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AFPC Briefing Paper 07-8

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Agricultural and Food Policy Center

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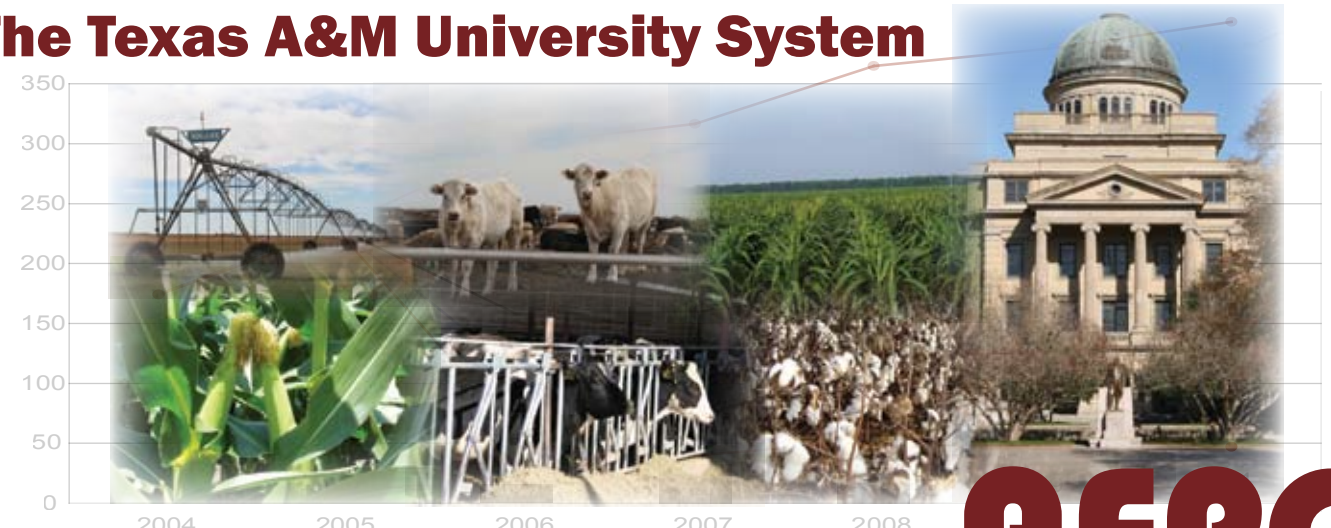

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Impacts of the FARM 21 Proposal on
Representative Crops, Dairy and Beef Cattle Farms[1]

The Food & Agriculture Risk Management for the 21st Century Act (FARM 21) formally introduced June 13th by U.S. Representatives Ron Kind (D-WI), Jeff Flake (R-AZ), Joe Crowley (D-NY), and David Reichert (R-WA), would significantly change most of U.S. agricultural policy. The proposed changes are wide ranging from commodity programs to energy, conservation, and food and nutrition programs.

Given the breadth of the changes, it is important to have some indication of the impacts on producers if this proposal were to be adopted. While FARM 21 has a broad set of priorities that support would be directed to, this report focuses on the proposed changes to the producer safety net programs contained in Title I -- direct payments (DPs), counter-cyclical payments (CCPs), and loan deficiency payments (LDPs)/marketing loan gains (MLGs). These programs would be transitioned to farmer held "risk management accounts" (RMAs).

The components of the proposal analyzed in this publication are indicated below:

- Discontinue "counter-cyclical" payments after 2009.
- Replace the nonrecourse marketing loan program with a recourse loan program thereby eliminating LDPs and MLGs, starting in 2008.
- Create farmer-held income stabilization accounts. Withdrawals would be permitted when sales fall below 95% of a farmer's five-year rolling average, to make some rural investments, or maintain farm solvency.

[1] Financial support for this research was provided in part by the Minnesota Corn Growers Association and the Minnesota Soybean Growers Association in addition to the Texas Agricultural Experiment Station and Texas Cooperative Extension.

