
COW5640			1-2	1-1

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

#### Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Wheat

-	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
WAW1725	544.69	32.85	149.71	514.30	1,986.07	6.56
WAW5000	1,625.70	89.62	356.88	741.27	7,095.02	5.87
WAAW3500	322.92	23.35	119.93	321.70	1,832.42	6.66
ORW4000	398.83	26.62	156.83	311.15	1,803.77	5.21
MTW4500	554.95	45.48	264.57	1,077.36	3,946.70	7.52
KSCW1600	365.31	21.31	108.83	198.60	1,382.55	4.13
KSCW4000	888.10	46.42	358.35	1,124.99	3,556.94	6.95
KSNW2800	486.99	27.47	136.31	150.04	2,114.43	4.81
KSNW5000	1,225.57	51.63	421.60	1,327.89	4,586.67	8.06
COW3000	389.89	15.44	201.65	579.78	1,969.10	8.44
COW5640	720.64	34.72	297.55	585.57	3,055.18	6.80

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

## **Representative Farm: Cotton**

- Five of the twenty cotton farms are characterized in good overall financial condition, seven farms are in marginal condition, and eight are in poor condition.
- Eleven of the farms are projected to experience severe cash flow problems over the period.
- Seven of the twenty cotton farms have more than a 50 percent chance of losing real equity.



Characteristics of Panel Farms Producing Cotton, 2007.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cotton
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
TXNP3000	3,000	954.00	0.57	1,210.90	1,100
TXNP7000	7,000	3,009.00	0.32	2,730.70	1,900
TXSP2239	2,239	1,047.00	0.45	565.90	1,800
TXSP3745	3,745	2,485.00	0.38	962.50	3,036
TXPC2500	2,500	2,595.00	0.18	1,409.90	1,367
TXEC5000	5,000	1,400.00	0.23	1,572.10	3,800
TXRP2500	2,500	614.00	0.30	363.80	1,117
TXMC1800	1,800	995.00	0.22	727.00	900
TXCB2250	2,250	1,210.00	0.21	770.60	1,350
TXCB5500	5,500	1,299.00	0.29	1,818.60	2,750
TXVC4500	4,500	3,038.00	0.18	1,674.80	2,388
CAC4000	4,000	15,215.00	0.17	6,707.70	2,000
LAC2640	2,640	956.00	0.22	1,571.50	924
ARC7500	7,500	7,966.00	0.20	4,824.50	750
ARNC5000	5,000	6,894.00	0.30	2,995.90	5,000
TNC1900	1,900	2,549.00	0.13	1,069.40	990
TNC4050	4,050	5,241.00	0.33	1,913.90	2,670
ALC3000	3,000	1,532.00	0.39	1,076.50	1,500
GAC2300	2,300	4,162.00	0.16	1,879.30	1,495
NCC1500	1,500	3,143.00	0.15	917.70	575

#### **Representative Farm: Cotton**

**Economic Viability of Representative Farms over the 2008-2013 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
5/7/8	2008	2013	2008-2013	2008-2013
TXNP3000			99-95	1-57
TXNP7000			91-41	1-12
TXSP2239			99-99	1-85
TXSP3745			99-99	1-87
TXPC2500			51-47	1-15
TXEC5000			74-70	1-56
TXRP2500			79-54	1-38
TXMC1800			48-41	1-31
TXCB2250			59-75	1-49
TXCB5500			63-78	1-66
TXVC4500			15-5	1-1
CAC4000			38-83	1-24
LAC2640			25-36	1-27
ARC7500			3-3	1-1
ARNC5000			96-99	1-86
TNC1900			1-1	1-1
TNC4050			98-99	1-85
ALC3000			86-62	1-29
GAC2300			1-35	1-1
NCC1500			1-7	1-1