- Annual direct payments would decrease as a percent of the current direct payment rate (65% in 2008, 45% in 2009, 25% in 2010, 20% in 2011, and 10% each year through 2014). An increasing proportion of the direct payment received is required to be deposited in the income stabilization account (50% in 2008 and 2009, 75% in 2010 and 2011, and 100% in 2012).
- Transition the MILC program to Dairy Risk Management Accounts over a 5 year period. Dairy farmers would receive a transition payment equal to 90% of their historic MILC payments. Dairy farmers would annually be required to contribute 50% of this payment to a dairy risk management account. The proposal also eliminates the $9.90 price support program which is not explicitly modeled in this analysis. Milk prices are well above the price support over the period but there would likely be a slight reduction in future prices when the safety net is removed which is not considered.
- FARM 21 contains a $200,000 AGI means test to determine eligibility for farm program benefits. If a producer's three year moving average AGI exceeds $200,000 the farm is not eligible to receive farm program payments.

Methodology

The analysis was conducted over the 2007-2012 planning horizon using FLIPSIM, AFPC's whole farm simulation model and representative farm datasets. The FLIPSIM policy simulation model incorporates the historical risk faced by agricultural producers for prices and production. Data to simulate agricultural operations in the nation's major production regions came from two sources:

- Producer panel cooperation to develop economic information to describe and simulate 99 representative crop, livestock, and dairy farms. This report highlights the impacts of FARM 21 on a subset of AFPC's representative farms. Characteristics for each of the operations in terms of location, size, crop mix, assets, and average receipts can be found

in AFPC Working Paper 07-1. All of the crop farms are assumed to begin 2005 with 20 percent intermediate-term and long-term debt. Initial debt levels in 2005 for dairy farms were set at 30 percent and initial debt levels for beef cattle ranches were 1 percent for land and 5 percent for cattle and machinery.

- Projected prices, policy variables, and input inflation rates from the Food and Agricultural Policy Research Institute (FAPRI) modified January 2007 Baseline[2] and the January 2005 Baseline (Tables 1a-c).

Scenarios

This report compares the financial performance for representative farms and ranches located across the U.S. for the FARM 21 proposal relative to the Baseline (continuation of the current farm policy) using the current price forecasts which for most commodities are considered to be relatively high. A second price scenario is analyzed utilizing the price projections from the January 2005 FAPRI Baseline which had lower price projections (program crops average 20% lower and livestock average 8% lower) to see how the results for the two policies would change under a relatively low price scenario – though certainly not the lowest possible price scenario. The results for both scenarios are presented in terms of the impacts on a farm operation's total cash receipts, net cash income, and ending real net worth.

Results

Current Price Projections

The impacts of FARM 21 on the 38 representative farms and ranches relative to the Baseline (2002 Farm Bill extended) are presented in Table 2 for the 2007 FAPRI Baseline price projections. Two alternative profitability measures are provided: total cash receipts and net cash income. In general, there would be a modest decrease in cash receipts over the analysis period for all of the crop farms and a slight decrease for the dairy farms.

[2] This is the January 2007 FAPRI Baseline with the MILC program extended which results in minor price changes relative to the January 2007 Baseline.

Table 1a. January 2005 and 2007 FAPRI Baseline Projections of Crop, Livestock, and Milk Prices, 2005-2012

		2005	2006	2007	2008	2009	2010	2011	2012
Crop Prices									
Corn ($/bu.)	2007	2.00	3.17	3.23	3.22	3.23	3.21	3.18	3.16
	2005				2.23	2.26	2.28	2.30	2.32
Wheat ($/bu.)	2007	3.42	4.28	4.11	4.06	4.11	4.14	4.16	4.19
	2005				3.36	3.42	3.47	3.51	3.56
Cotton ($/lb.)	2007	0.4770	0.4813	0.5177	0.5443	0.5540	0.5642	0.5693	0.5745
	2005				0.4627	0.4810	0.4978	0.5088	0.5166
Sorghum ($/bu.)	2007	1.86	3.09	2.97	2.98	3.01	3.02	3.02	3.02
	2005				2.01	2.04	2.07	2.12	2.16
Soybeans ($/bu.)	2007	5.66	6.10	6.74	7.06	7.03	6.92	6.81	6.79
	2005				5.41	5.42	5.43	5.44	5.44
Barley ($/bu.)	2007	2.53	2.94	3.22	3.24	3.18	3.16	3.12	3.11
	2005				2.54	2.55	2.55	2.56	2.56
Oats ($/bu.)	2007	1.63	1.90	1.91	1.92	1.93	1.93	1.91	1.90
	2005				1.55	1.57	1.58	1.60	1.61
Rice ($/cwt.)	2007	7.62	9.86	8.11	7.89	8.21	8.37	8.43	8.63
	2005				7.42	7.58	7.73	7.89	8.09
Soybean Meal ($/ton)	2007	166.14	171.91	179.98	177.15	172.30	168.72	166.08	165.80
	2005				169.59	170.42	170.37	170.25	169.29
All Hay ($/ton)	2007	98.20	110.66	109.81	108.92	109.40	109.97	109.60	109.24
	2005				91.25	92.31	93.24	94.38	95.63
Peanuts ($/ton)	2007	346	360	425.61	454.25	449.87	443.25	442.92	443.00
	2005				399.36	400.45	402.15	404.67	406.80
Cattle Prices									
Feeder Cattle ($/cwt)	2007	120.02	117.59	109.66	102.57	95.72	90.01	90.67	95.05
	2005				94.82	90.59	86.61	83.06	80.18
Fat Cattle ($/cwt)	2007	87.28	85.41	85.87	86.13	84.41	82.12	81.99	82.75
	2005				76.84	74.61	73.12	71.53	70.71
Culled Cows ($/cwt)	2007	54.36	47.73	48.13	48.28	47.07	45.49	45.46	46.62
	2005				46.39	44.21	42.80	41.13	40.07
Milk Prices -- National and State									
All Milk Price ($/cwt)	2007	15.14	12.91	14.61	14.55	14.55	14.53	14.55	14.46
	2005				13.18	13.09	13.08	13.13	13.20
California ($/cwt)	2007	13.92	11.54	13.10	13.01	13.01	12.98	13.00	12.90
	2005				11.99	11.91	11.92	11.97	12.06
Florida ($/cwt)	2007	18.60	16.07	17.85	17.82	17.85	17.85	17.90	17.82
	2005				16.33	16.24	16.24	16.30	16.39
Idaho ($/cwt)	2007	14.00	11.93	13.59	13.58	13.61	13.62	13.67	13.60
	2005				12.10	12.02	12.02	12.07	12.16
Missouri ($/cwt)	2007	15.50	13.29	15.03	14.99	15.02	15.02	15.06	14.98
	2005				13.58	13.50	13.50	13.55	13.64
New Mexico ($/cwt)	2007	14.30	12.21	13.95	13.89	13.91	13.90	13.94	13.86
	2005				12.53	12.45	12.45	12.51	12.60
New York ($/cwt)	2007	15.90	13.40	15.17	15.10	15.11	15.10	15.13	15.05
	2005				13.94	13.86	13.86	13.92	14.00
Texas ($/cwt)	2007	15.30	13.31	15.05	15.00	15.02	15.01	15.05	14.97
	2005				13.55	13.47	13.47	13.53	13.62
Vermont ($/cwt)	2007	16.00	13.82	15.59	15.52	15.53	15.52	15.55	15.46
	2005				13.90	13.82	13.82	13.88	13.97
Washington ($/cwt)	2007	14.90	12.63	14.41	14.31	14.31	14.28	14.30	14.21
	2005				13.27	13.18	13.19	13.25	13.34
Wisconsin ($/cwt)	2007	15.60	13.34	15.00	14.99	15.03	15.04	15.09	15.02
	2005				13.90	13.81	13.81	13.87	13.96

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

Table 1b. January 2007 FAPRI Baseline Projections of Loan Rates and Direct Payment Rates, 2005-2012

	2005	2006	2007	2008	2009	2010	2011	2012
Loan Rates								
Corn ($/bu.)	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Wheat ($/bu.)	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Cotton ($/lb.)	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200	0.5200
Sorghum ($/bu.)	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Soybeans ($/bu.)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Barley ($/bu.)	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
Oats ($/bu.)	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Rice ($/cwt.)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Peanuts ($/ton)	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00
Direct Payment Rates								
Corn ($/bu.)	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Wheat ($/bu.)	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Cotton ($/lb.)	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667	0.0667
Sorghum ($/bu.)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Soybeans ($/bu.)	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Barley ($/bu.)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Oats ($/bu.)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Rice ($/cwt.)	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35
Peanuts ($/ton)	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00

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

Table 1c. January 2007 FAPRI Baseline Assumed Rates of Change in Input Prices, Annual Interest Rates, and Annual Changes in Land Values, 2006-2012