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

25-50

>50

Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Cotton

	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
TXNP3000	1,471.88	67.89	92.28	(974.62)	178.36	(7.54)
TXNP7000	3,283.96	149.92	466.42	104.77	3,531.39	10.46
TXSP2239	641.34	78.57	(47.98)	(1,116.42)	3.40	(19.19)
TXSP3745	1,091.40	133.63	(102.00)	(2,193.30)	650.51	(10.39)
TXPC2500	1,444.48	133.53	183.67	(45.76)	2,636.22	3.52
TXEC5000	1,690.74	202.99	191.26	(320.56)	1,036.25	(1.88)
TXRP2500	387.84	46.79	63.97	(52.35)	541.10	2.76
TXMC1800	789.16	75.24	138.15	74.96	989.62	3.16
TXCB2250	842.52	89.21	85.81	(351.80)	1,033.32	(0.31)
TXCB5500	1,928.80	190.43	105.66	(852.75)	575.31	(8.83)
TXVC4500	1,860.33	188.00	449.25	1,131.54	4,270.82	9.07
CAC4000	6,356.73	145.23	(25.61)	(2,494.69)	15,304.46	2.16
LAC2640	1,617.95	168.99	226.25	154.29	1,123.27	4.87
ARC7500	5,024.38	402.06	1,135.74	2,254.00	9,833.35	7.29
ARNC5000	3,179.04	308.46	(106.76)	(4,396.97)	3,153.80	(5.79)
TNC1900	1,118.31	88.11	383.15	1,110.14	3,886.39	8.74
TNC4050	2,052.63	206.15	(171.49)	(3,817.29)	2,189.28	(6.82)
ALC3000	1,349.17	163.41	283.82	(230.81)	1,284.61	3.99
GAC2300	2,048.30	223.36	232.96	` 97.16 <sup>´</sup>	4,851.64	4.17
NCC1500	907.75	80.20	237.85	367.02	3,666.56	4.51

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

## **Representative Farm: Rice**

- Three of the fourteen rice farms are projected to be in good overall financial condition, three are in marginal condition, and eight are in poor condition.
- Nine of the rice farms are expected to face severe cash flow problems, and six of fourteen have high probabilities of real equity losses.



Characteristics of Panel Farms Producing Rice, 2007.

	Cropland	Assets	Debt/Asset	Gross Receipts	Rice
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(acres)
CAR550	550	1,920.00	0.23	597.10	500
CAR2365	2,365	5,939.00	0.16	2,755.80	2,240
CABR1300	1,300	4,197.00	0.19	1,478.30	1,200
CACR715	715	2,163.00	0.16	843.20	650
TXR1350	1,350	1,363.00	0.28	443.70	810
TXR3000	3,000	837.00	0.13	1,000.70	2,280
TXBR1800	1,800	553.00	0.56	638.30	1,200
TXER3200	3,200	1,300.00	0.30	1,245.80	2,027
LASR1200	1,200	449.00	0.59	462.80	660
LANR2500	2,500	4,541.00	0.20	1,441.50	1,000
MOWR4000	4,000	10,499.00	0.18	2,557.40	2,000
ARSR3240	3,240	3,290.00	0.20	1,643.20	1,620
ARWR1200	1,200	3,098.00	0.42	711.90	600
ARHR3000	3,000	4,716.00	0.26	1,806.50	1,450

#### **Representative Farm: Rice**

**Economic Viability of Representative Farms over the 2008-2013 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
3/3/8	2008	2013	2008-2013	2008-2013
CAR550			99-99	1-45
CAR2365			30-37	1-8
CABR1300			51-45	1-5
CACR715			65-67	1-8
TXR1350			99-99	1-68
TXR3000			29-8	1-13
TXBR1800			99-99	1-97
TXER3200			99-91	1-64
LASR1200			99-99	1-99
LANR2500			99-99	1-64
MOWR4000			16-9	1-1
ARSR3240			16-24	1-9
ARWR1200			99-99	1-99
ARHR3000			99-97	1-44