	2006	2007	2008	2009	2010	2011	2012
Annual Rate of Change for Input Prices Paid							
Seed Prices (%)	8.03	3.60	2.18	1.45	1.49	1.66	1.40
All Fertilizer Prices (%)	3.77	5.57	4.59	-1.20	-0.95	-0.32	-1.05
Herbicide Prices (%)	3.71	1.80	1.73	1.19	1.08	1.29	1.09
Insecticide Prices (%)	3.06	0.97	0.80	0.70	1.42	1.72	1.46
Fuel and Lube Prices (%)	8.08	0.89	1.70	-0.75	-0.51	-1.17	-1.41
Machinery Prices (%)	4.04	3.39	3.00	1.71	1.81	2.10	2.08
Wages (%)	2.72	3.14	2.22	2.75	2.96	3.09	3.12
Supplies (%)	5.11	3.68	4.07	3.13	2.22	2.03	1.61
Repairs (%)	3.38	2.87	2.43	2.40	2.47	2.60	2.51
Services (%)	4.14	2.30	1.90	1.30	1.88	2.11	2.03
Taxes (%)	2.59	4.24	2.95	2.04	2.08	2.65	1.44
PPI Items (%)	3.53	5.11	1.77	0.82	0.81	1.08	0.74
PPI Total (%)	3.64	4.70	2.03	1.37	1.15	1.37	1.06
Annual Change in Consumer Price Index (%)	3.27	2.18	2.01	1.79	1.76	1.84	1.94
Annual Interest Rates							
Long-Term (%)	5.81	5.89	6.24	6.73	6.87	6.97	7.06
Intermediate-Term (%)	4.70	4.77	5.05	5.44	5.56	5.65	5.72
Savings Account (%)	1.61	1.63	1.73	1.86	1.90	1.93	1.96
Annual Rate of Change for U.S. Land Prices (%)	15.15	7.56	7.78	8.34	3.36	2.96	3.05

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

Table 2. Average Annual Cash Receipts, Net Cash Income, and Real Ending Net Worth in 2012 for Representative Farms for Continuation of the 2002 Farm Bill and FARM 21, Assuming Current Average Prices from the January 2007 FAPRI Baseline

	Total Cash Receipts			Net Cash Income			Ending Net Worth 2012		
	Base	FARM 21		Base	FARM 21		Base	FARM 21	
	2002 Bill	$ Change	% Change	2002 Bill	$ Change	% Change	2002 Bill	$ Change	% Change
	($1,000s)	($1,000s)	%	($1,000s)	($1,000s)	%	($1,000s)	($1,000s)	%
Feed Grain Farms									
IAG1350	648.5	(19.0)	**-2.9%**	187.5	(20.1)	**-10.7%**	1,956.4	(15.6)	**-0.8%**
NEG1960	1,213.2	(38.8)	**-3.2%**	370.7	(40.8)	**-11.0%**	2,915.5	(20.4)	**-0.7%**
MOCG2050	802.0	(26.1)	**-3.3%**	402.2	(26.8)	**-6.7%**	6,759.6	(20.1)	**-0.3%**
TNG900	323.3	(6.8)	**-2.1%**	41.7	(7.9)	**-19.0%**	786.6	(19.9)	**-2.5%**
SCG1500	893.8	(46.2)	**-5.2%**	225.7	(55.5)	**-24.6%**	1,676.1	(92.0)	**-5.5%**
ING1000	431.6	(12.7)	**-2.9%**	104.2	(14.2)	**-13.7%**	2,394.5	(22.8)	**-1.0%**
TXPG3760	2,559.3	(29.2)	**-1.1%**	97.1	(64.3)	**-66.2%**	2,436.2	(187.0)	**-7.7%**
Wheat Farms									
WAW1725	440.8	(23.0)	**-5.2%**	71.8	(26.5)	**-36.9%**	1,315.9	(49.7)	**-3.8%**
NDG2180	545.8	(15.0)	**-2.7%**	192.7	(16.3)	**-8.4%**	1,053.6	(14.0)	**-1.3%**
KSNW2800	400.4	(19.2)	**-4.8%**	73.2	(21.6)	**-29.4%**	1,643.6	(54.2)	**-3.3%**
COW3000	313.1	(10.8)	**-3.5%**	161.0	(10.8)	**-6.7%**	2,055.2	(6.8)	**-0.3%**
MTW4500	450.3	(35.7)	**-7.9%**	192.8	(36.0)	**-18.7%**	3,299.0	(42.8)	**-1.3%**
ORW4000	328.3	(18.6)	**-5.7%**	111.5	(20.8)	**-18.6%**	1,466.2	(25.3)	**-1.7%**
Cotton Farms									
CAC4000	6,216.9	(77.4)	**-1.2%**	404.9	(134.2)	**-33.1%**	16,212.2	(436.4)	**-2.7%**
TXSP2239	592.5	(11.3)	**-1.9%**	(13.5)	(25.0)	**-185.9%**	302.3	(80.9)	**-26.8%**
TXMC1800	695.0	(17.5)	**-2.5%**	91.1	(30.5)	**-33.5%**	702.3	(86.3)	**-12.3%**
GAC2300	1,908.2	(54.2)	**-2.8%**	269.3	(83.5)	**-31.0%**	4,542.6	(121.9)	**-2.7%**
TNC1900	982.3	(40.2)	**-4.1%**	309.5	(53.9)	**-17.4%**	3,200.6	(120.0)	**-3.7%**
ARC6000	3,244.5	(93.4)	**-2.9%**	(219.2)	(145.5)	**-66.4%**	2,529.2	(496.3)	**-19.6%**
ALC3000	1,240.1	(34.1)	**-2.7%**	16.4	(58.9)	**-359.8%**	384.9	(188.3)	**-48.9%**
NCC1100	582.7	(8.2)	**-1.4%**	(62.8)	(18.9)	**-30.0%**	1,005.8	(63.6)	**-6.3%**
Rice Farms									
CACR715	603.1	(54.6)	**-9.0%**	(379.1)	(64.9)	**-17.1%**	(629.2)	(235.3)	**-37.4%**
TXR1350	367.4	(33.7)	**-9.2%**	(77.0)	(40.3)	**-52.4%**	279.0	(146.8)	**-52.6%**
ARSR3640	1,142.1	(77.7)	**-6.8%**	107.4	(91.0)	**-84.7%**	2,718.8	(304.2)	**-11.2%**
MOWR4000	1,882.2	(132.8)	**-7.1%**	305.8	(155.9)	**-51.0%**	9,568.7	(417.1)	**-4.4%**
Dairy Farms									
CAD1710	5,743.8	(21.1)	**-0.4%**	440.9	(21.7)	**-4.9%**	13,771.9	(35.0)	**-0.3%**
NMD2125	7,071.6	(3.5)	**0.0%**	930.7	(3.6)	**-0.4%**	11,208.5	(3.4)	**0.0%**
WAD250	885.6	(2.9)	**-0.3%**	116.2	(3.3)	**-2.8%**	2,909.6	(3.0)	**-0.1%**
IDD1000	3,641.8	(2.6)	**-0.1%**	91.5	(2.8)	**-3.1%**	5,595.3	(5.4)	**-0.1%**
TXED1000	3,157.3	(2.1)	**-0.1%**	(70.5)	(2.5)	**-3.5%**	3,600.2	(5.9)	**-0.2%**
WID775	3,134.2	(12.8)	**-0.4%**	740.6	(13.0)	**-1.8%**	7,044.6	(12.1)	**-0.2%**
NYCD110	492.0	(4.4)	**-0.9%**	149.8	(4.5)	**-3.0%**	1,286.2	1.8	**0.1%**
VTD140	603.6	(4.7)	**-0.8%**	102.6	(5.2)	**-5.1%**	1,726.3	(3.8)	**-0.2%**
Beef Cattle Ranches									
MTB500	243.8	-	**0.0%**	46.9	-	**0.0%**	5,219.2	-	**0.0%**
COB250	180.7	-	**0.0%**	9.7	-	**0.0%**	19,068.9	-	**0.0%**
CAB500	272.8	-	**0.0%**	(70.1)	-	**0.0%**	16,486.0	-	**0.0%**
SDB450	245.3	-	**0.0%**	32.6	-	**0.0%**	4,586.1	-	**0.0%**
TXRB500	415.3	-	**0.0%**	138.6	-	**0.0%**	8,394.9	-	**0.0%**

Base is a continuation of the 2002 Farm Bill through 2012.
FARM 21 is the Kind Bill for 2008-2012.

As a result of the lower cash receipts, there would be a reduction in net cash income for almost all of the operations with the largest reductions occurring on the wheat, cotton, and rice farms. Thirteen of the 25 representative crop farms would experience more than a 25% decline in net cash income under FARM 21 relative to the Baseline. The dairy farms would experience smaller declines in net cash income. These results also imply that under FARM 21, the representative crop farms analyzed here would have a more difficult time providing their share of the funds required for environmental cost share programs such as EQIP.