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

Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Rice

	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAR550	599.42	72.88	10.99	(599.30)	1,498.44	(0.10)
CAR2365	2,765.83	284.31	303.36	(2.77)	6,646.06	4.27
CABR1300	1,484.16	173.77	239.09	(79.36)	4,636.08	4.82
CACR715	846.30	95.29	73.84	(161.96)	2,361.32	3.97
TXR1350	463.29	58.71	9.01	(627.36)	849.54	(2.17)
TXR3000	1,136.37	137.88	204.05	531.83	1,149.25	(5.97)
TXBR1800	821.03	92.56	(60.18)	(1,210.95)	(673.72)	(41.18)
TXER3200	1,364.37	157.35	16.95	(674.13)	556.12	(5.45)
LASR1200	471.00	48.79	(144.59)	(1,445.78)	(979.90)	(454.55)
LANR2500	1,466.10	140.73	(4.80)	(2,120.42)	3,368.40	(1.10)
MOWR4000	2,583.94	215.92	845.90	1,616.57	13,303.59	7.11
ARSR3240	1,743.15	172.96	424.22	392.07	3,738.49	5.75
ARWR1200	717.59	67.52	(223.11)	(3,070.81)	153.61	(15.16)
ARHR3000	1,825.98	173.34	147.31	(1,546.51)	3,569.45	0.33

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

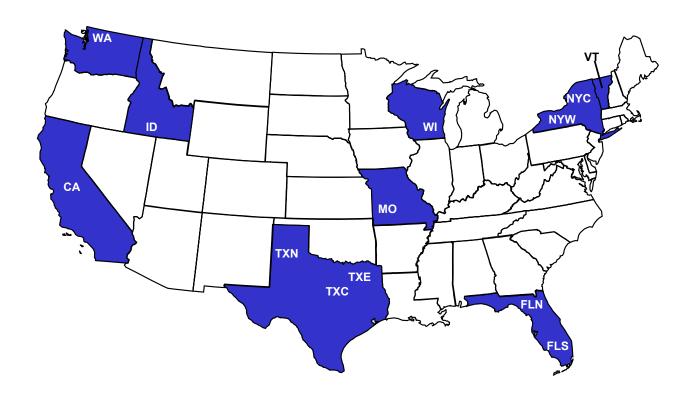
<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

## **Representative Farm: Dairy**

- Eighteen of twenty-two dairy operations are in good overall financial condition. Two dairies are classified in marginal condition, and two are in poor condition.
- Two of the dairies are projected to experience significant liquidity pressure.
- Only one dairy is projected to face a 50 percent or greater probability of losing real equity.



Characteristics of Panel Farms Producing Milk, 2007.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
CAD1710	700	14,330.00	0.16	7,808.80	1,710
WAD250	200	3,024.00	0.18	1,210.80	250
WAD850	605	6,966.00	0.26	4,189.80	850
IDD1000	360	6,725.00	0.14	4,850.00	1,000
IDD3000	1,500	22,469.00	0.14	14,246.40	3,000
TXND3000	480	13,009.00	0.10	12,832.20	3,000
TXCD550	250	2,836.00	0.31	2,192.00	550
TXCD1300	460	6,745.00	0.15	5,754.50	1,300
TXED450	850	3,087.00	0.16	1,757.20	450
TXED1000	750	6,358.00	0.18	4,288.00	1,000
WID145	600	3,136.00	0.20	766.70	145
WID775	1,200	6,236.00	0.15	4,093.20	775
NYWD600	1,200	5,208.00	0.18	2,862.00	600
NYWD1200	2,100	11,061.00	0.18	5,832.90	1,200
NYCD110	325	1,242.00	0.18	563.20	110
NYCD550	1,100	5,152.00	0.18	2,964.00	550
VTD140	220	1,785.00	0.15	776.10	140
VTD400	1,000	4,518.00	0.18	2,076.40	400
MOGD500	0	2,978.00	0.12	1,469.80	500
MOCD500	530	4,122.00	0.17	2,272.10	500
FLND550	600	4,651.00	0.16	2,480.10	550
FLSD1500	400	11,892.00	0.16	6,807.00	1,500

#### **Representative Farm: Dairy**

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
18/2/2	2008	2013	2008-2013	2008-2013
CAD1710			1-1	1-1
WAD250			37-13	1-1
WAD850			83-77	1-34
IDD1000			4-2	1-1
IDD3000			1-1	1-1
TXND3000			10-3	1-4
TXCD550			99-99	1-99
TXCD1300			1-1	1-1
TXED450			14-5	1-1
TXED1000			15-7	1-2
WID145			1-2	1-1
WID775			1-1	1-1
NYWD600			39-30	1-3
NYWD1200			1-1	1-1
NYCD110			1-1	1-1
NYCD550			7-5	1-1
VTD140			12-1	1-1
VTD400			27-11	1-1
MOGD500			1-1	1-1
MOCD500			30-21	1-1
FLND550			12-1	1-1
FLSD1500			62-47	1-5

<sup>1</sup> Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities: <25 >50

Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Milk

	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAD1710	7,285.90	18.63	1,241.88	3,959.11	18,080.81	6.39
WAD250	1,124.40	1.40	241.91	278.47	3,592.29	5.92
WAD850	3,871.49	10.06	215.97	(930.00)	5,704.45	1.47
IDD1000	4,480.09	0.06	646.40	1,896.92	8,746.24	6.42
IDD3000	13,140.90	20.06	2,638.89	8,697.79	30,897.96	7.42
TXND3000	12,191.43	0.06	1,287.97	4,738.45	16,236.95	5.39
TXCD550	2,090.91	0.06	(227.04)	(2,388.69)	537.52	(11.89)
TXCD1300	5,501.70	0.06	1,058.03	3,959.72	9,540.85	8.66
TXED450	1,669.62	0.06	239.70	608.31	3,752.93	5.76
TXED1000	4,081.15	0.06	578.03	1,423.65	7,372.03	5.34
WID145	726.44	2.99	184.22	292.34	3,741.82	5.91
WID775	3,903.11	9.51	1,221.94	5,304.48	10,510.43	12.03
NYWD600	2,697.79	19.61	260.71	189.38	5,373.19	3.33
NYWD1200	5,502.35	26.89	1,062.63	4,026.97	14,219.37	7.00
NYCD110	532.84	4.62	209.42	513.49	1,680.05	7.96
NYCD550	2,805.84	10.91	442.36	615.03	6,032.00	5.62
VTD140	735.10	3.92	163.93	313.66	2,188.22	5.85
VTD400	1,962.97	13.99	256.63	406.41	4,916.86	4.48
MOGD500	1,240.68	0.06	403.65	1,532.20	3,705.95	8.97
MOCD500	2,166.83	0.06	339.74	400.20	4,440.00	4.86
FLND550	2,389.91	0.06	465.47	1,248.49	6,317.28	8.52
FLSD1500	6,573.31	0.06	359.34	(18.63)	12,627.70	3.85

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

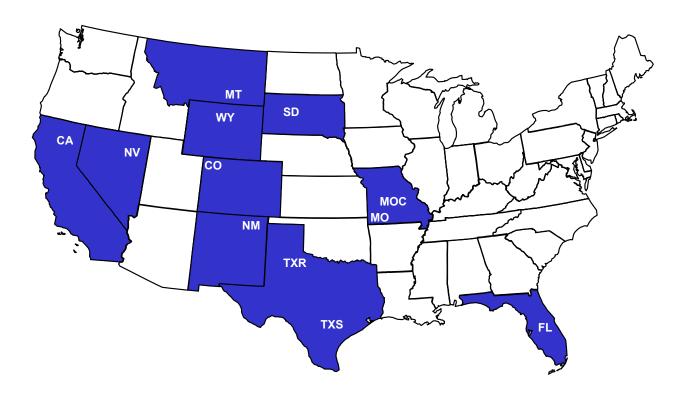
<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

#### **Representative Farm: Cow/Calf**

- Two of twelve cow-calf operations are projected to be in good overall financial condition. Eight ranches are expected to be in marginal condition, and two are in poor condition.
- Eight of the operations will face significant liquidity pressure over the period, as their likelihoods of experiencing negative ending cash exceed 50 percent.
- Only one of the operations is projected to face a severe threat of losing real equity over the period.