Figures 1-12 show the projected impacts of the FARM 21 proposal on the annual net cash farm incomes for 12 representative farms (two each for the six commodities). After the FARM 21 program goes into effect, net cash incomes diverge with significant reductions in net cash income for wheat, cotton, and rice farms. The dairy farms and beef cattle operations indicate very little change in annual net cash farm income due to the FARM 21 program.

Ending real net worth provides an indication of how well the operation is able to sustain its equity over the period. Under the high prices associated with the current 2007 Baseline, all crop farms and 7 of 8 dairy farms would experience lower ending real net worth. Four crop farms, two cotton (TXSP2239 and ALC3000) and two rice (CACR715 and TXR1350) farms, would experience greater than a 25% reduction in ending net worth for the FARM 21 scenario relative to the Baseline.

Table 3 summarizes the probability of net cash income being negative for each of the farms and ranches under the Baseline and FARM 21. The probability of negative net cash farm income increased for all dairy and crop farms except three crop farms that remained low (COW3000, MTW4500, and MOCG2030) and five crop farms that couldn't go higher

Table 3. Summary the Probability that Net Cash Farm Income is Negative in 2012 for the Representative Farms Under the Continuation of the 2002 Farm Bill and the Proposed FARM 21 Farm Program, Assuming Current Mean Projected Prices and Lower Mean Prices.

	2007 FAPRI Baseline		2005 FAPRI Baseline	
	P(NCFI<0) in 2012		P(NCFI<0) in 2012	
	Base	FARM 21	Base	FARM 21
	(%)	(%)	(%)	(%)
Feedgrains and Oilseeds				
IAG1350	9	19	9	18
NEG1960	1	6	1	6
MOCG2050	1	1	1	1
TNG900	84	90	84	90
SCG1500	1	8	1	1
ING1000	91	94	91	94
TXPG3760	92	98	92	97
Wheat				
WAW1725	72	93	72	94
NDG2180	4	11	4	9
KSNW2800	83	91	83	92
COW3000	1	1	1	1
MTW4500	1	1	1	2
ORW4000	24	46	24	47
Cotton				
CAC4000	55	67	55	69
TXSP2239	98	99	98	99
TXMC1800	63	85	63	81
GAC2300	4	95	4	84
TNC1900	1	2	1	1
ARC6000	99	99	99	99
ALC3000	97	99	97	99
NCC1100	99	99	99	99
Rice				
CACR715	99	99	99	99
TXR1350	99	99	99	99
ARSR3640	99	99	99	99
MOWR4000	89	98	89	99
Dairy				
CAD1710	23	32	23	25
NMD2125	16	18	16	16
WAD250	74	84	74	77
IDD1000	68	77	68	69
TXED1000	98	99	98	98
WID775	2	3	2	2
NYCD110	1	2	1	1
VTD140	34	53	34	44
Beef Cattle				
MTB500	18	18	18	18
COB250	83	83	83	83
CAB500	99	99	99	99
SDB450	29	29	29	29
TXRB500	1	1	1	1

Base is a continuation of the 2002 Farm Bill through 2012.
FARM 21 is the Kind Bill for 2008-2012.

(ARC6000, NCC1100, CACR715, TXR1350, and ARSR3640). All of the beef ranches remained the same.

Lower Crop Price Scenario

Table 4 provides an indication of how the representative farms and ranches would be impacted under FARM 21 with prices from the 2005 FAPRI Baseline which were much lower than the prices projected in the 2007 FAPRI Baseline (Table 1a). The prices for 2008-2012 from the 2005 Baseline are intended to reflect a period of lower prices. In general, all farms and ranches are worse off under the low price scenario relative to the results in Table 2 under the Baseline and FARM 21. These results clearly indicate that FARM 21 does not have a safety net mechanism to offset the loss of the non-recourse loan benefits and the counter-cyclical payment program which provide assistance in times of low prices. For most farms, total receipts appear to decline 5 to 6 percentage points more under the low price scenario as compared to the higher price scenario in Table 2.

The net cash income results indicate a significantly worse picture for the crop farms with lower projected prices. Twenty-four of 25 representative crop farms would see more than a 25% decline in net cash income with 19 of 25 experiencing declines over 50%. All 8 of the dairies are projected to experience a decline in net cash income; however, none are projected to lose more than 6.5%. The beef cattle ranches are not expected to be significantly impacted.