Characteristics of Panel Farms Producing Beef Cattle, 2007.

	Cropland	Assets	Debt/Asset	Gross Receipts	Cows
	(acres)	(\$1,000)	(ratio)	(\$1,000)	(number)
CAB500	0	5,682.00	0.04	293.00	500
NVB700	1,300	4,261.00	0.01	347.50	700
MTB500	0	4,372.00	0.01	298.10	500
WYB335	330	3,410.00	0.03	268.20	335
COB250	450	15,994.00	0.01	214.60	250
NMB240	0	5,724.00	0.01	297.80	240
SDB450	1,150	4,173.00	0.01	289.40	450
MOB250	280	2,394.00	0.02	268.90	250
MOCB400	40	3,867.00	0.01	278.70	400
TXRB500	0	6,729.00	0.01	455.20	500
TXSB175	0	2,801.00	0.02	130.00	175
FLB1155	5,400	38,226.00	0.01	658.00	1,155

#### **Representative Farm: Cow/Calf**

**Economic Viability of Representative Farms over the 2008-2013 Period** 

Farm Name	Overall	Ranking	P(Negative Ending Cash)	P(Real Net Worth Declines)
2/8/2	2008	2013	2008-2013	2008-2013
CAB500			99-99	1-99
NVB700			71-99	1-6
MTB500			1-67	1-1
WYB335			99-99	1-28
COB250			1-59	1-1
NMB240			99-99	1-1
SDB450			1-32	1-1
MOB250			1-1	1-1
MOCB400			1-30	1-1
TXRB500			1-1	1-1
TXSB175			99-99	1-1
FLB1155			1-84	1-1

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

Implications of the January 2008 FAPRI Baseline on the Economic Viability of Representative Farms Primarily Producing Beef Cattle

	Receipts	Payments	NCFI	Reserve 2013	Net Worth 2013	CRNW
	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(%)
CAB500	254.53	0.00	(137.73)	(1,190.31)	4,374.88	(3.01)
NVB700	329.01	0.00	(18.73)	(474.69)	5,162.96	1.73
MTB500	268.36	0.00	44.51	(44.46)	5,436.38	3.26
WYB335	248.86	0.00	(48.98)	(673.92)	3,544.81	0.62
COB250	198.52	0.00	19.78	(19.64)	20,908.29	3.93
NMB240	280.49	0.00	0.91	(263.68)	7,157.63	3.30
SDB450	271.38	0.06	39.26	62.28	5,126.23	3.01
MOB250	281.00	3.21	130.13	429.64	3,246.77	4.73
MOCB400	246.85	0.00	40.04	54.19	4,837.56	3.20
TXRB500	453.64	0.00	156.84	644.69	8,997.35	4.49
TXSB175	116.56	0.00	(5.88)	(351.26)	3,155.74	1.66
FLB1155	597.29	0.00	41.49	(190.02)	49,889.30	3.95

<sup>1</sup> Receipts are average annual total cash receipts including government payments, 2008-2013 (\$1,000)

<sup>2</sup> P(NegativeEnding Cash) is the probability that the farm will have a cash flow deficit. Reported values represent the probabilities for 2008 and 2013.

<sup>3</sup> 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 2006 to 2008 and from 2006 to 2013.

<sup>2</sup> Payments are average annual total government payments, 2008-2013 (\$1,000)

<sup>3</sup> NCFI is average annual net cash farm income, 2008-2013 (\$1,000)

<sup>4</sup> Reserve 2013 is average ending cash reserves, 2013 (\$1,000)

<sup>5</sup> Net Worth 2013 is average nominal ending net worth, 2013 (\$1,000)

<sup>6</sup> CRNW is average percentage change in real net worth over 2008-2013 period, (%)

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