The impact on farm and ranch wealth as measured by the ending net worth also shows that under a low price scenario, the FARM 21 provisions would result in significant losses in wealth across the representative crop farms. Seventeen of the representative crop farms would experience more than a 25% decline in ending net worth by the end of the period. None of the dairy farms or beef cattle ranches would lose a significant amount of their wealth.

Table 4. Average Annual Cash Receipts, Net Cash Income, and Real Ending Net Worth in 2012 for Representative Farms for Continuation of the 2002 Farm Bill and FARM 21, Assuming Lower Average Prices from the January 2005 FAPRI Baseline.

	Total Cash Receipts			Net Cash Income			Ending Net Worth 2012		
	Base	FARM 21		Base	FARM 21		Base	FARM 21	
	2002 Bill	$ Change	% Change	2002 Bill	$ Change	% Change	2002 Bill	$ Change	% Change
	($1,000s)	($1,000s)	%	($1,000s)	($1,000s)	%	($1,000s)	($1,000s)	%
Feed Grain Farms									
IAG1350	506.9	(36.9)	**-7.3%**	24.3	(57.0)	**-234.4%**	844.8	(260.6)	**-30.9%**
NEG1960	974.1	(66.4)	**-6.8%**	114.7	(102.5)	**-89.3%**	1,684.9	(432.8)	**-25.7%**
MOCG2050	646.8	(43.2)	**-6.7%**	240.9	(61.7)	**-25.6%**	4,517.3	(189.8)	**-4.2%**
TNG900	263.0	(15.1)	**-5.7%**	(44.3)	(24.3)	**-54.9%**	80.4	(117.9)	**-146.6%**
SCG1500	843.9	(138.5)	**-16.4%**	173.6	(166.1)	**-95.7%**	1,346.7	(609.6)	**-45.3%**
ING1000	349.5	(26.7)	**-7.6%**	5.1	(38.2)	**-752.7%**	1,214.3	(185.1)	**-15.2%**
TXPG3760	2,320.8	(246.8)	**-10.6%**	(224.3)	(383.3)	**-170.9%**	(227.4)	(1,844.7)	**-811.3%**
Wheat Farms									
WAW1725	401.0	(36.8)	**-9.2%**	16.9	(44.6)	**-264.2%**	687.5	(203.3)	**-29.6%**
NDG2180	462.0	(27.5)	**-6.0%**	94.1	(38.1)	**-40.5%**	481.5	(155.9)	**-32.4%**
KSNW2800	339.3	(31.5)	**-9.3%**	(6.8)	(41.4)	**-612.2%**	735.7	(198.3)	**-26.9%**
COW3000	272.8	(18.7)	**-6.8%**	120.1	(21.7)	**-18.1%**	1,459.7	(67.0)	**-4.6%**
MTW4500	397.2	(47.2)	**-11.9%**	138.6	(49.7)	**-35.9%**	2,496.2	(173.9)	**-7.0%**
ORW4000	291.7	(27.8)	**-9.5%**	66.8	(32.5)	**-48.6%**	913.4	(115.2)	**-12.6%**
Cotton Farms									
CAC4000	5,983.2	(200.0)	**-3.3%**	122.8	(322.8)	**-262.9%**	9,956.9	(1,396.7)	**-14.0%**
TXSP2239	587.2	(103.1)	**-17.6%**	(17.6)	(143.9)	**-817.6%**	94.5	(681.3)	**-721.2%**
TXMC1800	649.7	(102.7)	**-15.8%**	30.2	(154.3)	**-510.3%**	292.4	(726.4)	**-248.4%**
GAC2300	1,860.1	(293.1)	**-15.8%**	215.7	(390.9)	**-181.3%**	3,571.8	(1,689.7)	**-47.3%**
TNC1900	921.9	(120.9)	**-13.1%**	246.4	(159.0)	**-64.5%**	2,408.9	(576.9)	**-23.9%**
ARC6000	3,110.0	(480.2)	**-15.4%**	(385.2)	(653.1)	**-169.6%**	3,027.4	(3,174.7)	**-104.9%**
ALC3000	1,184.4	(219.4)	**-18.5%**	(53.9)	(296.6)	**-549.7%**	(2.8)	(1,410.5)	**-50375.4%**
NCC1100	570.8	(86.9)	**-15.2%**	(79.3)	(123.2)	**-155.4%**	434.6	(597.9)	**-137.6%**
Rice Farms									
CACR715	592.7	(114.7)	**-19.3%**	(391.3)	(137.9)	**-35.2%**	(1,364.5)	(668.0)	**-49.0%**
TXR1350	359.6	(71.1)	**-19.8%**	(86.4)	(86.5)	**-100.2%**	(42.5)	(419.1)	**-986.1%**
ARSR3640	1,055.5	(169.6)	**-16.1%**	3.6	(207.4)	**-5717.4%**	3,217.0	(998.6)	**-31.0%**
MOWR4000	1,732.6	(274.0)	**-15.8%**	131.4	(336.5)	**-256.2%**	6,354.9	(1,519.7)	**-23.9%**
Dairy Farms									
CAD1710	5,681.0	(32.7)	**-0.6%**	677.2	(33.6)	**-5.0%**	11,903.7	(75.6)	**-0.6%**
NMD2125	6,937.2	(3.7)	**-0.1%**	1,161.7	(3.8)	**-0.3%**	10,619.6	3.0	**0.0%**
WAD250	874.9	(3.6)	**-0.4%**	117.2	(4.0)	**-3.4%**	2,311.8	1.4	**0.1%**
IDD1000	3,564.9	(2.6)	**-0.1%**	162.8	(2.8)	**-1.7%**	4,849.3	4.3	**0.1%**
TXED1000	3,100.3	(1.8)	**-0.1%**	81.5	(2.0)	**-2.5%**	3,453.2	5.1	**0.1%**
WID775	3,078.3	(22.1)	**-0.7%**	764.5	(22.4)	**-2.9%**	6,217.9	(38.6)	**-0.6%**
NYCD110	485.0	(5.2)	**-1.1%**	145.2	(5.3)	**-3.7%**	1,123.2	1.3	**0.1%**
VTD140	595.2	(5.7)	**-1.0%**	96.3	(6.3)	**-6.5%**	1,332.8	(5.8)	**-0.4%**
Beef Cattle Ranches									
MTB500	226.4	-	**0.0%**	29.8	-	**0.0%**	3,936.2	-	**0.0%**
COB250	165.7	-	**0.0%**	(8.2)	-	**0.0%**	14,625.7	-	**0.0%**
CAB500	249.4	-	**0.0%**	(92.1)	-	**0.0%**	11,523.4	-	**0.0%**
SDB450	225.7	(0.6)	**-0.3%**	12.7	(0.7)	**-5.3%**	3,304.5	(3.0)	**-0.1%**
TXRB500	385.0	-	**0.0%**	110.2	-	**0.0%**	6,408.1	-	**0.0%**

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Twenty of the 32 representative farms that could realize an increase (i.e. not already at 99%) in the probability of a negative net cash income are expected to experience an increase in their chances (Table 3).

Conclusions and Implications

The primary objective of this study was to analyze the impact of the commodity program provisions of the FARM 21 proposal on representative farms and ranches located across the U.S. The results indicate that under current price projections, there would be a modest decline in total cash receipts reflecting the elimination of LDPs/MLGs and CCPs. There would be a much larger impact on net cash income under current projected prices with 13 of the 25 representative crop farms experiencing at least 25% lower net cash incomes. The results were less drastic for ending net worth (wealth) losses under the current Baseline price projections compared to the impacts on net cash income, although for rice and cotton farms the impact on net worth was considerable.

The FARM 21 proposal was also analyzed under a low price scenario which showed that most of the crop farms would be considerably worse off relative to the Baseline. Twenty-four of the 25 representative crop farms would see more than a 25% decrease in net cash income. Seventeen of the representative crop farms would experience more than a 25% decline in ending net worth by the end of the period.

The results indicate that the FARM 21 provisions, as proposed, would have a negative overall impact on net farm income and the economic viability of crop and dairy representative farms – although there was less impact on the dairy farms. Additionally, the FARM 21 proposal would increase the probability that the representative farms would have a negative ending cash reserve in 2012, despite the provision to create farmer-held income stabilization accounts. Most representative farms would be able to remain solvent given the high prices projected in the 2007

FAPRI Baseline. However, under lower prices, the FARM 21 provisions do not come close to providing the same amount of support as the programs in the 2002 Farm Bill, and should such a low price scenario occur in the future, most of the farms and ranches would not be able to survive the erosion in farm income without some additional government support.

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